BAS-OP/MSIE-EMOP

Saint Petersburg College
J.E. Hanger College of Orthotics and Prosthetics

In consortium with

Florida State University

Continuation of Self-Study for NCOPE Accreditation of Saint Petersburg College BAS-OP Program

Program Task Force:

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Angela Courtade, LPO	Educator and Clinician
Thomas Chmielewski, LPO	Educator and Clinician

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PART 1

SECTION 1: INTRODUCTION

This section should include a statement of how the Self-Study was conducted, the period of time devoted to the Study, and a list of participants and their Committee assignments. A brief historical overview of the program and orientation to the program's setting may be helpful to the Self-Study readers, but is optional.

A. HISTORICAL OVERVIEW OF THE PROGRAM

St. Petersburg College is an 80 year old community college that began offering four year degrees in 2002 due to a need recognized by The Florida State Legislature. All documentation regarding changing our educational status to a bachelor's level was completed and approved by the Southern Association of Colleges and Schools.

The Florida Association of Orthotics and Prosthetics (FAOP) had been actively looking to promote an orthotics and prosthetics program in Florida since the closing of the Florida International University program in the 1990's. Florida is one of the leaders in state licensure for orthotics and prosthetics (O & P). As such, it was appropriate that one of the schools of Orthotics and Prosthetics education be housed in Florida. St. Petersburg College's (SPC) interest began after Dr. Caroline C. Nielsen reported to NCOPE "Issues affecting The Future Demand for Orthotists and Prosthetists: Update 2002". Key findings in the report were the overall future demand for orthotists and prosthetists and specifically a need for access to training in the south. At that time, the closest baccalaureate program to Florida was Texas.

Ron Gingras, CPO from Shriners Hospital in Tampa, Florida, was the lead representative from the Florida Association of Orthotics and Prosthetics that approached the college about offering this degree. After thorough research and input from local area practitioners, the College submitted the proposal to their District Board of Trustees. They unanimously approved the Orthotics and Prosthetics program, and the first cohort of Baccalaureate students were accepted in 2005.

The program was initially housed at the Caruth Health Education Center (HEC) as the J.E. Hanger College of Orthotics and Prosthetics. The Caruth Health Education Center also houses fifteen other health care programs. In 2007, the Orthotics and Prosthetics program was moved into the newly constructed Bankers Insurance Group Building, which is adjacent to the HEC. The facility is located in Pinellas Park, which is proximate to Tampa, allowing for collaborations with the Tampa Shriners Hospital and the James A. Haley Veteran's Administration Rehabilitation facility. November 21st, 2008 the J.E. Hanger College of Orthotics and Prosthetics was accredited by National Commission for Orthotic and Prosthetic Education (NCOPE). Then, as of 2009, the Orthotics and Prosthetics Program was assimilated under the College of Health Sciences.

When NCOPE announced that the Commission on Accreditation of Allied Health Education Programs (CAAHEP) had approved revision to the *Standards and Guidelines for Accreditation of Education in Orthotics and Prosthetics* to require a Master's degree for entry level into the field, St. Petersburg College formed a consortium with Florida State University (FSU) to meet this requirement. Upon completion of the course work at SPC, the student will be required to matriculate to FSU by meeting all their requirements to complete the degree conferred at FSU: a Master's of Science in Industrial Engineering, with specialization in Materials Engineering and Management of Orthotics and Prosthetics (MSIE-MEMOP). This will allow the graduate to apply

for residency programs and enter the field of Orthotics and Prosthetics under the new NCOPE standards and guidelines. The first cohort will start the consortium in fall of 2012.

B. SELF-STUDY PROCESS

SPC conducted a self-study for the purpose of evaluating our current program and preparing for the transition to the master's program. The self-study process was conducted over a three-year period, and many aspects of the self-evaluation are still on-going. Listed below are a few evaluation procedures, meetings and tools that have been implemented, all of which are aimed at continuous program analysis and improvement.

- **Advisory Board.** The O&P Advisory Board is comprised of eight members, each serving a one-year term. The Advisory Board meets regularly to discuss all aspects of the SPC-FSU O&P program. See Appendix 9 for a list of advisory board members and meeting minutes. Advisory meets 2-3 times per year and provide valuable feedback to the program. The advisory board review curriculum, course sequencing, program mission and goals. The board also reviews program outcomes including ABC exam pass rates.

- **Faculty Meetings.** Meetings are conducted weekly with both full-time and adjunct faculty. This time is generally used to discuss the courses and other day-to-day activities for the week. Further, faculty also meets once each semester to discuss the program outcomes, curriculum and student success. Faculty also meets once a week with the Lab manager to discuss lab courses and projects. If any faculty is not able to attend face to face they may utilize our video conferencing system to participate or Face Time.

- **O&P Faculty Training.** In order to keep faculty current on SPC's policy, procedures and teaching methods, SPC hosts a campus-wide training session for adjunct faculty each year. SPC hired a consultant to help faculty develop a training manual specifically for this purpose. Each full time faculty member receives $1500 additional funding to attend professional development courses or seminars outside of our institution every two years.

- **Admissions Committee.** Given that the O&P program is transitioning to the master's level, both the Advisory Board and faculty concluded that the program's admission criteria needed to be reevaluated and updated to reflect the new master's standards. To accomplish this, an Admissions Committed was formed in 2011 to review the current admission requirements and make recommendations

- **Employer Surveys.** Employer surveys are administered each year to monitor and track the success of our program graduates. During the 2012-2013 academic years, the Orthotics & Prosthetics survey will be merged with the institution-wide survey that is conducted by the office of Institutional Research and Effectiveness. This will provide additional support to the program in terms of resources in administering the survey and analyzing the data. A copy of the current survey, as well as results from the 2010 and 2011 graduating classes, can be found in appendix 3.

- **Conducted a Feasibility Assessment.** Funded by the recent acquisition of a HRSA Grant, a feasibility assessment was done to explore options for the best, most appropriate use of the Bankers Insurance Group Building. SPC hired an outside consultant to review and assess various alternatives for use of the space. As part of this assessment, the consultant administered a survey of all practitioners at affiliated clinical rotation sites, and conducted individual interviews with some local area practitioners and adjunct faculty to solicit their input on the best use for the space. A presentation was made and discussions are underway to review the results.

- **Developed the curriculum for the master's degree program.** In collaboration with FSU, faculty and several consultants we have created new curriculum for our master's program. The entire Master's Consortium Program is new. Course progression and syllabi can be found on page 14 and appendix 8 respectively. This will be implemented starting 2014. In keeping with the transition to a Master's Program, SPC also re-sequenced and enhanced its Bachelor's courses. All syllabi can be found in Appendix 8.

- **Conducted a Comparative Analysis.** This analysis by an outside group compared SPC's program design to other O&P programs. Factors such as tuition, program hours and website were considered. A hard copy of this document will be provided on site.

- **Administered a Marketing Survey.** SPC administered a survey to currently enrolled students in the O&P program in order to understand their motivation for entering the field of O&P and why they selected the SPC over other O&P programs.

- **Continuing education (CE) opportunities Survey.** We **c**reated a survey to ascertain the most relevant clinically appraised topics of interest and areas of need for Symposium and CE topics, and administered it to various communities of interest locally and nationally. Findings were presented and disseminated to SPC CE department and faculty. It was determined that local Orthotists and Prosthetists would be interested in CEU's and other educational opportunities if provided by our school. Discussions are underway to address this community need. A hard copy of this survey's findings can be provided on site.

- **Viability Reports.** During the 2011-2012 academic year, St. Petersburg College's Academic Effectiveness and Assessment office began furnishing academic program viability reports for all baccalaureate programs. These reports, which will be distributed annually to each program during the fall semester, will provide application, enrollment, graduation, and retention data in order to determine opportunities for improvement on an annual basis. The reports also provide state and national trends on employment and job openings for orthotists and prosthetists, biomedical engineers, and medical appliance technicians. Each year, program staff will review and analyze these data and, based on the analysis, action plans aimed at improving the effectiveness of the program will be developed.

SECTION 2: INSTITUTIONAL DATA FORM

ACCREDITATION SELF-STUDY REPORT
INSTITUTIONAL DATA FORM

1. Official Name of Sponsoring Institution Saint Petersburg College

   Address PO Box 13489 City Pinellas Park State & Zip FL, 33781

2. Type of Institution

   - ☐ Academic Health Center/Medical School
   - ☑ Four-year College or University
   - ☐ Two-year College
   - ☐ Vocational or Technical School
   - ☐ Hospital or Medical Center
   - ☐ Non-hospital Medical facility (blood bank, laboratory)
   - ☐ Department of Veterans Affairs
   - ☐ U.S. Dept. of Defense
   - ☐ Consortium (if applicable, complete Consortium data form; include in Appendix 1)

3. Nature of Institution

   ☑ Public ☐ Private, not-for-profit ☐ Private, for-profit

4. Chief Administrative Officer of Sponsoring Institution

   Name Dr. William Law Administrative Title President

   Address PO Box 13489 City St Petersburg State & Zip FL 33733

5. Dean or Coordinator of Allied Health Education

   Name Dr. Rebecca Ludwig Administrative Title Dean of College of Health Sciences

   Address PO Box 13489 City St Petersburg State & Zip FL 33733

   Telephone # 727-341-4150 FAX # _____

6. Institutional Accreditation

   Regional Association Name Southern Assoc of Colleges and Schools Date 12/12/2002

   JCAHO N/A Date _____

   Other _____ Date _____

7. Is the sponsoring institution legally authorized under applicable state law to provide post-secondary education?

☑ Yes ☐ No ☐ No applicable state law

8. In general, educational programs in the institution operate on a:

☑ Semester System ☐ Trimester System ☐ Quarterly System

☐ CO-OP System ☐ All vary, according to program requirements

9. Does the institution publish a general bulletin or catalog on its educational programs? Please include copies in Appendix 1)

☑ Yes ☐ No

10. Does the institution have a tuition refund policy? Please include reference in Appendix 1

☑ Yes ☐ No

11. Where does the institution publish information on tuition rates and refunds?

☑ General Bulletin or Catalog

☑ Individual Program Bulletin or Brochure

☐ As a separate document

☐ Does not publish this information

12. Does the institution have an Office of Financial Aid for students?

☑ Yes ☐ No

13. Does the institution have a faculty grievance policy?

☑ Yes ☐ No

14. Does the institution have a student grievance policy?

☑ Yes ☐ No

15. Students in the allied health programs have ready access to which of the following library resources?

☑ University/College/School library ☐ Program/Department library

☑ Academic Health Center library ☐ Hospital library

☑ Interlibrary loan

16. Student Health Services are available at:

- ☐ Student Health Services operated by sponsoring institution
- ☐ General health care facility operated by sponsoring institution
- ☑ Referral to contracted student health service elsewhere
- ☐ Referral to provider of student's choice
- ☑ Other

17. Official student records are maintained

- ☑ permanently
- ☐ other duration (specify)_____

18. Official student records are maintained by:

- ☑ Institutional Registrar/Office of Student Records
- ☐ Allied Health Dean's/Director's Office
- ☐ Program/Department Office
- ☐ Other (specify) _____

19. The following items should be included as Appendix 1 of the Self-Study Report:

a) Institutional Operational Chart(s) showing relationship between the allied health program(s) being evaluated and the institution

b) Mission Statement of the Institution - or a reference to the appropriate page in the Institution's Bulletin

c) Institution's general bulletin/catalog, and relevant Program brochures or catalogs

d) Consortium data form, if applicable (Form A-1)

SECTION 3: PROGRAM DATA FORM

ACCREDITATION SELF-STUDY REPORT
PROGRAM DATA FORM

1. Official Name of Program J. E. Hanger Orthotics and Prosthetics Program

Address 7200 66th Street North City Pinellas Park State & Zip FL 33781

Telephone 727-341-4153 FAX# 727-499-4562

2.

Program Objectives

The Saint Petersburg College Orthotic and Prosthetic Program has four objectives.

1. The student will develop entry-level knowledge and abilities necessary to perform comprehensive patient assessments.
2. The student will develop entry-level knowledge and abilities necessary to formulate, implement and follow-up on comprehensive treatment plans.
3. The student will develop entry-level knowledge pertaining to practice management and promotion of lifelong learning.
4. The student will develop skills to become professional, ethical and competent level practitioners

3. Specify the following:

a. Length of professional program by semester/quarter 5 semesters

in credit hours, if applicable 69 major, 129 total credits

b. Number of classes admitted per year 1 (fall term)

c. Month(s) in which classes begin August

d. Maximum capacity per class 24

e. Total number of students currently enrolled in professional program _____

f. Certificate or Degree awarded B.A.S.

g. Tuition per semester/quarter $101.73FL Res $391.94 OOS

h. Fees (lab, computer use, student health)

i. Total cost to student to complete program $12,536.37 In State, $ 32,560.83 Out of State

4. Appendix 3 includes information about enrollment, attrition and graduate statistics on page ____.
In Appendix 3, provide a table summarizing enrollment, attrition and any available graduate statistics for the past three years. Graduate statistics may include certification/licensure/registry results, employment statistics, etc.

5. Affiliation agreement and current affiliates may be found on page ____.
In Appendix 4, include a sample copy of a current affiliation agreement and a list of current affiliates, indicating those for which there is a signed agreement.

6. Program Director

Name Arlene Gillis Administrative Title Director

Address 7200 66th Street North City Pinellas Park State & Zip FL 33781

Telephone 727-341-4153

7. Department Chair or Administrator (if different from above)

Name Same as Above Administrative Title _____

Address _____ City _____ State & Zip _____

Telephone _____

8. Medical Director or Advisor (if applicable)

Name N/A Specialty _____

Address _____ City _____ State & Zip _____

Telephone _____

9. Clinical/Education Coordinator

Name Arlene Gillis Title Instructor in Charge Phone 727-341-4153

Name _____ Title _____ Phone _____

Name _____ Title _____ Phone _____

10. Faculty Biographical Sketch is found on page 30.
In Appendix 5, include a) a faculty vitae form (A-5) for teaching faculty, including the Program Director, Education/Clinical Coordinator, and adjunct faculty.

11. Does the institution have a tenure system?

☑ Yes ☐ No ☐ Not Applicable

12. Are all full-time faculty in this program eligible for tenure track appointments?

☑ Yes ☐ No ☐ Not Applicable

13. How many of the full-time faculty are tenured? One

14. The institution provides which of the following for professional development of faculty?

- [x] Continuing or In-service education at the institution
- [x] Tuition Remission
- [ ] Release Time
- [x] Travel and/or Registration Funds
- [ ] Other

15. Identify individuals that are dedicated to program and identify their responsibilities. This should include all faculty members and clerical staff. Also identify the approximate percentage of each individual's total employed time that is devoted to the program. This chart is intended to provide an overview of the distribution of program-related activities among key personnel.

	PERCENTAGE OF TIME SPENT IN THE PROGRAM												
	A	B	C	D	E	F	G	H	I	J	K	L	
Employed Name and Title	**Administrative**	**Curriculum development**	**Coordination of instruction**	**Teaching**	**Student performance eval**	**Faculty coordination**	**Student recruitment**	**Student selection**	**Administrative assistance**	**Secretarial**	**Clerical**	**Other (Please specify)**	**TOTAL %**
Arlene Gillis Director of O & P	60%	5%	10%	5%	5%	10%	5%						100%
Thomas Chmielewski Faculty				85%	10%			5%					100%
Thomas Trudell Faculty				85%	10%			5%					100%
Angela Courtade Faculty				85%	10%			5%					100%
Dale Peterson Lab Manager												100%	100%
Cyndy Donnelly Staff Assistant									30%	10%	10%		50%
Jacob Wortock BAS Recruiter							25%						25%
Dr. Rebecca Ludwig Dean of College of Health Sciences	10%												10%
Michele Leonard Baccalaureate Specialist								50%					50%

16. Specify the following:

a) Number of full-time faculty assigned to the program Two

b) Number of part-time faculty assigned to the program One

17. Indicate the program's current fiscal year budget for:

Salaries and Wages $376,871.27 Other expenses $38,334.00 Total Budget $415,205.44

18. What percent of the above total is from sources external to the institution (i.e. sponsored research, grants, contracts, professional service) None

19. In Appendix 6, include complete form A-6 or an institutional form containing the budgets for the last and present fiscal year, including aggregated instructional personnel costs, travel, instructional supplies, etc.

20. Does the program/institution have written health/safety policies for students?

☑ Yes ☐ No

21. Counseling for students in academic difficulty, and other educational guidance is provided by:

☑ Program Administration ☑ Institution's Guidance/Counseling Center

☑ Program Faculty ☑ Referral

22. Personal counseling for students is available from:

☑ Program Administration ☑ Institution's Counseling Center

☑ Program Faculty ☑ Referral to private counseling

23. Appendix 7 includes the program criteria of students for admissions and progression throughout the curriculum.

a) A copy of program admission policies and criteria - or - a reference to relevant pages in Institution/Program official publication. (page #___)

b) A brief summary of program's admissions process on page # ____

c) Copies of policies regarding criteria for progression in and completion of program or a reference to relevant pages in Bulletin on page # ____

d) Completed form A-7 or other document summarizing methods used to evaluate student's success in completing each course or segment of the curriculum on page # ____

e) A copy of student work policy, if applicable on page # ____

24. CURRICULUM SEQUENCING

Provide outline of course sequence by semester terms.

Saint Petersburg College Orthotics and Prosthetics BAS

Year 1		**Year 2**	
Fall		***Fall***	
Course	Credits	Course	Credits
PRO3000C Intro to O & P	2	PRO4331C Transfemoral Prosthetics	5
PRO3100 Biomechanics	2	PRO3311C Lower Extremity Orthotics II	4
PRO3110 Pathologies	3	PRO3505 Clinical Problem Solving	2
PRO3200C Anatomy & Physiology O & P	4	PRO 4XXXC Advanced Topics	3
PRO3500C Clinical Methods	3	PRO3801L Clinical Rotation III Topic Ethics	2
Total Semester Hours - 14		**Total Semester Hours - 16**	
Spring		***Spring***	
Course	Credits	ENG3443 Stats for Engineering	3
PRO3120C Gait Analysis	2	PRO4850 Senior Capstone	2
PRO3301C Transtibial Prosthetics	5	PRO3801L Clinical Rotation IV Topic Business	2
PRO3310C Lower Extremity Orthotics I	4	PEO4350C Spinal Orthotics	5
PRO3801L Clinical Rotation I Topic EBP	2	PRO4361C Upper Extremity Prosthetics	4
Total Semester Hours - 13		**Total Semester Hours - 16**	
Summer			
PRO3801L Clinical Rotation II Topic Psych	2		
PRO4371 Upper Extremity Orthotics	4		
Subtotal of Required Semester Hours-6			
*MAC2312 Calculus II	5		
Year 1 Total Hours	**33**	**Year 2 Total Hours**	**32**
		Total SPC Program Hours -	**65**

Florida State University Masters of Science in Industrial Engineering, with specialization in Engineering Management of Orthotics and Prosthetics (MSIE-EMOP)

Year 1	
Fall	
Course	Credits
EIN5322 Engineering Management	3
NGR5172 Neurology	4
MAN5245 Organizational Behavior O & P focus	3
EIN5962 Research Methodology	3
Total Semester Hours - 13	
Spring	
EMA5182 Composite Material Engineering	3
NGR5140 Pharmacology	3
BUL5810 The Legal and Ethical Environment of Business	3
Total Semester Hours - 9	
Summer	
EIN5XXX Advanced Materials O & P	3
EIN5XXX Advanced Material Lab	2
EIN6XXX Clinical Rotation Topic O & P Business/Practice Management	2
Total Semester Hours - 7	
Students must enroll in one of the below electives:	
MAR5125 Marketing Strategy	3
EIN5930 Nanomaterials and Nanotechnology	3
EIN5247 Engineering Experiments	3
EIN Engineering Data Analysis	3
EIN5353 Engineering Economics and Financial Analysis	3
ESI5228 Intro to ISO 9000	3
Total Program Hours -	**32**

25 a. SEMESTER/QUARTER Course Timetable (provide for each semester/quarter)

List the required and elective didactic courses*. Identify the faculty member with the primary responsibility for teaching each course. Indicate (a) the number of credit hours granted per course and (b) the number of class and or laboratory hours required per course. Identify elective courses with an asterisk.

*Refer to Appendix B, "Core Curriculum for Orthotists and Prosthetists, 2010 Edition"

Year 1 Fall Semester BASOP Saint Petersburg College

Course Number And Title	Principle Instructor	Credit Hours	Lecture Hours	Lab Hours (to include patient contact)
PRO3000C Intro to O & P	Angela Courtade	2	15	45
PRO3100 Biomechanics	Dr. Kory Thomas	2	30	0
PRO3110 Pathology	Dr. Anita Naravne	3	45	0
PRO3200C Human Anatomy and Physiology	Dr. Anita Naravne	4	45	45
PRO3500C Clinical Methods	Angela Courtade	3	30	45
Total Number of credit hours, laboratory, and class hours		14	165	135

Year 1 Spring Semester BASOP Saint Petersburg College

Course Number And Title	Principle Instructor	Credit Hours	Lecture Hours	Lab Hours (to include patient contact)
PRO3120 Gait Analysis	Dr. Kory Thomas	2	15	45
PRO3301C Transtibial Prosthetics	Angela Courtade	5	30	135
PRO3310C Lower Extremity Orthotics I	Tom Chmielewski	4	30	90
PRO3801L Clinical Rotation I Topic EBP	Arlene Gillis	2	32	110
Total Number of credit hours, laboratory, and class hours		13	107	380

Year 1 Summer Semester BASOP Saint Petersburg College

Course Number And Title	Principle Instructor	Credit Hours	Lecture Hours	Lab Hours (to include patient contact)
PRO3801L Clinical Rotation II Topic Psych of the Disabled	Arlene Gillis	2	32	110
PRO4371 Upper Extremity Orthotics	Tom Chmielewski	4	30	90
Total Number of credit hours, laboratory, and class hours		**6**	**62**	**290**

Year 2 Fall Semester BASOP Saint Petersburg College

Course Number And Title	Principle Instructor	Credit Hours	Lecture Hours	Lab Hours (to include patient contact)
PRO4331C Transfemoral Prosthetics	Angela Courtade	5	30	135
PRO3311C Lower Extremity Orthotics II	Tom Chmielewski	4	30	90
PRO3505 Clinical Problem Solving	Jim Barr	2	30	0
PRO4XXXC Advanced Topics	Angela Courtade	3	30	45
PRO3801L Clinical Rotation III Topic Ethics and Professionalism	Arlene Gillis	2	32	110
Total Number of credit hours, laboratory, and class hours		**16**	**152**	**380**

Year 2 Spring Semester BASOP Saint Petersburg College

Course Number And Title	Principle Instructor	Credit Hours	Lecture Hours	Lab Hours (to include patient contact)
ENG3443 Stats for Engineering	Dr. Carol Weideman	3	45	0
PRO4850 Senior Capstone	Tom Chmielewski	2	30	0
PRO3801L Clinical Rotation IV Topic Business	Arlene Gillis	2	32	110
PRO4350C Spinal Orthotics	Tom Chmielewski	5	45	90
PRO4361C Upper Extremity Prosthetics	Angela Courtade	4	30	90
Total Number of credit hours, laboratory, and class hours		**16**	**182**	**290**

Year 1 ***Fall MSIE-EMOP Florida State University***

Course Number And Title	Principle Instructor	Credit Hours	Lecture Hours	Lab Hours (to include patient contact)
EIN5322 Engineering Management	Dr. Changchun Zeng	3	48	0
NGR5172 Neurology	Dr. Whyte	4	64	0
MAN5245 Organizational Behavior for O&P	TBD	3	48	0
EIN5962 Research Methodology	Dr. Tao Liu	3	48	0
Total Number of credit hours, laboratory, and class hours		**13**	**208**	**0**

Year 1 Spring MSIE-EMOP Florida State University

Course Number And Title	Principle Instructor	Credit Hours	Lecture Hours	Lab Hours (to include patient contact)
EMA5182 Composite Material Engineering	Dr. Zhiyang Liang	3	48	0
NGR5140 Pharmacology	Dr. Whyte	3	48	0
BUL5810 The Legal and Ethical Environment of Business	TBD	3	48	0
Total Number of credit hours, laboratory, and class hours		**9**	**144**	**0**

Year 1 Summer MSIE-EMOP Florida State University

Course Number And Title	Principle Instructor	Credit Hours	Lecture Hours	Lab Hours (to include patient contact)
EIN5xxx Advanced Materials O&P	Dr. Okenwa Okoli	3	48	0
EIN5xxxAdvanced Materials Lab	Dr. Okenwa Okoli	2	0	
EIN6xxx Clinical Rotation Topic O&P Practice Management	Arlene Gillis	2	0	110
*Approved Elective Class	-	3	-	-
Total Number of credit hours, laboratory, and class hours		**10**	**48**	

25 b. Provide a semester/quarterly student schedule of courses for each semester/quarter (see sample below).

Fall Semester

	Monday		Tuesday		Wednesday		Thursday		Friday	
	Year 1	**Year 2**	**Year 1**	**Year 2**	**Year 1**	**Year 2**	**Year 1**	**Year 2**	**Year 1**	**Year 2**
8:00a			Clinical		PRO3000	Clinical	PRO3200 C			
9:00a	PRO3100	PRO4XXX Advanced	Rotation	PRO4331C Transfemoral	Intro	Rotation	Human Anatomy			PRO3311C Lower
10:00a	Biomechanics	Topics Lecture		Prosthetics	O & P		lecture			Extremity
11:00a							Human Anatomy			Orthotics
12:00p	PRO3110	And Lab			PRO3500 C		Lab	PRO3801L		
1:00p	Clinical			And	Clinical			Clinical Rotation		And
2:00p	Pathology			Lab	Methods					Lab
3:00p		PRO4190 Research			Lecture					
4:00p		Methods			And Lab			PRO3505 Clinical		
5:00p								Problem Solving		
6:00p										
7:00p										

Spring Semester

	Monday		Tuesday		Wednesday		Thursday		Friday	
	Year 1	**Year 2**	**Year 1**	**Year 2**	**Year 1**	**Year 2**	**Year 1**	**Year 2**	**Year 1**	**Year 2**
8:00a	PRO3301C Transtibial Prosthetics And Lab	Clinical Rotation	Clinical Rotation	PRO4371C Upper Extremity Orthotics And Lab		PRO4361C Upper Extremity Prosthetics And Lab	Open Lab PRO3801L Clinical Rotation PRO3120C Gait Analysis & Pathomechanics	PRO4850 Senior Capstone Open Lab PRO3801L Clinical Rotation Pro4600 Practice Management	PRO3310C Lower Extremity Orthotics And Lab	PRO4350C Spinal Orthotics Lecture And Lab
9:00a										
10:00a										
11:00a										
12:00p										
1:00p										
2:00p										
3:00p										
4:00p										
5:00p				Stats for Engineer EGN3443						
6:00p										
7:00p										

Summer Semester – Year 1 Only 1st 2 weeks of Semester

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00a	Clinical Rotation	Clinical Rotation	Clinical Rotation	Clinical Rotation	Clinical Rotation
9:00a					
10:00a					
11:00a					
12:00p					
1:00p					
2:00p					
3:00p					
4:00p					

Summer Semester – Year 1 Only 2nd 4 weeks of Semester

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00a					
9:00a	PRO4371C Upper Extremity Orthotics And Lab	PRO4371C Upper Extremity Orthotics And Lab	PRO4371C Upper Extremity Orthotics And Lab	PRO4371C Upper Extremity Orthotics And Lab	PRO4371C Upper Extremity Orthotics And Lab
10:00a					
11:00a					
12:00p					
1:00p					
2:00p					
3:00p					
4:00p					
5:00p					
6:00p					

Fall Semester – FSU Master's Students

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00a	EIN5322 Engineering Management		MAN5254 Organizational Behavior		
9:00a		NGR5172 Neurology			
10:00a					
11:00a					
12:00p					
1:00p	EIN5962 Research Methodology				
2:00p					
3:00p					
4:00p					
5:00p					

Spring Semester- FSU Master's Students

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00a			Open		
9:00a	EMA5182		Lab	BUL5810 Legal and	
10:00a	Composite			Ethical	
11:00a	Material			Environment	
12:00p	Engineering			Of Business	
1:00p			NGR5140		
2:00p			Pharmacology		
3:00p					
4:00p					
5:00p					
6:00p					

26. CLINICAL EXPERIENCES - SUMMARY

List each required and elective clinical or fieldwork practicum. Estimate the percentage of time the student is likely to spend in each setting during a given practicum. Please identify elective practicums with an asterisk. This listing should include, if appropriate, such settings as nursing homes, HMOs, Rehab, and custodial care facilities. In identifying data regarding the clinical lectures, include only those which are regularly provided as an integral part of the clinical rotation and the program's curriculum and which are experienced by each student who is assigned to the practicum.

Standards to be met: (refer to Core Curriculum for Orthotists and Prosthetists, 2010 Edition)

Section E Clinical Experience:

The student must be able to articulate how the theoretical concepts learned within didactic coursework are exemplified in clinical settings within all of the domains listed. The student also must have had opportunities to, under supervision, participate and demonstrate novice skills within any of or all of these domains.

E.1 Patient evaluation (including the use of appropriate outcome measures).

E.2 Formulation of an orthotic or prosthetic treatment plan

E.3 Implementation of an orthotic or prosthetic treatment plan

E.4 Follow-up assessment and continued implementation of an orthotic or prosthetic treatment plan someday, this needs to include outcome measures… something like: "Follow-up assessment using appropriate outcome measures for continued assessment and implementation of an orthotic or prosthetic treatment plan."

E.5 Documentation of patient practitioner encounters for clinical decision making, communication, legal and reimbursement purposes

E.6 Interpersonal communication among practitioners, patients, caregivers and others encountered in the clinical environment (they should include technicians here too)

E.7 Business management functions within the orthotic/prosthetic practice

During the Bachelor's Program at SPC

Course Number and Title	Principal Instructor	Credit Hours	Lab and or Class Hours	Identification of Standard
Clinical Rotation I Topic EBP PRO 3801L	Arlene Gillis	2	110 Rotation 32 Class	E1-6
Clinical Rotation II Topic Psychology of the Disabled PRO 3801L	Arlene Gillis	2	110 Rotation 32 Class	E1-E6
Clinical Rotation III Topic Ethics and Professionalism PRO 3801L	Arlene Gillis	2	110 Rotation 32 Class	E1-E6
Clinical Rotation IV Topic Business PRO 3801L	Arlene Gillis	2	110 Rotation 32 Class	E1-E7
Total Number of credit hours, laboratory, and class hours		8	440 Rotation 128 Class	E1-E7

During the Master's Program at FSU

Course Number and Title	Principal Instructor	Credit Hours	Lab and or Class Hours	Identification of Standard
Clinical Rotation Topic Business Management PRO 3801L	Arlene Gillis	2	200 Rotation	E1-E7
Total Number of credit hours, laboratory, and class hours		2	200 Rotation	E1-E7

27. Appendix 8 includes detailed information about each of the courses in the program.

In Appendix 8, include the following items:
a) A copy of each of your institution's course syllabi and schedule of daily activities throughout the semester/quarter to include lectures, demonstrations, laboratory activities, guest speakers, assessments, etc. for every required course (didactic/clinical), excluding prerequisite courses
b) Completed form A-8 for every required course (didactic/clinical), excluding prerequisite.
c) Completed from B-8a (does not require assigning contact hours), B-8b and B8c assigning contact hours of each subject taught in each courses identified in the curriculum. Total hours of required topics and content areas must match total hours on syllabi.

SECTION 4: NARRATIVE

I. SPONSORSHIP

A. Sponsoring Educational Institution

Comment on the extent to which the sponsoring institution meets the requirements stated in this Standard.

St. Petersburg College (SPC) is a co- sponsor of the Consortium. SPC meets all of the minimum requirements stated in the O&P Guidelines and Standards as it is accredited by the Southern Association of Colleges and Schools (SACS) and is a state system school authorized to provide four-year baccalaureate instruction with the exception of the ability to provide a Master's Degree. A Bachelor's Degree is awarded from SPC and a minimum of a Master's Degree is awarded by Florida State University, as outlined in the consortium and Memorandum of Understanding in appendix 1.

B. Consortium Sponsor

1. Provide a brief general statement concerning the institutions use of consortium sponsors and the extent to which the consortium sponsor meets the requirements in I. B.

Saint Petersburg College (SPC) and Florida State University (FSU) are consortium co-sponsors. FSU will train Orthotic and Prosthetic students from SPC who have received a Bachelor in Applied Sciences in Orthotics and Prosthetics in Advanced Materials and Business Management. Completion of the additional FSU curricula will lead to the award of the Masters of Science in Industrial Engineering, with a specialization in *Engineering Management in Orthotics and Prosthetics* (MSIE-EMOP). FSU is also accredited by SACS.

2. Provide a brief statement on the members and their responsibilities as well as explanation of what is included in the formal affiliation or memorandum of understanding.

St. Petersburg College assumes all responsibility for quality assurance at every level of instruction of the program including: student admission; curriculum planning; selection of course content; coordination of classroom teaching and supervised clinical practice; appointment of faculty; receiving and processing admissions; and granting degrees. SPC provides assurance that practice activities assigned are appropriate through the clinical practicum courses through weekly interaction between faculty, students, and preceptors.

FSU will provide learning opportunities in Materials, Engineering and Business Management. SPC will provide instruction in Orthotics and Prosthetics. After completion of the program, the student will obtain a Master of Science degree in Industrial Engineering from FSU and the College of Engineering. For the complete MOU, see appendix 1.

The MS degree specialization will be administered by the FSU IME Department:

- **Graduate Committee.** The FSU Industrial and Manufacturing Engineering (IME) Department Graduate Committee under the direction of the Director of Graduate Studies will operate this program.
- **Associated Faculty.** The faculty associated with the program will be recommended by the FSU IME Department and SPC Program Director. Faculty credentials will be reviewed and approved by the FSU IME Department Chair meeting NCOPE and Regional Accreditation standards.
- **Course Delivery.** The program courses will be offered by FSU via distance learning (e.g., video conference or face to face). Portions of classes will be offered by SPC faculty credentialed by FSU IME Department.

- **Curriculum.** The curriculum will be reviewed and approved by the FSU IME Department with suggestions and inputs from SPC.
- **Admissions.** The admissions standards will conform to the admissions criteria of FSU.
-

C. Areas for Improvement
Summarize plans to correct any deficiencies or concerns.

New Program implementation in 2012 will monitor the first year implementation and identify areas for improvement.

The following agreements have been reached by the FSU and SPC:

- **Delivery of Program Courses.** FSU will be responsible for the delivery of core and elective courses described in the MOU (Memorandum of Understanding), and assisted by SPC.
- **Recruitment.** FSU and SPC will agree on joint initiatives regarding recruitment and marketing of both programs and this partnership.
- **University Partnership.** SPC will need to leverage marketing and recruiting resources from the University Partnership program.

II. PROGRAM GOALS

A. Mission and Goals - *Provide a brief general statement concerning the overall adequacy of the program's goals and outcomes.*

SPC's Vision, Mission, and Goals are listed in appendix 1. Our goals align with ABC's Domains and adequately support both our Mission and Vision. They sufficiently address the needs and expectations of the various communities of interest served by the educational program including students, graduates, faculty, sponsor administration, employers, physicians, and the public.

B. Appropriateness of Goals and Learning Domains - *Summarize the elements and timing of the program's system for ongoing self-evaluation and improvement, including regular and special staff meetings, advisory committee meetings (if applicable), review of graduates' performance on standardized certification/licensure/registry exams, graduates' and employers' surveys, clinical faculty meetings, faculty retreats, etc. Comment on the effectiveness of the mechanisms used, and the extent to which such outcome measures influence change. Note any plans to alter or improve the present system.*

To ensure perpetuated success, SPC has implemented a system of self-evaluation. This system is summarized below:

- The Advisory Board is comprised of eight members, each serving a one-year term. They meet 2-3 times per year and provide valuable feedback to the program. The advisory board reviews curriculum, course

sequencing, program mission and goals. The board also reviews program outcomes including ABC exam pass rates. For a listing of Advisory Board members, please see Appendix 9.

- Orthotic and Prosthetic Program Staff meet weekly to discuss student success and also have regular meetings dedicated solely to program evaluation. During the spring and fall, O&P faculty meets during "retreats" to discuss both student and program success factors based on curriculum content, demographics, individual course's pass rates, overall graduation rates, and ABC certification attempts.
- SPC's Internal Curriculum & Instruction Committee reviews course curriculum every three years as well as anytime a change in curriculum is presented. It is comprised of members from different academic programs throughout the college and provides valuable suggestions and insight in regards to course quality, effectiveness, and delivery methods. For more information specifically regarding the C&I committee please visit the website provided below.
  http://www.spcollege.edu/sacs/compliance/3_4_10_Responsibility_for_Curriculum.htm
- Employer Satisfaction Surveys, shown in Appendix 3, are sent to graduating students residency sites within their first six months of employment. These surveys are then evaluated by the Orthotic and Prosthetics Program's staff and used to troubleshoot weak areas within the program. The same is done with ABC Certification Exam Results and internal course scores.
- Recently, we also included a feasibility assessment and multiple surveys done by an outside consultant to assess building utilization, comparative analysis of O&P Master's Programs, and outreach to our communities of interest.
- Viability Reports are generated by SPC each year as of 2011. They provide application, enrollment, graduation, and retention data for our program and are reviewed annually in the fall by O&P faculty and staff. Results from this year's Viability Report can be found in Appendix 11.

All of these measures have proven effective and regularly influence change in our program and help to increase our program and graduate success rates. Due to these evaluations we re-sequenced the course curriculum to improve student outcomes and developed our Master's Consortium and Curricula with FSU. Also, X-Ray boards were purchased to increase student understanding of Spinal Orthotics due to faculty acknowledgment of SPC student's lower scores on the spinal section of the ABC Exams as a whole.

C. Minimum Expectations *-Summarize if the program has adopted educational goals beyond entry-level and the evidence utilized to identify that students have achieved the basic competencies prior to entry into the profession.*

The Saint Petersburg College Orthotics and Prosthetics Program is not adopting educational goals beyond the entry-level practitioner at this time.

To prepare competent entry-level orthotists and prosthetists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains, SPC has identified a set of minimum expectations.

Each student's knowledge is assessed through the use of a 7 point grading scale and standardized rubrics. Students are required to achieve a minimum of a "C" grade (77%) in every course for successful completion. Competencies of professional, ethical and knowledgeable entry-level practitioners are further evaluated during clinical practicum/rotation hours and are assessed by a write-up from each site's preceptor. Student performance in regards to these expectations are appraised every mid-semester and semester's end to ensure program and student success.

III. RESOURCES

A. Type and Amount

Provide a brief general statement concerning the overall adequacy of the program's resources to support the number of students enrolled and to achieve the stated program objectives.

The SPC Orthotic and Prosthetic Program's financial resources are sufficient to sustain operations and will allow SPC to meet their obligations to matriculating and enrolling students.

Florida State University is a financially stable university that has a plethora of financial resources.

A full budget is listed in Appendix 6

B. Personnel

1. Program Director - *State whether program administrators meet the requirements stated in this Standard, noting specifically any deviations from the responsibilities and qualifications listed. Indicate how any deviations noted affect the program.*

Arlene Gillis, CP, LPO, M.Ed has been with SPC's Orthotic and Prosthetic Program from its inception in 2005. She has served as Faculty, Clinic Coordinator, Instructor in Charge, and finally was offered the position of Program Director in July of 2012. She is the Program Director for both Saint Petersburg College's BASOP as well as Florida State University's MSIE-EMOP. Arlene Gillis has a Bachelor's in Orthotics and Prosthetics from Florida International University as well as a Master's in Education from the University of South Florida. She is currently pursuing her Doctorate in Education. She has well over 5 years' experience in both teaching and clinical experience. She holds licensure in both Orthotics and Prosthetics in the State of Florida.

Summarize briefly how the efficacy of program administration is evaluated.

Bachelor's Program Administration is evaluated annually by the Dean of College of Health Sciences and the Vice President of Academic Affairs through the use of an online tool called PlanIt. Previous years goals are appraised based on levels of completion and new goals are set for the coming year.

Summarize plans to correct any deficiencies or concerns.

No deficiencies have been identified at this time.

2. Faculty and Instructional Staff- *Comment on the extent to which the number, qualifications and responsibilities of faculty fulfill the requirements stated in Standard.*

Qualified faculty and staff are assigned to classrooms, laboratories, and each location where students are assigned for didactic or clinical instruction or supervised practice. The Bachelor's Program has two allotments for full time faculty members and 11 adjunct faculty members at this time. Our entire instructional faculty has a minimum of a Bachelor's Degree and is licensed or certified in their perspective fields. They incorporate a wide variety of knowledge from distinct areas of allied health professions including seasoned O&P practitioners, physical therapists, as well as osteopathic and allopathic doctors. SPC also employs an experienced full time Lab Manager and a part time staff assistant.

Florida State University has eight full time faculty members in the Department of Engineering and two Adjunct Faculty members. Each of the Master's Programs Faculty possesses a Ph.D. in their discipline. A complete list of faculty members and their curriculum vitae is included in Appendix 5.

Summarize plans to correct any deficiencies noted.

We are currently re-evaluating the effectiveness of our faculty workloads. Processes are in the discussion phase and include insight from both administration and Program Director. A diagram showcasing our current faculty workloads is included below for an example of a typical fall and spring semester. The actual scheduled times of each class may change year to year.

Fall Semester

Time	Monday			Tuesday			Wednesday				Thursday			Friday			
Cohort Rooms	*Juniors* *128,203,205*		*Seniors* *126,203, 205*	*Juniors* *128*	*Seniors* *126,203,205*		*Juniors* *128*		*Seniors* *126,203,205*		*Junior* *128,203*	*Seniors* *126,203,205*		*Juniors* *128,203,205*		*Seniors* *126*	
8:00												Lab	lab				
8:30												Lab	Lab				
9:00	A Did.				lab	lab						Lab	Lab				
9:30	A Did.			B	lab	lab						Lab	Lab				
10:00	Lab	Lab	H Did.	B	lab	lab	F Did.		G Did.			Lab	Lab	E Did.		K	
10:30	Lab	Lab	H Did.	B	lab	lab	F Did.		G Did.			Lab	Lab	E Did.		K	
11:00	Lab	Lab	H Did.	B	lab	lab	F Did.		G Did.			Lab	Lab	E Did.		K	
11:30	Lab	Lab	H Did.		lab	lab	F Did.		G Did.			Lab	Lab	E Did.		K	
12:00																	
12:30																	
1:00	Lab	Lab			lab	lab	Lab	Lab	J		C	lab	lab	Lab	Lab	I Did.	
1:30	Lab	Lab			lab	lab	Lab	Lab	J		C	Lab	Lab	Lab	Lab	I Did.	
2:00	Lab	Lab	L		lab	lab	Lab	Lab	J		C	Lab	Lab	Lab	Lab	I Did.	
2:30	Lab	Lab	L		lab	lab	Lab	Lab	J		C	Lab	Lab	Lab	Lab	I Did.	
3:00	Lab	Lab	L		lab	lab	Lab	Lab	J		C	Lab	Lab	Lab	Lab	lab	lab
3:30	Lab	Lab	L		lab	lab	Lab	Lab	J		C	Lab	Lab	Lab	Lab	lab	lab
4:00	Open Lab		Open Lab		lab	lab	Lab	Lab	Lab	Lab	C	Lab	Lab	Lab	Lab	lab	lab
4:30	Open Lab		Open Lab		lab	lab	Lab	Lab	Lab	Lab	C	Lab	Lab	Lab	Lab	lab	lab
5:00	Open Lab		Open Lab		lab	lab	Lab	Lab	Lab	Lab		Lab	Lab			lab	lab
5:30	Open Lab		Open Lab		lab	lab	Lab	Lab	Lab	Lab		Lab	Lab			lab	lab
6:00																	
6:30																	

Faculty 1 **Faculty 2** **Adjunct** **Unidentified Instructors**

Spring Semester

Time	Monday				Tuesday				Wednesday			Thursday			Friday		
Cohort	*Juniors* *128, 203*		*Seniors* *126*		*Juniors* *128*	*Seniors* *126,203,205*			*Juniors* *128,203*		*Seniors* *126,205b*	*Juniors* *128,203,205*		*Seniors* *126*	*Juniors* *128,203,205*		*Seniors* *126*
8:00															C Did		
8:30															C Did		
9:00			D												C Did		
9:30	A Did		D		F						G				C Did		
10:00	A Did		D		F	labE	labE		B Lab	B Lab	G	B lab	B lab	H	C lab	C lab	
10:30	A Did		D		F	labE	labE		B Lab	B Lab	G	B lab	B lab	H	C lab	C lab	
11:00	A Did		D		F	labE	labE		B Lab	B Lab	G	B lab	B lab	H	C lab	C lab	
11:30			D		F	labE	labE		B Lab	B Lab	G	B lab	B lab	H	C lab	C lab	
12:00					F						G						
12:30					F						G						
1:00	LabA	LabA	E Did.		F	labE	labE		B lab	B Lab	G	B lab	B lab		C lab	C lab	
1:30	LabA	LabA	E Did.		F	labE	labE		B lab	B Lab		B lab	B lab		C lab	C lab	
2:00	LabA	LabA	E Did.			labE	labE		B lab	B Lab		B lab	B lab		C lab	C lab	
2:30	LabA	LabA	E Did.			labE	labE		B lab	B Lab		B lab	B lab		C lab	C lab	
3:00	LabA	LabA	ELab	ELab		labE	labE		B lab	B Lab		B lab	B lab		C lab	C lab	
3:30	LabA	LabA	ELab	ELab		labE	labE		B lab	B Lab		B lab	B lab		C lab	C lab	
4:00			ELab	ELab		labE	labE				EGN	B lab	B lab		C lab	C lab	
4:30			ELab	ELab		labE	labE				EGN	B lab	B lab		C lab	C lab	
5:00											EGN				C Lab	C lab	
5:30											EGN				C Lab	C lab	
6:00																	

Faculty 1 **Faculty 2** **Adjunct** **Unidentified Instructors**

***Open Lab Times are designated as a guideline for extra lab time if needed. For any classwork that needs to be done during open lab, the class instructor must be present. If a student wishes only to practice basic fabrication skills, the Lab Manager may be present.**

Staff Evaluation

At the end of each semester, instructional staff is evaluated by a student survey of instruction (SSI) (please see appendix 10 for a copy of the instrument). The SSI is an institutional assessment of course faculty who teach SPC courses (including those that will be classified as adjunct/part-time at SPC and full time faculty at FSU.)

Non- instructional staffs, such as Lab Managers and Administrative Support, are evaluated annually using an online tool, PlanIt. Previous years goals are appraised based on levels of completion and new goals are set for the coming year.

C. Curriculum

Provide the results of the self-study analysis for each course and/or component in the curriculum, including comments on the quality and appropriateness of content, objectives, instructional methods, syllabi, sequencing, and where relevant, the adequacy of the setting (e.g. a clinical facility). Summarize the programs compliance with meeting or exceeding the content of the "Core Curriculum for Orthotists and Prosthetists" (Appendix B in the Standards).

During the self-study analysis, it was concluded that our prerequisite, didactic, and clinical course content, objectives, instructional methods and syllabi are in compliance with the "Core Curriculum for Orthotists and Prosthetists" (Appendix B of the Standards) and strongly enforce the entry-level competencies of orthotic and prosthetic practitioners.

Curriculum Deficiencies and Action Plan- Summarize strengths and concerns noted, and indicate plans for correcting any deficiencies.

Our strengths include our fully equipped building and lab dedicated to the Orthotics and Prosthetics Program, our diverse and qualified instructional staff, as well as our numerous hours of hands on experience and live patient model network.

Our plans for correcting deficiencies are noted below:

- **Course Sequencing -** Upon reviewing the sequencing of the courses during 2008-2011 and the student outcomes associated with those years, It was determined that our course sequencing could be improved to better prepare our students. The faculty agreed that the first semester should focus more on patient assessment skills, the foundational knowledge required to complete thorough patient evaluations and interviews and development of the psychomotor skills. PRO 3110 Pathology and PRO 3500 Clinical Methods moved to the first semester. Both courses were developed and enhanced to meet the master's standards. A three hour weekly lab that includes patient models was added to PRO 3500 Clinical Methods course. The new sequencing of our courses can be found in the program of study located on page 13.
- **Spinal Orthotics:** When data from Capstone Exam and ABC Exam scores were reviewed by faculty at both the three year review mark and end of course reviews, the faculty noticed content weaknesses, specifically in the cobbing area. As a faculty we were able to adjust content for the following year and the results were markedly improved in the Spinal portion of Capstone and the ABC Exam. Details regarding ABC Exam scores can be found in Appendix 3.
- **Lab Time:** Faculty meets weekly to assess the course projects with the Lab Manager. In a few of the core lab courses we found that the projects were not allowed proper time for the students to complete all the aspects of fabrication. This caused us to run open labs on a regular basis once a week. This additional lab timed served two purposes: (1) allowed students to complete project fabrication and (2) also allowed for any students that wanted additional practice with basic fabrication skills. For any

classwork that needs to be done during open lab, the class instructor must be present. If a student wishes only to practice basic fabrication skills, the Lab Manager may be present.

- **Additional Labs**:
  - PRO 3000 Introduction to O & P added a three hour weekly lab to help students better understand lab safety, proper tool and machinery uses and fundamental skills required for fabrication.
  - PRO 3120C Gait course was expanded to include a weekly three hour lab to include patient models as well as moved it to the second semester. The students will now have the opportunity to work with Gait rite mats and utilize sports motion equipment to evaluate and analyze human and animal gait.
  - PRO 3500 Clinical Methods also added a weekly three hour lab component to allow patient interactions and assessments.
  - Advanced Topics is a new course that will have a 45 hour hands on lab component to focus on advances technologies in our field. We plan to include the Compas™ system, microprocessors knees and other areas high tech advances. Students will have the opportunity to apply these technologies with patients they have worked with in previous courses.
- **Building capabilities**: Although there is ample square footage O & P has had to make considerable modifications to our lab to account for the original design of the building not taking into account the flow of each project's requirements in the lab instruction and fabrication process. For example, an additional lab class area was added to house 24 laptops for the students to use to create Educational Learning Activities (ELA's). In this area students are able to watch instructional videos for the lab projects they will need to fabricate, complete learning modules and create patient files on OPIE software. To complete each project the students must create an electronic file, keep their clinical notes and L-code the device they are fabricating in their courses. The laptops also include CADCAM software and are utilized for that portion of the curriculum as well. This room helps with the bottle neck during the fabrication process but does not eliminate them. We continue to look at possible solutions.

D. Resource Assessment

Summarize how the program assesses the appropriateness and effectiveness of the resources described in the standards. Summarize strengths and concerns noted and indicate plans for correcting any deficiencies.

The Director, along with input from the faculty, reviews the program goals and resources. The faculty is invited to identify any additional resources required to help them achieve the program goals in the way of materials, equipment and or professional development.

Faculty may submit at any time a request for additional resources with a justification and rational it will be reviewed by the Director and a plan will be put in place to help achieve the desired results to meet the program goals.

IV. Student and Graduate Evaluation/Assessment

A. Student Evaluation

1. Summarize the method, tools and frequency of evaluation of students and their progress toward achievement of the competencies and learning domains stated in the curriculum.

Students are continually evaluated throughout each course by way of a rubric or 7 point grading scale given to them in the syllabi of each course at the beginning of each semester. Further advising is done on a one on one basis at mid-semester to discuss each student's progress in the Orthotic and Prosthetic Program as a whole. For an in depth list of methods and frequency of assessment please see Form A-7.

2. Comment on the extent that records of student evaluations are maintained and sufficient in detail to document learning progress and achievements.

Student Evaluations, rubrics and advising records are maintained within the O&P program for a minimum of 12 months after graduation. Official transcripts are maintained permanently by SPC's Admissions and Records Office.

B. Outcomes

1. Summarize the method, tools and frequency of evaluating the program's effectiveness in achieving its stated goals and learning domains.

Program outcomes and effectiveness are evaluated internally and by administration on an ongoing basis. The O&P Advisory Board, ABC Exam Feedback, Employer and Student Surveys, graduation rates, residency placements, and individual course scores are all used in this process. In addition student must take part in a comprehensive end of program capstone course. The comprehensive exam is used to determine program effectiveness in all courses, learning domains and student success.

2. Summarize the program's process for periodically reporting on goal(s), learning domains, evaluation systems (including type, cut score, validity, and reliability), outcomes, its analysis of the outcomes and an appropriate action plan based on the analysis.

Our program annually submits to NCOPE the program goals, learning domains, evaluation systems, outcomes, its analysis of the outcomes, and an appropriate action plan based on the analysis.

Summarize plans to correct any deficiencies noted

No deficiencies are noted at this time.

V. FAIR PRACTICES

Comment on the extent to which the program meets the requirements of Standards V.A - F noting specifically whether the program/institution has defined policies and procedures for lawful and un-lawful practices, faculty and student grievances, student records, affiliation agreements, providing notice of substantive change to CAAHEP/NCOPE as defined in V.E. Summarize plans to correct any deficiencies noted.

SPC, as the sponsoring institution, and FSU as it's consortium partner are in compliance with all of the requirements of Standard V including, but not limited to publications and disclosures, lawful and non-discriminatory admission and hiring, safeguarding the health and safety of patients, students, and faculty, student record retention, substantive change reporting and affiliation agreements.

No deficiencies have been noted at this time.

SECTION 5: SUMMARY

The Saint Petersburg College Orthotics and Prosthetics Program underwent substantial changes recently with the addition of a consortium with Florida State University to incorporate the Masters' Program. This transition gave us an opportunity to dissect the existing Bachelor's Program and future master's Program and evaluate strengths and weakness beyond our normal self-study process.

A HRSA Grant was obtained, which allowed us to hire outside consultants to conduct feasibility assessments of our program, building, marketing strategies, and compare our proposed Master's program to those already existing. Extensive hours were dedicated to creating new course curriculum and syllabi for the MSIE-EMOP, as well as the added course in the BASOP, Advanced Topics. New educational videos and lab manuals are also being created with funds from this grant.

Our consortium is a two-step process, unlike other O & P programs in the United States where an applicant may need a degree in another field or subject matter. Here, students will focus their studies in O&P for both levels of their education. The first degree will be the SPC Bachelor of Applied Science in Orthotics and Prosthetics, the second being the FSU MSIE-EMOP. In the final semester of the SPC program, the candidate applies to FSU. This allows time to complete all prerequisites and requirements to enter the FSU portion of the consortium. Most course work for FSU will be offered on-line or at the SPC campus face to face.

During this self-study process, multiple strengths of our program were recognized. These include our large and fully equipped O&P building, our patient model network, and our programs emphasis on hands-on lab time which increased from 7 labs to 15 labs this year. It was also acknowledged that our program utilizes new technology to supplement the teaching objectives. In the past few years we have acquired C-Leg® Systems, Compas™ Units, Silicone Models of transtibial and transfemoral amputations with interactive light up recognition of proper palpation, Otto Bock L.A.S.E.R. posture devices, GAITRite™ systems, and iPads equipped with OPIE software. Both program's instructional staff has also strengthened with the diversification of our adjunct faculty to include physical therapists, allopathic and osteopathic doctors, nurses, business professionals, and engineers in addition to the already present orthotic and prosthetic clinicians.

The largest weakness that was addressed during this self-study included re-sequencing of the courses for the BASOP. It was discussed during faculty meetings that the first semester of the program should focus on the foundational knowledge required to complete thorough patient evaluations and interviews and development of the psychomotor skills. Therefore, the Clinical Pathologies and Clinical Methods courses were bumped to the first semester. Going forward, Clinical Pathologies and Human Anatomy for O&P will both be taught by the same professor with a medical background. These two courses, then, will advance throughout the anatomical system in synchronization, discussing the anatomy of a segment in one class, then covering the pathologies that apply to that segment in the other. According to SPC's annual Viability Report, Human A&P for O&P has the lowest mean class score and passing rates. This new sequencing should address that weakness. Next year's viability report will be reviewed to confirm the efficacy of these changes.

SPC's admission criterion also had to be revamped to correlate more closely to FSU's Master's Program's admissions. Our newly appointed admissions committee incorporated 16 observation hours (8 in orthotics and 8 in prosthetics), moved the selection process from priority enrollment to selective enrollment and increased the required overall GPA from 2.0 to 2.5.

Other weaknesses noted were our lack of affiliation with a Clinic or Center of Excellence and our disproportionate space in the lab. These issues are acknowledged and will be evaluated again, but do not have action plans at this time. SPC is also reviewing the need to adjust our faculty workloads to meet the increased time required with the new FSU Master's Program.

SPC and FSU look forward to graduating our first cohort throughout the entire consortium in the summer of 2015. We are excited to cultivate growth and success in both programs.

Part 2: Appendices

Required Appendices

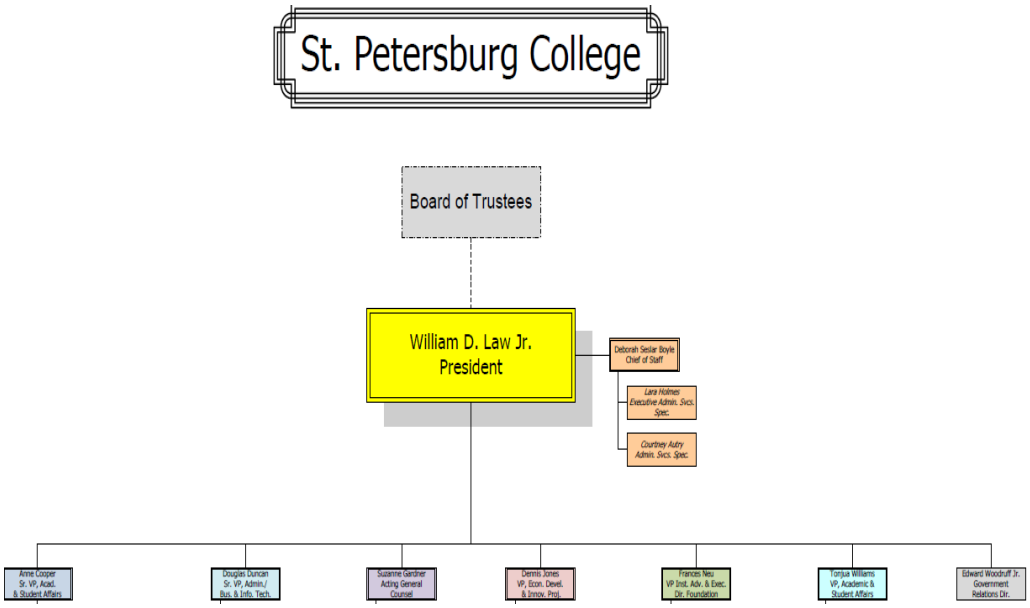
1 – 8

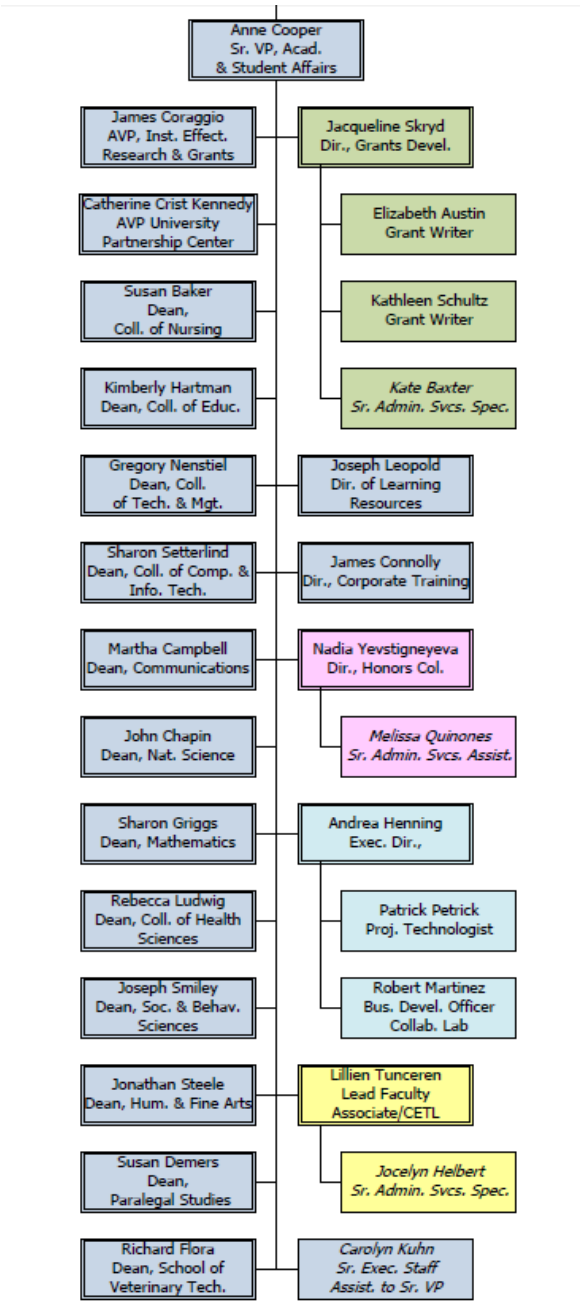
Additional Appendices to support self-study narrative

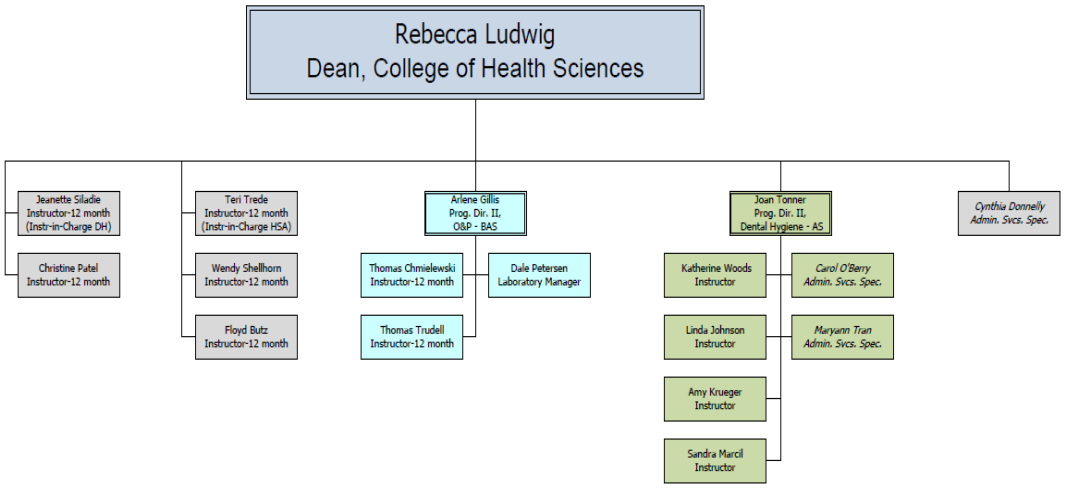
9 – 12

Appendix 1: Institution Information

a)Institutional Organizational Chart(s) showing relationship between the allied health program(s) being evaluated and the Institution.



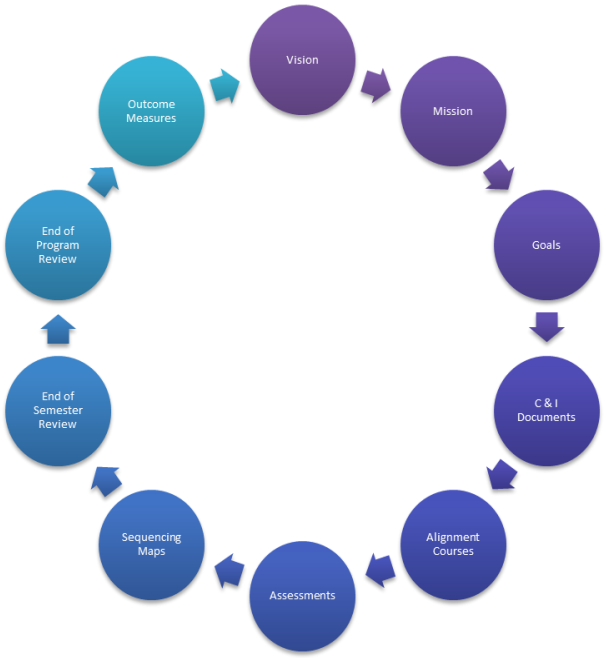

Anne Cooper
Sr. VP, Acad.
& Student Affairs
James Coraggio
AVP, Inst. Effect.
Research & Grants
Jacqueline Skryd
Dir., Grants Devel.
Catherine Crist Kennedy
AVP University
Partnership Center
Elizabeth Austin
Grant Writer
Susan Baker
Dean,
Coll. of Nursing
Kathleen Schultz
Grant Writer
Kimberly Hartman
Dean, Coll. of Educ.
Kate Baxter
Sr. Admin. Svcs. Spec.
Gregory Nenstiel
Dean, Coll.
of Tech. & Mgt.
Joseph Leopold
Dir. of Learning
Resources
Sharon Setterlind
Dean, Coll. of Comp. &
Info. Tech.
James Connolly
Dir., Corporate Training
Martha Campbell
Dean, Communications
Nadia Yevstigneyeva
Dir., Honors Col.
John Chapin
Dean, Nat. Science
Melissa Quinones
Sr. Admin. Svcs. Assist.
Sharon Griggs
Dean, Mathematics
Andrea Henning
Exec. Dir.,
Rebecca Ludwig
Dean, Coll. of Health
Sciences
Patrick Petrick
Proj. Technologist
Joseph Smiley
Dean, Soc. & Behav.
Sciences
Robert Martinez
Bus. Devel. Officer
Collab. Lab
Jonathan Steele
Dean, Hum. & Fine Arts
Lillien Tunceren
Lead Faculty
Associate/CETL
Susan Demers
Dean,
Paralegal Studies
Jocelyn Helbert
Sr. Admin. Svcs. Spec.
Richard Flora
Dean, School of
Veterinary Tech.
Carolyn Kuhn
Sr. Exec. Staff
Assist. to Sr. VP



b) Mission Statement of the Institution - or a reference to the appropriate page in the Institution's Bulletin

Vision: **"**To be a model of excellence for O & P Clinical Education"

Mission: "To produce professional, competent graduates with advanced training and education in O & P clinical practice and promote research and to develop problem solving skills for lifelong learning".



c) Institution's General Bulletin/Catalog, and relevant Program brochures or catalogs. If bulky, these items may be labeled "Appendix 1-c" and included as separate items

http://www.spcollege.edu/catalog/

St. Petersburg College and Florida State University Orthotics and Prosthetics Consortium

Earn your bachelor's degree in

Orthotics and Prosthetics with St. Petersburg College

and a master's of Science in Industrial Engineering with a specialization in Management of Orthotics and Prosthetics from Florida State University.

J.E. Hanger College of Orthotics and Prosthetics

Professionals in orthotics and prosthetics assess, design, fabricate and fit custom devices to help people of all ages lead more active, independent lives. Students learn to evaluate, fabricate, fit and deliver orthopedic braces, artificial limbs, or devices to replace external parts of the human body lost due to amputation, congenital deformities or absences.

If you have:

- A desire to make a difference and help others
- Strong interpersonal skills
- Great problem-solving skills and an aptitude for math and science

Then a career in Orthotics and Prosthetics may be right for you.

Orthotists and prosthetists work in:

- Home health settings
- Hospitals
- Nursing homes
- Private practices
- Rehabilitation facilities
- Specialty clinics

Potential careers

- Orthotist
- Prosthetist
- Practice manager
- Manufacturer's representative
- Teacher

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SPC

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St. Petersburg College is an Equal Access/Equal Opportunity institution. 12-1655-08

d) Consortium data form, if applicable.
Note: In the case of coordinated visits, this appendix will be identical for each program's report.

CONSORTIUM DATA FORM

1. Institutions Comprising the Consortium

   A. Name Saint Petersburg College

   City, State Pinellas Park, Florida

   CEO or Comparable Official Dr. William Law

   Telephone 727-341-3241

   B. Name Florida State University

   City, State Tallahassee, Florida

   CEO or Comparable Official Dr. Garnett S. Stokes

   Telephone _____

   C. Name _____

   City, State _____

   CEO or Comparable Official _____

   Telephone _____

2. Accreditation Agency Recognition of Institutions Comprising Consortium

   Institution A S.A.C.S.

   Institution B S.A.C.S.

   Institution C _____

3. Nature of Institutions (Check appropriate category)

INSTITUTION	PUBLIC	PRIVATE, NOT FOR PROFIT	PRIVATE, FOR PROFIT
SPC	✓		
FSU	✓		

4. Facilities and Responsibilities (Check under appropriate institution(s)

FACILITIES AND RESPONSIBILITY	INSTITUTION		
	A	B	C
Library	✓		
Student Health Service	✓		
Maintenance of Official Student Records	✓	✓	
Financial Aid Services for Students	✓	✓	

5. Chief Administrative Officer of Consortium

Name & Credentials Arlene Gillis, CP,LPO, M.Ed.

Title Program Director

Address 7200 66th Street North, Pinellas Park, Fl 33781

Telephone 727-341-4153

MEMORANDUM OF UNDERSTANDING:
INTERINSTITUTIONAL ARTICULATION AGREEMENT

This Memorandum of Understanding is entered by and between the BOARD OF TRUSTEES OF ST. PETERSBURG COLLEGE, P.O. Box 13489, St. Petersburg, Florida 33733-3489, hereinafter referred to as the "SPC" or "College", used interchangeably, and the FLORIDA AGRICULTURAL AND MECHANICAL – FLORIDA STATE UNIVERSITY COLLEGE OF ENGINEERING, 2525 Pottsdamer Street, Tallahassee, Florida, hereinafter referred to as "FSU."

WITNESSETH:

WHEREAS, FSU offers undergraduate and graduate courses in the field of industrial and manufacturing engineering,

WHEREAS, the SPC offers a Bachelors in Applied Sciences degree in Orthotics and Prosthetics,

WHEREAS, the National Commission on Orthotic and Prosthetic Education (NCOPE) now requires Orthotic and Prosthetic degrees to be obtained through entry level Masters programs and SPC offers the only program in Orthotic and Prosthetic (O&P) education in the Southeast, and

WHEREAS, the SPC and FSU desire to collaborate to provide an articulated program whereas students who have received a Bachelor in Applied Sciences in Orthotics and Prosthetics will receive training leading to the award of a Masters of Science in Industrial Engineering, with a specialization in Engineering Management of Orthotics and Prosthetics (MSIE-EMOP);

NOW THEREFORE, in consideration of the mutual covenants and agreements contained hereinafter and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties do hereby agree as follows:

ARTICLE I: PROGRAM AND ORGANIZATION

The degree program under consideration is a Master of Science in Industrial Engineering with a special focus on Orthotics and Prosthetics at the Florida State University College of Engineering (FSU). Such degree will result from a consortium between the FSU and St. Petersburg College (SPC).

FSU will train Orthotic and Prosthetic students from St. Petersburg College who have received a Bachelor in Applied Sciences degree in Orthotics and Prosthetics in Advanced Materials and Business Management for Orthotics and Prosthetics leading to the award of the Masters of Science in Industrial Engineering, with a specialization in *Engineering Management of Orthotics and Prosthetics* (MSIE-EMOP).

The MSIE-EMOP program will be non-thesis based. The students will complete 32 credit hours of course work. FSU will provide learning opportunities in Materials Engineering and Management. SPC will provide instruction in Orthotics and Prosthetics as developed by SPC.

After the completion of the program, the student will obtain a Master of Science degree in Industrial Engineering from FSU College of Engineering. The proposed program will be administered by the FSU Industrial and Manufacturing Engineering (IME) Department.

ARTICLE II: OBJECTIVES

The educational objectives of the proposed Master of Science in Industrial Engineering with a specialization in *Engineering Management of Orthotics and Prosthetics* program are to train and graduate students with an M.S. degree who will:

- Have a solid foundation in the principles and application of advanced materials, and can apply these principles to formulating and solving O&P problems.
- Be current in modern technology and tools of Advanced Materials as applied to O&P.
- Be competent with modern business methods, marketing strategies, and ethics necessary to enhance their ability to succeed in the O&P business environment.
- Have the ability to communicate effectively in problem solving while working independently or on interdisciplinary teams.

The program will benefit SPC and FSU in the following ways:

- It will enable SPC to accomplish the NCOPE requirement of a MS level O&P program.
- It will help both FSU and SPC to recruit graduate students in the critical area of O & P education in the State of Florida and beyond.
- It will help FSU to broaden education and research in the areas of healthcare systems.
- It will help promote faculty collaboration at both FSU and SPC through joint instruction of courses, joint proposals, co-advising of students, and shared facilities development.

ARTICLE III: OPERATION AND STRUCTURE

The proposed MS degree specialization will be administered by the FSU IME Department. The following sections describe the organization structure and operation of the program.

Graduate Committee: The FSU Industrial and Manufacturing Engineering (IME) Department Graduate Committee under the direction of the Director of Graduate Studies will run this program. The Committee will include at least one non-voting member of the SPC faculty who will be nominated by the Committee and appointed by SPC. FSU will

be responsible to provide a Program Coordinator to facilitate this partnership at FSU's expense and as it may be deemed necessary by the Committee.

Associated Faculty: The faculty to be associated with the program will be recommended by the FSU IME Department and SPC. Faculty credentials will be reviewed and approved by the FSU IME Department Chair. The review and approval will be based on the criteria set by the FSU Graduate School. The faculty affiliation to the program may be reviewed in periodic evaluations by the FSU Graduate School.

ARTICLE IV: CURRICULUM

Curriculum: This graduate program has an integrated curriculum which consists of two components: core courses (29 credit hours) and one elective course (3 credit hours), totaling 32 credit hours. SPC will provide funding in the amount of Three Thousand dollars and 00/100 cents ($3,000.00) per course to the FAMU-FSU IME Department for initial development of the two new Orthotic and Prosthetic courses in the program curriculum. The FSU IME Department will submit a budget to SPC for the program/curriculum development when the program is approved by FSU.

Prerequisite: A prerequisite for admission into the program is the successful completion of MAC 2311 (Calculus with Analytic Geometry 1), MAC 2312 (Calculus with Analytic Geometry II), and EGN 3443 (Statistical Topics in Engineering). These courses *MUST* be completed at SPC prior to entering the Master's program. SPC will teach the Statistics course (EGN 3443) or find an equivalent course locally so that students can meet the prerequisite requirement for this program.

Course Delivery: The program courses will be offered by FSU via distance learning (videoconference, and online). Portions of classes may be offered by SPC faculty approved by the FSU IME Department. SPC will provide financial support, through external resources, to provide for the initial distance learning equipment in FSU classroom(s). These funds will be in the form of a onetime assistance for the initial equipment purchase and the maximum amount provided shall not exceed Twenty-Five Thousand and 00/100 dollars ($25,000.00) to be expended and provided within the first year of this agreement. Such equipment acquired by SPC for this purpose shall remain the property of SPC unless otherwise provided for pursuant to a separate written agreement of the parties or amendment of the terms herein. FSU and SPC understand and agree that the use of such equipment is to be prioritized for the delivery of the courses as anticipated under this Agreement and as specified hereunder.

Curricular Issues: The curriculum will be reviewed and approved by the FSU IME Department with suggestions/inputs from SPC. Annual review of the curriculum for modification and improvement will be conducted.

Admissions: The admission standards will conform to the admission criteria of FSU. The admission decisions will be made by the IME Graduate Committee. Prospective students must have obtained a BASOP from SPC with a minimum CGPA of 3.0.

Students shall be required to take GRE test and submit test scores before admission. The applications will be reviewed by the IME Graduate Committee and admission decisions will be made based on applicants' overall credentials.

Enrollment: The goals for enrollment and degrees production of the program will be set by the FSU IME department and SPC. Although the initial enrollment goal of about 20 students was agreed upon by SPC and FSU, the program may begin with a minimum of 10 students. The goals will be reviewed each year and adjustments made as deemed necessary.

ARTICLE V: COORPERATIVE AGREEMENTS

In order for the smooth operation of the interdisciplinary graduate program, the cooperation of Chairs and Deans from the participating departments and colleges is crucial. The following agreements need to be reached by the participating departments/colleges.

Delivery of Program Courses: FSU will be responsible for the delivery of core and elective courses as described in the Appendix A, with assistance from SPC. Most of the courses are existing courses currently offered by the FSU IME Department, the College of Nursing, and the College of Business. The FSU IME Department will insure course accessibility by the students in this program, if they meet prerequisite requirements. In the event that a course is no longer offered, the FSU IME Department will identify a suitable, existing replacement or substitute within the courses offered, in consultation with SPC. Program and articulation with SPC will not be terminated until 24 months after all enrolled students commence the coursework.

Recruitment: FSU and SPC will agree on joint initiatives regarding recruitment and marketing of both programs and this partnership. This may include for example, the FSU IME Department's participation in SPC's open house and/or orientation sessions with students.

Review of the MOU: This Memorandum of Understanding and the related shared issues/responsibilities will be reviewed every three years by the FSU IME Department and SPC. Re-negotiations may be conducted and changes may be made as deemed necessary after the review and upon written agreement of the parties.

ARTICLE VI: TERMINATION

This Memorandum of Understanding may be terminated by either party upon ninety (90) days prior written notice of the date of termination. If applicable, termination of this Memorandum of Understanding will not be executed without a prior concurring agreement on programs or Students enrolled at the time of termination, and in accordance with the provisions of Article V.

ARTICLE VII: TERM

This Memorandum of Understanding shall commence as of the date of the last party to sign as set forth below and continue in full force and effect perpetually, unless otherwise terminated by either party as set forth herein.

ARTICLE VIII: MISCELLANEOUS

1) The parties agreed to comply with any and all federal and state laws and related regulations including but not limited to Section 504 of the Rehabilitation Act of 1973, the American with Disabilities Act, the Family Educational Rights of Privacy Act, and shall not discriminate against any employee or student of SPC or FSU on the basis of race, color, religion, age, sex, marital status or national origin nor will either discriminate against any individual with a qualified disability. Further, the parties recognize that sexual harassment constitutes discrimination on the basis of sex.

2) The parties agree to provide all academic support services required by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act to its students.

3) The parties agree to comply with the public records requirements of Chapter 119, Fla. Stat. as may relate to this Memorandum of Understanding.

This Memorandum of Understanding was executed on the dates set forth below.

THE BOARD OF TRUSTEES OF ST. PETERSBURG COLLEGE

By: William D. Law, Jr.
William D. Law, Jr., College President and Secretary to the Board of Trustees

Date: 6/19/12

APPROVED AS TO FORM AND CONTENT
S L Lopez
COLLEGE ATTORNEY

The FLORIDA STATE UNIVERSITY

By: Garnett S. Stokes
Garnett S. Stokes, Provost & Executive Vice President for Academic Affairs

Date: 6/12/2012

Appendix 2: Program Objectives

a) The Program's overall educational objectives and competencies needed for graduation

ORTHOTICS AND PROSTHETICS PROGRAM GOALS

The goals of the program are for students to:

- Develop entry-level knowledge and abilities necessary to perform comprehensive patient assessments.
- Develop entry-level knowledge and abilities necessary to formulate, implement and follow-up on comprehensive treatment plans.
- Develop entry-level knowledge pertaining to practice management and promotion of lifelong learning.
- Develop skills to become professional, ethical and competent entry level practitioners.

b) A copy of published criteria for successful progression in and completion of program - or a reference to the appropriate page in the Institution's or Program's Bulletin.

The criteria for successful progression in and completion of the program is included below or can be found at the following website- http://www.spcollege.edu/courses/program/ORTHO-BAS

Orthotics and Prosthetics

ORTHO-BAS

Dr. Rebecca Ludwig, Dean, HEC, 727-341-4151
Arlene Gillis, Program Director, HEC, 727-341-4153
Michele Leonard, Baccalaureate Program Specialist, HEC, 727-341-3794

Admissions Checklist

PROGRAM BEGINS EVERY AUGUST

Important Notice to Current Baccalaureate Students: To view a list of the classes you need to take before you can graduate, login to MySPC and choose *My Learning Plan*. Contact your advisor with any questions.

APPROVED REQUIREMENTS FOR STUDENTS WITH CATALOG YEAR 20122/0465 (BEGINNING 1/7/13) OR LATER
~ REFER TO CURRICULUM FILES FOR PREVIOUS CATALOG YEAR REQUIREMENTS ~

GRADE OF "C" OR BETTER REQUIRED ON ALL COURSES

PRE-ENTRY REQUIREMENTS FOR ADMISSION TO PROGRAM

The following courses are required and may be used as part of the General Education Requirements*:

BSC 2085	HUMAN ANATOMY & PHYSIOLOGY I	3
BSC 085L	HUMAN ANATOMY & PHYSIOLOGY LABORATORY I	1
BSC 2086	HUMAN ANATOMY & PHYSIOLOGY II	3
BSC2086L	HUMAN ANATOMY & PHYSIOLOGY LABORATORY II	1
CHM2045	GENERAL CHEMISTRY I	3
CHM2045L	GENERAL CHEMISTRY LABORATORY I	1
MAC 1114	TRIGONOMETRY **OR** (MAC 1147, MAC 2311 or MAC 2233)	3
PHY 1053	GENERAL PHYSICS I	3
PHY 1048L	PHYSICS LABORATORY I	1
PSY 1012	GENERAL PSYCHOLOGY **OR** (any transferable college-level psychology)	3
STA 2023	ELEMENTARY STATISTICS **OR** (any transferable college-level statistics)	3

NOTE: Beginning Fall 2012, the National Commission for Orthotic and Prosthetic Education (NCOPE) will require a master's degree as the minimum entry-level education requirement into the profession. Students who intend to apply for NCOPE residency and ABC certification will be required to have a master's degree. St. Petersburg College is planning to partner with Florida State University (FSU) to offer the master's-level coursework for students who graduate with the BAS. **FSU requires one (1) additional course for admission into the master's program: EGN 3443. EGN has been built into SPC's curriculum effective August 2012, but students must take the prerequisite courses (MAC 2311, MAC 2312) prior to taking this course and may do so prior to starting or while enrolled in the BAS program.**

UPPER DIVISION REQUIREMENTS

Admission requires completion of at least sixty (60) credits including at least fifteen (15) semester hours of transferable general education coursework and the state-mandated prerequisites listed above.

Students who are admitted without an Associate in Arts or higher degree are required to complete the thirty-six (36) credit hour general education requirements of St. Petersburg College. All students must fulfill the state-mandated prerequisites listed above. Please note that total program hours may vary. Consult the assigned baccalaureate specialist for any additional questions.

Additional General Education Courses (15-21 credits)

* Enhanced World View Requirement

A. COMMUNICATIONS	9
B. HUMANITIES/FINE ARTS	6
C. MATHEMATICS	6
D. NATURAL & PHYSICAL SCIENCES	7
E. SOCIAL AND BEHAVIORAL SCIENCES	6
F. ETHICS	3

G. COMPUTER/INFORMATION LITERACY COMPETENCY

* Visit **www.spcollege.edu/program/GENR-AA** for details.

MAJOR REQUIREMENTS (66 credits) - Grade of "C" or better required in all major courses

[a] **CPR for healthcare providers**

PRO 3000C	INTRODUCTION TO ORTHOTICS, PROSTHETICS, AND REHABILITATION	2
PRO 3100	BIOMECHANICS	2
PRO 3110	CLINICAL PATHOPHYSIOLOGY	3
PRO 3120C	GAIT ANALYSIS AND PATHOMECHANICS	2
PRO 3200C	HUMAN ANATOMY AND PHYSIOLOGY FOR ORTHOTICS AND PROSTHETICS	4
PRO 3301C	TRANSTIBIAL PROSTHETICS	5
PRO 3310C	LOWER EXTREMITY ORTHOTICS I	4
PRO 3311C	LOWER EXTREMITY ORTHOTICS II	5
PRO 3500C	CLINICAL METHODS	3
PRO 3505	CLINICAL PROBLEM SOLVING	2
PRO 3801L	ORTHOTICS AND PROSTHETICS CLINICAL ROTATION I	2
PRO 3801L	ORTHOTICS AND PROSTHETICS CLINICAL ROTATION II	2
PRO 3801L	ORTHOTICS AND PROSTHETICS CLINICAL ROTATION III	2
PRO 3801L	ORTHOTICS AND PROSTHETICS CLINICAL ROTATION IV	2
PRO 4331C	TRANSFEMORAL PROSTHETICS	5
PRO 4350C	SPINAL ORTHOTICS	5
PRO 4361C	UPPER EXTREMITY PROSTHETICS	4
PRO 4371C	UPPER EXTREMITY ORTHOTICS	4
PRO 4XXXC	ADVANCED TOPICS	3
EGN 3443	STATISTICS FOR ENGINEERS	3
PRO 4850	SENIOR CAPSTONE	2-4
TOTAL PROGRAM HOURS		**126**

Notes:

[a] Student must maintain a valid CPR card while in the BAS program.

~ Total program hours is higher than the usual 120, but some of the prerequisite courses may be used towards fulfilling the general education requirements.

~ Two consecutive years in high school or one year of college instruction in a single foreign language is required for graduation.

~ A cumulative GPA of 2.5 or higher is required for admission into the program.

~ Students who have questions concerning admissions or catalog year requirements should consult the appropriate SPC College catalog or a Baccalaureate Specialist or Academic Advisor. Students who have questions concerning state mandated prerequisites should consult www.flvc.org and review the appropriate common prerequisite manual or see a Baccalaureate Specialist or Advisor.

C&I 7/12/12 ~ BOT 8/21/12

Appendix 3: Enrollment and Graduate Information

A table summarizing enrollment, attrition and any available graduate statistics for the past three years. Graduate statistics may include certification/licensure/registry results, employment statistics, etc.

Enrollment

Academic Year	New Students	Returning Students	Unduplicated Headcount
2009-2010	24	21	45
2010-2011	24	23	47
2011-2012	24	24	48

Attrition/Retention

	Retention of Fall Cohorts		
	2010	**2011**	**2012**
Class size	24	24	24
Retained Fall to Spring	23	24	24
Retained Fall to Fall	21	23	24

	Attrition of Fall Cohorts		
	2010	**2011**	**2012**
Class size	24	24	24
Attrition after one term (Fall to Spring)	1	0	0
Attrition after three terms (Fall to Fall)	3	1	0

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

2010 Annual Report

St. Petersburg College, College of O&P

Orthotic Practitioner Examinations Passing Rates by Graduation Year

May 2007			
	Orthotic Written Exam	Orthotic Written Simulation Exam	Orthotic Clinical Patient Management (CPM) Exam
Number of Candidates	7	6	4
Number of Passing/ Percent Passing	1 / 14%	3 / 50%	3 / 75%
Number of Failing/ Percent Failing	6 / 86%	3 / 50%	1 / 25%

May 2008			
	Orthotic Written Exam	Orthotic Written Simulation Exam	Orthotic Clinical Patient Management (CPM) Exam
Number of Candidates	15	9	21
Number of Passing/ Percent Passing	8 / 15%	8 / 89%	13 / 62%
Number of Failing/ Percent Failing	7/ 47%	1 / 11%	8 / 38%

May 2009			
	Orthotic Written Exam	Orthotic Written Simulation Exam	Orthotic Clinical Patient Management (CPM) Exam
Number of Candidates	8	10	0
Number of Passing/ Percent Passing	5 / 63%	5 / 50%	0
Number of Failing/ Percent Failing	3 / 38%	5 / 50%	0

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

2010 Annual Report

St. Petersburg College, College of O&P

Orthotic Practitioner Examinations Passing Rates by Graduation Year

May 2007

	Prosthetic Written Exam	Prosthetic Written Simulation Exam	Prosthetic Clinical Patient Management (CPM) Exam
Number of Candidates	3	2	8
Number of Passing/ Percent Passing	3 / 100%	1 / 50%	5 / 63%
Number of Failing/ Percent Failing	0	1 / 50%	3 / 38%

May 2008

	Prosthetic Written Exam	Prosthetic Written Simulation Exam	Prosthetic Clinical Patient Management (CPM) Exam
Number of Candidates	7	6	4
Number of Passing/ Percent Passing	6 / 86%	5 / 84%	2 / 50%
Number of Failing/ Percent Failing	1 / 14%	1 / 16%	2 / 50%

May 2009

	Prosthetic Written Exam	Prosthetic Written Simulation Exam	Prosthetic Clinical Patient Management (CPM) Exam
Number of Candidates	3	4	0
Number of Passing/ Percent Passing	2 / 67%	3 / 75%	0
Number of Failing/ Percent Failing	1 / 33%	1 / 25%	0

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

2010 Annual Report

Report for St. Petersburg College, College of O&P

Orthotic Practitioner Written Simulation Certification Examination

Scale Passing Point : 500

School Summary Report		
	Your School	**All Candidates**
Number of Candidates	**25**	**231**
Number of Passing / Percent Passing	**16 / 64.00%**	**166 / 71.86%**
Number of Failing / Percent Failing	**9 / 36.00%**	**65 / 28.14%**
Average Score	**545.44**	**553.49**
Highest Score	**687**	**768**
Lowest Score	**359**	**345**

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

2010 Annual Report

Report for St. Petersburg College, College of O&P

Orthotic Practitioner Written Simulation Certification Examination

Scale Passing Point : 500

School Performance Data Across Simulation Problem Descriptions			
Simulation Problem Descriptions	**Maximum Possible**	**Your School Average**	**All Candidates Average**
Question 1 – Spinal - Adolescent Spondylolithesis	800	528.60	518.50
Question 2 – Lower Extremity - Adult Post Polio Syndrome	800	548.20	529.51
Question 3 – Spinal - Pediatric Scoliosis	800	592.92	607.08
Question 4 – Lower Extremity - Adult Non-descript Weakness	800	565.44	579.03
Question 5 – Lower Extremity - Adult Guillain Barre Syndrome	800	520.52	563.62
Question 6 – Lower Extremity - Pediatric Myelodysplasia	800	522.56	529.00
Total	800	545.44	553.49

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

2010 Annual Report

Report for St. Petersburg College, College of O&P

Prosthetic Practitioner Written Simulation Certification Examination

Scale Passing Point : 500

School Summary Report		
	Your School	**All Candidates**
Number of Candidates	12	170
Number of Passing / Percent Passing	9 / 75.00%	138 / 81.18%
Number of Failing / Percent Failing	3 / 25.00%	32 / 18.82%
Average Score	514.75	566.79
Highest Score	657	720
Lowest Score	_____*	274

* In order to maintain the confidentiality of individual candidate scores, where there are three or fewer candidates in a category, the statistics are not reported for that category.

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

2010 Annual Report

Report for St. Petersburg College, College of O&P

Prosthetic Practitioner Written Simulation Certification Examination

Scale Passing Point : 500

School Performance Data Across Simulation Problem Descriptions			
Simulation Problem Descriptions	**Maximum Possible**	**Your School Average**	**All Candidates Average**
1-Adult Transtibial	800	595.83	642.91
2-Pediatric Knee Disarticulation	800	396.58	506.55
3-Adult Transradial	800	507.25	530.35
4-Adult Partial Foot/Transtibial	800	644.33	631.46
5-Adult Transfemoral	800	537.67	589.56
6-Adult Transtibial	800	451.42	529.15
Total	800	514.75	566.79

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

2010 Annual Report

Report for St. Petersburg College, College of O&P

Orthotic Practitioner Written Certification Examination

Passing Point : 103

School Summary Report		
	Your School	**All Candidates**
Number of Candidates	**30**	**223**
Number of Passing / Percent Passing	**14 / 46.67%**	**158 / 70.85%**
Number of Failing / Percent Failing	**16 / 53.33%**	**65 / 29.15%**
Average Score	**99.07**	**109.39**
Highest Score	**130**	**140**
Lowest Score	**63**	**63**

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

2010 Annual Report

Report for St. Petersburg College, College of O&P

Orthotic Practitioner Written Certification Examination

Passing Point : 103

School Performance Data Across Content Domains			
Content Domain	**Maximum Possible**	**Your School Average**	**All Candidates Average**
Domain 1. Patient Assessment: Perform a comprehensive assessment of the patient to obtain an understanding of the patient's orthotic/prosthetic needs.	**40**	**23.97**	**27.71**
Domain 2. Formulation of the Treatment Plan: Analyze and integrate information from patient assessment to create a comprehensive orthotic/prosthetic treatment plan to meet the needs and goals of the patient.	**28**	**16.53**	**19.42**
Domain 3. Implementation of the Treatment Plan: Perform the procedures necessary to provide the appropriate orthotic/prosthetic services, including fabrication.	**43**	**29.03**	**31.95**
Domain 4. Follow-up Treatment Plan: Provide continuing patient care and periodic evaluation to assure/maintain/document optimal fit and function of the orthosis/prosthesis.	**24**	**16.70**	**17.68**
Domain 5. Practice Management: Develop, implement, and/or monitor policies and procedures regarding human resources, the physical environment, business and financial practices, and organizational management.	**15**	**12.83**	**12.64**
Total	**150**	**99.07**	**109.39**

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

2010 Annual Report

Report for St. Petersburg College, College of O&P

Prosthetic Practitioner Written Certification Examination

Passing Point : 96

School Summary Report		
	Your School	**All Candidates**
Number of Candidates	13	180
Number of Passing / Percent Passing	11 / 84.62%	149 / 82.78%
Number of Failing / Percent Failing	2 / 15.38%	31 / 17.22%
Average Score	109.08	108.13
Highest Score	124	139
Lowest Score	_____*	58

* In order to maintain the confidentiality of individual candidate scores, where there are three or fewer candidates in a category, the statistics are not reported for that category.

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

2010 Annual Report

Report for St. Petersburg College, College of O&P

Prosthetic Practitioner Written Certification Examination

Passing Point : 96

School Performance Data Across Content Domains			
Content Domain	**Maximum Possible**	**Your School Average**	**All Candidates Average**
Domain 1. Patient Assessment: Perform a comprehensive assessment of the patient to obtain an understanding of the patient's orthotic/prosthetic needs.	**30**	**23.15**	**21.88**
Domain 2. Formulation of the Treatment Plan: Analyze and integrate information from patient assessment to create a comprehensive orthotic/prosthetic treatment plan to meet the needs and goals of the patient.	**23**	**14.54**	**16.34**
Domain 3. Implementation of the Treatment Plan: Perform the procedures necessary to provide the appropriate orthotic/prosthetic services, including fabrication.	**54**	**40.23**	**39.88**
Domain 4. Follow-up Treatment Plan: Provide continuing patient care and periodic evaluation to assure/maintain/document optimal fit and function of the orthosis/prosthesis.	**28**	**18.69**	**18.50**
Domain 5. Practice Management: Develop, implement, and/or monitor policies and procedures regarding human resources, the physical environment, business and financial practices, and organizational management.	**15**	**12.46**	**11.52**
Total	**150**	**109.08**	**108.13**

Copy of the Employer Survey that is sent to each graduate's residency site within 6 months of employment-

Employee (SPC Graduate) Name: *[Insert graduate's name]* **Job title:** *[Insert residency type]*

Please rate your satisfaction level with *[insert graduate's name]* **entry level** knowledge and skills in the following areas, which have been outlined by the National Commission on Orthotic and Prosthetic Education (NCOPE). Using the scale below choose the rating that best matches your evaluation of this specific orthotic or prosthetic resident. If you have not observed a particular competency, please mark "Not Applicable" category. All responses will be kept confidential and are used to assist the program in determining how well it is preparing graduates for their residency placements.

Rating Levels:

1 – Unsatisfactory
2 – Marginal/Needs Improvement
3 – Satisfactory
4 – Good
5 – Excellent
NA – Not Applicable

Question 1-24, please rate this resident's entry level knowledge and skills in the following areas:

ORTHOTICS	**1**	**2**	**3**	**4**	**5**	**NA**
1. Lower Limb Orthotics						
a. FO/AFO						
b. KAFO						
2. Spinal Orthotics						
a. Conventional						
b. Scoliosis						
c. Trauma						
3. Upper Limb Orthotics						

Please provide any additional comments concerning the related knowledge and skills listed above:

PROSTHETICS	**1**	**2**	**3**	**4**	**5**	**NA**
4. Transtibial Prosthetics						
a. PTB						
b. Total Surface Bearing						
5. Transfemoral Prosthetics						
a. Quad Brim						
b. Ischial Containment						
6. Upper Limb Prosthetics						
7. CAD/CAM						

Please Provide any additional comment concerning the related knowledge and skills listed above:

FORMAL INSTRUCTION	1	2	3	4	5	NA
8. Material science						
9. Anatomy and physiology						
10. Biomechanics and kinesiology						
11. Normal and pathological gait						
12. Ability to interpret literature and research methods						
13. Knowledge of disease entities; etiology and treatment						
14. Clinical use of diagnostic imaging						

Please Provide any additional comment concerning the related knowledge and skills listed above:

CONTENT AREAS	1	2	3	4	5	NA
15. Billing and reimbursement						
16. Documentation						
17. Rehabilitation Team approach						
18. Patient Assessment						
19.Measurement, impression taking and modification						
20. Fabrication						
21. Fitting and alignment						
22. Patient management and education						
23.Legal and ethical components of practice						
24. Interaction with other health care professionals						

Please Provide any additional comment concerning the related knowledge and skills listed above:

25. Would you hire another graduate from SPC?

- ○ **Yes**
- ○ **No**

If no, please explain why:

26. Please specify any additional skills or areas of knowledge you believe the employee should have obtained while at SPC.

27. The following is a list of opportunities for employers to get involved with the College. Please select any of the items listed below that you would be willing to support.

- ○ **Serve on an advisory committee**
- ○ **Provide opportunities for student co-op/internship placement**
- ○ **Provide opportunities for job placement of graduates**
- ○ **Participation in job fairs/other community events**
- ○ **Provide input about education/training needs for your workforce area**

AFFECTIVE DOMAIN (Professionalism)	**1**	**2**	**3**	**4**	**5**	**NA**
1. Integrity						
2. Empathy						
3. Self Motivation and Self Confidence						

AFFECTIVE DOMAIN CONT.	**1**	**2**	**3**	**4**	**5**	**NA**
4. Appearance and Personal Hygiene						
5. Communication Skills						
6. Time Management						
7. Teamwork and Diplomacy						
8. Respect						
9. Patient Advocacy						
10. Patient/Caregiver Interactions						

PSYCOMOTOR DOMAIN (Technical Skills)	**1**	**2**	**3**	**4**	**5**	**NA**
1. Plaster Work						
2. Machine Use						
3. Tool Use						
4. Fabrication						
5. Appropriate materials use						

COGNITIVE DOMAIN (Clinical Skills)	**1**	**2**	**3**	**4**	**5**	**NA**
Demonstrates knowledge of:						
1. Patient History						
2. Manual Muscle Testing						
3. Range of Motion						
4. Anatomy						
5. Measurement Devices						
6. Biomechanical Principles						
7. Prescription Criteria						

OVERALL	**1**	**2**	**3**	**4**	**5**	**NA**
1. Affective						
2. Psychomotor						
3. Cognitive						

ADDITIONAL COMMENTS:

Please provide your name and the name of your company below. If you would Ike someone to contact you from the College regarding your selected involvement options or any concerns you many have, please also provide appropriate contact information.

Your name:

Title:

Organization:

Mailing Address:

City:

State:

Zip:

Telephone Number:

Email:

Results for most recent years Employer Survey

EMPLOYER SURVEY RESULTS	
ORTHOTICS	
1. Lower Limb Orthotics	3.2
a. FO/AFO	3.0
b. KAFO	3.5
2. Spinal Orthotics	3.6
a. Conventional	3.2
b. Scoliosis	2.8
c. Trauma	2.8
3. Upper Limb Orthotics	3.1
PROSTHETICS	
4. Transtibial Prosthetics	3.7
a. PTB	3.0
b.Total Surface Bearing	3.0
5. Transfemoral Prosthetics	3.7
a. Quad brim	2.5
b. Ischial containment	3.0
6. Upper Limb Prosthetics	2.5
7. CAD – CAM	1.0
FORMAL INSTRUCTION	
8. Materials science	3.5
9. Anatomy and physiology	3.5
10. Biomechanics and kinesiology	3.1
11. Normal and pathological gait	3.4
12. Ability to interpret literature and research methods	3.5
13. Knowledge of disease entities; etiology and treatment	3.0
14. Clinical use of diagnostic imaging	2.9
CONTENT AREAS	
15. Billing and reimbursement	2.2
16. Documentation	3.6
17. Rehabilitation Team approach	3.5
18. Patient assessment (ROM, MMT, etc,)	3.9
19. Measurement, impression taking and modification	3.4
20. Fabrication	3.3
21. Fitting and alignment	3.4
22. Patient management and education	3.4
23. Legal and ethical components of practice	3.8
24. Interaction with other health care professionals	3.9

Residents were evaluated on a Likert scale of 1-5 as defined by the following:

Unsatisfactory	1
Marginal/Needs Improvement	2
Satisfactory	3
Good	4
Excellent	5

Appendix 4: Clinical/Academic Affiliations

a) A sample copy of a current affiliation agreement

AGREEMENT
Rev.7-7-11

THIS AGREEMENT, made and entered into by and between the BOARD OF TRUSTEES OF ST. PETERSBURG COLLEGE, Post Office Box 13489, St. Petersburg, Florida, 33733, hereinafter referred to as the College, and CUSTOM ORTHOPEDIC, INC., 1271 Tallavest Road, Sarasota, Florida, 34243 hereinafter referred to as the Agency,

W I T N E S S E T H

WHEREAS, the College offers an approved program of study in the field of Orthotics and Prosthetics, and

WHEREAS, the College desires that its students obtain the necessary clinical and hands-on experience with the Agency necessary to meet the requirements of the Orthotics and Prosthetics Program, and

WHEREAS, the Agency desires to cooperate with the College in implementing the above-stated objective,

NOW, THEREFORE, in consideration of the premises and mutual promises contained in this Agreement, the Agency and the College, by their duly constituted and authorized officers, agree as follows:

THAT the students enrolled in the above-named program and the faculty at the College may use the various departments of the Agency for laboratory practice and/or clinical experience. The number of students and the specific dates when the students of the College will be utilizing the various departmental facilities of the Agency will be established and agreed upon by both parties in advance of the specific session. Learning experiences in the departments will be selected by the faculty, and the days and hours planned by the faculty of the College in cooperation with the Agency.

THAT neither the College nor the Agency will discriminate on the basis of race, color, religion, sex, age, national origin, marital status, sexual orientation, gender identity, or against any qualified individual with disabilities, in its employment practices or in the admission and treatment of students. The College and the Agency recognize that sexual harassment constitutes discrimination on the basis of sex and neither party will tolerate such conduct.

THAT the Agency can require the College to withdraw a faculty member or student from its facilities whose conduct or work with clients or personnel is not, in the opinion of the administration of said Agency, in accordance with acceptable standards of performance.

THAT the Agency shall comply with students' privacy rights under federal and state laws regarding students' educational records.

THAT students must be current and compliant with all Immunizations, Tuberculin Skin Test, and Background Check requirements maintained by the Agency. Failure of a Student to provide evidence of compliance to the Agency may result in rejection of enrollment in the program at the Agency.

THE RESPONSIBILITIES OF THE COLLEGE ARE:

1. To use the proper Agency channels to make plans for observation and practical experience.

2. To comply with current policies and procedures of the Agency.

3. To orient Agency personnel to the goals and objectives of the learning experiences.

4. To maintain accountability for final evaluation of the student.

5. To obtain prior written approval of the Agency before publishing any materials related to the learning experience provided under the terms of this Agreement.

6. To comply with all applicable federal and state laws and regulations, and rules and policies of the Agency regarding the confidentiality of patient information.

7. The College, through the Florida College System Risk Management Consortium (FCSRMC), shall obtain and maintain occurrence-type professional liability insurance coverage in amounts not less than $2,000,000 per incident and $5,000,000 annual aggregate covering the students and any faculty members for instruction/supervision of students only. The College shall provide a certificate of insurance to the Agency evidencing such insurance coverage if required by the Agency. Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

8. The College shall maintain student accident insurance for participating students providing coverage for accidental medical expenses, accidental dismemberment, and accidental death.

9. The College agrees that it will indemnify and hold harmless the Agency, its officers, directors, employees, and agents from and against all loss and damage, including costs, expenses, and reasonable attorney’s fees on account thereof, that maybe sustained or incurred by reason of any and all claims, demands, suits, actions, and judgments, and executions for damages of any and every kind and by whomever and whenever made or obtained, allegedly caused by, arising out of, or relating in any manner to the negligent or wrongful acts or omissions of the College pursuant to this Agreement. Notwithstanding the foregoing, any indemnity and hold harmless provided herein by College shall be limited to and subject to the extent and limitation of Chapter 768.28, Florida Statutes and the above provision shall in no way act as a waiver of College’s sovereign immunity beyond that provided in Section 768.28, Florida Statutes or as a waiver of any other defense that College may have to such claims.

10. During those hours participating in the program, the College's students shall not be, for any purpose, employees or agents of the Agency, shall not receive compensation from the Agency, shall

not be required to perform any employee-type duties, except as the same are reasonably related to the learning experience provided by this Agreement, and shall not represent or hold themselves out to any other person as being employees or agents of the Agency. Those students who are already employed by the agency may continue their employment but their employment hours shall not be concomitant with their training hours.

THE RESPONSIBILITIES OF THE AGENCY ARE:

1. To provide opportunities for observation and learning experiences in the selected programs of the Agency.

2. To designate a coordinator from its staff to act as the liaison with the College in connection with this Agreement.

3. To provide an orientation for students and faculty to the physical facilities, policies and procedures of the Agency.

4. To maintain ultimate responsibility for the care and treatment of all patients/clients.

5. To provide students with emergency accident care for injuries, or illnesses incurred while on duty at the Agency. Payment of the emergency accident care shall be the personal responsibility of the student at the student's expense, unless coverage is provided under the student accident insurance.

6. The Agency agrees that it will indemnify and hold harmless the College, its officers, directors, employees, and agents from and against all loss and damage, including costs, expenses, and reasonable attorney's fees on account thereof, that maybe sustained or incurred by reason of any and all claims, demands, suits, actions, and judgments, and executions for damages of any and every kind and by whomever and whenever made or obtained, allegedly caused by, arising out of, or relating in any manner to the intentional or negligent acts of omissions of the Agency or any Participant(s) supplied by the Agency pursuant to this Agreement. Notwithstanding the foregoing, in no event shall the Agency be liable or provide indemnity for any acts or omissions of any physician, nurse, or other health care personnel or providers who are not employees of the Agency.

THIS AGREEMENT shall become effective upon the date of signature of both parties and shall be automatically renewed from year to year unless either party requests a change or termination thereof.

THIS AGREEMENT may be terminated upon the giving of written notice by either party to the other party thirty days before the first day of August of any given year, PROVIDED, HOWEVER, such termination shall not become effective as to students already enrolled and participating in the program until they shall have had an opportunity to complete the program at the Agency to meet the course of study requirements for graduation.

ANY NOTICE required or permitted to be given under this agreement shall be sufficient if in writing and sent by certified mail, return receipt requested, to either of the parties. Notice shall be effective upon compliance with this section.

THE UNDERSIGNEDS have the authority to enter into this agreement and to bind their respective institutions.

IN WITNESS WHEREOF, the parties have executed this agreement on the dates hereinafter stated:

CUSTOM ORTHOPEDIC, INC.
By:_____
Name:_____
Title:_____
Date:_____

BOARD OF TRUSTEES OF
ST. PETERSBURG COLLEGE
By:_____
Name:_____
Title:_____
Date:_____

b) A list of all current affiliates, indicating those for which there is a signed, current agreement. Note: In the case of coordinated visits, the institution may choose to provide a master list of affiliates for all programs being evaluated, so long as the list indicates which program(s) use each affiliate. This same list may then be included with each program's report.

List of current affiliates:

Preceptor Name	**Practice/Group Name**	**Signed Affiliation Agreement? (Y/N)**
Saunders, Scott	ABC Prosthetics & Orthotics	y
Hoppes, Joe	Advanced Orthopedics & Prosthetics, Inc.	y
Courtade, Brandon	Advanced Prosthetics & Orthotics	y
Bader, Wade	Bader Prosthetics & Orthotics	y
Barr, Jim	Barr Prosthetics & Orthotics	y
Dease, Cheri	Custom Orthopedic Specialist	y
Macfarland, Josh	Fast Track Fabrication Inc.	y
Yasova, Morris	Florida Brace & Limb	y
Grace, Ed	Grace Prosthetics	y
Brown, Charlie	Hanger - Bradenton Office	y
Dixon, Robert	Hanger - Clearwater Office	y
Littlefield, Chester	Hanger - Lakeland Office	y
Griner, Addam	Hanger - New Port Richey Office	y
Rosen, Jeff	Hanger - Orlando Central Fab	y
Strzempka, Dan	Hanger - Sarasota Office	y
Toelle, Chris	Hanger - Sarasota Office	y
Fair, Tim	Hanger - Spring Hill	y
Mueller, Julie	Hanger - Spring Hill	y
Forster, Paul	Hanger - Tampa Office	y
Toelle, Chris	Hanger - Venice Office	y
Kim, Adam	Hanger - Wesley Chapel Office	y
Harms, Lance	Hanger - Winter Haven Office	y
Dourado, Frank	Hanger - Winter Park Office	y
Patterson, Stan	Prosthetic & Orthotic Assoc.	y
Gingras, Ron	Shriner's Hospital	y
Goris, David	Sonlife Prosthetics & Orthotics	y
Gillis, Arlene	St. Petersburg College	y
Esparza, Waldo	Tampa Bay Artificial Limbs	y
Barnes, James	Tampa VA Medical Center-James A. Haley Center	y
Shamp, Joe	Tampa VA Medical Center-James A. Haley Center	y
Lawler, Bridget	Westcoast Brace & Limb - North Tampa Office	y
Greenberg, Lee	Westcoast Brace & Limb - St. Petersburg Office	y

Appendix 5: Program Administration and Faculty

Saint Petersburg College

a) Curriculum vitae or completed Form A-5 for each teaching faculty, including the Program Director, Education/Clinical Coordinator, and adjunct faculty.

Faculty Biographical Sketch

Faculty Name: Arlene Gillis

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
University of South Florida	Tampa, Fl	MEd Curriculum and Instruction With Digital Educator Certificate	2010	Education
Florida International University	Ft. Lauderdale, Fl	Baccalaureate of Science in Orthotics and Prosthetics	1994	Orthotics and Prosthetics

Professional Experience: (*List previous employment and experience in chronological order*)

Florida State University, Tallahassee, FL **Adjunct Faculty** – Industrial Engineering	**2011-Present**
St. Petersburg College, St. Petersburg, FL	
Faculty, Clinical Coordinator – JE Hanger College of Orthotics and Prosthetics	**2009-Present**
Coordinate classroom and clinical education experience to ensure clinical objectives are met while students are attending clinical sites. Evaluate current clinical curriculum and direct student placement. Create endeavors to recruit and retain clinical sites; recruit and develop residency sites; and provides oversight for the entirety of the clinical experience. Ensure that the clinical component of curriculum is met according to NCOPE standards. Conduct ongoing evaluations to determine effectiveness of clinical affiliation sites. Schedule regular meetings for preceptor and Clinical Coordinator for the purpose of evaluating student progress in satisfying objectives. Coordinate reports from student experiences (weekly) and foster communication with the clinical rotation site to enhance the clinical educational experience for everyone. Maintain appropriate liaisons with local, state, and national governmental and professional agencies. ***Grants and Research*** *Principal Investigator HRSA Grant 2009-2012(472,000 funded 2009)* *Collaborative Prosthetic Research Projects with Florida State University* *VAi2 4.5 million funded April 2012* ***Presentations*** *American Academy of Orthotists & Prosthetists (AAOP) National Meeting – Orthotic & Prosthetic Awareness Program 2009-2011* *American Orthotic & Prosthetic Association (AOPA) National Meeting – Masters Standards, 2011*	

St. Petersburg College, St. Petersburg, FL **Faculty** – JE Hanger College of Orthotics and Prosthetics	**2005-2008**
Assist with administrative management. Utilize problem solving skills to position the college as a recognized leader in orthotics and prosthetics education. Implement a climate of academic excellence. Provide innovative methods as the development and growth of the orthotic and prosthetic program. Adopt and implement interactive instructional methods and collaborative learning experiences to deliver quality education. Inspire students to achieve, while helping them develop into future professions. Serve on various college committees. Including NCOPE response committee, 2008, admission, and CI. Design, analyze, and improve the program curriculum. Establish and identify clinical rotation sites and possible residency placement site. Build consensus and foster cooperation among O & P faculty and other disciplines.	
Gait Way Prosthetics & Orthotics, Tampa, FL **Owner/Clinical Director of Orthotics and Prosthetics**	**1996-2003**
Deliver direct patient care service for prosthetics and orthotics devices Manage all branch operations to ensure daily, weekly, and monthly goals are met. Set and maintain all budgets, regarding sales, marketing and expenses. Responsible for all material purchases required for patient care. Responsible for negotiating all third party contracts including: Medicare, Medicaid, Humana, and United Healthcare. Coordinate all marketing and in-service events within the local medical community.	
Danforth Orthopedics, Tampa, FL **Practice Manager of Orthotics and Prosthetics**	**1994-1996**
Deliver direct patient care service for prosthetics and orthotics devices Manage all branch operations to ensure daily, weekly, and monthly goals are met. Responsible for all material purchases required for patient care. Coordinate all marketing and in-service events within the local medical community.	

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester
PRO 3801L	Clinical Rotation I EBP	Fall
PRO 3801L	Clinical Rotation II Topic Psychology of the Disabled	Spring
PRO 3801L	Clinical Rotation III Topic Ethics and Professionalism	Summer
PRO 3801L	Clinical Rotation IV Topic Business	Fall
PRO 3801L	Clinical Rotation V	Spring

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

Faculty Biographical Sketch

Faculty Name: Thomas Chmielewski

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
Northwestern University	Chicago, IL	Post Graduate	1982	Orthotics and Prosthetics
Wayne State University	Detroit, MI	BA/Educ	1974	Secondary Education(grades 7-12) Teaching Certificate

Professional Experience: (*List previous employment and experience in chronological order*)

January 2008-Present: St. Petersburg College
June 1990- December 2007: Tampa General Hospital, Tampa, Fl
1986-1990: Wright and Filippis, Tampa, Fl
1983-1986: Mahnke's P&O, Ft. Lauderdale, Fl
1975-1980: Christ the King School, Detroit, Mi

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date
CPO	1985	2014
POR4 (Fl licensure)	2005	2013

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester
PRO 4331C	Transfemoral Prosthetics	Fall
PRO 3311C	Lower Extremity Orthotics II	Fall
PRO 3000	Intro to O&P	Fall
PRO 4850	Senior Capstone	Spring
PRO 4371C	Upper Extremity Orthotics	Spring
PRO 3310C	Lower Extremity Orthotics I	Spring

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

Faculty Biographical Sketch

Faculty Name: Thomas Trudell

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
South Burlington High School	South Burlington, Vermont	High School Diploma		
University of Vermont	Burlington, Vermont	Bachelors of Science Mechanical Engineering	1971	Mechanical Engineering

Professional Experience: (*List previous employment and experience in chronological order*)

March 2008- March 2010: Professional consultant for OrthoPed and Biometrix Medical. I was responsible for obtaining FDA and Canada Health approval for importation of a new optical scanning system, Diers Formetric, for spine, pelvis, and posture analysis using white light and no radiation. Upon approval from these agencies I worked with the president and vice-president to develop and implement a marketing strategy for the US and Canada. My title was Product and application Specialist and as such was required to completely understand the system used for evaluation of the spine, specifically for scoliosis and follow up without radiation. I developed training manuals and was tesonsible for the installation and training of personnel at clinical sites. I also was the technical expert on issues regarding the hardware and software. In 2008 and 2009 we attended numerous conferences with chiropractors, physical therapists, orthotists/prosthetists, and elite athletic trainers to demonstrate and teach the functionality of the system. During this time I spent several weeks with Dr. Gary Deutchman and Dr. Mark Lamantia doing scoliosis clinics in San Francisco, Denver, Chicago, and New York City using the Formetric to evaluate scoliotic changes and recommending appropriate treatment.

December 2009- March 2010: Professional Consultant for CONSOmed, SMBH, a German engineering company that is opening a US based office for distribution of the product in North America. My responsibilities were evaluating the potential medical markets, corporate office location by state and city and planning for establishing corporation, and various licenses.

January 2002- March 2008: Owner and President of Thomas G. Trudell, Inc., dba Trudell Orthotic and Prosthetic Services. With the disposition of Person Labe and Trudell Bio-Labs the business was restructured and incorporated to enable our growth to come from concentration on orthotic and prosthetic services. Our service area of Clinton, Franklin and Essex counties remained and we obtained various contracts as preferred providers for several insurances and Federal agencies. Instructional courses and seminars were routinely attended to enhance the services we provided our clients.

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date
ABC Certified Orthotist		
ABC Certified Prosthetist		

FAA Private Pilot		

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester
PRO 3100	Biomechanics	Fall
PRO 3311C	Lower Extremity Orthotics II	Fall
PRO 3500C	Clinical Methods	Fall
PRO 3120C	Gait Analysis and Pathomechanics	Fall
PRO 4371C	Upper Extremity Orthotics	Fall
PRO 3310 C	Lower Extremity I	Fall
PRO 3505	Clinical Problem Solving	Fall

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

Faculty Biographical Sketch

Faculty Name: Angela M. Courtade

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
University of Texas Southwestern Medical Center, School of Allied Health Science	Dallas, Texas	BS, Prosthetics and Orthotics	1995	Prosthetics and Orthotics
University of Northern Iowa	Cedar Falls, Iowa	Pre-Allied Health Curriculum	1993	Pre-Allied Health

Professional Experience: (*List previous employment and experience in chronological order*)

St. Petersburg College- J.E. Hanger Orthotics and Prosthetics Program
January 2009- Current
Adjunct Instructor, Curriculum development
Transtibial Prosthetics Lecture and Lab-Lead instructor
Upper Extremity Prosthetics Lecture and Labs-Lead instructor
Cad-Cam applications for Prosthetics and Orthotics- Omega Scanners and Software
Introduction to Prosthetics and Orthotics Online lecture and Labs –Lead instructor
Transfemoral Prosthetics Lecture and Lab-Second Instructor
Clinical Methods Lecture and Labs- Lead instructor

Otto Bock HealthCare
2006-2007
Various Clinic Dates
Recall Specialist for C-leg Clinics Nationwide

Hanger Prosthetics and Orthotics, Cedar Rapids, Iowa
Jan 1999- November 2002
Staff Prosthetist and Orthotist,
Lower Extremity Prosthetics Specialist Team Member
Specialist for recall clinics throughout the country

Dale Clark Prosthetics
July 1997-Jan 1999
Waterloo, Iowa and Des Moines, Iowa
Staff Prosthetist and Orthotist

Southern Illinois University School of Medicine, Springfield, Illinois
July 1996-June1997
Prosthetic Resident

The University of Oklahoma Health Science Center
July 1995-June 1996
Oklahoma City, Oklahoma
Orthotic Resident

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester
PRO 3000C	Intro to O&P	Fall
PRO 3500C	Clinical Methods	Fall
PRO 3301C	Transtibial Prosthetics	Spring
PRO 4361C	Upper Extremity Prosthetics	Spring

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

Faculty Biographical Sketch

Faculty Name: Anita N. Naravane

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
Lady Hardinge Medical College, University of Delhi	Delhi, India	Master of Surgery, Anatomy		Surgery
Lady Hardinge Medical College, University of Delhi	Delhi, India	MBBS- Equivalent to the MD Degree in USA		

Professional Experience: (*List previous employment and experience in chronological order*)

St.Petersburg College, Seminole campus, Florida

- 2002 – present. I am a full time Instructor, in the department of Natural Sciences and Business Technologies.

I am at present teaching the Anatomy and Physiology classes, both face-face and online classes, using the ANGEL learning management system. My online courses have narrated PowerPoint and Video presentations so that the students lose as little of the classroom experience as possible. I have also created podcasts and interact with my student through video feedback, desktop sharing and other technological tools which help to enrich the learning experience.

I also teach Human anatomy and Physiology for the **SPC College of Orthotics and Prosthetics in the fall session**. This is a blended class, where the students have online access as well as have a live class. This class is only taught in fall
In my Anatomy and Physiology classes I have incorporated my multimedia knowledge and have created movies to help students understand the subject better. I have also taught web page creation classes, using HTML coding, and Dreamweaver.

Here are two examples of RLOs created by me.

http://it.spcollege.edu:8500/edtech/instructorResources/rlo/RLO_Objects/staticRLO/Naravane/digestive/

http://it.spcollege.edu:8500/edtech/instructorResources/rlo/RLO_Objects/staticRLO/Naravane/gluteal

- 2005 – present. I am an adjunct instructor with Barry University.

I teach Gross human anatomy and Neuroanatomy in the fall and am the Course Director for the Gross and the Neuroanatomy courses. The Neuroanatomy course is delivered online using the Blackboard learning management system.

University of South Florida,

Tampa, Florida

College of medicine.

- 1998 – 2000 Adjunct Assistant Professor, Department of Anatomy.

Taught the gross anatomy fall courses for 2 years for medical students, and over Spring and Summer worked with one of the professors to develop a teaching module in gross anatomy, which was aimed at designing on-line study material for students.

University of the West Indies, Mona, Kingston, Jamaica.

Faculty of Medical Sciences.

- 1993 – 1997 Lecturer, Department of Anatomy.

While at UWI, I also visited and taught at the department of Anatomy, Monash University, Melbourne, Australia, for 5 weeks.

Shyamala Reddy Dental College, Bangalore, India.

- 1991 – 1993 Assistant Professor and Head, Department of Anatomy.

Lady Hardinge Medical College, New-Delhi, India.

- 1988 – 1991 Senior Resident, Department of Anatomy.
- 1983 – 1987 Resident and postgraduate in Department of Anatomy.

Smt. Sucheta Kripalani Hospital, New -Delhi, India.

- 1982 - 1983 Junior Resident in the Departments of Pediatric Surgery and General Surgery.

Ordnance Factories Hospital, Kirkee, Poona, India.

- 1981 - 1982 Medical Officer.

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester
PRO3200C	Human Anatomy and Physiology	Fall

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

1986

Thesis: ***The Surgical Anatomy of the External Nose***. This was submitted to the University of Delhi as required for the degree of MS (Anatomy)**,** and was accepted.

- **1988**

***Anatomical Observations Of Alar Cartilages and their Surgical Importance*.** **Naravane A**., Anand C. **Recent Advances in Anatomy. Editor M. C. Vaidya, All India Institute of Medical Sciences, New-Delhi, India. pp. 90-92.**

- **1997**

Ascaris Lumbricoides in the paranasal sinuses of a Jamaican adult.
Naravane A; Lindo J.F; Williams L. A. D; Gardner M.T; Fletcher C.K; and The T.L.
Trans. Royal Society of Tropical Medicine and Hygiene (1997) vol. 91, pp. 37.

- **1997**

Immunomodulatory activities of Petiveria alliacea
Williams L. A. D., The T.L., Gardner M.T., Fletcher C.K., **Naravane A.,** Gibbs N., and Fleishhacker R.
Phytotherapy Research

Faculty Biographical Sketch

Faculty Name: _Chad Maola_

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
National college of Chiropractic	Lombard, Illinois	Doctor of Chiropractic	1999	Chiropractic
National College of Chiropractic	Lombard, Illinois	Bachelor of Science in Human Biology	1997	Human Biology
University of Western Ontario	London, Ontario	Bachelor of Science in Biology	1996	Biology

Professional Experience: (*List previous employment and experience in chronological order*)

2011 - pres **National University of Health Sciences (NUHS); Dean, Academic Assessment:**

Promote effective student learning, identify effective student learning outcomes

Promote instructional methods for their enhancement and improvement including the development and administration of Phase Exams

Aid in building educational systems that support student retention and academic success.

Sustain a positive, supportive environment for learning, teaching, advising and administration.

Collaborate with faculty and administration to progress educational assessment practices and organizational processes.

Represent the NUHS and the program at meetings and conferences.

Plan, budget, organize, report, gather, interpret and dissemination of data involved with student academic achievement from internal and external sources

Assist with accreditation report preparation

Chair the Assessment Committee

2010 - pres **St. Petersburg College; Adjunct Faculty, Orthotics and Prosthetics:**

Instruct the laboratory portion of BSC 2085L Human Anatomy and Physiology

Provide periodic guest lecturers to students in radiology and gait

Provide periodic lectures to faculty regarding item writing and test creation strategies

2010 - 2011 **National University of Health Sciences; Assistant Dean, Doctor of Chiropractic Medicine Degree Program – St Petersburg College (SPC) campus:**

Aid in the implementation of a mirrored curriculum of the NUHS Chiropractic Medicine Degree at the SPC campus site with that of the Lombard campus site.

Implement and maintain schedules and time tables to ensure consistency of the NUHS

Florida campus site's and Lombard campus site's curriculum.

Work with NUHS Florida faculty for the continuing development of an appropriate course syllabi and appropriate delivery of that syllabus.

Collaborate with faculty and administrators to act as an ambassador for the Chiropractic Medicine Degree Program.

Collaborate with the Search Committee to recruit highly competent faculty and recommend their employment to the Dean of the College.

Aid in building educational systems that support student retention and academic success.

Sustain a positive, supportive environment for learning, teaching, advising and administration.

Collaborate with faculty and administration to progress educational assessment practices and organizational processes.

Assess the SPC campus's chiropractic program to ensure that objectives are being met.

Provide academic counseling for students.

Provide feedback about faculty performance and student learning outcomes.

Establish and maintain relationships with various programs and departments, with internal and external constituents, and groups or individuals within local, state or national organizations.

Develop and provide post-professional education for chiropractic physicians.

Represent the NUHS and the program at meetings and conferences.

2009 - 2010 **National University of Health Sciences; Interim Assistant Dean, Doctor of Chiropractic Medicine Degree Program – St Petersburg College campus:**
Considerable overlap from above listed responsibilities.

2009 - 2010. **National University of Health Sciences; Clinician – St Petersburg College campus:**

Oversee daily activities of clinic operations.

Maintain and oversee all patient care provided within the clinic.

Guide and oversee intern activities as well as intern interactions with patients.

Develop interns' clinic skills and reasoning processes through evidence based practices.

Develop and provide intern educational in-services.

Develop growth of the clinic as a chiropractic medicine primary care facility.

Promote clinic growth through guest presentations / seminars within SPC.

2005 - pres. **National Lecturer:**
Provide national seminars which qualify the attending Doctors of Chiropractic for Continuing Education (CE) credits in the fields of Radiology, Diagnosis, Treatment and / or Rehabilitation.

2006 - 2008 **National Board of Chiropractic Examiners (NBCE); Staff Chiropractic Specialist:**

Reviewed and developed NBCE examinations including Part I (Basic Sciences), Part II (Clinical Sciences), Part III (Written Clinical Competency), Physiotherapy and SPEC

(Special Purposes Examination for Chiropractic).

Developed, piloted and implemented new testing formats of higher level reasoning skills.

Reviewed practice methods within the field to ensure relevance of tested materials.

Maintained and developed item pool's database (IRT and field test items) to reflect current and up-to-date information with regard to educational and clinical practices within the profession.

Organized, led and moderated test committee workshops.

Developed and instructed item writing guidelines to reflect higher thought assessment methods.

Organized and participated in post-exam reviews of material displaying statistical deviations.

2001 - 2006 **National Board of Chiropractic Examiners; Consultant:**

Reviewed and developed NBCE examinations including Part I, Part II, Part III, Physiotherapy, Part IV (Practical), SPEC (Special Purposes Examination for Chiropractic) and E&B (Ethic and Boundaries).

Considerable overlap from above listed responsibilities.

2003 - 2005 **Co-author; "Yochum and Rowe's - Essentials of Skeletal Radiology" Edition 3:**

Co-authored five chapters in this manuscript currently utilized as a required text at Chiropractic Colleges and referenced at several Medical Colleges.

2001 - 2002 **Colorado College of Chiropractic; Adjunct Faculty:**

Developed and instructed the orthopedics course: Disorders of the spine.

Developed and instructed the laboratory portion of the radiology course: Normal radiographic anatomy.

2000 - 2002 **Chiropractic Practitioner:**

Independent contractor within Arbor View Chiropractic Center, Arvada, Colorado.

Owner / Chiropractic practitioner of clinic located within Powerhouse Gym, Naperville, Illinois.

Independent contractor within Body Fitness Chiropractic and Sports Injury Clinic, Illinois.

2000 - 2001 **Professional Tutor:**

Tutored biology, anatomy and all mathematics fields under the College of DuPage's continuing education department.

1996 - 2001 **Basketball Official:**

Officiated high school and college (NCAA - division 2) basketball.

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester
PRO 3200C	Human Anatomy and Physiology	Fall

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

Article Published: Idiopathic Wrist Pain; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 32, Number 5, 2010.

Lecture: Increasing Imaging Proficiency; Guest Presentor, St. Petersburg College, Department of Orthotics and Prosthetics, Pinellas Park, Florida, May 2010.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Florida Chiropractic Association, Sandestin, Florida, January 2010.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Florida Chiropractic Association, Naples, Florida, December 2009.

Lecture: Imaging of Stress of the Human Skeleton; Florida Chiropractic Association, Boca Raton, Florida, August 2009.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Louisiana Association of Chiropractors, Baton Rouge, Louisiana, May, 2009.

Article Published: Whiplash Injury; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 31, Number 9, 2009.

Article Published: Soft Tissue Neoplasm or Hematoma?; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 31, Number 1, 2009.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Michigan Association of Chiropractors, Detroit, Michigan, November 2008.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Michigan Association of Chiropractors, Grand Rapids, Michigan, November 2008.

Article Published: Thoracic Spine Compression Fractures; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 30, Number 2, 2008.

Article Published: Multiple Myeloma; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 29, Number 12, 2007.

Article Published: Prostate Osteoblastic Metastasis; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 29, Number 7, 2007.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Western States Chiropractic College, Portland, Oregon, November 2007.

Article Published: Multiple Myeloma; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 29, Number 5, 2007.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Michigan Association for Chiropractors, Lansing, Michigan, October 2007.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Idaho Association of Chiropractic Physicians, Coeur d'Alene, Idaho, May 2007.

Article Published: Osteitis Pubis; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 29, Number 1, 2007.

Article Published: Vacuum Phenomenon; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 28, Number 12, 2006.

Article Published: Heavy Metal Poisoning; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 28, Number 10, 2006.

Article Published: Vertebra Plana: What is the Real Cause; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 28, Number 8, 2006.

Lecture: Vertebral Artery Insufficiency; Colorado Chiropractic Association, July 2006.

Lecture: The Problematic Cervical Spine; New York Chiropractic Association, May 2006.

Article Published: Diffuse Idiopathic Skeletal Hyperostosis; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 28, Number 5, 2006.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Michigan Chiropractic Society, Lansing, Michigan, May 2006.

Article Published: Compression Fractures; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 28, Number 3, 2006.

Article Published: Clay-shoveler's Avulsion Fracture; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 28, Number 1, 2006.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Blackhills Chiropractic Society, South Dakota, October 2005.

Article Published: Umbrella Filter – A Radiographic Artifact; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 27, Number 12, 2005.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Massachusetts Chiropractic Society, September 2005.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; International Chiropractic Association of Indiana, September 2005.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Arkansas Chiropractic Association, October 2005.

Article Published: Transverse Process Fractures; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 27, Number 9, 2005.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Colorado Chiropractic Association, July 2005.

Article Published: Osteoarthritis of the Hand. What kind of Nodes are these? coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 27, Number 6, 2005.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; Michigan Chiropractic Society, June 2005.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; New York Chiropractic Association, October 2005.

Article Published: Posterior Arch Fracture of the Atlas; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 27, Number 4, 2005.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; New Hampshire Chiropractic Association, March 2005.

Article Published: Fractures of the Clavicle; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 27, Number 2, 2005.

Article Published: Partial Agenesis of the C1 Posterior Arch; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 26, Number 7, 2004.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; co-lecturer: Terry R Yochum, DC, DACBR, Macomb County Chiropractic Society, Macomb County, Michigan, October 2004.

Lecture: Low Back Pain from a Biomechanical, Orthopedic and Radiological Perspective; West Virginia Chiropractic Association, Charleston, WV, October 2004.

Article Published: Sacral Fractures; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 26, Number 6, 2004.

Article Published: Lumbar Spine Compression Fractures; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 26, Number 5, 2004.

Case presentation: A Case to Remember; co-lecturer: Terry R Yochum, DC, DACBR, Parker Seminars, Minneapolis, MN, June 2004.

Article Published: Lung Pathology or Pseudo-Lesion; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 26, Number 2, 2004.

Article Published: DISH Syndrome; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 26, Number 1, 2004.

Article Published: Problematic Knee Pain in a Child: A Discussion (Slipped Femoral Capital Epiphysis); coauthor: Terry R Yochum, DC, DACBR, Touch, Volume 2, Issue 1, 2004.

Article Published: C2 to C3 Congenital Block Vertebra; The American Chiropractor, Volume 25, Number 6, 2003.

Article Published: An Occult Lesion of the Calcaneus; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 25, Number 5, 2003.

Article Published: Lumbar Spine Trauma; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 25, Number 4, 2003.

Article Published: The Ischial Tuberosity: Normal Variant or Pathology; coauthors: Terry R Yochum, DC, DACBR and Michael S Barry, DC, DACBR, Success Express, Volume 23, Number 4, 2003.

Article Published: The Positive Fat-Pad Sign: What is it?; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 25, Number 3, 2003.

Article Published: Schmorl's Node Phenomenon; coauthor: Terry R Yochum, DC, DACBR, The American Chiropractor, Volume 25, Number 2, 2003.

Article Published with Audio Lecture: The Basics of Lumbar Disc Injury; D.C. Tracts, Volume 14, Number 3.

Presentation to the personal trainers at the 24 Hour Fitness, The Mechanics of Human Motion; Denver, Colorado, 2001.

Presentation to the personal trainers at the 24 Hour Fitness, The Lower Extremity and Back; Denver, Colorado, 2001.

Presentation to the personal trainers at the Powerhouse Gym, Shoulder Injuries and Prevention using Proper Weightlifting Technique; Naperville, Illinois, 2000.

Presentation to staff and members at Powerhouse Gym, Low Back Pain; Naperville, Illinois, 2000.

Two separate newsletters written for staff and members at the Powerhouse Gym containing information on injury prevention, herbs, and supplements; Naperville, Illinois, 2000.

Faculty Biographical Sketch

Faculty Name: Kory Brooke Thomas

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
Virginia Commonwealth University	Richmond, VA	Doctorate	2004	Physical Therapy
Mary Washington College	Fredericksburg, VA	Bachelors	2000	Biology

Professional Experience: (*List previous employment and experience in chronological order*)

- St Petersburg College- Faculty, Physical Therapist Assistant Program, August 2012- Present
-Hawthorne Village Health and Rehabilitation Center- PRN Physical Therapist, May 2012- Present
-Florida Career College- PTA Program Director, November 2009- June 2012
- HCR Manor Care Full-time Physical Therapist, December 2006 – November 2009
-Ginger Fitness and Rehabilitation- Part-time Home Health Physical Therapist, June 2008- October 2008
-HealthSouth Sports Medicine and Rehabilitation Center- Full-time Physical Therapist, December 2004-March 2007

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date
FL Physical Therapist PT22092	2005	
VA Physical Therapist 2305204262	2005	

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

FCC PTA Program Academic and Clinical Handbook, Florida Career College, 2010
FCC Catalog Physical Therapist Assistant Program Supplement, Florida Career College, 2010

Faculty Biographical Sketch

Faculty Name: Dorraine D Watts

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
University of Maryland	Baltimore, Maryland	Doctorate	1997	Research
SUNY Albany	Abany, New York	Bachelors	1980	English

Professional Experience: (*List previous employment and experience in chronological order*)

St. Petersburg College, Professor, RN-BSN Program, August 2010 to present

Uniformed Services University, Associate Professor, Statistics and Research Design, January 2005 to July 2010

Academic Credentials:
School: University of Maryland
Subject: Statistics and Research
Courses: Nursing Research, Design of Research I, Qualitative Research, Correspondence Analysis, Multivariate Analysis, Repeated Measures, Meta-Analysis, Measurement Nsg Phenomena, Design of Research II, Seminar in Measurement, Spec/Nursing Research, Epidemiology, Trauma Research, Research

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date
Nursing	2007	2014

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester
PRO4190	Research Methods	Fall 2012

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

Faculty Biographical Sketch

Faculty Name: Carol Weideman

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
Temple University	Philadelphia, PA	MS PhD	1980 1985	Statistics Statistics

Professional Experience: (*List previous employment and experience in chronological order*)

Faculty Biographical Sketch

Faculty Name: Jose Miguel Gomez Torres, MD LO

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
Medical Surgeon of Pontificia Universidad Javeriana	Bogota, Colombia	Medical Degree	1982	Surgery
Trauma and Emergency Care, Hospital Simon Bolivar	Bogota, Columbia	Medical Degree	1986	Surgery
Northeast Metro Technical Institute	Minnesota	Technician	1988	Orthotics
Northeast Metro Technical Institute	Minnesota	Spinal Practitioner	1989	Orthotics
Gillette Children's Hospital	Saint Paul, Minnesota	Spinal Orthotic Resident	1989	Orthotics

Professional Experience: (*List previous employment and experience in chronological order*)

-Spine clinic of Dynamic O&P (International Consultant) 2002 to 2010
-"Hospital Militar de Colombia" Research MD and Orthotist, Spine Clinic, November 1998 to present
-"Universidad Don Bosco" San Salvador el Salvador, Professor, Spinal Orthotic treatment, July 1997 to present
-"Universidad Del Rosario" Professor of Orthotic annual seminar, Department to Physiotherapy School, May 1997 to present
-"Hospital Militar" Quito, Ecuador, Consultant Professor in orthotic and Prosthetic treatment, November 1998 to present
-"Hospital Naval de Guayaquil, Ecuador, Consultant Professor in Orthotic and Prosthetic treatment. November 1998 to present
-"Instiuto del Seguro Social de Colombia" Consultant Professor in Orthotic and Prosthetic treatment. January 1997 to present
-"Hospital Central de la Policia Nacional de Colombia" Consultant Professor in Orthotic and Prosthetic treatment. January 1997 to present
-"Hospital Militar de Colombia" Consultant Professor in Spinal Orthotic treatment. August 1998 to present.
-"Instituto Vida" Director of Orthotic and Prosthetic service, Quito, Ecuador, November 1998 to present
-"Rotary International Program in Orthotic and Prosthetic" Scientific Director. Agreement between Rotary New Brigton Club of Saint Paul, MN and Laboratorio Gilete, October 1990 to present
-"Laboratorio Gilete Rehabilitation in Orthotic and Prosthetic Center, Scientific Director, November 1989 to present
-"Unidad Medica Santiago Apostol" Scientific Director, January 1983 to August 1987

-"Hospical Universitario Simom Bolivar, Chief of emergency room, June 1985 to August 1987
-"Edcuela Colombiana de Medicina" and Clinica el Bosque, Doctor of Student medical services, January 1982 to August 1987
-"Clinica el Bosque" Chief of emergency room, January 1983 to August 1987
-"Fundacion Cecilia Caballero de Lopez", General Medicine, May 1982 to December 1982

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

-St Petersburg College GOSS Spine Seminar, St. Petersburg FL, 2010, 2011
-West Coast O&P, GOSS/ Friddle's Workshop, Fresno CA, July 2011
-Hanger O&P, GOSS/ Friddle's Workshop, Oklahoma City, OK, June 2011
-University of Oklahoma Orthotic and Prosthetic Clinic, GOSS/ Friddle's Workshop, Oklahoma City, OK, June 2011
-GOSS Workshop at Hanger-Dynamic O&P, Houston TX, June 2011
- Laboratorio Gilte/ Fundacion Gilte Lecture at Union Javeriana, Houston TX, April 2011
-AOPA, GOSS/ Friddle's Workshop, Orlando FL, March 2011
- Georgia Society of Orthotic and Prosthetic, GOSS workshop lecture, February 2011
-Foros Unidos de Las Americas ISPO, Costa Rica, February 2011
-Education Fair Hanger O&P, GOSS workshop, Reno, NV, February 2011
-GOSS Workshop at Charlotte O&P, SC, January 2011

Faculty Biographical Sketch

Faculty Name: Bobby William Roe

P*lease provide the following information for all teaching faculty listed as instructors*

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
Shelby State Community College	Memphis, Tennessee	AAS- Prosthetics	1993	Prosthetics
University of Memphis	Memphis, Tennessee	Bachelor of Arts	1995	
Oklahoma State University	Okmulgee, Oklahoma	C-Ped License	2004	

Professional Experience: (*List previous employment and experience in chronological order*)

Superior Medical Equipment Plus - Largo, FL 4/1999 – Current
Duties: Clinical Director, Prosthetist, Orthotic Fitter Assistant, Pedorthist
• Responsible for evaluating, measuring and fitting artificial limbs and non-custom orthotics for patients
• Instruct patients in the use and care of prostheses and orthoses
• Train and supervise prosthetic technicians and other support staff
• Assisted with prosthetic fabrication

NovaCare Sabolich - Tampa, FL 11/1996 - 4/1999
Duties: Prosthetist
• Responsible for evaluating, measuring and fitting artificial limbs
• Instruct patients in the use and care of prostheses and orthoses
• Assisted with prosthetic fabrication

Certification/Licensure	Year Received	Renewal Date
ABC Certification #CP002763	1993	
Florida Prosthetist License PRO40	1993	
Florida Orthotic Fitter Assistant License	1998	
Florida C-Ped License PED156	2004	

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester
PRO3301C	Transtibial Prosthetics	Spring

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

Faculty Biographical Sketch

Faculty Name: James D. Barr

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
Northwestern University Prosthetics and Orthotics Center Prosthetics			1988	Prosthetics
Northwestern University Prosthetics and Orthotics Center Orthotics			1987	Orthotics
Easter Illinois University		Bachelors of Science Technology Education	1984	Technology Education

Professional Experience: (*List previous employment and experience in chronological order*)

St. Petersburg College Orthotics & Prosthetics, Adjunct Instructor 2009-Current
Barr Prosthetics & Orthotics, Clearwater, FL August 2003-Present
Clearwater Prosthetics & Orthotics April 1997- August 2003
Orthotic & Prosthetics Center of St. Petersburg January 1992 - February 1997
Martin Orthotics & Prosthetics, Venice, FL January 1991 - December 1991
American Prosthetics, Iowa City, IA (Residency) January 1989 - December 1990
*Northwestern University Prosthetics & Orthotics Center: (Prosthetics) August - December 1988

Orthotic & Prosthetics Center of St. Petersburg, St. Petersburg, FL (Residency) June 1987 - July 1988
*Northwestern University Prosthetics & Orthotics Center: (Orthotics) January - May 1987
Orthotic & Prosthetics Center of St. Petersburg October 1985 - December 1986
Clearwater Prosthetic & Orthotic Labs January - September 1985
Endeavor Yachts August - December 1984
Barr Landscaping & Development 1978-

1984

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date
Florida State License #POR2	1998	2013
Certified Orthotist #1849	1989	
Certified Prosthetist	1990	
Certified Prosthetist-Orthotist	1997	

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester
	Practice Management	Spring

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

Faculty Biographical Sketch

Faculty Name: N. Joseph Shamp

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
New York University Post Graduate Medical School		Prosthetics	1972	Prosthetics
Northwestern University Post Graduate Medical School		Advanced Orthotics	1973	Orthotics

Professional Experience: (*List previous employment and experience in chronological order*)

Present- James A. Haley Veteran's Hospital, Polytrauma Team, Tampa, Florida
2004-2006- Practice Manager, Hanger Prosthetics and Orthotics, Fort Smith, Arkansas.
2003-2004- Practice Manager, Hanger Prosthetics and Orthotics, Inc., Newport News, Virginia.
2002-2003- Hanger Prosthetics and Orthotics Marketing and Practice Building. Teaching continued education courses, assisting in offices throughout Florida.
1998-2002- Practice Manager, Hanger Prosthetics and Orthotics, Fort Myers and Naples, Florida.
1997-1998- Practice Manager, Newport News, Portsmouth, and Williamsburg, Virginia.
1996-1997- Director of Prosthetic Services and Management of West Office, West Coast Brace and Limb, Tampa, Florida.
1975-1995- Owner and Manager of Shamp Prosthetic and Orthotic clinics in Northeastern Ohio.

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date
Certified Orthotics and Prosthetics		
Ohio Licensed for Orthotics and Prosthetics		

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

Faculty Biographical Sketch

Faculty Name: Ray G. Burdett

Please provide the following information for all teaching faculty listed as instructors

Education:

Institution	Location	Degree(s)	Year Conferred	Field of Study
Carnegie Mellon University	Pittsburgh, PA	BS	1967	Mechanical Engineering
Duke University	Durham, NC	MS	1974	Physical Therapy
Pennsylvania State University	State College, PA	PhD	1979	Physical Education (Kinesiology)
Northwestern University	Chicago, IL	Certificate	2005	Orthotics

Professional Experience: (*List previous employment and experience in chronological order*)

2006-2009 Delatorre Orthotics and Prosthetics, Pittsburgh, PA
Provide clinical orthotic services
2001-2005 Centers for Rehabilitation Services, Pittsburgh, PA
Provided clinical Physical therapy services
1983-1989 Assistant Professor, School of Health and Rehabilitation Sciences, University of Pittsburgh
1989-present Associate Professor, School of Health and Rehabilitation Sciences, University of Pittsburgh;
Acting Chair, Department of Physical Therapy, Sept 1993-June 1994;
Vice Chair, Department of Physical Therapy, July 1994- 2002;
Coordinator of PhD Program in Rehabilitation Science, 1998-2002;
Director, Undergraduate Program in Rehabilitation Science, 2000- present;
Assistant Dean for Undergraduate Programs, School of Health and Rehabilitation Science, 2002- August 2008;
Director , Master of Science in Prosthetics and Orthotics, August 2008- present
1980-1983 Research Fellow, Gait Analysis Laboratory, Children's Hospital Medical Center, Boston, Massachusetts
1978-1980 Senior Associate, Programs in Physical Therapy, Emory University, Atlanta, Georgia

Certification/Licensure: (*List current certifications at the national and state level, year received and renewal date*)

Certification/Licensure	Year Received	Renewal Date
Licensed Physical Therapist, Pennsylvania PT001980E	1983	
ABC Certified Pedorthist CPed 0691	1998	
ABC Certified Orthotist CO 004695	2008	

Instruction: (*Courses taught over the past 2 years: List the course number, title and semester)*

Course Number	Course Title	Semester
	Research Methods	Fall

Publications and/or Presentations and Grant Funding (*List or attach in reverse chronological order: Author, Title, Complete references to all publications/presentations during the past five years*)

Burdett, RG and Hassell, G. Effects of three Types of Ankle-Foot Orthoses on the Gait and Bicycling fo a Patient with Charcot-Marie-Tooth Desease. Journal of Prosthetics and Orthotics 16(1):25-30, 2004.

Martin RL, Irrgang JJ, Burdett RG, VanSwearingen J: Evidence for validity for the foot and ankle ability measure (FAAM). Foot and Ankle International 26(11), 2005.

Frost KL, Bertocci GE, Wassinger CA, Munin MC, Brudett RG, Fitzgerald, SG: Isometric performance following total hip arthroplasty and rehabilitation. Journal of rehabilitation Research and Development. 43(4), 435-44, 2006.

Rosemary L. Hoffmann, Wesley M. Rohrer III, Jeannette E. South-Paul, Ray Burdett and Valerie J.M. Wtzlaf: The Effects of Barriers on Health Related Quality of Life (HRQL) and Compliance in Adult Asthmatics who are Followed in Urban Community Health Care Facility. Journal of Community Health. Springer Netherlands, ISSN 0094-5145 (Print) 1573-3610 (Online), June 26, 2008.

"Normal and Pathological Gait, in Pedorthic Principle and Practice, Pedorthic Footwear Association, (in press)

Nelson RC and Burdett RG: "Biomechanical analysis of Olympic weightlifting", in Biomechanics of sports and kinanthropometry, Fernand Landry and W.A.R Orban (editors), Sympoposia Specialists, Miami, Fl, pp. 169-180. 1978

Florida State University Faculty

Faculty Biosketch

Dr. Okenwa Okoli, PhD.

Education

University of Lagos, Mechanical Engineering, B.Sc. (Hons), 1989

University of Warwick, Manufacturing Systems Engineering, M.Sc., 1992

University of Warwick, Manufacturing Engineering, Ph.D., 1997

Appointments

FAMU-FSU College of Engineering

August 2012 – Present: *Interim Chair, IME Department*
August 2007 – Present: *Director of Graduate Studies (IME)*
August 2005 – Present: *Associate Professor*
March 1998 – July 2005: *Assistant Professor*

Warwick Manufacturing Group, University of Warwick, UK
July 1996 - November 1997: *Research Fellow*
February 1992 - June 1996: *Research Associate*

Publications

Five Publications Most Closely Related to the Proposed Project

J.R. Thagard, O.I. Okoli, Z. Liang, H-P Wang, C. Zhang. Resin Infusion between Double Flexible Tooling: Prototype Development. Composites: Part A, 34, 2003, 803–811.
Myungsoo Kim, Young-Bin Park, Okenwa I. Okoli and Chuck Zhang. Processing, Characterization, and Modeling of Carbon Nanotube-Reinforced Multiscale Composites. Composites Science and Technology, Vol. 69, 2009, 335-342.
Carlos A. Puentes, Okenwa I. Okoli, Young-Bin Park. Determination of Effects of Production Parameters on the Viability of Polycarbonate Films for Achieving In-Mold Decoration in Resin Infused Composite Components. Composites Part A, 40, No. 4, 2009, 368-375.
T.J. Dickens, J. Breaux, D.O. Olawale, W.G. Sullivan and O.I. Okoli. Effects of ZnS:Mn Concentrated Vinyl Ester Matrices under Flexural Loading on the Triboluminescent Yield. Journal of Luminescence (30 Jan, 2012), doi:10.1016/j.jlumin.2012.01.056.
M. J. Uddin, T. Dickens, J. Yan, R. Chirayath, D. O. Olawale, O. I. Okoli. Solid-State Dye Sensitized Photovoltaic Micro-Wires (DSPM) with CNT Yarn as Counter Electrode: Synthesis and Characterization. Sol. Energy Mater. Sol. Cells, 2012 (*Accepted*).

Five Other Significant Publications

O.I. Okoli, G.F. Smith. Failure Modes of Fibre Reinforced Composites: The Effects of Strain Rate and Fibre Content. Journal of Materials Science, Vol. 33, Number 22, 1998, 5415-5422.
O.I. Okoli, G.F. Smith. High Strain Rate Characterization of a Glass/Epoxy Composite. Journal of Composites Technology and Research, JCTRER, Vol. 22, No.1, 2000. 3-11.

Tarik J. Dickens, Okenwa I. Okoli. Enabling Damage Detection: Manufacturing Composite Laminates doped with Dispersed Triboluminescent Materials. Journal of Reinforced Plastics and Composites November 2011 vol. 30 no. 22 1869-1876.
D.O. Olawale, T. Dickens, W.G. Sullivan, O.I. Okoli, J.O. Sobanjo, B. Wang. Progress in Triboluminescence-based Smart Optical Sensor System. Journal of Luminescence, Vol.131, No. 7, (2011), pp. 1407-1418. DOI information: 10.1016/j.jlumin.2011.03.015.
Myungsoo Kim, Okenwa I. Okoli, David Jack, Young-Bin Park. Manufacturing Process Improvement and Mechanical Modeling of Multi-walled Carbon Nanotube/Epoxy Composites. Plastics, Rubber and Composites: Macromolecular Engineering (*in-Press*)

Synergistic Activities

Developed the capability to undertake transient non-linear dynamic analysis of fiber reinforced composite structures at impact rates of strain
Developed the R&D 100 award winning Resin Infusion between Double Flexible Tooling (RIDFT) process, a novel technique for the cost effective manufacture and timely deployment of composite materials. U.S. patent pending
Integrating research and education by implementing the RIDFT process in the undergraduate senior design class for the cost effective manufacture of Micro Air Vehicles for the Air Force
Serves the scientific and engineering community by the review of journal papers and text books for several publishers
Faculty mentor for the FAMU-FSU College of Engineering chapter of the Society of Manufacturing Engineers
Participated in the mentoring of the underrepresented groups (Tallahassee Boys Choir and local schools), to increase their enrollment in the sciences and engineering
Very active in efforts to recruit US graduate students in the STEM disciplines culminating in the first HPMI-Summer internship program (Summer 2009) that cut across 10 departments at FSU and beyond.
Nominated for Tallahassee Democrat Volunteer of the Year Award (2012) for mentoring elementary school pupils to bridge the achievement gap in STEM education at Apalachee Tapestry Magnet School of the Arts.

Collaborators and Other Affiliations

Collaborators and Co-Editors

Dr. Richard Liang	Dr. J. Thagard	K.D. Davey	T.J. Dickens
Dr. Chuck Zhang	Dr. Y.B Park	B. Chiu	Y H. Liao
Dr. Ben Wang	Dr. M. Kim	A. Nwabuzor	O.L. Ighodaro

Honors and Awards

R&D 100 Awards, 2004

ACMA Best Processing Technical Paper Award, 2004

University Undergraduate Teaching Award, 2012

Nominated for Volunteer of the Year Award, 2012

PI's Graduate Advisor

Prof. Gordon F. Smith, Principal Research Fellow, Projects Director, Warwick manufacturing Group, University of Warwick

Total number of graduate students advised: 8 PhDs, 42 Mast

Dr. Changchun Zeng, PhD.

Professional Preparation (Highest Degree Only)

2004 Ph.D., Ohio State University. Major: Chemical Engineering.

Teaching Assignment for the Last Five Years

Courses excluding dissertation, thesis, supervised teaching and research, and directed individual studies:

Semester	Course Number	Course Name	Number Enrolled
Spring 2011	EIN5353	Engineering Economic Analysis	3
Spring 2011	EIN5930	Special Topics in Industrial Engineering	2
Fall 2010	EIN3104	Introduction to Engineering Management	33
Fall 2010	EIN5182	Engineering Management	2
Fall 2010	EIN5930	Special Topics in Industrial Engineering	1
Summer 2010	EIN5930	Special Topics in Industrial Engineering	1
Spring 2010	EIN5353	Engineering Economic Analysis	8
Spring 2010	EIN5930	Special Topics in Industrial Engineering	8
Fall 2009	EIN3104	Introduction to Engineering Management	22
Fall 2009	EIN5182	Engineering Management	5
Fall 2009	EIN5930	Special Topics in Industrial Engineering	2
Spring 2009	EIN5353	Engineering Economic Analysis	10
Spring 2009	EIN5930	Special Topics in Industrial Engineering	1
Fall 2008	EIN3104	Introduction to Engineering Management	15
Spring 2008	EIN5930	Special Topics in Industrial Engineering	8
Fall 2007	EIN3104	Introduction to Engineering Management	21

Current Doctoral Student Supervisory Committees

Chair
Knight, C. C.

Member
Barrios, Matthew N

Current Master's Student Supervisory Committees

Chair
Kynard, K.

Master's students who have graduated in the last five years for whom you were supervisory committee chair:

Hossieny, N. J.

Research and Original Creative Work for the Last Five Years

Publications

Refereed Journal Articles

Zeng, C., Hossieny, N., Zhang, C., & Wang, B. (2010). Synthesis and processing of PMMA carbon nanotube nanocomposite foams. *Polymer*, *51(3)*, 655-64. Retrieved from http://dx.doi.org/10.1016/j.polymer.2009.12.032

Refereed Proceedings

Zhang, Xiaoqing, Cao, Gongxun, Sun, Zhuanlan, Xia, Zhongfu, Zeng, Changchun, Zhang, C., & Wang, B. (2010). Fabrication and piezoelectricity of fluoropolymer films with patterned structure. In *2010 10th IEEE International Conference on Solid Dielectrics (ICSD 2010)* (pp. 4). Piscataway, NJ, USA: IEEE. Retrieved from http://dx.doi.org/10.1109/ICSD.2010.5568037

Inventions

Patented Inventions

L. J. Lee and C. Zeng. (2006). *"Polymer Clay Nanocomposites Prepared by In-situ Polymerization"*.

L. J. Lee, K. W. Koelling, D. L. Tomasko, X. Han, C. Zeng. (2006). *Polymer Nanocomposite Foams*.

Contracts and Grants

Contracts and Grants Funded

Liang, Zhiyong (PI), & Zeng, Changchun. (Oct 2010 - May 2011). *Feasiblitiy Study For Potential Acoustic Device Applicat*. Funded by NEOS Music and Cinema Inc. Total award $7,500.

Okoli, Okenwa O (PI), Zhang, Chun, Wang, Hsu-Pin, Pignatiello, Joseph J, Liang, Zhiyong, Zeng, Changchun, Liu, Tao, Zhang, Mei, & Vanli, Omer Arda. (Jul 2010 - Jun 2013). *REU Site: Non Participant Support -- Retaining Engineers*. Funded by National Science Foundation. Total award $327,969.

Zeng, Changchun (PI), Zhang, Chun, Wang, Hsu-Pin, & Kumar, Amrita. (Feb 2010 - Sep 2011). *Multifunctional Nanomaterials and Processes for Infrastr*. Funded by Federal Highway Administration. Total award $120,000.

Dr. Tao Liu, PhD.

Professional Preparation (Highest Degree Only)

2002 Ph.D., Georgia Institute Of Technology. Major: Polymer.

Teaching Assignment for the Last Five Years

Courses excluding dissertation, thesis, supervised teaching and research, and directed individual studies:

Semester	Course Number	Course Name	Number Enrolled
Spring 2011	EIN4312	Tool and Process Engineering	24
Spring 2011	EIN5930	Special Topics in Industrial Engineering	2
Spring 2011	EIN5930	Special Topics in Industrial Engineering	2
Fall 2010	EIN4621	Manufacturing Systems Engineering	27
Fall 2010	EIN5930	Special Topics in Industrial Engineering	6
Fall 2010	EIN5930	Special Topics in Industrial Engineering	2
Fall 2010	EMA5182	Composite Materials Engineering	6
Summer 2010	EIN5930	Special Topics in Industrial Engineering	3
Spring 2010	EIN4312	Tool and Process Engineering	32
Spring 2010	EIN5930	Special Topics in Industrial Engineering	1
Fall 2009	EIN5930	Special Topics in Industrial Engineering	11
Fall 2009	EMA5182	Composite Materials Engineering	5
Spring 2009	EIN4312	Tool and Process Engineering	21
Fall 2008	EMA5182	Composite Materials Engineering	11
Spring 2008	EIN4312	Tool and Process Engineering	17
Fall 2007	EMA5182	Composite Materials Engineering	12

Current Doctoral Student Supervisory Committees

Chair
Luo, S.
Xiao, Z.

Member
Olawale, D. O.

Doctoral students who have graduated in the last five years for whom you were supervisory committee chair:

Fu, X. (Co-Chair)

Current Master's Student Supervisory Committees

Member
Koo, A. C.

Research and Original Creative Work for the Last Five Years

Publications

Refereed Journal Articles

Chatterjee, J., Liu, Tao, Wang, B., & Zheng, J. P. (2010). Highly conductive PVA organogel electrolytes for applications of lithium batteries and electrochemical capacitors. *Solid State Ionics, Diffusion & Reactions, 181(11-12)*, 531-5. Retrieved from http://dx.doi.org/10.1016/j.ssi.2010.02.020

Fu, X., Zhang, C., Liu, T., Liang, R., & Wang, Ben. (2010). Carbon nanotube buckypaper to improve fire retardancy of high-temperature/high-performance polymer composites. *Nanotechnology, 21(23)*, 235701 (8 pp.). Retrieved from http://dx.doi.org/10.1088/0957-4484/21/23/235701

Luo, S., Liu, T., & Wang, B. (2010). Comparison of ultrasonication and microfluidization for high throughput and large-scale processing of SWCNT dispersions. *Carbon, 48(10)*, 2992-4. Retrieved from http://dx.doi.org/10.1016/j.carbon.2010.04.006

Liu, Tao, Xiao, Zhiwei, & Wang, Ben. (2009). The exfoliation of SWCNT bundles examined by simultaneous Raman scattering and photoluminescence spectroscopy. *Carbon, 47(15)*, 3529-37. Retrieved from http://dx.doi.org/10.1016/j.carbon.2009.08.023

Liu, T., Luo, S., Xiao, Z., Zhang, C., & Wang, Ben. (2008). Preparative ultracentrifuge method for characterization of carbon nanotube dispersions. *Journal of Physical Chemistry C, 112(49)*, 19193-202. Retrieved from http://dx.doi.org/10.1021/jp804720j

Wang, S. R., Liang, Z. Y., Liu, T., Wang, B., & Zhang, C. (2006). Effective amino-functionalization of carbon nanotubes for reinforcing epoxy polymer composites. *Nanotechnology, 17(6)*, 1551-1557. Retrieved from http://dx.doi.org/10.1088/0957-4484/17/6/003

Contracts and Grants

Contracts and Grants Funded

Zheng, Jianping (PI), Zheng, Jianping, Andrei, Petru, & Liu, Tao. (Aug 2010 - Mar 2012). *Research and Development on Some Critical Issues for Hig*. Funded by General Technical Services. Total award $300,647.

Liu, Tao (PI). (Jul 2010 - Dec 2011). *Nano-Tailored Advanced Carbon Fibers*. Funded by Georgia Institute of Technolog. Total award $210,815.

Okoli, Okenwa O (PI), Zhang, Chun, Wang, Hsu-Pin, Pignatiello, Joseph J, Liang, Zhiyong, Zeng, Changchun, Liu, Tao, Zhang, Mei, & Vanli, Omer Arda. (Jul 2010 - Jun 2013). *REU Site: Non Participant Support -- Retaining Engineers*. Funded by National Science Foundation. Total award $327,969.

Liu, Tao (PI). (May 2010 - Sep 2011). *Characterize Thermal Properties of the Nanocomposite Adh*. Funded by NEI Corporation. Total award $40,000.

Liu, Tao (PI), & Zhang, Chun. (Feb 2009 - Apr 2010). *Metallic Nanoparticle Decorated Graphene/Carbon Nanotube*. Funded by Universal Technology Corporation. Total award $65,201.

Faculty Biosketch

Department: Industrial and Manufacturing Engineering

Name: Zhiyong Liang

Professional Preparation (Highest Degree Only)

2000 Ph.D., Beijing University of Aeronautics and Astronautics. Major: Materials Science and Engineering.

Teaching Assignment for the Last Five Years

Courses excluding dissertation, thesis, supervised teaching and research, and directed individual studies:

Semester	Course Number	Course Name	Number Enrolled
Summer 2011	EIN5930	Special Topics in Industrial Engineering	1
Summer 2011	EIN5930	Special Topics in Industrial Engineering	2
Summer 2011	EIN5930	Special Topics in Industrial Engineering	1
Spring 2011	EIN5930	Special Topics in Industrial Engineering	1
Spring 2011	EIN5930	Special Topics in Industrial Engineering	1
Spring 2011	EIN5930	Special Topics in Industrial Engineering	1
Spring 2011	EIN5930	Special Topics in Industrial Engineering	5
Fall 2010	EIN3390C	Manufacturing Processes & Materials Engineering	24
Fall 2010	EIN3390C	Manufacturing Processes & Materials Engineering	6
Fall 2010	EIN5930	Special Topics in Industrial Engineering	1
Fall 2010	EIN5930	Special Topics in Industrial Engineering	1
Fall 2010	EIN5930	Special Topics in Industrial Engineering	3
Fall 2010	EMA5182	Composite Materials Engineering	7
Summer 2010	EIN5930	Special Topics in Industrial Engineering	1
Summer 2010	EIN5930	Special Topics in Industrial Engineering	2
Spring 2010	EIN5930	Special Topics in Industrial Engineering	14
Spring 2010	EIN5930	Special Topics in Industrial Engineering	2
Spring 2010	EIN5930	Special Topics in Industrial Engineering	1
Spring 2010	EIN5930	Special Topics in Industrial Engineering	2
Spring 2010	EIN5930	Special Topics in Industrial Engineering	1
Spring 2010	EIN5930	Special Topics in Industrial Engineering	1
Fall 2009	EIN3390C	Manufacturing Processes & Materials Engineering	27
Fall 2009	EIN3390C	Manufacturing Processes & Materials Engineering	15
Fall 2009	EIN5930	Special Topics in Industrial Engineering	8
Fall 2009	EIN5930	Special Topics in Industrial Engineering	1
Fall 2009	EIN5930	Special Topics in Industrial Engineering	3
Fall 2009	EIN5930	Special Topics in Industrial Engineering	1
Fall 2009	EIN5930	Special Topics in Industrial Engineering	1
Fall 2009	EMA5182	Composite Materials Engineering	7
Spring 2009	EIN5930	Special Topics in Industrial Engineering	1
Spring 2009	EIN5930	Special Topics in Industrial Engineering	1
Spring 2009	EIN5930	Special Topics in Industrial Engineering	1
Spring 2009	EIN5930	Special Topics in Industrial Engineering	11

Fall 2008	EIN3390C	Manufacturing Processes & Materials Engineering	18
Fall 2008	EIN3390C	Manufacturing Processes & Materials Engineering	15
Fall 2008	EIN5930	Special Topics in Industrial Engineering	1
Fall 2008	EMA5182	Composite Materials Engineering	11
Spring 2008	EIN5930	Special Topics in Industrial Engineering	6
Spring 2008	EIN5930	Special Topics in Industrial Engineering	13
Spring 2008	EIN5930	Special Topics in Industrial Engineering	1
Spring 2008	EIN5930	Special Topics in Industrial Engineering	1
Spring 2008	EIN5930	Special Topics in Industrial Engineering	1
Spring 2008	EIN5930	Special Topics in Industrial Engineering	1
Spring 2008	EIN5930	Special Topics in Industrial Engineering	1
Fall 2007	EIN3390C	Manufacturing Processes & Materials Engineering	15
Fall 2007	EIN3390C	Manufacturing Processes & Materials Engineering	4
Fall 2007	EIN5930	Special Topics in Industrial Engineering	7
Fall 2007	EIN5930	Special Topics in Industrial Engineering	1
Fall 2007	EIN5930	Special Topics in Industrial Engineering	1
Fall 2007	EIN5930	Special Topics in Industrial Engineering	1
Fall 2007	EIN5930	Special Topics in Industrial Engineering	1
Fall 2007	EIN5930	Special Topics in Industrial Engineering	1
Fall 2007	EMA5182	Composite Materials Engineering	12
Spring 2007	EIN5930	Special Topics in Industrial Engineering	15
Spring 2007	EIN5930	Special Topics in Industrial Engineering	1
Spring 2007	EIN5930	Special Topics in Industrial Engineering	1
Spring 2007	EIN5930	Special Topics in Industrial Engineering	8
Spring 2007	EIN5930	Special Topics in Industrial Engineering	1
Spring 2007	EIN5930	Special Topics in Industrial Engineering	1
Spring 2007	EIN5930	Special Topics in Industrial Engineering	1
Spring 2007	EIN5930	Special Topics in Industrial Engineering	1
Fall 2006	EIN5930	Special Topics in Industrial Engineering	9
Fall 2006	EIN5930	Special Topics in Industrial Engineering	1
Fall 2006	EIN5930	Special Topics in Industrial Engineering	1
Fall 2006	EIN5930	Special Topics in Industrial Engineering	1
Fall 2006	EIN5930	Special Topics in Industrial Engineering	2
Fall 2006	EIN5930	Special Topics in Industrial Engineering	2
Fall 2006	EMA5182	Composite Materials Engineering	16

Current Doctoral Student Supervisory Committees

Chair
Li, S.

University Representative
Gepner, B. D.
Shamoun, R. F.

Member
Dickens, T. J.
Wang, K.

Doctoral students who have graduated in the last five years for whom you were supervisory committee chair:

Tsai, S. - Y.
Zimmer, M. M.

Current Master's Student Supervisory Committees

Chair

Koo, A. C.
Young, C. A.

Master's students who have graduated in the last five years for whom you were supervisory committee chair:

Azamian, P.
Click, B. M.
Ingrole, A. A.
Labrador, D. E.
Smithyman, J. R.
Xue, Y.
Young, J. P.
Brown, D. M.
Louis, J. S.

Research and Original Creative Work for the Last Five Years

Publications

Refereed Journal Articles

Jack, D. A., Yeh, C. -S., Liang, Z., Li, S., Park, J. G., & Fielding, J. C. (2010). Electrical conductivity modeling and experimental study of densely packed SWCNT networks. *Nanotechnology*, *21(19)*, 195703-195703. Retrieved from http://dx.doi.org/10.1088/0957-4484/21/19/195703

Zhu, W., Ku, D., Zheng, J. P., Liang, Z., Wang, B., Zhang, C., Walsh, S., Au, G., & Plichta, E. J. (2010). Buckypaper-based catalytic electrodes for improving platinum utilization and PEMFC's performance. *Electrochimica Acta*, *55(7)*, 2555-2560. Retrieved from http://dx.doi.org/10.1016/j.electacta.2009.12.026

Rodrigo, H., Baumgartinger, W., Ingrole, A., Liang, Z. (Richard), Crook, D. G., & Ranner, S. L. (2009). Dielectric Breakdown of Transformer Insulation Materials Under Cryogenic and Room Temperatures. *Polymer-Based Smart Materials - Processes, Properties and Application*, *1134*, 49-54.

Pham, G. T., Park, Y. -B., Liang, Z., Zhang, C., & Wang, Ben. (2008). Processing and modeling of conductive thermoplastic/carbon nanotube films for strain sensing. *Composites Part B-Engineering*, *39(1)*, 209-216. Retrieved from http://dx.doi.org/10.1016/j.compositesb.2007.02.024

Li, J., Zhang, C., Liang, Z., & Wang, B. (2006). Stochastic simulation based approach for statistical analysis and characterization of composites manufacturing processes. *Journal of Manufacturing Systems, 25(2)*, 108-121.

Refereed Proceedings

Rodrigo, H., Baumgartinger, W., Ingrole, A., Liang, Z., Crook, D. G., & Ranner, S. L. (2008). Dielectric breakdown of transformer insulation materials under cryogenic and room temperatures. In *2008 MRS Fall Meeting: Polymer-Based Smart Materials - Processes, Properties and Application, December 2, 2008 - December 5* (pp. 49-54). Boston, MA: Materials Research Society.

Sanchez, F., Garcia, J. A., Chinesta, F., Gascon, L., Zhang, C., Liang, Z., & Wang, B. (2006). A process performance index based on gate-distance and incubation time for the optimization of gate locations in liquid composite molding processes. In *7th International Conference on Flow Processes in Composite Materials* (pp. 903-912). Newark, DE: Composites Part A: Applied Science and Manufacturing. Retrieved from http://dx.doi.org/10.1016/j.compositesa.2005.01.016

Teemer, L., Okoli, O. I., & Liang, Z. (2006). The effects of processing parameters on the mechanical properties of components manufactured using the resin infusion between double flexible tooling process. In *SAMPE '06: Creating New Opportunities For The World Economy, April 30, 2006 - May 4* (pp. SAMPE Baltimore/Wash). Long Beach, CA: Society for the Advancement of Material and Process Engineering.

Inventions

Patented Inventions

Wang, S., Liang, Z., Wang, B., & Zhang, C. (2011). *A Method Functionalization of Nanoscale Fibers and Nanoscale Fiber Films*. Patent No. 7862766, Florida State University. Tallahassee, FL.

Zhang, C., Liang, Z., & Wang, B. (2010). *Vacuum-Assisted Resin Transfer Molding Flow-Tracking Process and System*. Patent No. 7797075, Florida State University. Tallahassee, FL.

Liang, Z., Wang, B., Zhang, C., & Wang, Z. (2010). *Method for Mechanically Chopping Carbon Nanotube and Nanoscale Fibrous Materials*. Patent No. 7641829, Florida State University. Tallahassee, FL.

Liang, Z., Wang, B, Zhang, C, Ugarte, J, Lin, C. Y., & Thagard, J. (2008). *A Method for Continuous Fabrication of Carbon Nanotube Networks or Membrane Materials.* Patent No. 7459121, Florida State University. Tallahassee, FL.

Contracts and Grants

Contracts and Grants Funded

Wang, Hsu-Pin (PI), Zhang, Chun, Wang, Hsu-Pin, Okoli, Okenwa O, & Liang, Zhiyong. (Mar 2011 - Mar 2012). *Advanced Materials and Manufacturing Technologies.* Funded by U. S. Army Research Laboratory. Total award $100,000.

Liang, Zhiyong (PI), & Wang, Hsu-Pin. (Jan 2011 - Jan 2012). *Electrical Conductivity Improvement of Carbon Nanotube*. Funded by Henkel Corporation Bridgewater. Total award $95,001.

Zheng, Jianping (PI), Liang, Zhiyong, & Zhu, Wei. (Dec 2010 - Jun 2012). *Development of a Low-Cost High-Efficiency 10Kw Portable*. Funded by University of Central Florida. Total award $306,887.

Liang, Zhiyong (PI), Zhang, Chun, Wang, Hsu-Pin, & Liang, Zhiyong. (Nov 2010 - Dec 2013). *Carbon Nanotube Buckypaper/Thermoplastic Composites: Syn*. Funded by Office of Naval Research. Total award $100,000.

Liang, Zhiyong (PI), & Zeng, Changchun. (Oct 2010 - May 2011). *Feasiblitiy Study For Potential Acoustic Device Applicat*. Funded by NEOS Music and Cinema Inc. Total award $7,500.

Wang, Hsu-Pin (PI), Zhang, Chun, Okoli, Okenwa O, & Liang, Zhiyong. (Aug 2010 - May 2011). *Advanced Nanotube Micro-Munition Weapon Technology Initi*. Funded by Georgia Aerospace Systems. Total award $375,000.

Wang, Hsu-Pin (PI), Zhang, Chun, & Liang, Zhiyong. (Aug 2010 - Jun 2011). *High Mechanical Performance and Electromagnetic Interfer*. Funded by Raytheon Company. Total award $100,001.

Okoli, Okenwa O (PI), & Liang, Zhiyong. (Jul 2010 - Jun 2011). *Diversity in Research and Engineering of Advanced Materi*. Funded by Air Force Research Laboratory. Total award $99,975.

Okoli, Okenwa O (PI), Zhang, Chun, Wang, Hsu-Pin, Pignatiello, Joseph J, Liang, Zhiyong, Zeng, Changchun, Liu, Tao, Zhang, Mei, & Vanli, Omer Arda. (Jul 2010 - Jun 2013). *REU Site: Non Participant Support -- Retaining Engineers*. Funded by National Science Foundation. Total award $327,969.

Zhang, Chun (PI), Wang, Hsu-Pin, & Liang, Zhiyong. (Dec 2009 - Dec 2010). *Multifunctional Composite Materials and Heat Pipes*. Funded by General Dynamics Corporation. Total award $25,000.

Zhang, Chun (PI), Wang, Hsu-Pin, & Liang, Zhiyong. (Nov 2009 - May 2011). *Development and Demonstration of Composite Avionics Box*. Funded by ATK Launch Systems Inc. Total award $443,100.

Okoli, Okenwa O (PI), & Liang, Zhiyong. (May 2009 - Jul 2009). *DREAM - Diversity in Research and Engineering of Advance*. Funded by HX5, LLC. Total award $113,061.

Wang, Hsu-Pin (PI), Zhang, Chun, Okoli, Okenwa O, & Liang, Zhiyong. (Dec 2008 - Dec 2009). *Advanced Nanotube Micro-Munition Technology*. Funded by Georgia Aerospace Systems. Total award $300,000.

Liang, Zhiyong (PI), Zhang, Chun, & Wang, Hsu-Pin. (Oct 2008 - May 2009). *Solvent-Free Mixing and Buckypaper Prepreg Solutions for*. Funded by Transformational Technologies Inc. Total award $35,000.

Liang, Zhiyong (PI), Zhang, Chun, & Wang, Hsu-Pin. (Jul 2008 - Aug 2009). *Carbon Nanotube Heat Pipes*. Funded by General Dynamics Corporation. Total award $75,001.

Jack, David A (PI), & Liang, Zhiyong. (Jun 2008 - Aug 2009). *Modeling and Simulation of SWNT Buckypaper Electrical Co*. Funded by Universal Technology Corporation. Total award $42,449.

Liang, Zhiyong (PI), Zhang, Chun, & Wang, Hsu-Pin. (Jun 2008 - Oct 2008). *Development and*

Characterization of Carbon Nanotube Buck. Funded by Lockheed-Martin. Total award $75,000.

Liang, Zhiyong (PI), Zhang, Chun, & Wang, Hsu-Pin. (Mar 2008 - Sep 2009). *Development and Characterization of High Mechanical Perf.* Funded by Office of Naval Research. Total award $150,000.

Liang, Zhiyong (PI), Zhang, Chun, & Wang, Hsu-Pin. (Aug 2007 - Apr 2008). *Innovative Process for Continuous Fabrication of Carbon.* Funded by National Composite Center. Total award $260,000.

Liang, Z. (Jul 2007 - Oct 2008). *Development of Carbon/Carbon Composites through Thickness Carbon nanotubes for Thermal and Structural Applications.* Funded by United States Air Force. Total award $200,000.

Okoli, Okenwa O (PI), Wang, Hsu-Pin, & Liang, Zhiyong. (Jun 2007 - Mar 2008). *Investigation of Interlaminar Behavior of SAPI Backing*. Funded by U. S. Department of the Army. Total award $45,000.

Liang, Zhiyong (PI), Zhang, Chun, & Wang, Hsu-Pin. (May 2007 - Jul 2007). *Fabrication of Randomly Oriented Buckypaper*. Funded by Spirit Aerosystems, Inc. Total award $43,810.

Liang, Zhiyong (PI), Zhang, Chun, & Wang, Hsu-Pin. (Apr 2007 - May 2007). *Fabrication of Randomly Oriented Buckypaper Samples*. Funded by National Composite Center. Total award $95,350.

Liang, Zhiyong (PI), & Wang, Hsu-Pin. (Dec 2006 - Feb 2007). *Fabrication of Buckypaper Samples.* Funded by Goodrich Aerostructures Group. Total award $14,774.

Liang, Zhiyong (PI), & Wang, Hsu-Pin. (Oct 2006 - Jan 2007). *Thermal Management Demonstration Panel*. Funded by Northrop Grumman Corporation. Total award $11,760.

Liang, Zhiyong (PI), & Wang, Hsu-Pin. (Sep 2006 - Dec 2006). *Buckypaper Memory Polymer Nanocomposites for Morphing*. Funded by Lockheed-Martin. Total award $49,245.

Wang, Hsu-Pin (PI), Zhang, Chun, Parker, Reginald, & Liang, Zhiyong. (Apr 2005 - Aug 2009). *Investigation and Optimization of High Performance Nanoc.* Funded by Air Force Office of Scientific. Total award $1,217,000.

Faculty Biosketch -

O. Arda Vanli

Professional Preparation
Middle East Technical University (Turkey), Mechanical Engineering, B.S., 1998
The Pennsylvania State University, Mechanical Engineering, M.S., 2000
The Pennsylvania State University, Industrial Engineering, Ph.D., 2007

Appointments
Assistant Professor, Department of Industrial and Manufacturing Engineering, Aug 2008-Present.
Business Analyst, MarketRx Inc, Professional Services, Bridgewater, NJ, Sep 2007 – Aug 2008
Graduate Research Assistant, Industrial Eng. Dept, Pennsylvania State University, Jan 2003 – Sep 2007
Project Engineer, Caterpillar Inc., Technical Center, Peoria, IL, Aug 2000- Dec 2002

Publications
Publications Most Closely Related to the Proposed Project

Vanli, O.A., Zhang, C., Nguyen, A., Wang, B. "A Minimax Sensor Placement Approach for Damage Detection in Composite Structures," *Journal of Intelligent Material Systems and Structures*, 23, No. 8, 919-932, (2012).

Vanli, O. A., Zhang, C., Wang, B. "An Adaptive Bayesian Approach for Robust Parameter Design with Observable Time Series Noise Factors*," IIE Transactions* (accepted, Apr 2012).

Jung, S., Vanli, O. A., Kwon, S. D., "Wind Energy Potential Assessment Considering the Uncertainties Due to Limited Data," *Applied Energy* (accepted, Sep 2012)

Vanli, O.A., Zhang, C., Wang, B. "Adaptive Bayesian Methods in Semiconductor Manufacturing Process Control with Small Experimental Data Sets," *IEEE Transactions on Semiconductor Manufacturing*, 24, No. 3, 418 – 431, (2011).

Vanli, O.A., Zhang, C., Chen, L. J., Wang, K., Wang, B. "A Bayesian Approach for Integration of Physical and Computer Experiments for Quality Improvement in Nano-composite Manufacturing," *Quality and Reliability Engineering International*, 26, No. 7, 749-764, (2010).

Other Significant Publications

Vanli, O. A., Zhang, C., Wang, B., "An Adaptive Bayesian Approach for Robust Parameter Design with Observable Time Series Noise Factors," *Industrial and Systems Engineering Research Conference*, Orlando, FL, May 2012.

Vanli, O.A., Chen, L. J., Zhang, C., Wang, B., "A minimax sensor placement approach for structural health monitoring of composite structures," *IERC Conference*, Reno, NV, May 2011.

Vanli, O.A. (2010), "Adaptive Bayesian Methods in Manufacturing Process Control with Small Experimental Data Sets," In *Proceedings of ASME 2010 International Design Engineering Technical Conferences*: Vol. 3, pp. 177-187, Montreal, Quebec, Canada, Aug 2010.

Vanli, O. A. and Del Castillo, E. "Bayesian Approaches for On-line Robust Parameter Design," *IIE Transactions*, 41, No. 4, 359-371, (2009).
Vanli, O. A., Patel, N. S., Janakiram, M. and Del Castillo, E. "Model Context Selection for Run to Run Control," IEEE Transactions on Semiconductor Manufacturing, 20, No. 4, 506-516, (2007).

Synergistic Activities
Professional services
Editorial Review Board Member : *Journal of Quality Technology*
Journal reviewer: *Technometrics, Institute of Industrial Engineers (IIE) Transactions, IEEE Transactions of Semiconductor Manufacturing, Quality and Reliability Engineering International*

Development of curricular materials in teaching at FAMU-FSU: Undergraduate - EGN 3443 (Engineering Statistics), EIN 4333 (Design of Production Systems and Facility Layout), ESI 4523 (Discrete-Event Simulation). Graduate – EIN 5930 – 04 (Response Surface Methodology), EIN 5930-01 (Engineering Time Series Analysis and Forecasting), ESI 5247 (Design of Experiments).
Member of American Society of Quality (ASQ), Institute for Operations Research and Management Science (INFORMS), Institute for Industrial Engineers (IIE).

Collaborators and Other Affiliations

Collaborators and Co-Editors
Ben Wang (Florida State University, professor)
Richard Liang (Florida State University, professor)
Chuck Zhang (Florida State University, professor)
Chad Zeng (Florida State University, professor)
Chris S. Edrington (Florida State University, professor)
Joe Pignatiello (Florida State University, professor)
Okenwa Okoli (Florida State University, professor)
Iris Rivero (Texas Tech University, professor)
Nital S. Patel (Senior Staff Engineer, Intel Corp)
Mani Janakiram (Research Engineer, Intel Corp)
Sachin Shanbhag (Florida State University, professor)
Yu Ding (Texas A&M University, professor)
Sungmoon Jung (Florida State University, professor)
Rong Pan (Arizona State University, professor)

Graduate Advisors and Postdoctoral Sponsors
Enrique Del Castillo (PhD Dissertation Advisor, Professor, PennState)
M. Jeya Chandra (PhD committee member, Professor, PennState)
Tao Yao (PhD committee member, Professor, PennState)
Murali Haran (PhD committee member, Professor, PennState)
Nital S. Patel (PhD committee member, Senior Staff Engineer, Intel Corp)
Timothy C. Ovaert (MS thesis advisor, Professor, Notre Dame)

Thesis Advisor and Postgraduate-Scholar Sponsor
Y. Ding (M.S. advisee, 2010, FSU)
L.J. Chen (M.S. advisee, 2010, FSU)
Carlos Parra (B.S. honors thesis advisee, 2011, FSU)
Daniel Duge' (M.S. advisee, 2012, FSU)
Ryan Gory (M.S. advisee, 2012, FSU)
Thomas Anthony (Ph.D. advisee, 2012, FSU)
Rebekah Downes (Ph.D. advisee, 2015, FSU)
Spandan Mishra (Ph.D., advisee, 2016, FSU)

Total number of graduate students advised: 3 PhD, 4 Masters

Faculty Biosketch –

Mei Zhang

Professional Preparation

Nanjing University (China), Physics, B.S., 1982
Osaka Prefecture University (Japan), Engineering, M.S., 1992
Osaka Prefecture University (Japan), Engineering, Ph.D., 1995

Appointments

Associate Professor, Industrial and Manufacturing Engineering, FAMU-FSU College of Engineering, Florida State University, 08/2007 – present
Research Scientist/Associate Professor, Alan G. MacDiarmid NanoTech Institute, The University of Texas at Dallas, 03/2003 – 08/2007
Engineer, Chorum Technologies, Inc., 02/2001 – 10/2002
Assistant Professor, Physics and Electronics, Osaka Prefecture University, 04/1995 – 03/2000
Research Engineer, Beijing General Research Institute for Non-Ferrous Metals, 09/1982 – 02/1989

Publications

Five publications most closely related to the proposed project

M. Zhang, S. Fang, A. A. Zakhidov, S. B. Lee, A. E. Aliev, C. D. Williams, K. R. Atkinson, and R. H. Baughman, "Strong, Transparent, Multifunctional Carbon Nanotube Sheets," *Science* **309**, 1215 (2005).
http://www.sciencemag.org/content/309/5738/1215.full?sid=638a381a-91df-4be4-9cf6-2660f3527655
L. J. Hall1, V. R. Coluci, D. S. Galvão, M. E. Kozlov, M. Zhang, S. O. Dantas, and R. H. Baughman, "Sign Change of Poisson's Ratio for Carbon Nanotube Sheets," *Science* **320**, 504-507 (2008).
http://www.sciencemag.org/content/320/5875/504.full?sid=f60ce862-2757-4c1c-9905-59ac73d1cefd
V.R. Coluci, L.J. Hall, M.E. Kozlov, M. Zhang, S.O. Dantas, D.S. Galvão, and R.H. Baughman, "Modeling the auxetic transition for carbon nanotube sheets," *Physical Review* **B78**, 115408 (2008). (This paper has been selected by the editors of PRB to be an Editors' Suggestion) http://prb.aps.org/abstract/PRB/v78/i11/e115408
A. E. Aliev, J. Oh, M. E. Kozlov, A. A. Kuznetsov, S. Fang, A. F. Fonseca, R. Ovalle, M. D. Lima, M. H. Haque, Y. N. Gartstein, M. Zhang, A. A. Zakhidov, R. H. Baughman, "Giant Stroke, Superelastic Carbon Nanotube Aerogel Muscles," *Science* **323**, 1575 (2009).
http://www.sciencemag.org/content/323/5921/1575.full?sid=a7ed91cc-abed-4de3-8eb6-fccadeec5bb2

M. Zhang and J. Li, "Carbon Nanotube in Different Shapes," *Materials Today* **12 (6)**, 12 (2009).

Five other significant publications

M. Zhang, K. R. Atkinson, and R. H. Baughman, "Multifunctional Carbon Nanotube Yarns by Downsizing an Ancient Technology," *Science* **306**, 1358 (2004).
http://www.sciencemag.org/content/306/5700/1358.full?sid=c4ed626a-89ff-4b23-a62c-1196aa964626

C. D. Williams, R. O. Robles, M. Zhang, S. Li, R. H. Baughman, and A. A. Zakhidov, "Multiwalled carbon nanotube sheets as transparent electrodes in high brightness organic light-emitting diodes," *Appl. Phys. Lett.* **93**, 183506 (2008).
M. Zhang, L. Pan, and Y. Nakayama, "Structural Modifications of Hydrogenated Amorphous Carbon Nitride due to Ultraviolet Light Irradiation and Thermal Annealing," *J. Non-Cryst. Solids* **226-269**, 815-820 (2000).
M. Zhang, Y. Nakayama, and S. Harada, "Photoluminescence of the Amorphous Hydrogenated Carbon Nitride Films after Ultraviolet Light Irradiation and Thermal Annealing," *J. Appl. Phys.* **86**, 4971 (1999).
M. Zhang, S. Nonoyama, and Y. Nakayama, "Electron Behavior in the Downstream of an Electron Cyclotron Resonance Plasma Used for Chemical Vapor Deposition," *Plasma Chemistry and Plasma Processing* **15** (3), 409-426 (1995).

Synergistic Activities

Developed a new course targeting graduate students titled "Synthesis and Processing of Advanced Materials" (Fall 2009).
Judge for science fairs of middle school and high school.
Reviewer for *Science Magazine, Journal of Apply Physics, Journal of the American Chemical Society, International Journal of Nanoscience, Journal of Materials Science*, *Journal of Nanomaterials, IEEE Transaction,* and *Carbon*.

Collaborators and Co-Editors

Prof. Ray H. Baughman, Prof. Anvar Zakhidov, Prof. John Ferraris, Dr. Shaoli Fang, Dr. Mikhail Kozlov, Dr. Ali Alive, University of Texas at Dallas

Prof. Debjyoti Banerjee, Texas A&M University

Prof. Richard Liang, Prof. Check Zhang, Prof. Ben Wang, Prof. Ongi Englander, Prof. Rufina Alamo, Prof. Amy Chan Hilton, Prof. Petru Andrei, Prof. Jim Brooks, Florida State University

Prof. Karen Lozano, University of Texas Pan American

Graduate Advisor
Dr. Nakayama Yoshikazu
Professor, Department of Mechanical Engineering, *Osaka University, Japan*

Graduate Advisees

Present Postdoctoral scholar at FSU: Yanbin Cui

Present graduate students at FSU: Farag Ardelsalam, Hai Hoang Van

Number of graduate students advised: 3

Number of postdoctoral scholar sponsored: 1

Curriculum Vitae

James Whyte IV

20 September 2012

GENERAL INFORMATION

University Address: College of Nursing
Florida State University
Tallahassee, Florida 32306-*4310*
Phone: (850) *644-5359* - FAX: (850) *645-7321*

E-Mail Address: *jwhyte@fsu.edu*

Web Site: *nursing.fsu.edu*

Professional Preparation

2005-2011 PhD, University of Leicester, Leicester, England. Major: Public Health/Law. Dissertation Title: HIV positive undocumented African migrants' access to health services in the UK and US. Supervisor: Loveday Hodson, PhD

1999-2001 Doctor of Nursing, Case Western Reserve University-Francis Payne Bolton School of Nursing, Cleveland Ohio. Major: Nursing. Dissertation: Title. The relationship between HIV related knowledge and level of safe sexual behavior in African American Women dwelling in the rural southeast. Dissertation Chair: Theresa Standing, PhD.

1997-1999 Master of Science in Nursing, Clarkson College, Omaha Nebraska. Major: Nursing, Nurse Practitioner. Primary care. Thesis: A study of the sexual behavior of African American women living with HIV. Thesis Chair: Virginia Davidsaver, PhD

1995-1996 Bachelor of Science, University of South Carolina. Columbia, South Carolina. Major: Nursing. Graduated Magna Cum Laude.

1993-1995 Associate of Science, University of South Carolina, Aiken, South Carolina. Major: Nursing. Graduated with high honors.

Post-doctoral education

2003-2004 Post Doctoral Fellowship The Florida State University Center for Expert Performance Research; Cognitive Neuroscience.

Professional Credential(s)

7/2003-Present Advanced Registered Nurse Practitioner and Registered Nurse
State of Florida
License # 9199867

6/1999-Present Registered Nurse with Authorization as Nurse Practitioner
State of Georgia
License #143028

6/1999-Present Board Certified Family Nurse Practitioner
American Nurses Association

8/1999-Present Board Certified Pediatric Nurse Practitioner
American Nurses Association

5/2001-Present Board Certified Acute Care Nurse Practitioner
American Nurses Association

8/1996-7/2005 Adult Critical Care Registered Nurse (CCRN)
American Association of Critical Care Nurses

Professional Experience

2012-present Founding Director of the Center for Research and Evidence Based Practice.

2010-2012 Director for Graduate Programming and Research, College of Nursing, Florida State University. Coordinates graduate programming and research efforts within the college.

2009-present Associate Professor with Tenure-College of Nursing, Florida State University. Responsible for teaching, research and service.

2003-2009 Assistant Professor – College of Nursing, Florida State University. Responsible for teaching, research and service.

2004-present Nurse Practitioner – Kelch & Ness, Tallahassee, Florida. Responsible for the provision of comprehensive family and pediatric health services.

2003-2008 Nurse Practitioner-Bond Community Health Center Tallahassee Florida. Provided comprehensive primary care to underserved populations. This was faculty practice.

2002-2003 Critical Care Nurse – South Georgia Medical Center, Medical Surgical Intensive Care Unit. Responsible for the care of critically ill patients.

2001-2003 Rehabilitation Associates – Archbold Medical Center, Rehabilitation Unit. Responsible for in patient management of a diverse population of primarily geriatric rehabilitation patients.

2001-2003 Adjunct Assistant Professor – Valdosta State University. Responsible for teaching undergraduate pharmacology.

2000-2003 Nurse Practitioner – Primary Care Associates, Quitman, Georgia. Responsible for the provision of primary care and hospital based services.

2001-2007 US Navy Nurse – Reserve Component Service. Served in various capacities as a nurse practitioner. This included assignments in emergency medicine, family practice, pediatrics and operational medicine. Served active duty periods as an instructor at Naval Hospital Corps School, Great Lakes, Ill., and Marine Corps Recruit Depot Paris Island.

1996-2001 US Navy Nurse – Active Duty Service. Served as a staff and critical care nurse and advanced registered nurse practitioner. Served in clinical settings including family practice, internal medicine, pediatrics, critical care, emergency medicine and operational medicine. Served in various leadership roles including assistant division officer, division officer and battalion medical officer.

1995-1996 Research field supervisor – University of Miami on a National Institute of Drug Abuse HIV study focusing on migrant farm workers. Responsible for the coordination and supervision of data collection and all of the administrative matters for the research team.

1995-1996 Critical Care Nurse – Aiken regional Medical Center, Medical Surgical Intensive care Unit (Adult and pediatric). Responsible for direct patient care and charge nurse responsibilities.

1994-1996 Outreach Worker – Carolina Health Centers Inc., Johnson County, S.C. Responsible for coordinating and assistance with the performance of care for migrant farm workers using a mobile healthcare unit. (This work occurred only during the planting and harvest season).

1993-1995 Patient care Assistant – Medical College of Georgia, 5 west (HIV/Hematology/Oncology) Responsible for direct patient care.

1985-1993 United States Marine – Served primarily as a tactical air controller working extensively in support of infantry and artillery units. This involved having been based in Twentynine Palms California, Camp Futenma, Okinawa Japan and MCAS Beaufort SC. Additional deployed time included over 1000 days of deployments throughout the world.

Honors and Awards

2012	Distinguished Alumnus Award, University of South Carolina, College of Nursing.
2009	Community Service Award, Capitol Area Community Action Agency. For providing health screening services to children in the Head Start Program.
2009	Nominated for the Florida State University Undergraduate Teaching Award. Was ineligible due to 2006 award.
2008	Received the Burning Spear; Keeper of the Flame, 1st Annual Faculty Recognition Award for outstanding service.
2008	Nominated for the Florida State University Undergraduate Teaching Award. Was ineligible due to 2006 award.
2007	Nominated for the Florida State University Undergraduate Teaching Award. Was ineligible due to previous years award.

2006 Received the Florida State University Undergraduate Teaching Award.

2005 Named Bond Community Health Center Volunteer of the Year for 500 hours of volunteer service seeing primary care and HIV positive patients.

2001 Rebecca and Samuel Elliot Award for Community Service
Case Western Reserve University, Frances Payne Bolton School of Nursing. Awarded for community service to people living with HIV/AIDS.

1995 Alfred Award For Outstanding Military Leadership, US Navy.

Membership in Professional Organizations

8/05-present Association of Nurses in AIDS Care (International).
Member

5/96-present American Association of Critical Care Nurses.
Member

8/03-present Florida Nurses Association
Member

03/01-present Sigma Theta Tau International
Member Alpha Mu and Beta Pi Chapters

05/99-present American Academy of Nurse Practitioners
Member

TEACHING

Courses Taught

NUR 3056C	Foundations of Nursing Practice
NURS 3221	Pharmacology
NUR 3066	Health Assessment of the Well Family
NUR 3066L	Health Assessment of the Well Family Laboratory
NUR 3146	Pharmacology for Professional Nursing Practice
NUR 3226L	Adult Health I Lab
NUR 4026L	Adult Health II Lab
NUR 4069C	Health Assessment for Registered Nurses
NUR 4835	Leadership and Management in Nursing
NGR 5001C	Advanced Health Assessment
NGR 5064C	Procedures for Advanced Practice
NGR 5140	Advanced Pathophysiology
NGR 5171	Nurse Practitioner I (For FNP Track)
NGR 5172	Pharmacology for Advanced Practice (For FNP Track)
NGR 5190	Nurse Practitioner Therapeutics I (For FNP Track)
NGR 5191	Nurse Practitioner Therapeutics II (For FNP Track)
NGR 5601C	Advanced Management of the Family-I (For FNP Track)
NGR 5602C	Advanced Management of the Family-II (For FNP Track)

NGR 5755	Capstone Course: Evaluation of Nursing Outcomes
NGR 5911	Masters in Nursing Project
NGR 6185	Genetics and Emerging Diseases
NGR 6601L	FNP Practicum I
NGR 6602L	FNP Practicum II
NGR 6910C	DNP Project I
NGR 6912C	DNP Project II
NGR 6930	Transforming Healthcare
NGR 6935	DNP Project Seminar

Graduate Teaching Responsibilities

Fall 2012 **NGR 5140.** Advanced Pathophysiology (4 credits)

NGR 5064C, Advanced Procedures for Nurse Practitioners (2 credits)

NGR 6910C DNP Project I (4 credits)

Summer 2012 **NGR 5172**. Pharmacology for Advanced Practice (on line, 3 credits)

NGR 6935 DNP Project Seminar (2 Cr).

Spring 2012 **NGR 6930**. Transforming Healthcare (3 Credits). This course is based upon a human factors framework and requires the students to apply human factors and error sciences frameworks in order to optimize healthcare team function.

NGR 6601L FNP Practicum 1 (3 Credits)

Fall 2011 **NGR 5140.** Advanced Pathophysiology (4 credits)

NGR 5064C, Advanced Procedures for Nurse Practitioners (2 credits)

NGR 6910C DNP Project I (4 credits)

Summer 2011 **NGR 6602** Advanced Management of the Family-II. (3 credits)

NGR 5172. Pharmacology for Advanced Practice (on line, 3 credits)

NGR 6930 DNP Project Seminar (1 Cr).

Spring 2011 **NGR 6930**. Transforming Healthcare (3 Credits). This course is based upon a human factors framework and requires the students to apply human factors and error sciences frameworks in order to optimize healthcare team function.

NGR 6185 Genetics and Emerging Diseases. A doctoral level course

that provides an in depth view of clinical genetics, genomics, pharmacogenomics and current issues in emerging diseases.

Fall 2010 **NGR 5140.** Advanced Pathophysiology (4 Credits)

NGR 5064C, Advanced Procedures for Nurse Practitioners.

Summer 2010 **NGR 5602C** Advanced Management of the Family-II. (on line, 7 credits)

NGR 5172. Pharmacology for Advanced Practice (on line, 3 credits)

Spring 2010 **NGR 5172**. Pharmacology for Advanced Practice (on line, 3 credits)

NGR 5601C Advanced Management of the Family-I. (on line, 6 credits)

Fall 2009 **NGR 5140.** Advanced Pathophysiology (4 Credits)

NGR 5064C, Advanced Procedures for Nurse Practitioners.

Summer 2009 **NGR 5602C** Advanced Management of the Family-II. (on line, 7 credits)

NGR 5149. Advanced Pathophysiology (4 Credits)

Spring 2009 **NGR 5172**. Pharmacology for Advanced Practice (on line, 3 credits)

NGR 5601C Advanced Management of the Family-I. (on line, 6 credits)

Fall 2008 **NGR 5099C**, Advanced Procedures for Nurse Practitioners.

Spring 2008 **NGR 5172**. Pharmacology for Advanced Practice (on line, 3 credits)

NGR 5601C Advanced Management of the Family-I. (on line, 6 credits)

Fall 2007 **NGR 5099C**, Advanced Procedures for Nurse Practitioners.

Summer 2007 **NGR 5172**. Pharmacology for Advanced Practice (on line, 3 credits)

NGR 5601C Advanced Management of the Family-I. (on line, 6 credits)

Spring 2007 **NGR 5172**. Pharmacology for Advanced Practice (3 credits)

Fall 2006 **NGR 5099C**, Advanced Procedures for Nurse Practitioners.

Summer 2006 **NGR 5172**. Pharmacology for Advanced Practice (on line, 3 credits)

NGR 5601C Advanced management of the Family-I. The initial

course teaching primary care fundamentals to graduate nurse practitioner students. (on line, 6 credits)

Spring 2006 **NGR 5172**. Pharmacology for Advanced Practice. A comprehensive course aimed at preparing nurse practitioners for the rigors of selecting and monitoring therapies. (3 Credits).

Fall 2005 **NGR 5099C**, Advanced Procedures for Nurse Practitioners. A course with a didactic and laboratory component which trains the student nurse practitioner in the performance of clinical procedures such as suturing, wound care and various other clinical procedures. (2 Credit Hours)

NGR 5755 Capstone Course in Nursing Outcomes. (3 Credit Hours)

Summer 2005 **NGR 5191**, Nurse Practitioner Therapeutics II.

Spring 2005 **NGR 5190**, Nurse Practitioner Therapeutics I (2 Credit Hours)

NGR 5755 Capstone Course in Nursing Outcomes. This is a 3 hour course addressing professional issues including nurse practitioner proficiency, patient satisfaction and the measurement of clinical outcomes. (3 Credit Hours)

NGR 5911 Research Project. This is the final component of the Masters in Nursing Curriculum. The course involves the development and presentation of the final research project for non-thesis option students. (3 Credit hours)

NGR 5XXX Competency Examination. This is the comprehensive final examination which is required for completion of the non thesis option. (0 Credit hours)

Fall 2004 **NGR 5001C**, Advanced Health Assessment (3 Credit Hours)

NGR 5191, Nurse Practitioner Therapeutics II. Second of a two course series covering theoretical and practical implications of prescribed therapeutics. (2 Credit Hours)

Spring 2004 **NGR 5001C**, Advanced Health Assessment. Theory and laboratory course addressing advanced principles of patient evaluation. Stresses the importance of the diagnostic process and advanced modalities of assessment. (3 Credit Hours)

NGR 5171, Nurse Practitioner I. First of a three course series with a theory and laboratory component. Covers basic principles of primary care, stressing problems of an acute nature in adults, pediatrics and obstetrical populations. (5 Credit Hours)

NGR 5190, Nurse Practitioner Therapeutics I. First of a two course series covering theoretical and practical implications of prescribed therapeutics. (2 Credit Hours).

Undergraduate Teaching Responsibilities

Spring 2010	**NUR 4835**, Leadership and Management in Nursing (3 Credit Hours) Guest lecturer
Fall 2009	**NUR 3056C**, Foundations of Nursing Practice (4 Credit Hours).
	NUR 4835, Leadership and Management in Nursing (3 Credit Hours) Guest lecturer
Spring 2009	**NUR 4835**, Leadership and Management in Nursing (3 Credit Hours) Guest lecturer
Fall 2008	**NUR 3066**, Health Assessment of the Well Family. (2 Credit Hours)
	NUR 3066L, Health Assessment of the Well Family Laboratory (2 Credit Hours, taught 2 and coordinated 6 other lab sections)
	NUR 4835, Leadership and Management in Nursing (3 Credit Hours) Guest lecturer
Fall 2007	**NUR 3066**, Health Assessment of the Well Family. (2 Credit Hours)
	NUR 3066L, Health Assessment of the Well Family Laboratory (2 Credit Hours, taught 1 and coordinated 5 other lab sections)
	NUR 4835, Leadership and Management in Nursing (3 Credit Hours) Guest lecturer
Spring 2007	**NUR 3066**, Health Assessment of the Well Family. (2 Credit Hours)
	NUR 3066L, Health Assessment of the Well Family Laboratory (2 Credit Hours, coordination of 6 lab sections)
	NUR 3146, Pharmacology for Professional Nursing Practice. This is the pharmacology course for the entry level baccalaureate program. It offers a broad overview of principles of pharmacotherapy for novice nursing students. (2 Credit hours).
	NUR 4835, Leadership and Management in Nursing (3 Credit Hours) Guest lecturer
Fall 2006	**NUR 3066**, Health Assessment of the Well Family. (2 Credit Hours)
	NUR 3066L, Health Assessment of the Well Family Laboratory (2 Credit Hours, taught 1 and coordinated 5 other lab sections)
	NUR 4835, Leadership and Management in Nursing (3 Credit Hours) Guest lecturer

Spring 2006	**NUR 3066**, Health Assessment of the Well Family. (2 Credit Hours)
	NUR 3066L, Health Assessment of the Well Family Laboratory (2 Credit Hours, coordination of 6 lab sections)
	NUR 4835, Leadership and Management in Nursing (3 Credit Hours) Guest lecturer
Fall 2005	**NUR 3066**, Health Assessment of the Well Family. (2 Credit Hours)
	NUR 3066L, Health Assessment of the Well Family Laboratory (2 Credit Hours, coordination of 6 lab sections)
	NUR 4835, Leadership and Management in Nursing (3 Credit Hours) Guest lecturer
Summer 2005	**NUR 4026**, Adult Health II Laboratory Component (2 Credit Hours).
Spring 2005	**NUR 3066**, Health Assessment of the Well Family. (2 Credit Hours)
	NUR 3066L, Health Assessment of the Well Family Laboratory (2 Credit Hours, taught one and coordinated 5 lab sections).
	NUR 4835, Leadership and Management in Nursing (3 Credit Hours) Guest lecturer
Fall 2004	**NUR 3066**, Health Assessment of the Well Family (2 Credit Hours)
	NUR 3066L, Health Assessment of the Well Family Laboratory (2 Credit Hours). Coordinated 8 lab groups.
	NUR 4835, Leadership and Management in Nursing (3 Credit Hours) Senior course integrating concepts of nursing care with common management and leadership principles. (guest lecturer).
Spring 2004	**NUR 3066**, Health Assessment of the Well Family (2 Credit Hours)
	NUR 3066L, Health Assessment of the Well Family Laboratory (2 Credit Hours, Coordinated 9 lab groups).
	NUR 3226L, Adult Health I Lab (2 Credit Hours).
	NUR 4069C, Health Assessment for Registered Nurses (3 Credit Hours). Advanced health assessment course for RN students seeking Bachelor of Science in Nursing. Involves theory/lecture and laboratory component.
Fall 2003	**NUR 3066**, Health Assessment of the Well Family (2 Credit Hours). Lecture course covering the theoretical and practical underpinnings of health assessment.

NUR 3066L, Health Assessment of the Well Family Laboratory (2 Credit Hours) Laboratory course. Introduction to health assessment. The initial practical application of assessment skills on simulated and actual patients. Coordinated 8 lab groups.

NUR 3226L, Adult Health I Lab (2 Credit Hours) Laboratory course. Introductory course to hospital based medical-Surgical care of adults.

Spring 2003 **NURS 3221**, Pharmacology for Nurses (3 Credit Hours)

Fall 2002 **NURS 3221**, Pharmacology for Nurses (3 Credit Hours)

Spring 2002 **NURS 3221**, Pharmacology for Nurses (3 Credit Hours)

Fall 2001 **NURS 3221**, Pharmacology for Nurses (3 Credit Hours), Valdosta State University. Details the theoretical and practical component of the administration of medication in nursing practice.

Clinical Practice

Bond Community Health Center, Staff Nurse Practitioner, Provided primary care services to a racially diverse under-served population. 2003-2008.

Kid's Incorporated Early Head Start, Staff Nurse Practitioner, Provided child health checks and developmental Screening. 2005-2009.

Capital Area Community action Agency, Head Start, Provided child health checks and developmental screening. 2005-2009.

Supervision of Clinical Practice

Supervised nurse practitioner students at Bond Community Health Center. 2003-2008.

Supervised nurse practitioner and undergraduate students at Kid's Incorporated Early Head Start. 2005-2009.

Supervised nurse practitioner and undergraduate students at Capital Area Community action Agency, Head Start. 2005-2009.

New Course Development

Doctor of Nursing Practice; Was the author of the first draft of the proposal to the Board of Governors, proposing the establishment of the Doctor of Nursing Practice degree, which will be the first nursing doctoral program to be established at FSU (a 57 page document).

NGR 5064C Advanced Procedures for the APN. Developed and implemented hybrid course that taught skills such as suturing, dermal biopsy, microscopy, splinting and incision and drainage of abscess.

NGR 5149 Advanced Pathophysiology. Was charged with the redevelopment of the entire course for both face to face and on line presentation.

NGR 5172. Pharmacology for Advanced Practice. A comprehensive course aimed at preparing nurse practitioners for the rigors of selecting and monitoring therapies. (3 Credits).

NGR 5601C Advanced management of the Family-I. The initial course teaching primary care fundamentals to graduate nurse practitioner students. (on line, 6 credits)

NGR 5755 Capstone Course in Nursing Outcomes. This is a 3 hour course addressing professional issues including nurse practitioner proficiency, patient satisfaction and the measurement of clinical outcomes. (3 Credit Hours)

NGR 5911 Research Project. This is the final component of the Masters in Nursing Curriculum. The course involves the development and presentation of the final research project for non-thesis option students. (3 Credit hours)

Supervision of Post Doctoral Researchers

Hye Jin Park (2009-2010). The integration of standardized nursing languages in clinical informatics systems with the goal of identifying nursing performance characteristics.

Member of PhD Dissertation Supervisory Committees

Nicole Cesnales (2009-2012). HIV case management professional's professional development. Florida State University, College of Social Work. Prospectus Defense Complete 20 May 2011.

Sabrina Dickey (2011-2013). Relationship satisfaction and health related indices. Florida State University College of Human Sciences.

Daniel Vosgerichian (2011-2013). Imagery use in athletics: From mental practice to neurocognitive perspectives. Florida State University College of Education.

Faiza Al-Jabry (2011-2013). Content integration in medical education in Oman (Fulbright PhD). Florida State University College of Education, Department of Learning Systems.

Vincent Kreipke (2012-present). The relationship between exercise and various health indicators. Florida State University, College of Human Sciences, Department of Exercise Physiology.

Eric Bower (2012-present). The relationship between exercise and lipid levels. Florida State University, College of Human Sciences, Department of Exercise Physiology.

Major Professor for Doctor of Nursing Practice Research Projects

Ally Hugg-Fields (2012-present). Hypothermia in acute myocardial infarction.

Pamela McGowan (2012-present). The relationship between perceived immunity and willingness to care for persons with HIV/AIDS.

Sarah Luce (2012-present). Validation of a hospital based falls propocol.

Nicole Green (2012-present). Water based versus traditional physical therapy modalities.

Caroline Rinehart (2011-present). Parental reflections regarding the decision to provide their sons the HPV vaccine.

Michael Poskey (2011-present). The prevalence of orgasm induced cataplexy in patients living with narcolepsy.

Pamela McGowan (2011-present). Nursing student's willingness to care for persons with HIV/AIDS: An examination of fear of contagion.

Carswella Phillips (2012). Barriers to the integration of evidence based practice in critical care settings.

Laurie Knarr (2012). Acuity based versus traditional staffing models in an acute care hospital setting.

Chair of Master's Thesis Supervisory Committees

Adam Cooper. (2008). Organizational empowerment amongst travel nurses. Completed Fall 2008.

Alison May. (2008). Job satisfaction in nurse practitioners in Florida. Completed, Spring 2008.

Kimberlee House. (2007). Treatment of chest pain in men and women in an emergency department , Completed, Summer, 2007.

Brenda Dyal. (2006). An analysis of factors influencing the parental decision to circumcise. Completed Fall 2006.

Kimberly Utuk. (2006). A study of quality of life and pain management issues associated with total knee arthroplasy. Completed Fall 2006.

Stephen F. Tomicich. (2006). Quality of life after radical prostatectomy. Completed Spring 2006.

Tiffanee Ann Padgett. (2005). A study of patient satisfaction with rural primary care practitioners. Completed Fall 2006.

Member of Master's Thesis Supervisory Committees

Nancy Ann Wagner. (2007). Patient experiences of pain in trans-radial and trans-femoral approaches to angiography. Completed Spring, 2007.

Sharon Kotan. (2007). Predictors of breast-feeding intention in WICC program participants. Completed Spring, 2007.

Marza Neff. (2007).Quality of life in women after Coronary Artery Bypass Grafting. Completed Spring, 2007.

Connie Lipps. (2007). A study of parental knowledge of pediatric care in Yemen. Completed, Spring, 2007.

Brenda Broger. (2006). Fathers' coping with chronic illness in children. Completed, Fall, 2006.

Dana Whaley. (2005). The effect of nutrition and physical activity counseling for elementary students in a rural coastal community. Completed, Fall, 2005.

Padgett Nicole Williams. (2004). Nursing knowledge of Pediatric End of Life Palliative Care: A descriptive study. Completed Fall, 2004.

Chair of Master's Project Supervisory Committees

Candida Fox. (2008). A study of the effects of a chest pain triage protocol incorporating immediate electrocardiography in a critical access hospital. Completed, Spring, 2008.

Sarah Randall. (2008). A study of the affect of the institution of caring behaviors on patient satisfaction in the emergency department. Completed, Spring, 2008.

Amanda Davis. (2008). A study of antibiotic prescribing habits and alterability of prescribing behaviors in practicing healthcare providers. Completed, Fall, 2008).

Marianne McKenna. (2007). A study of pain management practices and the institution of invasive pain control modalities in nurse practitioners. Completed, Fall, 2007.

Catherine Bracher. (2005). Occupational back pain: An exploratory examination of workman's compensation cases. Completed, Summer, 2005.

Elizabeth Fulford. (2005). End of life issues in primary care. Completed, Spring, 2005.

Rachel Henderson. (2005). Correlates of Hemoglobin A1C in Rural Type II Diabetics. Completed, Spring, 2005.

Cassie Walker. (2005). A study of quality of life after cataracts surgery in community dwelling elders. Completed, Spring, 2005.

Karen Buckalew. (2005). An ethnographic examination of nurse practitioners in infectious diseases practice. Completed, Spring, 2005.

SCHOLARLY OR CREATIVE ACTIVITIES

Publications

Refereed Journal Articles Published

Submitted

Whyte, J., Eccles, D., Whyte, M., Cormier, E., Pappas, C., & Cesnales, N. (2012). HIV/AIDS case managers in federally funded institutions in Florida. Journal of the Association of Nurses in AIDS Care, Under Review

Whyte, J. Hauber, R., Eccles, D., Ward, P., & Harris, K. (2012). A study of the relationship between standardized testing, real-time and simulated clinical performance in graduating baccalaureate nurses. Clinical Simulation in Nursing, Under Review.

Lee, E., Park, H., Whyte, J., Kim, Y., Park, S. Y. (2012). Describing a Core Set of Nursing Outcome Measures using Nursing Outcomes Classification in Korea:

Neuroscience Perspective. *Journal of Clinical Nursing*. Under Review.

Whyte, J. (2012). The Human Right to Healthcare: HIV Positive Undocumented Migrants' Healthcare Rights in the UK. *The Human Rights Law Review,* Under Review

In Press

Whyte, J., Ward, P. Eccles, D., Harris, K., Nandagopal, K., & Torof, J. (2011). Nurses' immediate response to the fall of a hospitalized patient: A comparison of actions and cognitions of experienced and novice nurses. International Journal of Nursing Scholarship. **A paper detailing a study of nurses' reaction to an unexpected patient fall, the associated cognitions and actions**.

Harris, K., Ward, P., Eccles, D. & Whyte, J. (2011). A theoretical framework for simulation in nursing: Answering Schiavenato's call. *Journal of Nursing Education*. **The Paper provides an integrated analysis and theoretical framework for the interdisciplinary evolution of simulation.**

Published

Rutledge, S., E., Whyte, J, Abell, N., Brown, K., M., Cesnales, N. (2011). Measuring Stigma Among Health Care and Social Service Providers: The HIV/AIDS Provider Stigma Inventory. *AIDS Pt Care & STDs, 25(11) 1-10.* **This paper details the development and establishment of the psychometric properties of the HIV/AIDS Provider Stigma Inventory.**

Whyte, M. Whyte, J., Cormier, E., & Eccles, D. (2011). Factors influencing parental decision making in families where parents choose to deviate from the standard pediatric immunization schedule. *The Journal of Community Health Nursing.* **A paper detailing the parental decision making patterns associated with the decision to defer immunization.**

Lee, E., Nam, M., Park, H., & Whyte, J. (2011). Identification and Comparison of Interventions Performed by Korean School Nurses and US School Nurses using the Nursing Interventions Classification. *Journal of School Nursing*. 27(2) 93-101. **This paper details the result of a study integrating standardized nursing languages into a community health nursing setting.**

Hauber , R. P., Cormier, E., & Whyte, J. (2010). An Exploration of the Relationship between Knowledge and Performance- related Variables in High Fidelity Simulation: designing instruction that promotes expertise in practice. *Nursing Education Perspectives*, 31(4), 242-246. **This paper details the results of a study which demonstrated the association between actual performance in a simulated task environment and student performance on standardized testing.** (Hauber , R. P., &Cormier, E, are colleagues at the FSU CON).

Cormier, E., Hauber, R. & Whyte, J. (2010). Cognitions and Clinical Performance: A Comparison of High and Low Performing Baccalaureate Nursing Students. *The International Journal of Nursing Education Scholarship, 7(1), Article 27*. **This**

paper reports on the results of a study designed to determine the relationship between cognitions and performance in a simulated task environment.

Whyte, J., Cormier, E., & Pickett-Hauber, R. (2010). Concurrent versus retrospective verbal reporting in a simulated task environment: A methodologic examination. *International Journal of Nursing Studies, 47, 466-451*. **This paper presents the results of an analysis that clarifies the relationship between concurrent and retrospective verbal reports in the context of nursing performance.** (Hauber, R., & Cormier, E.are colleagues from the FSU CON).

Whyte, J., Hauber, R., Cormier, E., Grubbs, L. & Ward, P. (2010). Clinical outcome measures in simulated task environments: Validation of the role of physiological and cognitive measures in assessing nursing performance. *Applied Nursing Research, 23(1), e1*. **This paper communicates the results of research projects that Established the utility of harvesting physiologic data from Human Patient Simulators and then using it as a dependent variable**. (Hauber, R., Cormier, E., & Grubbs, L are colleagues from the FSU CON).

Whyte, J., Ward, P., & Eccles, D. (2009). The relationship between knowledge and clinical performance in novice and experienced critical care nurses: An application of the Expert Performance Approach. Heart & Lung, 38(6), 517-525. **This is a paper which reported the results of a study detailing the relationship between knowledge and clinical performances in novice and experienced critical care nurses.** (Ward, P. (FSU Department of Psychology) & Eccles, D. (FSU College of Education and The Learning Systems Institute) are colleagues.

Whyte, J, Whyte, M. D., Cormier, E. (2008). Down low sex, older African American women, and HIV. *Journal of the Association of Nurses in AIDS Care, 19(6).* **This is the first paper to document the post diagnosis relationship related behaviors of African American women infected through "Down Low Sex".** (Whyte, M. D. (Valdosta State University, College of Nursing) ,& Cormier, E. (FSU CON are colleagues).

Davis, A., & Whyte, J. (2008). A community health nursing approach to the problem of antibiotic over-prescribing. *Journal of Community Health Nursing*, 25(23), **A research report that describes an approach to and the results of an intervention designed to curb the prescribing of antibiotics for common viral illnesses (ie colds).** (Davis, A. is a former graduate student).

Ericsson, K.A., Whyte, J., & Ward, P. (2007). Expert performance in nursing: Reviewing research on expertise in nursing within the framework of the expert- performance, *Advances in Nursing Science,30*(1), 58-71. (State of the science issue).
. **This is a ground breaking paper that redirects the study of performance attributes of nurses. The state of the science issue is the premier issue of the journal, and is designed to rebut many of the professions theoretical dogmas.** (Ericsson, K. A.& Ward, P. (FSU Department of Psychology) are colleagues.)

Whyte, J. (2006) Sexual Assertiveness in Low Income African American women: Unwanted Sex, Survival and HIV Risk. *Journal of Community Health Nursing, 23*(4), 235-244. **A research article quantitatively detailing the phenomenon of survival sex in African American women.**

Whyte (2005). The measurement of HIV Risk in African American women who dwell in the Southeastern United States. *Journal of the Association of Nurses in AIDS Care, 16*(6), 48-55. **A research article which presents the development and psychometric testing of the HIV Risk Behavior Questionnaire, a research instrument designed for clinical and research risk stratification.**

Whyte, J. (2005). The Diagnosis and Management of Stress Fractures of the Pelvis and Lower Extremities. *Advance for Nurse Practitioners*, 13(7), 55-59. **This article uses a case based approach to presenting clinical and radiological signs of stress and insufficiency fractures. This includes a review of radiograph interpretation.**

Whyte, J. (2004). Case Review: A 17 Year Old Girl With Acute Groin Pain, and Inability to Ambulate. *Journal of Emergency Nursing, 30*(5), 504-506. **A comprehensive case presentation printed in the leading journal in Emergency Nursing. It details the theoretical and practical issues of stress fractures in young female athletes.**

Whyte, J., Standing, T., & Madigan, L. (2004) The relationship between HIV related knowledge and safe sexual behavior in African American women dwelling in the rural southeast. *Journal of the Association of Nurses in AIDS Care, 15* (2), 51-58. **A research report published in the preeminent HIV care journal in nursing. Details research on the relationship between HIV related knowledge and high risk sexual behavior. Casts light on the issue of psychosocial variables in this context. (**Standing, T., & Madigan, L are now colleagues, and former supervisors at Case Western Reserve University).

Whyte J. (2003) Case presentation of a patient with muscular weakness and ambulatory difficulty. *The Nurse Practitioner, American Journal of Primary Care, 28*(3), 61-64. **A case presentation article published in the major Primary Care Nurse Practitioner journal. Details the atypical presentation of a gentleman with progressive polyradiculopathy.**

Whyte, J. & Dawson, S. B. (2001) The sexual behaviors of African American women living with HIV disease: Is perceived HIV status altering sexual behavior? *Journal of the Association of Nurses in AIDS Care, 12*(2), 32-41. **A research report published in the preeminent HIV care journal in nursing. Details inter-group differences in sexual behavior in women with and without the diagnosis of HIV.** (Dawson, S. B. is a former colleague)

Whyte, J., & Dawson, S. B. (2000) Guidelines for the diagnosis and management of HIV disease. *Journal of the American Academy of Nurse Practitioners*,(11)12, 519-526. **A review article published in the academies nationally distributed journal. Addresses issues of pharmacologic and diagnostic management of early HIV disease.** (Dawson, S. B. is a former colleague)

Published and Refereed Proceedings

Ward, P., Torof, J., Whyte, J., Harris, K. (2010) Option Generation and Decision Making In Critical-Care Nursing. *The 54th Annual Meeting of the International Human Factors and Ergonomics Society.* **This paper details the pattern of decision**

making in critical care nurses based upon the action oriented options that they develop during practice in a Simulated Task Environment. (Ward is a colleague from FSU Dept. of Psychology, Torof is a Graduate Student within the Department of Psychology, and Harris is a Professor of Psychology at the Austin Peay University.

Books

Burns, E., Korn, K., Whyte, J (2011). The Oxford Handbook of Physical Assessment. Oxford Medical Publishing: London, England.

Refereed Reviews Published

Edmunds, M. W., & Mayhew, M.S. (2007). Chapter 58, Treatment of Specific Infections and Miscellaneous Antibiotics. *Pharmacology for the primary care provider* 3rd ed. St. Louis Mo: Elsevier.

Edmunds, M. W., & Mayhew, M.S. (2007). Chapter 68, The Immune System and Antiretroviral Drugs. *Pharmacology for the primary care provider* 3rd ed. St. Louis Mo: Elsevier.

Non-Refereed Publications Published

In Press

Published

Whyte, J. (2010). Patient preference, research and political posturing. *The Clinical Advisor,13(12), 148.* **This paper details the relationship between research publications and the extraction of results for political purposes by various organizations.**

Whyte, J. (2010). *The 2010 Residency Match and Primary Care*. *The Clinical Advisor, a Journal for Nurse Practitioners*, 13(7), 141. **This paper reports on the implications of the 2010 residency match and the role of Nurse Practitioners in addressing continued shortages of primary care providers.**

Whyte, J. (2009). Expertise in the health professions-What makes the difference?. *The Clinical Advisor, A Journal for Nurse Practitioners, 12(10) 147.* **This paper addresses key cognitive approaches to ensure the development of expert-level performance amongst NPs..**

Whyte, J. (2009). A logical solution to PCP shortages. *The Clinical Advisor, A Journal for Nurse Practitioners, 12*(7), 133. **This paper proposes the use of Nurse Practitioners in a broader role to address Primary Care Physician shortages.**

Whyte, J. (2009). HIV screening: Just another routine test?. *The Clinical Advisor, A Journal for Nurse Practitioners, 12*(3), 126. **This paper details the new guidelines for the implementation of routine HIV testing for all adults.**

Whyte, J. (2008). Retail health clinics: Boom or bust for NPs and PAs. *The Clinical Advisor, A Journal for Nurse Practitioners, 11*(9), 147. **This paper reflects upon the issue of retail health clinics and the implications of these for non-physician healthcare providers.**

Whyte, J. (2008).Community Acquired MRSA: Not a new problem. *The Clinical Advisor, A Journal for Nurse Practitioners, 11*(5), 130. **This paper reflects upon the current media attention and clinical history of invasive MRSA infections in the US.**

Whyte, J. (2007).Speak up now—2008 will be too late. *The Clinical Advisor, A Journal for Nurse Practitioners, 10*(11), 130. **This paper supports political activism for healthcare providers. This paper was run in the Nurse Practitioner and Physician Assistant issues of the journal.**

Whyte, J. (2007). The logic of prescribing limitations: Don't tie NPs and Pas hands. *The Clinical Advisor, A Journal for Nurse Practitioners, 10*(6), 143. **A paper describing the current state of Nurse Practitioner laws, and calls for a new approach in the future. This paper was run in the Nurse Practitioner and Physician Assistant issues of the journal.**

Whyte, J. (2007). Beware-targets on our backs. *The Clinical Advisor, A Journal for Nurse Practitioners,10*(2), 145. **A paper that addresses the malpractice crisis and its' effect on nurse practitioners.**

Whyte, J. (2006). HIV/AIDS a forgotten epidemic. *The Clinical Advisor, A Journal for Nurse Practitioners, 9*(8), 126 **A paper that documents the decreased media visibility of HIV disease and the need for greater vigilance.**

Whyte, J. (2006). No way to provide primary care. *The Clinical Advisor, A Journal for Nurse Practitioners, 9*(6), 164. **A review of recent healthcare system developments with relation to trends involving access to primary healthcare services.**

Whyte, J. (2006). MSG, Are food additives contributing to obesity. *The Clinical Advisor, A Journal for Nurse Practitioners, 9*(3) 155. **A scientific review of the current state of knowledge regarding the food additive MSG and its' pro-voracity effects.**

Whyte, J. (2005). How to curb antimicrobial resistance. *The Clinical Advisor, A Journal for Nurse Practitioners, 8*(9), 105. **An article detailing the problem of inappropriate antimicrobial prescribing and the association with new forms of antimicrobial resistance.**

Whyte, J. (2005). Overcoming vaccination paranoia. *The Clinical Advisor, A Journal for Nurse Practitioners, 8*(6), 109. **An article detailing the problem of poor immunization rates due to the perceived risk of danger on the part of parents.**

Whyte, J. (2005). Why we need Hepatitis C Screening. *The Clinical Advisor, A Journal for Nurse Practitioners 8*(3) 167. **An article addressing new developments in the epidemiology, diagnosis and treatment of Hepatitis C.**

Whyte, J. (2004). What makes us different? *The Clinical Advisor, A Journal for Nurse Practitioners 7*(12) 162. **An article addressing professional identify and issues of selection for nurse practitioner education.**

Whyte, J. (2004). The special challenge of chronic pain. *The Clinical Advisor, A Journal for Nurse Practitioners 7*(9) 158. **An article addressing issues related to the prescribing of controlled medications and associated psychosocial issues**.

Whyte, J. (2004). Are you ready for another scorcher: Heat related illness in the elderly. *The Clinical Advisor, A Journal for Nurse Practitioners 7*(6) 154. **An article addressing the clinical issues surrounding heat related illness in elderly** populations.

Whyte, J. (2004). New beginnings for diabetics. *The Clinical Advisor, A Journal for Nurse Practitioners 7*(3) 160**. An article addressing new and emerging insulin delivery technologies.**

Whyte, J. (2003) Progress fighting colon cancer. *The Clinical Advisor, A Journal for Nurse Practitioners 6*(12), 172. **An article addressing issues of colon cancer screening and detection as a component of comprehensive primary care.**

Whyte J. (2003). Diversity in the workplace. *The Clinical Advisor, A Journal for Nurse Practitioners 6*(9) 155**. An article addressing recent court decisions and diversity issues as they relate to nurse practitioner education and practice.**

Whyte J. (2003) The Productivity Paradigm: Key factors in NP Productivity. *The Clinical Advisor, A Journal for Nurse Practitioners, 6*(7), 155**. An article addressing the issue of productivity and reimbursement from a nurse practitioner perspective.**

Whyte J. (2003) Home Visits, Using a Forgotten Method to Bolster Your Practice. *The Clinical Advisor, A Journal for Nurse Practitioners, 6*(5), 165. **An article addressing the utility of primary care home visits and related administrative and financial issues.**

Works Referencing Contributions of Dr. James Whyte

Clark, T. (2011). Nerve: Poise under pressure, serenity under stress, and the brave new science of fear and cool. Little and Brown: New York. **This work is a book that includes multiple citations to works completed at the Human Performance Research Center.**

Clark, T. (2011). Do you have Tiger Blood. What it takes to keep cool under pressure. Slate, 3 March 2011). **The paper appeared in the lay press and discussed research performed at the Human Performance Research Center.**

Yard, D. (2009). Oncology nurses can shine as number of PCPs, oncologists run low. Oncology Nursing News, July/August 2009, 23-25. **An interview of J. Whyte was the basis for the article detailing the potential contributions of Nurse Practitioners to the field of oncology.**

Cloud, J. (2008). The science of experience. Time, 28 Feb 2008. **J Whyte was included in multiple quotations throughout the article through a description of research performed at the Center for Expert Performance Research.**

Tomicich, S. (2007). Evaluation of quality of life for prostate cancer patients who have undergone radical prostatectomy. American Journal of Men's Health, 1(4), 284-293. **The author, a former graduate student, acknowledged contributions to the development of the study and paper.**

Eccles, D., & Groth, P. T. (2006). Agent coordination and communication in sociotechnological systems: Design and measurement issues. Interacting with Computers 18, 1170-1185. **Acknowledged for contributions to a theoretical discussion of team coordination amongst critical care nurses.**

Presentations

Invited Papers Presented at Conferences and Symposia

For invited papers presented at conferences and symposia, 83% were international, 17% were national, 0% were regional, and 0% were state or local in scope.

Whyte, J., Eccles, D, & Cesnales, N. (2011). Case managers in HIV/AIDS care in Florida: Workforce characteristics and barriers to practice. The featured presentation at the 2nd Annual Research Conference of the Beta Pi Chapter of Sigma Theta Tau International.

Whyte, J. (2008). Knowledge versus performance: Expert and novice nurses' approach to the management of respiratory compromise. An invited presentation given to the Royal College of Nursing at the 3rd annual Royal College of Nursing International Research Conference, Liverpool, England. (international)

Whyte, J. (2008). A comparative analysis of access to health services by undocumented migrants in the US and UK: The case of HIV/ AIDS in a high risk population. Given at the Third Annual Conference for Postgraduate Studies, University of Leicester, Leicester, England. (refereed, invited, presentation). Received the award for best presentation, which included a 250 pound sterling prize. (international)

Whyte, J., & Ward, P. (2007). Integrating clinical simulation into experimental research settings. A paper presented at the 2007 Human Patient Simulator Network Annual International Conference, Tampa, Florida, USA. (international)

Whyte, J. (2007). Undocumented immigrant's access to healthcare services: The law in word and practice, a role for health equity. Given at the Second Annual Conference for Postgraduate Studies, University of Leicester, Leicester, United Kingdom. (refereed, invited, presentation). Received honorable mention for the Presentation, one of two of 25 presentations to receive this distinction. (international).

Abell, N., Whyte, J., Rutledge, S. (2006). Awareness, Acceptance & Action: Coming to Grips with HIV/AIDS Provider Stigma. The United States Conference on AIDS.

Sponsored by the National Minority AIDS conference, Hollywood, Fl, 21-25 September 2006.(International) (Given with N. Abell, FSU Social Work, and Scott Rutledge, Temple University Social Work).(national)

Whyte, J. (2005). Ethnicity as a mitigating factor in measuring health related behaviors in the United States. A presentation given at the Mary Seacole Health Services Research Center, DeMontfort University, Leicester, England, United Kingdom. Invited Presentation. (international).

Refereed Papers Presented at Conferences and Symposia

For refereed papers presented at conferences and symposia, 0% were international, 20% were national, 60% were regional, and 20% were state or local in scope.

Brown, K. Cesnales, N., Abell, N., Rutledge, S., Whyte, J (2010). Measuring stigma amongst healthcare providers: The HIV/AIDS Provider Stigma Inventory. The 10th Annual Meeting of the Society for Social Work and Research (international).

Ward, P., Torof, J., Whyte, J., Harris, K. (2010) Option Generation and Decision Making In Critical-Care Nursing. The 54th Annual Meeting of the International Human Factors and Ergonomics Society. (international)

Cormier, E., Whyte, J., Hauber, R. & Grubbs, L. (2007). Clinical Skills Validation Using Human Patient Simulation: Measuring Student Performance. Invited paper, given at the 2007 Regional Human Patient Simulation Network, Southeast Regional Conference. (regional)

Abell, N., Rutledge, S., & Whyte, J. (2007). Awareness, acceptance and action: New approaches to diminishing stigmatizing behaviors in HIV care providers. A statewide conference call for HIV care providers in Florida, given under the auspices of the Florida Department of Health. (regional)

Whyte, J. (2005). Race based health disparities: The HIV epidemic in women of color. 3rd Annual Conference on Racial Equality, City of Tallahassee, Florida, Invited refereed presentation. (local)

Whyte, J. (2005). Skills acquisition and theoretical explanations for expert performance In clinical nursing practice. An invited speaker at the annual South Georgia Nursing Scholarship Conference given at Valdosta State University. (regional)

Whyte, J. & Dawson, S. B. (1998). Cholesterol Education: What are its Effects on Dietary Habits, Subjects Knowledge of Cholesterol, and Total Serum Cholesterol? Presentation at the seventh annual conference a Primary Care for the Undeserved. Northeastern University School of Nursing, Boston, Mass. (National).

Non-Refereed Papers Presented at Conferences and Symposia

For invited non-refereed papers presented at conferences and symposia, 0% were international, 0 % were national, 8% were regional, and 92% were state or local in scope.

Whyte, J. (2007). Multi-factorial correlates of adherence to antiretroviral therapy in people living with HIV/AIDS. An invited colloquium given at the College of Social Work, Florida State University, 24 Oct 2007. (local).

Whyte, J. (2006). Clinical update on HIV Disease for 2006. A CME offering given to the members the District 23 of the Florida Nurses Association. (24 April 2006). (regional).

Whyte, J. (2005). Pathways and philosophical considerations in choosing health services careers. A one our invited lecture given to the Medical Freshmen Interest Group at Florida State University 9 December 2005. (local)

Whyte, J. (2005). Health promotion in young women: From skin cancer to eating disorders. A health promotion offering to 150 members of the ADPi Sorority, FSU Chapter. (local)

Whyte, J. (2005). Clinical update on HIV Disease. A CME offering given to the members of the Beta Pi Chapter of Sigma Theta Tau International. (local)

Whyte (2005). Clinical Update on HIV Disease: Current epidemiology, diagnosis and Treatment. A CME offering given for the staff of the Thagard Student Health Center, Florida State University. (local)

Whyte, J. (March, 2004). Behavioral Research: HIV Related High Risk Sexual Behaviors Given at the FSU Sigma Theta Tau Research Banquet. (local)

#Whyte, J. (2002). Spectrum of Action and Indications for Broad Spectrum Flouroquinolones. A lecture given at the Residency Program in Family Naval Hospital Jacksonville Florida. (local)

#[2] Whyte, J. (2001). Recognition and treatment of spider bites. A continuing education offering given to the medical staff of Branch Medical Clinic Parris Island SC. (local).

#[2] Whyte, J. (2001). Primary management of acute HIV infection. A continuing education offering, given at Naval Hospital Beaufort SC. (local)

Whyte, J. (2000). Primary Care Management of Common Sinus and Pulmonary Infections. A 2 Hour continuing education offering for Hospital Corpsman, independent duty corpsman and physician Assistants. Given at Naval Hospital Beaufort, SC. (local)

#[2] Whyte, J. (1999). Acute Coronary Syndromes: New Developments in Diagnostic Markers and Treatment Strategies. A lecture given to the Graduate Studies Department at Old Dominion University, Norfolk Virginia. (local)

#[2] Whyte, J. (1999). Physiological Mechanisms of Heat related Injury. A lecture given to the joint US Navy and Technical College of the Low Country Students and faculty. (local)

#[2] Whyte J. (Oct, 1998). Acute Respiratory Distress Syndrome in Pediatrics. A presentation given at the United States Navy Critical Care Symposium (Invited,

Speaker). Naval Medical Center, Portsmouth Virginia. (national)

Refereed Poster Presentations at Conferences and Symposia

For refereed posters presented at conferences and symposia, 100% were international, 0% were national, 0% were regional, and 0% were state or local in scope.

Lee, E., Park, H., Whyte, J. (2010). Information and Communication Technology (ICT) into Children's Health Education in South Korea: Diffusion of Innovation Theoretical Approach. Presented at the 2010 research Congress of the American Medical Informatics Association.

Contracts and Grants

Contracts and Grants Funded

Whyte, J. (PI) (2012). Federal Nurse Traineeship. Health Resources and Services Administration, Department of Health and Human Services. Grant # A10HP25141-01-00. $688,040.

Whyte, J. (PI) (2011). Federal Nurse Traineeship. Health Resources and Services Administration, Department of Health and Human Services. Grant # 6 A10HP00302-09-01. $42,442.

Cormier, E., **Whyte, J (Co-PI**)(2012). Development of a deliberate practice intervention designed to cultivate high-level performance in novice nurses. Florida State University Center for Research and Creativity. $14,000.

Whyte, J. (PI) (2011-2015). Advanced Nursing Education Expansion Grant (Provided for the funding of the DNP-FNP students for service in underserved areas) . Health Resources and Services Administration, Department of Health and Human Services. Grant #T57HP20591. $1,425,600.

Principal Investigator, K. Anders Ericsson, Psychology and L. Hassler Lang, Learning Systems Institute. **James Whyte IV Co-Primary Investigator.** Office of Naval Research (2007-2010). The Acquisition of Adaptive Skills: An Application of the Expert-Performance Approach to the Development of Training Based on Deliberate Practice and Deep Learning. $250,000 annually/3yrs. *Principal Investigator, Paul Ward, Department of Psychology. **James Whyte IV Co-Primary*** **investigator**.

Council on Research and Creativity, Florida State University (2006). Planning Grant award for 2006-2007 . Skilled comprehension and real world performance Nursing Practice. $12,000. Principal Investigator, K. Anders Ericsson, Department of Psychology and L. Hassler Lang, Learning Systems Institute. **James Whyte IV Co-Primary Investigator**.

Office of Naval Research (2005). A study of expertise and skill acquisition in critical care and emergency nurses. $1,000,000. . Principal Investigator, K. Anders Ericsson, Department of Psychology and L. Hassler Lang, Learning Systems Institute. **James Whyte IV Co-Primary Investigator**.

Council on Research and Creativity, Florida State University (2004) First Year Assistant Professors Grant. Measuring High Risk Sexual Behavior in African American Women. Primary Investigator: James Whyte IV. Funded May 2004, $ 13,000.

Contracts and Grants Denied

Agency for Healthcare Quality and Research R03 Application (2010). Cognitive processes and patient

safety related incidents in an in-patient setting. Principle Investigator, James Whyte IV, Co-Principle Investigator, Paul Ward, Michigan Technical University. (100,000 over 2 years).

Tri-Service Nursing Research Program (2009). The impact of deployment on military nurses' job performance. Principal Investigator. James Whyte IV. (359,742 over 2 years).

Robert Woods Johnson Foundation (2008). Correlates of nursing care outcomes in acute coronary syndromes. ($250,000 annually for 2 years). Principal Investigator James Whyte IV . Co-principal Investigator Paul Ward, Department of Psychology.

American Association of Critical Care Nurses (2006). A study to determine the effect of deliberate practice on the acquisition of skill in the titration of vasoactive medication (10,000). Principal Investigator K. Anders Ericsson Primary Investigator, James Whyte IV Co-Primary Investigator

Agency for Healthcare Research and Quality. (2006). Clinical Simulation Grant. ($300,000/2 yrs) Co-Principal Investigators K. Anders Ericsson, Department of Psychology and James Whyte IV,School of Nursing.

Robert Woods Johnson Foundation (2006). Nurses' ability to identify and intervene in cases of treatment related side effects. An application of the expert performance approach. Interdisciplinary Nursing Quality Initiative Grant. ($300,000/2 Years). Co-Principal Investigators K. Anders Ericsson, Department of Psychology and James Whyte IV,School of Nursing.

SERVICE

Florida State University

University

Member, Provost's Working Group on the Health Sciences, 2011-present.

Member, Council of Associate Deans for Research, 2011-present.

Member, Council on Research and Creativity, 2010-2012.

Member, University Budget Crisis Committee, 2010-2012.

Member, Provost's Faculty Travel Grant Committee, 2005-2012.

Member, University Parking Committee, 2005-2007.

College of Nursing Representative to the Faculty Senate, 2004-2007.

Coordinator, FSU Benefits and Wellness Fair Coordinated Blood Pressure Screening Booth, 2003-2005.

College of Nursing

Chair of the Faculty (Elected), College of Nursing, 2009-present

Member, Promotion and Tenure Committee 2009-present

Member, Faculty Performance Committee 2009-present

Member, Curriculum Committee 2008-2011

Member, Admissions and Progression Committee, 2007-2008.

Chair, Admissions Committee, 2006-2007.

Member, Search committee for new Dean, 2006-2007.

Co-Chair, Admissions Committee (Co-Chair), 2005-2006.

Member, Doctoral education working group, 2006-2008.

Co-Author, Pediatric Nurse Practitioner Curriculum. 2005-2007.

Faculty Advisor, Class graduating December 2007, 2006-2007.

Member, Peer review working group, 2005.

Member, Faculty Practice Planning Group, 2004.

Faculty Advisor, Class graduating May 2005, 2004-2005.

Faculty Advisor, Class graduating December 2005, 2004-2005.

Member, Promotion and Tenure Committee, 2004-2005.

Member, Graduate curriculum revision working group. Authored portion of new Family Nurse Practitioner curriculum. 2004-2005.

Chair, Merit Committee, 2003-2004.

Member, Admissions and Progression Committee, 2003-2005.

Learning Systems Institute

2004-present. Member and partner Center for Human Performance Research. In addition to perform various research projects within the center, acted to directly supervise and collaborate with a multidisciplinary team of post-doctoral researchers, PhD students and various other graduate students from the cognitive sciences and engineering. Also performed multiple tours from various funding agencies, and assisted in the recruitment of PhD students for our various partnering departments within the university.

2004-2005 Coordinated and performed the establishment of the critical care simulation suite within the Human Performance Laboratory.

2003-2004. Co-founding member, Human Performance Laboratory.

The Profession

Editor for Refereed Journals

Contributing Editor, "The Clinical Advisor, A Journal for Nurse Practitioners" Responsible for writing quarterly commentary articles. 2003-2006.

Editorial Board Membership

Open Journal of Nursing 2011-present

Reviewer for Refereed Journals

Peer reviewer for Culture, Health and Sexuality. 2012-present. Reviewed 2 papers.

Special guest reviewer for Nursing Research and Practice. Reviewed a paper entitled "Supporting ICU charge nurse decision-making in a rapidly changing healthcare climate." , 2011

Special guest reviewer for the European Journal of Psychology of Education. Review of a paper addressing a novel approach to performance measurement amongst nursing students. 2010.

Special guest reviewer for the Western Journal of Nursing Research. Performing review of a paper that addresses the measurement of HIV risk in African American women. Selected due to previous work and prominence in the area. 2010.

Peer reviewer for The Journal of the Association of Nurses in AIDS Care, the premier HIV Nursing Journal (17 papers reviewed to date). 2006-present.

Peer reviewer for Heart & Lung: The American Journal of Critical Care (3 papers reviewed to date). 2010-present.

Peer Reviewer The American Journal of Nursing Reviewed 8 papers during tenure with the journal. 2003-2005.

Service to Professional Associations

Member of the Research Awards Subcommittee, Association of Nurses in AIDS Care. In this capacity provided scoring for research awards and collaborated with committee members to make appropriate selections. 2009.

Member of the National Research Specialty Committee, Association of Nurses in Aids Care. In this capacity served as a committee member and peer reviewer for the annual research congress. 2007-present.

Member of the National Diversity Specialty Committee, Association of Nurses in Aids Care. I this capacity was a committee member working to increase the diversity within the organizations membership and acted to recruit minority students to attend the annual conference. 2007-present.

Certified Technical Consultant, Health Resources and Service Administration, Ryan White Care Act Programs (Title II and Title III). 2007-present.

The Community

Service to the Community

Primary Healthcare Provider, Havana School Health Project, Havana Florida. A collaborative program with the FSU College of Medicine. 2011-present

Lead athletic trainer and sports healthcare provider. Thomasville Dragons of the US Women's Premier Soccer League. 2008-2009.

Staff athletic trainer and sports healthcare provider. Tallahassee United Futbol Club. 2007-2009.

Interviewed on ABC-27 news in Tallahassee regarding first aid kits and appropriate first aid practices in families with children. 2007.

Member of the health advisory board for the Tallahassee Early Head Start Coalition. 2005-present.

Lead athletic trainer and sports healthcare provider. Thomasville Area Soccer Association. 2005-2007.

Bond Community Health Center, Provided medical support at annual community health fair, 2004.

Bond Community Health Center. Performed sports physicals for high school athletes, 2003.

Bond Community Health Center Primary Care Practitioner, 2003-2008.

Bond Community Health Center Performed pelvic examinations at women's health fair, 2003.

Special Olympics South Carolina, Low Country Region, Medical Coordinator. 1999-2001.

Appendix6: Program Budget-*Completed Form A-6 or institution's form containing three-year (last, this & projected) budget, including instructional personnel costs (aggregated), travel instructional supply costs, etc.*

PROGRAM BUDGET

DESCRIPTION	PAST YEAR	CURRENT YEAR	PROJECTED YEAR
SALARIES & WAGES Faculty (FT)	$245,251.74	$245,251.74	
Faculty (PT)	$21,306.96	$21,306.96	
Staff (FT)	$53,000.00	$53,000.00	
All other salaries/ wages	$18,434.00	$18,434.00	
Fringe benefits	$55,749.22	$55,749.22	
INSTRUCTIONAL SUPPLIES Including books, journals, A-V software, minor equipment and instruments	$1,500.00	$1,500.00	
TRAVEL	$4,500.00	$4,500.00	
CAPITAL EXPENDITURES Including major equipment, building, renovation	$56,535.00	$56,535.00	
TOTAL BUDGET	$456,276.92	$456,276.92	$0.00

***Projected Year's Budget will not be calculated until Spring 2013*This budget may be higher than actual program budget as some salaries included here do not actually come out of the O&P Program's Budget.**

Fund: 12 Unrestricted Baccalaureate Prg
Dept: 11111296
Site: 08000

Manager: WOODS,KATHERINE

St. Petersburg College
Monthly Organization Budget & Actuals Status
As of July 31, 2011
Fiscal Period: 2012

ORTHOTICS AND PROSTHETICS BACC HEC

Report ID: s_mobuda.rpt
Run Date: 3/15/2012
Run Time: 11:10:14 AM

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Account	Account Description	Original	Budget RollForward	Amended	Actual YTD thru Prior Mth $	Actual Current Mth July	Actual YTD thru Current Mth $	YTD Outstanding Encumbrances	% of Budget Used	Remaining Available Budget
	REVENUES									
401010	Tuition Baccalaureate	0.00	0.00	0.00	0.00	22,272.66	22,272.66	0.00		22,272.66
403010	Out of State Fee Baccalaureate	0.00	0.00	0.00	0.00	21,196.50	21,196.50	0.00		21,196.50
	Revenues	0.00	0.00	0.00	0.00	43,469.16	43,469.16	0.00		43,469.16
	Revenues	0.00	0.00	0.00	0.00	43,469.16	43,469.16	0.00		43,469.16
	EXPENSES									
520010	Instructional Instructor/Prof	165,259.62	0.00	165,259.62	0.00	12,036.40	12,036.40	0.00	7 %	153,223.22
521000	Instructional Overload	79,992.12	0.00	79,992.12	0.00	3,271.86	3,271.86	0.00	4 %	76,720.26
560010	OPS Instructional Adjunct	21,306.96	0.00	21,306.96	0.00	847.00	847.00	0.00	4 %	20,459.96
591000	Social Security Contributions	15,205.61	0.00	15,205.61	0.00	910.27	910.27	0.00	6 %	14,295.34
591010	Fica/Medicare Contributions	3,556.15	0.00	3,556.15	0.00	225.15	225.15	0.00	6 %	3,331.00
592000	Retirement Contrib (Summary)	12,262.59	0.00	12,262.59	0.00	0.00	0.00	0.00		12,262.59
592060	Optional Retirement Contrib	0.00	0.00	0.00	0.00	(263.92)	(263.92)	0.00		263.92
592065	Opt Retire Contrib 711	0.00	0.00	0.00	0.00	461.74	461.74	0.00		(461.74)
592095	FL Ret Contrib Invest Plan 711	0.00	0.00	0.00	0.00	590.98	590.98	0.00		(590.98)
595100	Mobile Comm Allow	660.00	0.00	660.00	0.00	55.00	55.00	0.00	8 %	605.00
597010	Health Insurance Contributions	23,909.65	0.00	23,909.65	0.00	1,559.40	1,559.40	0.00	7 %	22,350.25
597012	Medical Ins plus 1	0.00	0.00	0.00	0.00	259.44	259.44	0.00		(259.44)
597014	Health Retention Contribution	0.00	0.00	0.00	0.00	28.00	28.00	0.00		(28.00)
597020	Life Insurance Contributions	815.22	0.00	815.22	0.00	55.48	55.48	0.00	7 %	759.74
597030	Dental Insurance	0.00	0.00	0.00	0.00	113.70	113.70	0.00		(113.70)
	Personnel Costs	322,967.92	0.00	322,967.92	0.00	20,150.50	20,150.50	0.00	6 %	302,817.42
600000	Current Expense Budget Control	56,535.00	0.00	56,535.00	0.00	0.00	0.00	0.00		56,535.00
650020	Honoraria Fees	0.00	0.00	0.00	0.00	1,000.00	1,000.00	0.00		(1,000.00)
650080	Accreditation Fees	0.00	0.00	0.00	0.00	450.00	450.00	0.00		(450.00)

Fund: 12 Unrestricted Baccalaureate Prg
Dept: 11111296
Site: 08000

Manager: WOODS,KATHERINE

St. Petersburg College
Monthly Organization Budget & Actuals Status
As of July 31, 2011
Fiscal Period: 2012

ORTHOTICS AND PROSTHETICS BACC HEC

Report ID: s_mobuda.rpt
Run Date: 3/15/2012
Run Time: 11:10:14 AM

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Account	Account Description	Original	Budget RollForward	Amended	Actual YTD thru Prior Mth $	Actual Current Mth July	Actual YTD thru Current Mth $	YTD Outstanding Encumbrances	% of Budget Used	Remaining Available Budget
655020	Office/Dept Materials/Supplie	0.00	0.00	0.00	0.00	34.40	34.40	0.00		(34.40)
	Current Expenses	56,535.00	0.00	56,535.00	0.00	1,484.40	1,484.40	0.00	3 %	55,050.60
	Total Expenses	379,502.92	0.00	379,502.92	0.00	21,634.90	21,634.90	0.00	%	357,868.02

Appendix 7: Student Academic Policies

a) A copy of published admissions policies and criteria including any technical standards required for admission or a reference to appropriate pages in Institutional/Program Bulletin.

St. Petersburg College Catalog – Admissions Requirements:
http://www.spcollege.edu/pages/dynamic.aspx?id=6334

Orthotics and Prosthetics website:
http://www.spcollege.edu/courses/program/ORTHO-BAS

Orthotics and Prosthetics admissions checklist for students:
http://www.spcollege.edu/bachelors/docs/AdmChecklist_CHS_OP.pdf

b) A brief summary of program's admission process.

Students are eligible for entering the Bachelor of Applied Science in Orthotics and Prosthetics program at St. Petersburg College in August (Fall semester only) by submitting all required admission materials by the second Friday in May. Each year, 24 applicants meeting the admission criteria are ranked by calculating the state mandated pre-requisite grade point average and selected accordingly.

High School Transcripts -Students who have submitted transcripts that document a fully accredited associate's, bachelors or higher degree are not required to submit a high school transcript, unless it documents completion of 2 consecutive years of one foreign language.
Official transcripts from college(s) currently or previously attended. Completion of all college preparatory coursework.
Completion of a minimum of fifteen (15) semester hours of transferable general education coursework.
Cumulative grade point average of 2.50 on a 4.00 scale in all postsecondary coursework.
Completion of the following state mandated prerequisites with a grade of "C" or better: o
Human Anatomy & Physiology with Lab I & II
BSC 2085 & BSC 2085L
BSC 2086 & BSC 2086L
General Psychology
PSY 1012 (or any transferable college-level psychology)
Trigonometry*
MAC 1114 (or MAC 1147, MAC 2311, MAC 2233)
General Physics I with Lab PHY 1053 & PHY 1048L
General Chemistry and Qualitative Analysis I with Lab
CHM 2045 & CHM 2045L o Elementary Statistics
STA 2023 (or any transferable college-level statistics)
Completion of an A.S. degree, an A.A. degree or 60 credits from a regionally accredited institution.
Applicants must also submit completed observation form, documenting at least sixteen (16) hours of observation, volunteer service, or work experience in orthotics and prosthetics. A minimum of eight (8) hours in orthotics and eight (8) hours in prosthetics is required. Hours must officially documented and signed off on by a certified/licensed orthotist or prosthetist using the attached observation form.
In addition, a letter of recommendation from a certified/licensed orthotist or prosthetist that observed the applicant must be submitted.
Applicants initially selected are sent offers of admission and information regarding drug and background screenings. Successful completion is required to maintain admission to the program.

c) Copies of policies regarding criteria for progression in and completion of program or a reference to relevant pages in Bulletin

St. Petersburg College Catalog – Progression and Graduation Requirements:

http://www.spcollege.edu/webcentral/catalog/current/grad_req.htm

http://www.spcollege.edu/central/botrules/R4/4_24.doc , 6Hx23-4.24, Section 1.M.6, page5-7

d) Completed Form A-7 or other summary of methods used to evaluate students' success in completing each course or segment of the curriculum.

METHODS OF ASSESSMENT
(Identify for each course)

KEY: 1 = Written Exam
2 = Quizzes
3 = Practical Exam
4 = Oral Exam
5 = Project Evaluations
6 = Other (i.e., class presentation, papers)

Indicate frequency of exams per course under appropriate numbers. These items should be cross referenced in the course syllabi.

EVALUATION METHOD AND FREQUENCY

Course Number and Title	1	2	3	4	5	6
PRO3000 Intro to O&P	2				14	10
PRO3100 Biomechanics	4	?				
PRO3110 Pathology	4					13
PRO3200C Human A&P for O&P	4	10	4			
PRO3500C Clinical Methods	3	7			15	1
PRO3120C Gait	2	1	1		8	
PRO3301C Transtibial Prosthetics	2	1			7	
PRO3310C Lower Extremity Orthotics I	2	1			7	
PRO3801L Clinical Rotation I		4				4
PRO3801L Clinical Rotation II		1				5
PRO4371 Upper Extremity Orthotics	2				8	
PRO4331C Transfemoral Prosthetics	2				6	
PRO3311C Lower Extremity Orthotics II	2	1			5	
PRO3505 Clinical Problem Solving	1	4				7
PRO4XXXC Advanced Topics	1					28
PRO3801L Clinical Rotation III					1	4
EGN3443 Stats for Engineering	2	10				12
PRO4850 Senior Capstone	2	5	1			
PRO3801L Clinical Rotation IV		3				6
PRO4350C Spinal Orthotics	2	2			8	
PRO 4361C Upper Extremity Prosthetics	2				5	

*FSU Master's Methods of Assessment are to be determined. Information will be available before courses begin in 2014.

e) A copy of student work policy, if applicable

SPC does not prohibit students from working, but strongly discourages it as the BAS-OP is a full time program.

Appendix 8: Course Information

a) Course syllabi and schedules for every required course (didactic/clinical), excluding prerequisite and elective courses.
b) Complete Form A-8 for every required course (didactic/clinical) excluding prerequisite an elective courses.

PRO 3000
INTRODUCTION TO ORTHOTICS, PROSTHETICS, AND REHABILITATION
2012 Syllabus

Instructors:

Angela Courtade, CPO, LPO
Office Location: OP 212, HEC
Phone: 727-341-4151
E-mail: courtade.angela@spcollege.edu

Thomas Chmielewski CPO, LPO
Office Location : OP 210, HEC
Phone : 727-341-4156
Email : chmielewski.thomas@spcollege.edu

Course Description:

This course focuses on the development of knowledge necessary to understand the rehabilitation process as it relates to the delivery of orthotic/prosthetic care. The prosthetic and orthotic profession is presented in terms of the integration of the biological, medical, and engineering sciences as well as the clinical and technical components of the disciplines. Students will develop a solid foundation of the principles and practice of orthotics and prosthetics and the materials and technology associated with the manufacture of custom devices. The Lab component section will develop psychomotor skills in the application of contemporary technology at the introductory level.
62 total contact hours, 2 credits

Meeting Information:

On-line course for first 11 weeks.
Lab: Wednesday, 8-11 room 205

Discussion Boards:

This course consists of structured asynchronous weekly discussions between the students. The students are required to make an original post on the topic and then respond to at least one of the classmate's original post. These discussions constitute a form of interaction which is very important in distance learning. Interaction helps students construct knowledge, expand ideas, and lessens the effects of isolation. This is required. The topic for the week discussion comes from the homework questions and readings.

Prerequisites:

Admission to the Orthotics and Prosthetics BAS Program

Major Learning Outcomes:

1. The student will demonstrate knowledge and understanding of orthotics, prosthetics and rehabilitation.

2. The student will demonstrate knowledge of orthotic/prosthetic devices and components, methods and materials used in their fabrication.

3. The student will demonstrate knowledge of the general principles and practices associated with orthotics and prosthetics in rehabilitation.

4. The student will demonstrate specialized basic psychomotor technical skill sets needed for fabrication of orthotic/prosthetic devices.

Student Learning Outcomes:

1. The student will demonstrate knowledge and understanding of orthotics, prosthetics and rehabilitation by:

a. illustrating the roles the patient, orthotist, prosthetist, physician, occupational therapist, physical therapist, dietician, nurse and social worker in the integrated rehabilitation team.

b. describing the implications for orthotic/prosthetic intervention energy expenditure, social considerations and basic functional outcome measures.

2. The student will demonstrate knowledge of orthotic/prosthetic devices and components, methods and materials used in their fabrication by;

a. identifying orthotic and prosthetic devices and their components.

b. describing the fabrication processes used in the manufacturing of orthotic/prosthetic devices.

c. describing the diversity of orthotic/prosthetic materials.

d. describing the various types of prostheses including: prosthetic feet, partial foot prostheses, Syme's prostheses, transtibial prostheses, transfemoral prostheses, upper extremity prostheses, myoelectric prostheses, and sports prostheses.

e. describing the various types of orthoses including: footwear, foot orthoses, ankle foot orthoses, knee-ankle-foot orthoses, hip knee ankle foot orthoses, spinal orthoses, fracture orthoses, upper extremity orthoses, orthoses for management of burns, cranial helmets.

f. describing the various types of mobility aids including: standard wheelchairs, powered wheelchairs, walkers, crutches, canes, and assisted living devices.

3. The student will demonstrate knowledge of the general principles and practices associated with orthotics and prosthetics in rehabilitation by:

a. defining the orthotic/prosthetic and rehabilitation disciplines.

b. describing the major historical events in the 20th century that have shaped the orthotic/ prosthetic professions.

c. identifying the orthotic/prosthetic professional associations, societies, credentialing and educational organizations.

d. describing the role of the orthotist and prosthetist in rehabilitation.

e. describing the general guidelines for orthotic/prosthetic prescription formulation.

f. describing the professional ethics guidelines of orthotic/prosthetic practitioners as allied health care providers.

4. The student will demonstrate specialized basic psychomotor technical skill sets needed for fabrication of 0rthotic/prosthetic devices by:

Demonstrating use of plaster in bandage, model preparation, mixing, pouring, and positive model forms.

Demonstrating use of lab machines including; cast saw, band saw, glass bead surface finishing machine, belt sander, drill press, hand held drill, router with various attachments, sewing machine, oven and vacuum devices.

Demonstrating various tool use including; contouring instruments, cutting devices, hole punch, rivets, rivet setting tools, hammer, measuring instruments and indelible pencil.

Demonstrating various materials used for fabrication including; pelite, crepe, polyethylene, polypropylene, Velcro, Dacron, metals and glues.

Demonstrating the appropriate machine and tools to use for each project identified.

Demonstrating proper safety in lab using all forms of equipment, tools, performance and judgment.

Required Text Books:

Shurr D., Michael J., Michael T. *Prosthetics and* Orthotics. 2nd Edition. Prince Hall, 2001. ISBN 978-0-8385-1339

Omega Tracer Users Manual Version 11.0 (not needed until end of semester)

Supplemental Materials:

Smith D., Michael J., Bowker J. *Atlas of Amputations & Limb Deficiencies.* 3rd Edition. Rosemont, IL: American Academy of Orthopedic Surgeons; 2004. ISBN 0-89203-313-4

Goldberg B., Hsu J. *Atlas of Orthoses & Assistive Devices*; 4th ed. Phhiladelphia: Elsevier,2008. ISBN 978-0-323-03931-4

Technology:

All students are expected to access course in ANGEL as well as the College of Orthotics & Prosthetics Student Commons.

Assignments and Grading Scale:

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%
A minimum of a C is required to pass this course. If you do not obtain a C you will have to repeat the course.
Late Assignments will have a letter grade deducted for each 1 day they are late.

Course Evaluation Strategies:

Homework & Discussion Forum: 25%
Lab Project assignments 25%
Midterm: 25%
Final Exam: 25%
Total: 100% All assignments must be completed the week assigned on the schedule. No later than Tuesday 10 pm.

Attendance Policy:

Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by calling (727)341-4151 or notifying the instructor via email. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.

Tardiness is defined as arriving after the official start time of a class. Every **two** times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action. The third

absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course. Make up exams, tests or quizzes will only be allowed for extenuating occurrences. Documentation will be required in these cases. (Students are not to schedule job interviews during a scheduled course time.

Academic Honesty:

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

Fall 2012

Introduction to Prosthetics and Orthotics

Course Schedule: PRO 3000

Wk	Date	Topic

1	Aug, 22	Unit 1: Introduction to Prosthetics and Orthotics *Homework: Assignment Drop Box* *Readings:* Chapter 1: Introduction to Prosthetics and Orthotics, pages 1-20 *Lab Project: Tool Check in, Lab tools, Machine room tools Equipment and Safety review and expectations* *Unit 1 Assessment : Midterm, Final*
2	Aug, 29	Units 2 & 3: Methods, Materials and Mechanics, Biomechanics *Homework: Assignment Drop Box* *Readings:* Chapter 2: Methods, Materials, and Mechanics, pages 21-38; Biomechanics, Pages 39-60 *Lab Project: Metal Bending* *Unit 2 & 3 Assessment: Midterm, Final*
3	Sept 5	Unit 4: Transtibial Amputation and Prostheses *Homework: Assignment Drop Box* *Readings:* Chapter 4: Transtibial Amputation and Prostheses, pages 61-104 *Lab Project: Adjustable heel height foot plates & Heel wedges* *Unit 4 Assessment: Midterm, Final*
4	Sept, 12	Units 5&6: Knee Disarticulation and Transfemoral Amputations and Prostheses, Hip Disarticulation, Transpelvic, and Translumbar Amputation *Homework: Assignment Drop Box* *Readings:* Chapter 5 & 6: Knee Disarticulation and Transfemoral Amputations and Prostheses, pages 105-132, Hip Disarticulation, Transpelvic, and Translumbar Amputation, pages 133-142 *Lab Project: Rivet rounding tool* *Unit 5 & 6 Assessment: Midterm, Final*
5	Sept, 19	Unit 7: Upper Limb Prosthetics Homework: Assignment Drop Box *Readings:* Chapter 7: Upper Limb Prosthetics, pages 143-168 *Lab Project: Rivet rounding tool* *Unit 7 Assessment: Midterm, Final*
6	Sept, 26	MIDTERM EXAMINATION Units 1-7 *Lab Project: Finish all projects and Check out with instructors*
7	Oct 3	Unit 8: Lower Limb Orthoses Homework: Assignment Drop Box *Readings:* Chapter 8: Lower Limb Orthoses, pages 169-202 *Lab Project: Biomechanics Demonstration tool* *Unit 8 Assessment: Final*
8	Oct 10	Unit 9: Spinal Orthoses *Homework: Assignment Drop Box* *Readings:* Chapter 9: Spinal Orthoses, pages 203-226 *Lab Project: Elastic and Plaster Wrap transtibial Cad model Pour negative model for Positive model. Unit 9 Assessment: Final*
9	Oct 17	Unit 10: Upper Limb Orthoses *Homework: Assignment Drop Box*

		Readings: Chapter 10: Upper Limb Orthoses, pages 227-236 *Lab Project: Plaster buildup of Transtibial positive model blister forming vacuum pulling exercise, & AFO Strap* *Unit 10 Assessment: Final*
10	Oct 24	Unit 11: Foot Orthoses and Footwear *Homework: Assignment Drop Box* *Readings:* Chapter 11: Foot Orthoses and Footwear, pages 237-258 *Lab Project: Blister Forming Transtibial Model* *Unit 11 Assessment: Final*
11	Oct 31	Unit 12: Pediatrics *Homework: Assignment Drop Box* *Readings:* Chapter 12: Pediatrics, pages 259-274 *Lab Project: Break out and smooth socket.* *Unit 12: Assessment: Final*
12	Nov 7	FINAL EXAMINATION Units 7-12 *Lab Project: Finish all lab projects and Check out with Instructors*
13	Nov 14	*Lab Project: AFO Casting with Plaster and Fiberglass*
14	Nov. 21	No Lab *Thanksgiving Holiday Break*
15	Nov. 28	*Lab Project: L-coding Project & Recheck In All tools*
16	Dec. 5	*Readings: Omega Manual* *Lab Project: Cad Cam Foot Scan*

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below.

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards. PRO3000 was changed from an online only course to a blended course that includes a 3 hour lab to introduce students to basic hands on fabrication skills.

PRO 3100 Biomechanics

Syllabus

Fall 2012

INSTRUCTOR:

Name: Dr. Kory Thomas
Contact Information:
Phone: 727-341-4151
E-mail: Thomas.Kory@spcollege.edu
Office and Online Chat Hours:
Office Location: OP220

COURSE INFORMATION:

Course Description:

Prerequisite: Admission to the Orthotics & Prosthetics BAS. This course examines the application of mechanics on living organisms. It includes the application of engineering principles to and from biological systems producing movement and stabilization. The student will learn the mechanics of orthotic/prosthetic applications as they relates to human movement and stabilization; also the joint pathomechanics that hinder or restrict these movements. The student will be introduced to biomechanical measurement instruments (i.e. force plates, pressure transducers, temporal, spatial and video analysis) used to quantify the kinetic effects associated with physical activity. 32 contact hours.

Formatted: Font: (Default) Times New Roman, 12 pt, Font color: Auto

Meeting Information:

Class Location:

Banker's Insurance Group College of Orthotic and Prosthetic Building, Caruth Health Education Campus (HEC), rooms OP128

Major Learning Outcomes:

The student will describe the biomechanics that enable motion and stabilization of body segments.
The student will describe the biomechanics of the lower limb
The student will describe the biomechanics of the spine
The student will describe the biomechanics of the upper limb

Student Learning Outcomes: Upon completion of this course:

The student will describe the biomechanics that enable motion and stabilization of body segments by:
Identifying and describing the kinematics of human movement (joint motions, ranges, planes and axes of rotation).
Identifying and calculating the kinetics of human movement (forces, vectors and torques)
Identifying the pathomechanics that restrict or alter the functional movement of the human body.

The student will describe the biomechanics of the lower limb by:
Identifying and explaining the kinematics of the hip, knee, ankle and sub-talar joint.
Identifying and calculating the kinetics of the hip, knee, ankle and sub-talar joint.
Identifying the pathomechanics that restrict or alter the functional movement of the lower limb

The student will describe the biomechanics of the spine by:
Identifying and explaining the kinematics of the cervical, thoracic and lumbar spine.
Identifying and calculating the kinetics of the cervical, thoracic and lumbar spine.
Identifying the pathomechanics that restrict or alter the functional movement of the spine.

The student will describe the biomechanics of the upper limb by:
Identifying and explaining the kinematics of the shoulder girdle, shoulder, elbow and wrist.
Identifying and calculating the kinetics of the shoulder girdle, shoulder, elbow and wrist.
Identifying the pathomechanics that restrict or alter the functional movement of the upper limb

REQUIRED TEXTBOOK & OTHER RESOURCE INFORMATION:

Kinesiology: The Mechanics and Pathomechanics of Human Movement, Lippincott, Williams & Wilkins; Second, North American Edition (February 2008) **ISBN-10:** 9780781774222

ISBN-13: 978-0781774222

Supplemental Materials:

PowerPoint Presentations

Reading Handouts (various topics)

Assigned Readings: **http://www.oandplibrary.org**

AAOP On-Line Learning Modules (AAOP student membership required)

Library: http://www.spcollege.edu/central/libonline/

AAPO Memberships:

Available on-line @ http://oandp.org

Click Memberships

Click On-Line Applications

Complete the application form. You will need a credit card. Student membership cost $36 plus an application fee of $15.

Click Submit

AAOP Learning Modules:

Go to AAOP website at http://oandp.org

Click On-Line Learning Center

Click Log in for a Full Access

Enter Username and Password

Scroll thru the Academy Learning Modules, JPO articles or Case studies for the assigned title.

Click on the assigned title.

Click Enter Student Code (code supplied by the instructor)

Enter the course code

Click Submit

Click View Session

Review the assigned material and when ready…

Click Take Final Exam

Click on Get Exam

Complete the exam, then…

Click Submit

Complete the course evaluation, then…

Click Submit Survey & Exam Results

If you failed the exam, then…

Click Try Again

If you passed, then

Click Close Window

Your exam scores & survey responses will be placed in a file for your instructor to review. Grades will be transferred to Angel.

Other Critical Course Expectations :

All students are expected to access ANGEL resource site as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies:

Unit 1	Introduction to Biomechanics	Exam 1
Unit 2	Biomechanics of the Lower Extremity	Exam 2
Unit 3	Biomechanics of the Spine	Exam 3
Unit 4	Biomechanics of the Upper Extremity	Exam 4

Assignments and Grading Scale:

Exam I	20 points
Exam II	20 points
Exam III	20 points
Exam IV	20 points
Homework/Online Module Quizzes	20 points
Total	**100 points**

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%
A minimum of a C is required to pass this course. All On-line modules must be successfully completed. Late assignments will have a grade deducted for each day they are late.

Attendance Policy:

The college-wide attendance policy is included in the Syllabus Addendum http://www.spcollege.edu/central/asa/addendum.htm **. The policy notes that each instructor is to exercise professional judgment and define "active participation" in class (and therefore "attendance"), and publish that definition in each syllabus. Attendance is defined** as active *weekly* participation in *all* aspects of the course. **For this course** students may miss up to 2 half days of class. Each additional absence, regardless of cause, will lower the student's grade one letter.

Lab Safety Procedures:

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty:

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior.
http://www.spcollege.edu/webcentral/policies.htm

IMPORTANT DATES:

Course Dates:
Drop/Add:
Withdrawal Dates:
Financial Aid: http://www.spcollege.edu/getfunds

Special Accommodations:

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

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STUDENTS' EXPECTATIONS AND INSTRUCTOR'S EXPECTATIONS

Online /Student Conduct

http://www.spcollege.edu/ecampus/help/conduct.htm

Online Student, Faculty and Staff Expectations and Performance Targets

http://www.spcollege.edu/ecampus/help/expectations.htm

Syllabus Addendum:

Please open and print the Addendum: http://www.spcollege.edu/webcentral/policies.htm

STUDENT SURVEY OF INSTRUCTION:

The student survey of instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential and anonymous and will be used solely for the purpose of performance improvement.

SIGNATURE PAGE:

I have read, understand, and agree to abide fully by the parameters set in this Syllabus and Syllabus Addendum.

Student Signature: **Date:**

COURSE TABLE OF CONTENTS

Unit	Description
1	Introduction to Biomechanics Forces Torques Vectors Application to human anatomy Joints Range of Motion Planes Axis of Rotation Pathomechanics Skeletal Muscular Neurologic
Reading	
2	Kinematics of the Lower Extremity Hip Joint Knee Joint Ankle Joint Foot including Sub-Talar Joint, Mid-Tarsal Joint, MTP Joints Kinetics of the Lower Extremity Forces, Torques, Vectors Pathomechanics of the Lower Extremity Hip Joint Knee Joint Ankle Joint Foot including Sub-Talar Joint, Mid-Tarsal Joint, MTP Joints
Reading	
3	Kinematics of the Spine Cervical Spine Thoracic Spine Lumbar Spine Sacral and Coccyx Pelvis Kinetics of the Spine Forces, Torques, Vectors Pathomechanics of the Spine Skeletal including Discs Muscular

	Neurologic
Reading	
4	Kinematics of the Upper Extremity Shoulder Girdle Gleno-Humeral Joint Elbow Joint Radial Ulnar Joints Wrist Joints Hand and Finger Joints Kinetics of the Upper Extremity Forces, Torques, Vectors Pathomechanics of the Upper Extremity Skeletal Muscular Neurologic
Reading	

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11. The Program Director also meets with the students both as a group as well as individually to gain feedback about the program of study.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

The course content was enhanced to meet new Master's standards.

PRO 3110

CLINICAL PATHOLOGIES

Instructor: Dr. Anita Naravne, MD
Office Location: OP220
Phone: 727-341-4151
E-mail: Naravne.Anita@spcollege.edu

Meeting Information:
Wednesdays from 12:00 to 3:00 pm

Class Location:
Caruth Health Education Campus (HEC), O & P 128

Prerequisites:
Admission to the Orthotics & Prosthetics Program or permission of the Dean.

Course Description:
Prerequisite: Admission to the Orthotics and Prosthetics Masters program. This course focuses on the pathophysiology, clinical signs and symptoms associated with numerous diseases and traumatic injuries as they relate to the practice of orthotics and prosthetics. Clinical Pathology provides a comprehensive foundation to build the students knowledge of specific clinical disorders. Each problem is presented in terms of the diagnoses, tests, treatment regimes, rehabilitation, prognosis and its morbidity. Students will learn the proper method to review case materials (history, physical exam, laboratory data, etc), to develop differential diagnoses for a specific patient presentation. Relevant case studies are developed weekly to ensure a clinical understanding of the role of the prosthetist and orthotist in the rehabilitation process. 47 contact hours.

Major Learning Outcomes:

The student will demonstrate knowledge and understanding of the etiology, pathogenesis and structural and functional manifestations of diseases related to the practice of orthotics, prosthetics and rehabilitation.

The student will demonstrate knowledge and understanding of clinical disorders afflicting pediatric, adult and geriatric populations.

The student will demonstrate knowledge and understanding of basic diagnostic imaging.

The student will apply knowledge of a variety of disorders in the planning and performing of a diagnosis specific patient assessment.

The student will demonstrate knowledge of a variety of disorders commonly encountered as an orthotist/prosthetist and apply the knowledge to formulation of a comprehensive treatment plan.

Student Learning Outcomes: Upon completion of this course students will be able to:

The student will demonstrate knowledge and understanding of the etiology, pathogenesis and structural and functional manifestations of diseases related to the practice of orthotics, prosthetics and rehabilitation by:

a. classifying the common signs and symptoms associated with diseases, disorders, infections and congenital anomalies.

b. describing the etiology, incidence, treatment, prognosis and morbidity of selected clinical disorders.

c. describing the surgical interventions for various fractures, disc herniation, proximal femoral focal deficiency, talipes calcaneovalgus, adhesive capsulitis, rotator cuff injuries, Buerger's disease, Legg-Calve-Perthes disease, Spina bifida, and scoliosis.

d. describing the socioeconomic problems as they relate to specific clinical disorders.

e. defining the role of the orthotist and prosthetist as a member of the rehabilitation team and the rehabilitation process as it relates to specific clinical disorders.

f. describing rehabilitation methods appropriate to specific diseases and as related to orthotic and prosthetic intervention.

g. describing basic pharmacology including but not limited to clinically significant implications related to orthotic and prosthetic intervention (e.g. swelling, anti-inflammatory), mechanism of action, indications for use, adverse effects affecting orthotic prosthetic care or rehabilitation.

2. The student will demonstrate knowledge and understanding of clinical disorders afflicting pediatric, adult and geriatric populations by:

a. describing the primary mechanisms of clinical disorders.

b. describing the effect of clinical disorders as related to growth, development, maintenance and aging of the skeleton.

c. presenting weekly literature search reviews on clinical disorders to acquire information on treatment outcomes.

3. The student will demonstrate knowledge and understanding of diagnostic imaging by

a. describing the pathophysiologic principles associated with Electromyography, CT scans, X-rays and MRIs with emphasis on their diagnostic significance and their implications to clinical diagnosis.

4. The student will apply knowledge of a variety of disorders in the planning and performing of a diagnosis specific patient assessment by:

demonstrating an understanding of disorders related to orthotics and prosthetics including; osteoarthritis, kyphosis, spondylolisthesis, cerebral vascular accident, Guilliane Barre, multiple sclerosis, peripheral nerve injuries, traumatic brain injuries, cerebral palsy, arthrogryposis multiplex congenita, osteogenesis imperfecta, spina bifida, talipes equinovarus, morton's neuroma, posterior tibial tendon dysfunction, rheumatoid arthritis, DeQuervain's disease, Duputren's contracture, Volkmann's contracture, muscular dystrophies and osteomyelitis.

identifying the important clinical aspects of congenital and acquired pathologies and deformities of the hindfoot, midfoot and forefoot and the accepted orthotic treatment interventions.

integrating knowledge of patient histories, physical exams, and diagnostic images in the development of a comprehensive orthotic and/or prosthetic treatment plan.

5. The student will demonstrate knowledge of a variety of disorders commonly encountered as an orthotist/prosthetist and apply the knowledge to formulation of a comprehensive treatment plan.

a. demonstration of knowledge of common pathologies related to orthotics and prosthetics including; osteoarthritis, Guilliane Barre, scoliosis, cerebral palsy, multiple sclerosis, hallux rigidus, hallux valgus, charcot marie tooth, club foot, poliomyelitis, osteomyelitis, proximal femoral focal deficiency, peripheral vascular disease, spinal stenosis, and kyphosis.

b. formulate a comprehensive treatment plan for the afore mentioned pathologies. The treatment plan will include a minimum of diagnostic procedures, common signs and symptoms, etiology, pathology, pathogenesis, surgical and non surgical interventions and orthotic/prosthetic treatment options.

Required Text Books:

T1 Salter, R. *The Textbook of Disorders and Injuries of the Musculoskeletal System, 3rd ed.* Baltimore: Lippincott, Williams & Wilkins, 1999.
ISBN 13: 978-0-683-07499-4.

T2 Lusardi, M. and Nielson, C. *Orthotics and Prosthetics in Rehabilitation, 2nd ed.* St. Loius: Saunders Elsevier, 2007. ISBN-13: 978-0-7506-7479-9

T3 Gould, Barbara. *Pathophysiology for the Health Professions 2nd ed.* Philadelphia, Pennsylvania: Saunders, 1997; ISBN 0-7216-9384-9

Supplemental Materials:

Angel Course Materials- PowerPoint Presentations
Topic Outlines
Case Study Assessment Rubric
Article Analysis and Summary Form
Articles

AAOP Memberships:

Available on-line @ oandp.org
Click Memberships
Click On-Line Applications
Complete the application form. You will need a credit card. Student membership cost $36 plus an application fee of $15.
Click Submit

Technology:

All students are expected to access ANGEL resource site as well as the College of Orthotics & Prosthetics Student Commons.

Assignments and Grading Scale:

Case Study Assignment	10%
Article Analysis and Summaries	15%
Article Reviews/Critiques	15%
Unit 1-4 Test	10%
Unit 1-7 Midterm Test	15%
Unit 8-12 Test	10%
Final Exam	25%

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%
A minimum of a C is required to pass this course.

Late Assignments will not be accepted. Makeups will be allowed only for extenuating circumstances such as accidents, hospitalization, family tragedy or uncontrollable natural occurrences. Documentation will be required in these cases. The course Instructor and the Instructor in Charge, (Mrs. Gillis), should be notified by email within 24 hours of an absence and it is the student's responsibility to obtain any missed materials.

Course Evaluation Strategies:

Case Study Assignment	Unit 7
Unit 1-4 Test	Unit 1-4
Midterm Exam	Units 1-7 Comprehensive
Unit 8-11 Test	Unit 8-11
Article Analysis and Summaries	Units 3, 5, 8, 10, 12, 14
Article Reviews/Critiques	Units 2, 4, 6, 9, 11, 13
Final Exam	Units 1-14 Comprehensive

Technology:

All students are expected to access ANGEL resource site as well as the College of Orthotics & Prosthetics Student Commons.

Attendance Policy

Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by calling (727)341-4151 or notifying the instructor via email. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.

Tardiness is defined as arriving after the official start time of a class. Every two times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action.
The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course.

Academic Honesty

It is your responsibility to be familiar with St. Petersburg College's Academic Honesty policies and the consequences of violations. There is no tolerance for any form of academic dishonesty. Discipline can range from a zero on a specific assignment to expulsion from the class with a grade of "F" and the possibility of expulsion from the college. Note that copying/pasting published information without citing your sources, whether the information is from your textbook or the Internet is plagiarism and violates this policy. Even if you slightly change the words from an outside source, the ideas are someone else's so you still have to cite your sources. Cheating, plagiarism, bribery, misrepresentation, conspiracy, and fabrication are defined in Board Rule 6Hx23-4.461.
Student Affairs: Academic Honesty Guidelines, Classroom Behavior.
www.spcollege.edu/webcentral/catalog/current/stu_affairs_honesty.htm

Copyrighted material within this course, or posted on this course website, is used in compliance with United States Copyright Law. Under that law you may use the material for educational purposes related to the learning outcomes of this course. You may not further download, copy, alter, or distribute the material unless in accordance with copyright law or with permission of the copyright holder. For more information on copyright visit http://www.copyright.gov.

STUDENT EXPECTATIONS

All electronic devices including computers, cell phones, beepers, pagers, and related devices are to be silenced and/or turned off unless they are required for academic purposes. Any use of these devices (including texting) for non-academic purposes is a violation of College Policy and subject to disciplinary action.

Students may be required to have discussions of class assignments and share papers and other class materials with instructors and classmates via chat rooms and other mechanisms. Due to the potential piracy of students' materials, the College is not responsible for student work posted on the Internet (outside of the college's Learning Management System, currently ANGEL).

Each student's behavior in the classroom or online is expected to contribute to a positive learning/teaching environment, respecting the rights of others and their opportunity to learn. No student has the right to interfere with the teaching/learning process, including the posting of inappropriate materials on chatroom or Web page sites.

The instructor has the authority to ask a disruptive student to leave a classroom or lab. The instructor may also delete posts or materials from an online or blended class and/or take disciplinary action if disruptive behavior continues.

Special Accommodations

Disability Resources at SPC wants to help you succeed. If you have a documented disability or think that you may have learning or other disability and would like to request accommodations, please make an appointment with the Learning Specialist on your campus. If you will need assistance during an emergency classroom evacuation, please contact your campus learning specialist immediately about arrangements for your safety. Disability Resources staff can be reached at 791-2628 or 791-2710 (CL and EPI), 341-4316 (SP/G), 394-6289 (SE), 712-5789 (TS), 341-3721 (HEC), 341-4532 (AC), or 341-7965 (DT). If you would like more information, you can learn more about Disability Resources on our website: www.spcollege.edu/central/ossd

Emergency Preparedness

The college website at www.spcollege.edu is the official source of college information regarding the status of the institution. Other important information will be communicated via SPC Alert, local media outlets, and the college toll free number 866-822-3978. All decisions concerning the discontinuation of college functions, cancellation of classes, or cessation of operations rest with the President or his/her designee.

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college Web site for an announcement of the College's plan to resume operations.

Students should familiarize themselves with the emergency procedures and evacuation routes located in the buildings they use frequently.

Located in each classroom is an Emergency Response Guide (flip-chart) that contains information for proper actions in response to emergencies. Students should be prepared to assess situations quickly and use good judgment in determining a course of action. Students should evacuate to assembly areas in an orderly manner when an alarm sounds or when directed to do so by college faculty or staff or emergency services personnel. Students may access additional emergency information by going to www.spcollege.edu/security . In face to face courses your instructor will review the specific campus plans for emergency events.

ANGEL MAINTENANCE

The ANGEL system will be completely unavailable due to scheduled maintenance:
Fall 2011: Oct 4 – Oct 5 and Dec 17 – Dec 22
Spring 2012: Mar 5 – Mar 6 and May 7 – May 8
Summer 2012: Aug 6 – Aug 12

Additional Information can be found in the Syllabus Addendum:

http://www.spcollege.edu/central/asa/addendum.htm

2012 PRO 3110 Clinical Pathologies Schedule

Week	Date	Topics	Readings	Homework Unit Due Date
1	1/11/2011	Course Introduction and Overview Unit 1 - Common Terminology • *Gould, Barbara. Pathophysiology for the Health Professions. Philadelphia, Pennsylvania: Saunders;*	Pages 4-33	Unit 2 1/18/2012
2	1/18/2011	Unit 2 - Musculoskeletal Disorders of the Foot and Ankle	Pages 117-129,	Unit 3 1/25/2012

		• *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:*	135-143, 605-616	
3	1/25/2011	Unit 3 - Musculoskeletal Disorders of the Foot and Ankle (Continued) • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:*	Pages 136, 138, 141, 266, 327-328	Unit 4 2/1/2012
4	2/1/2011	Unit 4 - Musculoskeletal Disorders of the Lower Limb • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:*	Pages 35-39, 40-45, 146, 232-242, 257-272, 299, 417-462, 488-494	Unit 5 2/8/2012
5	2/8/2011	**Units 1-4 Test** Unit 5 - Musculoskeletal Disorders of the Upper Extremity • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:*	Pages 294-298, 561-595	Unit 6 2/15/2012
6	2/15/2011	Unit 6 - Musculoskeletal Disorders of the Upper Extremity (Continued) • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:*	Pages 513, 566, 232-242, 290-297	Unit 7 3/14/2012
7	2/22/2011	Unit 7 - Musculoskeletal Disorders of the Spine and Cranium • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:*	Pages 221-223, 274-287, 372-75, 595-605	Unit 8 2/29/2012
8	2/29/2011	**Units 1-7 Midterm Test**		
	3/7/2011	Spring Break		

9	3/14/2011	Unit 8 - Musculoskeletal Disorders of the Spine and Cranium (Continued) • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:* • *Handouts from Orthomerica on Plagiocephaly*	Pages 365-372	Unit 9 3/21/2012
10	3/21/2011	Unit 9 - Neurologic Disorders • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:* • *Gould, Barbara. Pathophysiology for the Health Professions. Philadelphia, Pennsylvania: Saunders;*	Pages 315-316, 324-325, 328-332 Pages 497-498, 536	Unit 10 3/28/2012
11	3/28/2011	Unit 10 - Neurologic Disorders (Continued) • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:*	Pages 303-308, 316-326	Unit 11 4/4/2012
12	4/4/2011	Unit 11 - Neuropathic Disorders • *Gould, Barbara. Pathophysiology for the Health Professions. Philadelphia, Pennsylvania: Saunders; 2002:*	Pages 298, 528-537, 297-298	Unit 12 4/11/2012
13	4/11/2011	**Units 8-11 Test** Unit 12 - Pediatric Disorders • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:*	Pages 178-180, 308-315, 146-156	Unit 13 4/18/2012
14	4/18/2011	Unit 13 - Pediatric Disorders (Continued) • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:*	Pages 138-140, 165-170, 172-173, 178, 341-350	Unit 14 4/25/2012
15	4/25/2011	Unit 14 - Other Disorders • *Salter, Robert B. MD. Textbook of Disorders and Injuries of the Musculoskeletal System. Media, Pennsylvania: Lippincott, Williams & Wilkins; 1999:*	Pages 332-335, 400-403, 208-218	

		• *Gould, Barbara. Pathophysiology for the Health Professions. Philadelphia, Pennsylvania: Saunders;*	Pages 26-31	
16	4/30 – 5/3/2011	Final Examination Week		

Syllabus Signature

By signing below, you agree that you have read, understand and will comply with guidelines and expectations set forth in this syllabus including the program rules, policies and procedures outlined in the handbook.

Student Name (printed) _____ Date _____

Instructors Signature _____Date received _____

Please sign and date. A copy will be kept in your course file.

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below.

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards. PRO3110 was re-sequenced to the first semester of the program and its content was shuffled to mirror Human A & P for O &P to better facilitate the students learning and engrossment in the subject matter. Due to this change, when students are learning about an anatomical segment in A & P, they are simultaneously learning about the pathologies affecting that segment in Clinical Pathologies.

St.Petersburg College
School of Orthotics and Prosthetics

PRO 3200C - 4.0 credits

Human Anatomy and Physiology *for* Orthotics and prosthetics

Fall 2011

Course Syllabus

Instructors: Dr. Anita Naravane
naravane.anita@spcollege.edu

Lab....Dr.Maola
cmaola@nuhs.edu

Office: UPC Seminole campus 240H (Dr.Naravane')
HEC campus (by appointment (Dr.Maola)

Tel: 394-6983 (Dr.Anita Naravane)

Office hours:[Dr.Naravane]

Monday	10:00 -11:00 am	12:15- 3:15 pm
Tuesday	11:15 - 3:15 pm	
Wednesday	10:00 -11:00 am	12:15-1:00 pm; 3:40- 4 pm
Thursday	10:30- 11:00 am at HEC	12:45 - 3 pm

Lecture time: Thursday 11:00-12:30pm. **Tuesdays online**.

Lecture Room: HEC, O&P building

Lab time: Thursday 8:00 -11:00 am (the lab details will be given separately in the lab)

Lab is held at HEC - O&P building, Anatomy lab

Textbooks:

Gray's anatomy for students by Drake et all (ISBN 0-443-06612-4]..**Required**

Atlas of human anatomy by Frank Netter 4th edition..**Required**

Course description:

This course focuses on examination of the human body as it is relevant to orthotics and prosthetics. Specific systems focused on will be cardiovascular, skeletal, neurological, and muscular. Particular emphasis will be placed on the extremities,and the spine.A regional approach to human morphology will be taken and the students will be looking at models, websites and some plastinated specimens.

Goal:

At the end of the course students should be able to correlate normal function and clinical problems with anatomical features.

Course objectives:

Demonstrate an understanding of the structure and function of the human body.

Demonstrate an understanding of the structure and function of the musculoskeletal system, peripheral vascular and peripheral nervous systems.

Demonstrate knowledge of peripheral nerve injuries and loss of function associated with them.

Demonstrate an ability to recognize structures in lab material and understand topographical relationships between various structures.

Teaching methods:

The lecture course will be blended with students meeting with the instructor once a week and all students will have ONLINE access. Dr. Scott who will be doing the labs will have regular campus classes.

Strategies include notes, narrations and discussions of the topics, weekly laboratories, online and in class multiple choice examinations for the lectures, as well as written lab exams. There will be extensive use of technology to facilitate learning. An attitude conducive towards learning will be maintained at all times during the course.

Class Policies

Class Readings: *Since this is a partly blended class .all students are imported into ANGEL and you should login daily to check if any information is posted. The ANGEL login page can be accessed from* **http://angel.spcollege.edu.**
You will need to use your student ID and a password to access the information.

The course is divided into 4 units for the lecture and 4 units for the lab.

Lecture notes, powerpoint presentations and narrations of the PowerPoints are posted ahead of time on ANGEL, and give students a better understanding of what will be discussed in class.

You should print out the lecture notes and powerpoints and go through them. You should then listen to the narrations and take notes.Listen to the narrations more than once, so that you do not miss anything. Try and do something everyday. When you come to class you should have already gone through the lecture material for that day.

It is to the student's benefit to have read the material BEFORE the class, they are concerned with. This will give the student the ability to participate in class discussions and follow the material with some ease. Don't fall behind!!! I will be having a question/answer session when we meet and if you have not read, you will not understand or be able to participate.

The book is used as a reference. We do not expect you to read the entire chapter from the book, for each topic, as it is quite extensive..use your lecture notes as a guide to look up concepts from the book, should you feel the need to.

For the blended portion, students are expected to attend lectures and/or listen to the audio for each topic that will be available for the lectures.When the class does not meet, the student is expected to cover the material posted on-line. They are responsible for all material posted and/or presented during the lecture period or lab period.

To ensure that you are reading the material, you will have quizzes so make sure you are reading regularly, as these quizzes are counted towards your final grade. The quizzes are available on ANGEL. The due dates for the quizzes is posted and they HAVE to be completed on time. Do not wait till the last minute to take a quiz as if your computer has a problem, you need to get to another computer to take the quiz and may not have time.
Important: The quiz opens in a separate popup window. If you have popup blockers, you will not be able to see the quiz, therefore you must disable them. If you have a Google popup blocker, use the Ctrl key and click to enable the window to open up. Technology does fail ocassionally, so if you have logged onto a quiz and are kicked off, you have 2 options:

if you think you have enough time, log back on and continue(remember however the clock is ticking while you are off the computer)

if you are in any doubt, do not logon and send me a mail immediately. This should also be done if you are having problems saving answers or questions are taking long to load. In such situations logoff and send me a mail immediately. Do not open the quiz to review it, as the quiz submits automatically when the time is up. I get to see your logon activity and if I see that you have reviewed the quiz, I will not reset it.

Quiz dates are posted on the **milestones** page. **If you do not take a quiz by the due date, you miss the quiz and hence lose points and attendance.** It is therefore imperative you take note of the dates for the

quizzes.

In the lecture/lab extra credit is assigned at the professor's discretion. Most of the extra credit is done as group work. When working as a group do your share. Don't sit back and wait for the other members of your group to do all your work. You will lose points if this occurs. When assigned in the lecture, the extra credit is added to the quizzes total.

Attendance Policy:

Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by calling (727)341-4151 or notifying the instructor via email. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.
Tardiness is defined as arriving after the official start time of a class. Every **two** times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action.
The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course.

SPC now requires the reporting of a student's attendance during the first two weeks of class within the PeopleSoft System. This is to ascertain "No Shows" and for calculation of a student's financial assistance.

The new rule also requires the reporting of a student's active participation within the course at the 60 percent point. This also will be recorded in the PeopleSoft system. Immediately following the 60% point of the term, each instructor will verify which students are actively participating in class as defined in the course syllabus. Students classified as not meeting the criteria for active class participation will be administratively withdrawn with a "WF." Students will be able to withdraw themselves at any time during the term. However, requests submitted after the 60% deadline will result in a "WF." Students and instructors will automatically receive an email notification through their SPC email address whenever a withdrawal occurs.
Withdrawing after the "Last Day to Withdraw with a Grade of 'W'" can have serious consequences. If the student withdraws from a class after the deadline posted in the academic calendar, the student will receive a final grade of 'WF,' which has the same impact on the student's GPA as a final grade of 'F.' A 'WF' grade also could impact the student's financial aid and cause the student to repay some of their financial assistance. If the student is thinking about withdrawing from a class now, the student should consult with an academic advisor or financial assistance counselor first to be sure they understand all the possible outcomes of this decision.

The deciding activity as 'Active participation' for this course will be the your attendance in class.

You need to login daily during the weekdays to check the announcements, mails, discussion posts and your lessons. While I do not keep tabs on you to check whether you are logging in daily, it is expected that you will do so in order to do well in the course and not miss any important information. If there is information you miss because of not logging in regularly, you will have to bear the consequences.

If a student has five or more total absences and / or missed five or more quizzes at the 60.01 percent point, it will be considered that the student has not achieved an adequate level of active participation and this will result in a WF grade being assigned to the student automatically. A grade of WF counts as an F for GPA purposes. Students are expected to monitor their class attendance record in ANGEL (under the Tools tab) for inaccuracies and excessive absences.

The student is expected to continue to participate actively by maintaining their attendance in the course even after the participation at the 60.1 percent point in the term has been reported.If the student has five or more total absences after this point in the term a grade of F will be assigned as the final grade at the end of the term.

Students attempting this course for the third time cannot withdraw (State of Florida regulation), and failing to meet the attendance requirement will result in a grade of WF

Withdrawl policy:

The deadlines for withdrawals will be adhered to strictly and a grade of 'W' will be assigned if withdrawal is within the deadline.***The last day to withdraw is October 27th with a grade of "W".***

Federal guidelines related to financial Aid and total Withdrawal from the college**http://www.spcollege.edu/central/SSFA/HomePage/hdiasbs.htm**

The U.S. Department of Education requires students who completely withdraw prior to the 60% point of the term from all classes who have received Federal financial aid, i.e., Federal Pell Grant, Federal Academic Competitiveness Grant (ACG), Federal Stafford Loan, and/or Federal Supplemental Educational Opportunity Grant(SEOG) to repay a portion of their financial aid.

The law requires the college to refund to the Department of Education the percentage of financial aid which is determined the student did not earn based on the Return of Title IV (R2T4) formula. The student may also be required to repay funds to the College if they are identified as not actively participating in all of their classes, or if they do not receive at least one final passing grade (D or higher) for the term. Should the student be considering totally withdrawing from **all classes before the published withdrawal date**, it is important that the student consult a financial assistance counselor on their home campus to understand their options and the consequences of total withdrawal. For further information regarding this policy and other financial assistance policies we encourage you to visit our website at: **www.spcollege.edu/getfunds**

It is the responsibility of the student wishing to withdraw from the course to do so by the withdrawal date. Any student wishing to withdraw from the course must do so himself or herself, online in the MY SPC registration area found at http://www.spcollege.edu as well as contact the instructor. All students registered in the course after the withdrawal date will receive a grade as outlined in this syllabus. Students who abandon the course or do not withdraw themselves by the withdrawal date are subject to receive a grade of F. By SPC Policy (enacted February 2005), students cannot withdraw from a course after the withdrawal deadline. **This means if your name is on the final roster you get a grade, so if you feel you must withdraw, do so before the final withdrawl date.**

Student behavior:

All students in the O&P course are expected to behave in a manner that is conducive to learning.

Don't be tardy, as it disrupts the class. Be on time; **you also need to stay for the entire length of the class**. Students will be allowed to leave early, only under special circumstances, but don't make a habit of it...if done often, it counts as being absent.

Any disruptive behavior on the part of a student will result in the student being warned, the first time, and if the behavior persists, the student will be dropped from the class.

Please turn off beepers, pagers, cell phones etc during class. Failure to abide by these procedures will result in being dropped from the class.

If you wish special accommodation as a student with a documented disability please make an appointment with Dr. Linda Giar at 394-6289

Lab rules:

Lab begins promptly at the assigned time. This is the practical application of the lecture.

Please be on time to the lab, the instructions and information will be given in the first 20-30 minutes of the lab session.

Lab Exams will be given during the first 1 hour of the class, if you are late you will only have the remaining part of the one hour to complete the exam. Lab exams will consist of identifiying labelled parts of models and fill in the blank questions

There are not any lab exam make ups.

Students are not allowed to take friends and relatives into the lab, and neither are they permitted to remove bodyparts, models, instruments, etc from the lab.

Additional information will be given in the lab by the instructor

Grading assignments and scale:

Lecture: 65%

Online quizzes for each unit - 25%

Exams - 40%

Unit Exam 1 (Introduction and Lower extremity)

Unit Exam II (Upper extremity)

Unit Exam III (Vertebral column and Neuroanatomy)

Unit Exam IV Final (Thorax)

Presentations will count as extra credit and will be added to the quizzes total. The instructor will notify you as to the points assigned for this project.

Lab: 35%

Presentations may be assigned

Exam 1 (Introduction and Lower extremity)

Exam II (Upper extremity)

Exam III (Back, vertebral column, spinal cord)

Exam IV (Thorax)

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

There is no midterm exam. The last exam is the final exam. While all exams are **non-cumulative**, the student cannot afford to forget any of the information studied previously as each topic builds on what was done previously. Students are expected to be present at all exams. Make up exams for the lecture will be allowed only under special circumstances.There will be no lab make up exams unless there is some serious illness or emergency. There is no make up exam for the Exam IV.

You calculate your grade as follows:

Lecture..

add your total points for your quizzes and extra credit , divide by total possible points and multiply by 0.25

add your total points for your tests , divide by total possible points and multiply by 0.40

Lab..add your total points for your tests , divide by total possible points and multiply by 0.35

Add 1 and 2 and multiply by 100 to get your %.

Academic Integrity:

Students are expected to respect and uphold the standards of honesty in submitting written work to instructors. Though occurring in many forms, plagiarism in essence involves the presentation of another person's work as if it were the work of the presenter. Any cheating or plagiarism will result in disciplinary action to be determined by the instructor based on the severity and nature of the offense. It is the student's responsibility to review the online Student Conduct Code , Student Expectations , and Academic Honesty Policy , and comply with them. No dishonesty, or inappropriate netiquette will be tolerated. Treat everyone with respect and use the discussion board/e-mail appropriately.

Form groups to study, however all quizzes, tests, must be done independantly. You should NOT, under any circumstances be looking at, or have knowledge of a quiz/test taken by another student

before you take yours. This applies to taking tests together or, one after the other using the same computer, where the possibility of looking at someone else's quiz questions, or even their quiz results, before taking yours is a distinct possibility. It is very easy for me to check if any inappropriate behavior is indulged in, and if one is caught an automatic zero will be the result and severe discliplinary action will be taken.

Technical requirements and technical support: Help desk # is 727 341 4357. Keep this number handy.

Technical Support

If you are experiencing technical challenges in the course, first review the information, resources, and FAQ at http://www.spcollege.edu/ecampus/help/index.shtml
If you need personal technical support, call Technical Support at (727) 341-HELP (4357).

The student should have MS Word, E-mail, a sound card on their computer, and enough disc space to store files. It would be preferable if they had a cable/DSL modem instead of dial up connection, as this ensures faster download time, and also prevents them from being thrown off, if the telephone is used inadvertantly by someone, while they are on-line. It is advisable to have Powerpoint, but not mandatory. They can download Powerpoint viewer free from the Microsoft website.

Academic Support

The Library Online is accessible at http://www.spjc.edu/central/libonline/ . The login and password for this semester is available on your ANGEL home page.

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 727.791.2628. If you need assistance during an emergency classroom evacuation, please contact your campus learning specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at giar.linda@spcollege.edu

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ANGEL Logoff:

In order to better serve our faculty and students we are asking that both the instructor and student use the logoff button when completing online course work. By logging off, ANGEL server space is freed, and therefore, optimizing the system. In addition, logging off will more accurately record students' time involved in the online course.

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to the St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following this event please visit the college website for an announcement of the College's plan to resume operations. This syllabus is currently available in ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to the SPC Student Technical Support at 727.341.4357 or email at Onlinehelp@spcollege.edu.

Sexual Predator Information: Federal and State law requires a person designated as a "sexual predator or offender" to register with the Florida Department of Law Enforcement (FDLE). The FDLE then is required to notify the local law enforcement agency where the registrant resides, attends or is employed by an institution of higher learning. Information regarding sexual predators or offenders attending or employed by an institution of higher learning may be obtained from the local law enforcement agency with jurisdiction for the particular campus, by calling the FDLE hotline (1-888-FL-PREDATOR) or (1-888-357-7332), or by visiting the FDLE website at www.fdle.state.fl.us/sexual_predators .

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards. A & P's course content now supplements that of Clinical Pathologies, as both courses occur during the same semester.

PRO 3500C Clinical Methods

2011 Course Syllabus

Instructor: Angela Courtade, CPO, LPO

Phone: 727-341-4151
Office Location: OP 212, HEC
E-mail: courtade.angela@spcollege.edu

Prerequisites

Admission to the Orthotics and Prosthetics BAS program

Course Description

This course focuses on utilizing medical evidence and patients' exam to support clinical practical decisions. This course is clinically based on instruction in selection of prescription criteria. The course will help students gather and document appropriate clinical data required for good practical decisions. The laboratory portion will focus on patient assessment skills and documentation. 77 contact hours.

Meeting Information

Lecture/Lab: Tuesday, 12-5pm, OP128 and OP203

Class Location

Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Rooms OP 128, OP 203, (see course schedule).

Major Learning Outcomes

1. The student will describe the role of the prosthetist-orthotist in providing patient-centered care.

The student will perform a comprehensive assessment of the patient.

The student will formulate a comprehensive orthotic and prosthetic treatment plan.

The student will demonstrate knowledge of the implementation process for a prosthetic and orthotic treatment plan.

The student will demonstrate knowledge of the development of an effective follow up plan to assure optimal fit and function of the orthosis or prosthesis.

6. The student will demonstrate knowledge of document collection for patient charts using established record-keeping techniques.

Student Learning Outcomes

Upon completion of this course: The student will describe the role of the prosthetist-orthotist in providing patient-centered care by:
demonstrating knowledge of the process of receiving an orthosis/prosthesis from the patient's perspective.
recognizing the content and sequence of each activity needed for a patient to receive an orthotic/prosthetic device
recognizing the content of each activity in the process of delivering a device to a patient.
applying the ABC Code of Professional Responsibility which outlines ethical clinical practices.

Perform a comprehensive patient assessment by:
using standardized tools and methods to obtain an understanding of the individual's potential prosthetic and orthotic needs.
assembling a comprehensive patient history including: previous medical, pathologies/dysfunctions, wounds, testing from other disciplines, surgeries, diagnostic imaging, determine safe use of device, understanding of instructions. Patient goals, personal implications of impairment, vocation, recreational activities, daily functional demands, social issues, financial information.
evaluating specific functional clinical examinations, including: manual muscle testing, range of motion, skin integrity, sensory testing, proprioception, joint stability, volumetric measures, pain and effect, tone, neuromuscular integration, observational gait analysis, posture evaluation, balance evaluation, motor control cognitive ability, relevant psychological/emotional assessments, current orthotic and prosthetic management and reviewing charted evidence of vital signs.
determining methods and criteria for referring patients other health care professionals and understanding their role in the health care continuum
communicating with the patient, caregiver and other health care professionals.
establishing a relationship with the patient and/or caregiver.

The student will formulate a comprehensive prosthetic and/or orthotic treatment plan by:
synthesizing and integrating foundational knowledge and evidence from literature with findings of the assessment of a patient.
identifying impairments or functional limitations, patients goals and biomechanical objectives.
designing an intervention plan and an appropriate orthotic and /or prosthetic device, in collaboration with the patient, to meet the needs of the patient and the biomechanical objectives.
demonstrating the ability to formulate a comprehensive treatment plan.

The student will demonstrate knowledge of the implementation process for a prosthetic and orthotic treatment plan by:
understanding the necessary procedures and fabrication process to provide prosthetic and orthotic services using appropriate techniques, tools and equipment
discerning the possible interaction between the device and the patient with respect to corrective and accommodative treatment.
assessing the quality and structural stability of the orthosis or prosthesis based on the needs and goals of the patient.
understanding the evaluation process of the fit and function of the prosthesis, making adjustments as necessary to obtain optimal function and meet patient goals.
performing transfer methods an initial gait mobility instructions that provide for patient safety during appointments.

demonstrating effective, culturally appropriate instructions to patients, family members and caregivers, use and maintenance of the orthosis or prosthesis, as well as skin care information and wearing schedules.
evaluating and documenting the level of patient comprehension of these instructions.

The student will demonstrate knowledge of the development of an effective follow up plan to assure optimal fit and function of the orthosis or prosthesis by:
providing continuing patient care and periodic evaluation to assure, maintain and document optimal fit and function of the orthosis or prosthesis.
developing an effective long term follow up plan for comprehensive orthotic and prosthetic care.
providing adequate education to assure the patient and caregivers understand the importance of adhering to the treatment plan and regular follow up appointments.
documenting all interactions with the patient and caregivers.
demonstrating follow up assessment regarding the fit and function of the orthosis and prosthesis.
assessing the function and reliability of the device using scientifically validated outcome measures.

The student will demonstrate knowledge of document collection for patient charts using established record-keeping techniques by:
collecting patient history and assessment information.
formulating appropriate S.O.A.P note record keeping techniques to support clinical intervention strategies.
obtaining documents for legal, administrative, and contractual requirements.
understanding the standards for reimbursements and regulations of external agencies.
demonstrating proper use of electronic medical record system.
documenting fabrication requirements using orthometry, technical analysis and central fabrication forms.
assembling a complete patient chart or file to meet all required standards.

Required Text Books (student purchase)

T1	Clarkson, Hazel. *Musculoskeletal Assessment: Joint Range of Motion and Manual Muscle Strength*, 2nd ed., Philadelphia: Lippincott Williams & Wilkins, 2000. ISBN 0-683-30384-8
T2	Kettenbach, Ginge. *Writing SOAP Notes*, 3rd ed., Philadelphia: F.A. Davis Company, 2004. ISBN 13: 978-0-8036-8, ISBN 10: 0-8036-0836-5
T3	Ehrlich, Ann and Schroeder, Carol. *Medical Terminology for Health Professionals*, 6th ed., Delmar Cengage Learning, 2009. ISBN 13:978-1-4180-7252-0

Supplemental Materials (provided)

PowerPoint Presentations
Assorted Handouts (on Angel)

Technology

All students are expected to access ANGEL resource site as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Unit 1	Scope of Practice for O & P professionals, The Rehabilitation Team, Medical Terminology, Range of Motion, Manual Muscle Testing	Exam 1, Final Exam
Unit 2	Additional Patient Assessments, SOAP Note format for Documentation	Exam 2, Final Exam
Unit 3	Documents for Patient Files	Final Exam

Assignments and Grading Scale

Weekly Lab Assignments	30 percent
Homework, Online Modules and Quizzes	15 percent
Exam 1	20 percent
Exam 2	20 percent
Final Exam	15 percent
Total	**100 percent**

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required to pass this course. Late assignments will have a grade deducted for each day they are late.

Attendance Policy

Students are expected to attend all class sessions. When students are not present, they must notify the program in advance by calling (727) 341-4151 or notifying the instructor via email. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or the end of that's days session, will also be indicated as absent. Tardiness is defined as arriving after the official start time of a class. Every two times a student is late to a class or leaves early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action. The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course or laboratory sessions will be required to withdraw from that course and O & P program.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior
Students are required to submit their papers to www.turnitin.com for evaluation print out the report and hand it in with their paper.

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please

contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

PRO 3500C Clinical Methods
2011 Course Schedule

Week Day Unit	Lecture Topic	Readings, Online Modules & Assignments	Lab Topic
1 8/24 Unit 1	Introduction to Clinical Methods Scope of Practice Practice Analysis The Rehabilitation team	Scope of Practice Practice analysis of certified Practitioners in the Discipline of O&P 2007	***LAB 1*** The Rehabilitation team- Integrating all team members for optimal patient outcomes utilizing conference sessions.
2 8/31 Unit 1	Medical Terminology- Introduction Medical Terminology- The Human body in Health and Disease Universal Safety Precautions	T3 Chapter 1 & 2	***LAB 2*** Universal Safety Methods- practice methods of personal safety, patient transfers using gait belts and wheelchairs. Effective techniques for bed positioning, sitting, standing and ambulation.
3 9/7 Unit 1	Medical Terminology- The Skeletal System Intro to MMT and ROM Upper Limb Assessments ROM and MMT	T3 Chapter. 3 T1 Chapters 3-5 *Quiz Chapters. 1&2 due*	***LAB 3*** Upper Limb ROM and MMT. Examinations of the hand, wrist, elbow and shoulder

4 9/14 Unit 1	Medical Terminology- The Muscular system Lower Limb Assessments- ROM and MMT	T3 Chapter 4 T1 Chapter 6-8 *Quiz Chapters. 3 due*	***LAB 4*** Lower Limb ROM and MMT Examinations of the foot, ankle, knee and hip
5 9/21 Unit 1	Medical Terminology- The nervous system Spinal Assessment ROM and MMT	T3 Chapter 10 Quiz Chapter 4 due	***LAB 5*** Spinal ROM and MMT Scoliosis evaluations
6 9/28 Unit 1	Additional Tests for Orthopedic Evaluations	*Quiz Chapter 10 due*	***LAB 6*** Examinations for Orthopedic evaluations
7 10/5	**Exam 1 Unit 1**		***LAB 7*** Effective communication techniques, Interviewing a patient for history and pertinent information for optimal patient care.
8 10/12	Patient Assessments- Orientation, proprioception, balance,sensation, pain, skin integrity, wound evaluation, tone, neuromuscular integration, psychological assessments	Academy Online Module- Practitioner/Patient Interaction: How to Avoid and Resolve Conflict	***LAB 8*** Examinations for orientation, proprioception, balance,sensation, pain, skin integrity, wound evaluation, tone, neuromuscular integration, psychological assessments
9 10/19	Static Alignment and Postural assessment		***LAB 9*** Static Postural Grid Evaluation- Analysis of coronal, sagittal and transverse planes.
10 10/26	Assessments with Radiology, MRI and CT Scans. Documentation and SOAP Note Introduction	T2 Chapters- 1-4 and 8-10 *10/27 6-8 pm Guest Lecturers MRI and CT- SPC Radiology Department*	**LAB 10** Soap Notes - Diagnosis, Subjective and Objective analysis of a patient
11 11/2	SOAP Note Documentations Continued	T2 Chapters- 11-16 Academy Online Module- Challenges Associated with the Previous Orthotic and /or	***LAB 11*** Soap Notes- Assessment and Plan formulations and Follow up care.

		Prosthetic Wearer	
12 11/9	Dynamic Assessment Methods- Amputee Mobility Predictor 2,6 & 10 Minute walk tests and LEFS tests Gait Rite Overview	Online Academy Module Practical Outcome Measures for O&P Practices Gait Rite Documents	***LAB 12*** Dynamic Assessment of various walking trials using Gait Rite Walkway systems.
13 11/16	**Exam II Unit 2**	Evidence based practice assignments topics chosen for individual research review projects.	***LAB 13*** Technical analysis, work orders and evidence based practice methods for patient care planning
14 11/23	***No Class- Thanksgiving Break***		***No Lab- Thanksgiving Break***
15 11/30 Unit 3	Documents for legal, administrative and contractual requirements	Evidence Based Practice reviews due	***LAB 14*** Assembling a complete Patient File using office administration guided practices
16 12/7 Unit 3	Computerized Documentation methods, justifications and systems overview	Soap Notes Chapter 17 OPIE Documents	***LAB 15*** Introduction and utilization of OPIE computerized documentation software for the O&P industry
12/12-16 Units 1-3	**Final Exam**	**Final Exam**	**No Lab**

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards. Clinical Methods was re sequenced to the first semester and an interactive lab component was added. This lab focuses on patient evaluation methods and better prepares students for their clinical course labs in following semesters.

PRO 3120C Gait Analysis and Pathomechanics

2013 Course Syllabus

Instructors

Dr. Kory Thomas
Office: OP220
Phone:727-341-4151
E-mail: Thomas.Kory@spcollege.edu

Prerequisites

Admission to the Orthotics and Prosthetics Program.

Co-requisites

None

Course Description

This course presents the fundamental principles of static and dynamic movement in able-bodied persons and persons with lower limb pathology. This course will introduce the mechanical and biomechanical principles integrated with anatomical and neuromuscular knowledge to provide an understanding of static and dynamic human movement. The biomechanics of human ambulation will be broken down into kinematic and kinetic data during all phases of the gait cycle using instrumented analysis equipment as well as clinical observational analysis. The students will be introduced to pathologic gait and begin to correlate gait deviations because of clinical pathologies to the Pathomechanics of gait analysis. The experience gained from this course will be used as foundational knowledge of understanding pathological gait for the remaining clinical didactic courses in the program. 69.5 contact hours.

Meeting Information

Lectures, Thursday, 2:30-3:30pm
Laboratory, Thursday, 3:30-6:30pm

Class Location

Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Rooms OP 128, OP 203, OP 205 (see course schedule.

Major Learning Outcomes
Upon completion of this course, the student will be capable of:

1. The student will learn the terminology and definitions that describe human ambulation.
2. The student will learn the underlying mechanisms producing pathological gait.
3. The student will implement subjective and objective measures to assess normal and pathological gait.
4. The student will be introduced to gait compensations because of pathological presentations.

Student Learning Outcomes
Upon completion of this course, the student will:

1. The student will learn the terminology and definitions that describe human ambulation by:
a. Describing the periods, tasks and phases within each division of the gait cycle.
b. Identifying the gait cycle from an able-bodied person through repetitive observation.
c. Applying knowledge of anatomy and physiology to understand the individual lower limb joint's contribution to movements during the gait cycle.
d. Applying knowledge of anatomy and physiology to understand lower limb muscle activations contribution to movements during the gait cycle.
e. Applying knowledge of anatomy and physiology to understand the neurological contributions to movement during the gait cycle.

2. The student will learn the underlying mechanisms producing pathological gait by:
a. Understanding the five functional categories of gait abnormalities for an intact lower limb: deformity, muscle weakness, sensory loss, pain and impaired motor control.
b. Contrasting intact to amputated lower extremity anatomy with regards to the remaining physiologic qualities of joint mobility, muscle strength and volitional control.

3. The student will implement subjective and objective measures to assess normal and pathological gait by:
a. Utilizing subjective visual analysis in the clinic setting.
b. Using computerized gait analysis systems to collect temporal-spatial data from able-bodied and persons with lower limb disabilities.
c. Analyzing the data collected and indicating the differences between the groups.
d. Analyzing kinetic and kinematic data to interpret normal and pathological function.

4. The student will be introduced to gait compensations because of pathological presentations by:
a. Observing persons with pathological deficits.
b. Identifying the gait difference of an individual's clinical presentation because of the mechanical, neurological &/or structural deficit.
c. Predicting possible orthotic and/or prosthetic interventions to address the gait compensation.

Required Text Books (student purchase)

Perry, J and Burnfield, JM. (2010) *Gait Analysis: Normal and Pathological Function*, 2nd *edition*; Thorofare, NJ: SLACK Incorporated. ISBN: 978-1-55642-766-4

Levangie, P. and Norkin, C. (2011). *Joint Structure & Function: A Comprehensive Analysis 5th edition*. Philadelphia, PA: F.A. Davis Company. ISBN: 978-0-8036-2362-0

Supplemental Materials (provided)

- PowerPoint Presentations
- Assorted Handouts (various topics)
- Fabrication Manuals
- Assessment Rubrics
- AAPO On-Line Learning Center modules (AAOP OLC)

Technology

All students are expected to access **ANGEL** resource site as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Unit 1 Introduction to Gait	**Midterm**
Unit 2 Normal: Anatomy, Kinematics & Kinetics	**Midterm**
Unit 3 Pathological Differences	**Final**

- AAOP OLC online module = "Effects of an AFO on Gait Parameters in Hemiplegic Subjects"

Lab Project 1 Temporal-Spatial data collection	**Rubric 1**
Lab Project 2 Introduction to the Gait Rite Mat System	**Rubric 2**
Lab Project 3 Outcome Measure Tests	**Rubric 3**
Lab Project 4 Data collection, analysis & presentation Metal AFO systems	**Rubric 4**
Lab Project 5 Data collection, analysis & presentation TSB-LL Px	**Rubric 5**
Lab Project 6 Data collection, analysis & presentation Plastic AFO	**Rubric 6**
Lab Project 7 Data collection, analysis & presentation TSL Suction Liner	**Rubric 7**
Lab Project 8 Data collection, analysis & presentation Ox Synthesis Project	**Rubric 8**

Cumulative Final Exam	**Final Exam**

Assignments and Grading Scale

AAOP OLC online module	4 %
Rubric 1	7 %
Rubric 2	7 %
Rubric 3	7 %
Rubric 4	7 %
Midterm Exam	20%
Rubric 5	7 %
Rubric 6	7 %
Rubric 7	7 %
Rubric 8	7 %
Final Exam	20%
Total	**100 percent**

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required to pass this course. Late assignments will have a grade deducted for each day they are late.

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Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

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PRO 3120C Gait Analysis & Pathomechanics

2013 Course Table of Content

Unit	Unit and Topic Titles
Unit 1	**Introduction to Gait** A. Introduction to Gait & Biomechanics Review B. Static Assessment: Posture & Balance C. Dynamic Assessment: The Gait Cycle
♦ Reading	- Perry and Burnfield, Chs 1 – 3 - Levangie and Norkin: Ch 1 (pgs 4-10), 13 & 14 - Winter, DA. (1995) Human balance and posture control during standing and walking. *Gait & Posture*, December, No 3, 193-214. (pdf available on ANGEL) <u>Recommended:</u> - Magee, DJ. (2008) *Orthopedic Physical Assessment, 5th edition*, Ch 15 Assessment of Posture. Saunders Elsevier, St Louis, MO. (pdf available on ANGEL) - Hsu, Michael and Fisk. (2008) *AAOS Atlas of Orthoses & Assistive Devices*, 4th edition. Ch5. - Saunders, DM and Inman, VT. (1953) The major determinants in normal and pathological gait. *JBJS,* 35-A, 3:543-558, July. (pdf available on ANGEL)
Unit 2	**Kinematics & Kinetics During the Gait Cycle** A. The Foot/Ankle Complex B. The Knee C. The Hip Joint D. The Trunk and Pelvis E. Objective Gait Analysis of Total Limb Function F. Gait Analysis Systems
♦ Reading	- Perry and Burnfield, Chs 2, 4 - 7, 9, 19 – 24 (pgs 483-494) - Winter, DA. (1995) Human balance and posture control during standing and walking. *Gait & Posture*, December, No 3, 193-214. (pdf provided) - Levangie and Norkin: Ch 4, pgs 141-192. - Lusardi, MM and Nielsen, CC (2007) *Orthotics and Prosthetics in Rehabilitation, 2nd edition*. Ch 3 pgs 35-41 - Hsu, JD; Michael, JW and Fisk, JR. (2008) *Atlas of Orthoses and Assistive Devices 4th edition*. Ch 5, pgs 61-67. - Smith, DG; Michael, JW and Bowker, JH. (2004) *Atlas of Amputations and Limb Deficiencies 3rd edition*. Ch 29.
Unit 3	**Pathological Differences** A. Pathological Mechanisms of Gait B. Pathological Differences: Foot & Ankle Differences C. Pathological Differences: Knee Deviations D. Pathological Differences: Hip Joint Variations E. Objective Gait Analysis of Pathological
♦ Reading	- Perry and Burnfield, Chs 10 - 15 - Lusardi, MM and Nielsen, CC. (2007) *Orthotics and Prosthetics in Rehabilitation, 2nd edition*. Ch 3, pgs 41-58. - Hsu, JD; Michael, JW and Fisk, JR. (2008) Atlas *of Orthoses and Assistive Devices, 4th edition*. Ch 5, pgs 67-80. - Edelstein, JE and Moroz, A. (2011) *Lower-Limb Prosthetics and Orthotics: Clinical Concepts*. Ch. 23 (pdf provided on ANGEL) - Smith, Michael, Bowker. (2004) *AAOS Atlas of Amputations and Limb Deficiencies*, 3rd edition, Chs 30 & 31.
Lab Project 1	Temporal-Spatial data collection
Lab Project 2	Introduction to the Gait Rite Mat System
Lab Project 3	Outcome Measures Test
Lab Project 4	Collect data on metal AFO student projects (= Ox Proj #5) (free ankle vs. locked/solid

	ankle); students then analyze, process and present data to peers & instructor
Lab Project 5	Collect data on TSB-LL projects (= Px Proj #5); students then analyze, process and present data to peers & instructor
Lab Project 6	Collect data on thermoplastic patient projects (= Ox Proj #6); students then analyze, process & present data to peers & instructor
Lab Project 7	Collect data on TSL Suction Liner (= Px Proj #6); students then analyze, process & present data to peers & instructor
Lab Project 8	Collect data on Orthotic Synthesis Project (= Ox Proj #7: patient *without* a device as well as *with* device after fitting); students then analyze, process & present data to peers & instructor

PRO 3120C Gait Analysis & Pathomechanics

2013 Course Schedule

(Lectures, Labs, **Patient/Models, Exams/Check-Out, Holidays)**

Wk	Date	Unit	Topic Project	Title
1	Mon	1	A B	- Introduction to Gait & Biomechanics Review - Static Assessment: Posture & Balance
1	Mon	Lab		**Lab 1 =** Temporal Spatial data collection
2	Mon		C	- Dynamic Assessment of Gait - Instructor demo of Gait Rite Mat System
2	Mon	Lab		**Lab 2 =** Introduction to Gait Rite – collect data on students in class for 'normal' spreadsheet
3	Mon	2	A	- Kinematics of the Foot/Ankle Complex
3	Mon	Lab		**Lab 2, cont'd. =** process and analyze data from wk 2; assemble reference/baseline spreadsheet
4	Mon	2	B	- Kinematics of the Knee
4	Mon	Lab		**Lab 2, cont'd. =** students present data from weeks 1 (Lab1) and 2 of uninvolved with comparisons to literature
5	Mon	2	C	- Kinematics of Hip - Outcome Measures for O & P
5	Mon	Lab		**Lab 3 =** Outcome Measures Tests performed (i.e. TUG test, L-test, etc…)
6	Mon	2	D	- Kinematics of the Trunk and Pelvis
6	Mon	Lab		**- Possible field trip to Gait Analysis Lab**
7	Mon	2	E	- Objective Gait Analysis of Total Limb Function
7	Mon	Lab		**- Possible field trip to Gait Analysis Lab**
8	Mon	3	A B	- Pathological Mechanisms of Gait - Foot and Ankle Deviations
8	Mon	Lab		- Complete AAOP online module = "The Effect of an Ankle Foot Orthosis on Gait Parameters in Hemiplegic Subjects"
9	Mon			**Spring Break Holiday**
9	Mon	Lab		**Spring Break Holiday**
10	Mon	1 A-C & 2A-E		- **Midterm Exam** - Instructor Demo of Data Acquisition of patient *without* AND *with* orthotic intervention; also demo of data processing and analysis
10	Mon	Lab		- Instructor Demo of Data Acquisition of patient with prosthetic intervention; also demo of data processing and analysis
11	Mon	3	C	- Knee Deviations
11	Mon	Lab		**Lab 4** = analyze and process data from acquisition of student fit Metal AFOs (Ox Proj #5) from previous week
12	Mon	3	D	- Hip Joint Deviations

12	Mon	Lab		- Present data from **Lab 4** **Lab 5** = analyze and process data from acquisition of prosthetic device (Px Proj #5 = TSB-Locking Liner) from previous week
13	Mon	3	E	- Objective Gait Analysis of Pathological
13	Mon	Lab		- Present data from **Lab 5**
14	Mon			- work with orthotic patient models for fit & deliver of thermoplastic AFOs
14	Mon	Lab		**Lab 6 =** acquire data from patient models with thermoplastic AFOs (Ox Proj #6)
15	Mon			**Lab 7** = process and analyze data from acquisition during prosthetic course of device TSL Suction Liner (Px Proj #6) from previous week
15	Mon	Lab		**Lab 8** = process and analyze data of patient model *without intervention* from acquisition during orthotic course of Synthesis Device (Ox Proj #7) from previous week
16	Mon		Units 1-3, All topics	**Final Written Exam**
16	Mon	Lab		**Final Practical/Video Exam**
17	Mon			Presentation of **Lab 7** to peers and instructors
17	Mon	Lab		Presentation of **Lab 8** to peers and instructors

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards. Gait Analysis was also one of the didactic courses that now incorporates lab hours to increase student's understanding and analysis skills in observing normal and pathological gait.

PRO 3301C Transtibial Prosthetics

2013 Course Syllabus

Instructors

Angela Courtade, LCPO
Office Location: OP212
Office Hours: TBD
Phone: 727-341-4151
E-mail: Courtade.Angela@spcollege.edu

Prerequisites

Admission to the Orthotics and Prosthetics BAS program and completion of PRO 3100, PRO 3120C, PRO3200C, PRO 3500C

Co-requisites

None

Course Description

This course will present prosthetic treatment modalities of the lower extremity distal to the knee. Students in this course will receive instruction on the assessment, formulation, implementation and follow up of a prosthetic treatment plan for transtibial and symes amputation levels. Concurrent lower extremity lab activities with patient models will allow the student to correlate clinical findings with evidence based practice to synthesize the significance of the appropriate choice of components, principles, material properties, socket design, prosthetic alignment and medical management. Application of technology including CAD/CAM imaging will be incorporated throughout the course projects. Relevant case studies will be discuss to facilitate clinical problem solving skills. 167 contact hours

Meeting Information

Mondays: Lecture 8:00 am – 11:00 am
Tuesdays: Laboratory 12:00 – 6:00 pm

Class Location

Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Rooms OP 126, OP 203, OP 205 (see course schedule).

Major Learning Outcomes

Upon completion of this course, the student will be capable of:

Explaining the anatomy and biomechanics of the transtibial and/or symes residual limb.
Completing a comprehensive lower residual limb evaluation/assessment.
Applying biomechanical principles in the development and design of transtibial and/or symes treatment plans.
Fabricating transtibial and/or symes prosthetic devices.
Developing and implementing an effective follow-up plan to assure optimal fit and function of the transtibial and/or symes prosthesis.

Explaining the use of various transtibial and symes prosthetic devices.

Student Learning Outcomes

Upon completion of this course, the student will be capable of:

1. Explaining the anatomy and biomechanics of the transtibial and/or symes residual limb by:
   a. contrasting intact and amputated lower extremity anatomy and biomechanics.
   b. describing various amputation procedures and techniques distal to the knee.
   c. describing the processes involved in the development and maturation of the adult pattern of gait.

2. Completing a comprehensive lower residual limb evaluation/assessment by:
   a. compiling a comprehensive patient history using standardized tools and methods to understand the patient's prosthetic needs.
   b. evaluating specific functional clinical measurements using scientifically validated outcome measures.
   c. identifying the design, materials, components, and alignment to support the prosthetic treatment plan to meet the patient's goals and biomechanical objectives.

3. Applying biomechanical principles in the development and design of transtibial and/or symes treatment plans by:
   a. using the appropriate techniques, tools and equipment to provide a transtibial or symes intervention.
   b. discerning the possible interaction between the device and thepatient with respect to applied forces and contact.
   c. assessing the quality and structural stability of the transtibial and/or symes prosthesis based on the needs and goals of the patient.
   d. evaluating the fit and function of the prosthesis as used by the patient and making adjustments as necessary to obtain optimal function and meet patient goals.
   e. performing transfer methods and initial gait and mobility instructions that provide for patient safety.
   f. documenting the level of patient comprehension of the instructions given.

4. Fabricating transtibial and/or symes prosthetic devices by:
   a. evaluating, measuring and casting various transtibial and/or symes residual limbs.
   b. selecting the appropriate socket design, interface material, socket material and modifying the residual limb impression to obtain optimal function to meet patient goals.
   c. selecting the appropriate components and alignment to obtain optimal function to meet patient goals and medical management.

5. Developing and implementing an effective follow-up plan to assure optimal fit and function of the transtibial and/or symes prosthesis by:
   a. providing effective, culturally appropriate instruction to patients, family members and caregivers on the care, use and maintenance of the prosthesis, skin care and wearing schedules for the device.
   b. developing a long term follow-up plan to include continual assessment, patient care and periodic evaluation to assure, maintain and document optimal fit and functionality of the prosthetic device.
   c. demonstrating follow-up assessments regarding fit and functionality of the device using scientifically validated outcome measures.
   d. maintaining documentation of all interactions with the patient and caregivers.

6. Explaining the use of transtibial and/or symes prosthetic devices by:

a. performing and/or observing a supervised assessment of a patient with a transtibial and/or symes residual limb.
b. performing and/or observing a supervised formation of a treatment plan for a patient with a transtibial and/or symes residual limb.
c. performing and/or observing implementation of a treatment plan for a patient with a transtibial and/or symes residual limb.
d. performing and/or observing a supervised follow-up plan for a patient with a transtibial and/or symes residual limb.

Required Text Books (student purchase)

T1 Hsu, J; Michael, JW; Fisk, JR. *AAOS Atlas of Orthoses and Assistive Devices*, 4th ed. Philadelphia: Mosby Elsevier, 2008. ISBN 978-0-323-03931-4

T2 Lusardi, MM. and Nielson, CC. *Orthotics and Prosthetics in Rehabilitation*, 2nd ed. St. Louis: Saunders Elsevier, 2007. ISBN 978-0-7506-7479-9

T3 Seig, K and Adams, S. *Illustrated Essentials of Musculoskeletal Anatomy*, 5th ed. Gainsville, FL: Megabooks, 1993. ISBN 0-935157-077

T4 Shoe Modification book from APIS Footwear, 2239 Tyler Avenue, South El Monte, CA 91733. 1-888-937-2747

T5 Smith, D., Michael J., Bowker, J., *Atlas of Amputations & Limb Deficiencies, 3rd Edition*, Rosemont, IL: American Academy of Orthopedic Surgeons, 2004, ISBN 0-89203-313-4

Supplemental Materials (provided)

- PowerPoint Presentations
- Assorted Handouts (various topics)
- Fabrication Manuals
- Assessment Rubrics
- AAOP On-Line Learning Modules (AAOP student membership required)

Technology

All students are expected to access **ANGEL** resource site as well as the College of Orthotics & Prosthetics Student Commons

Course Evaluation Strategies

Unit 1	Amputation Surgeries & Post-Operative Management	**Midterm**
Unit 2	Lower Extremity Prosthetic Components	**Midterm**
Unit 3	Patellar Tendon Bearing (PTB) Prostheses & Variations….Topics A-C	**Midterm**
Unit 3	Patellar Tendon Bearing (PTB) Prostheses & Variations….Topics D-F	**Final**
Unit 4	Symes Amputation and Prostheses	**Final**

- Discussion Board Participation
- Other AAOP OLC Quizzes or Exercises incorporated into Lab Project Rubrics

Lab Projects 1a, 1b & 1c	Elastic Bandage Wrapping, Shrinker Measurement & Fitting and Post-Operative Prosthetic Fitting	**Rubric 1**
Lab Project 2	Prosthetic Foot Identification Lab	**Rubric 2**
Lab Project 3	PTB Prosthesis	**Rubric 3**
Lab Project 4	PTB SC/SP Prosthesis	**Rubric 4**
Lab Project 5	TSB Locking Liner Prosthesis	**Rubric 5**
Lab Project 6	TSB Suction Liner Prosthesis	**Rubric 6**

Lab Project 7 Synthesis Project	**Rubric 7**
Cumulative Final Exam	

Assignments and Grading Scale

OLC module of the SCC "*Post-Operative Management of the Lower Limb Amputation"*	5%
Discussion Board Participation	15%
Rubric 1a, 1b & 1c	5 %
Rubric 2 Prosthetic Foot Identification Lab	5 %
Rubric 3 PTB	5 %
Midterm Exam	**20 %**
Critique 4 PTB-SC/SP	5 %
Critique 5 TSB Locking Liner	5 %
Critique 6 TSB Suction Liner	5 %
Critique 7 Synthesis Project	10 %
Final Exam	**20 %**
Total	**100 %**

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PRO 3301C Transtibial Prosthetics
2013 Course Table of Contents

Unit	Unit and Topic Titles
Unit 1	**Amputation Surgery & Post-Operative Care** A. Anatomy & Biomechanics of the Foot & Ankle B. Clinical Assessment of the Foot & Ankle C. Clinical Assessment of TT Residual Limb D. Etiology & Incidence of TT Amputation E. Postoperative Management of the Lower Extremity Amputation F. Early & Temporary Prosthetic Fitting G. Ox & Px Management of the Neuropathic Foot H. Partial Foot Prosthoses
• Reading	T1 - Chapters 1, 22-23, 30 T2 - Chapters 9, 20-23, 25 T3 - pgs 79-132 T5 - Chapters 1-6, 34-35, 38-39, 48, 61-62 - AAOP Module *"Postoperative Management of the Lower Extremity Amputation"* - AAOP Module "*Orthotic Management of the Neuropathic Foot"* - AAOP Module *"The Biomechanics of Ambulation After Partial Foot Amputation"* - Carroll and Edelstein, *Prosthetics and Patient Management: A Comprehensive Clinical Approach*, 2006, Ch. 5 (pgs 53-65) and Appendices A - C; SLACK, Thorofare, NJ. (pdfs available on ANGEL) - *Estimating the Prevalence of Limb Loss in the United States: 2005 to 2050*; Ziegler-Graham, et al; *Arch Phys Med Rehabil*; Vol 89, pgs 422-429; March 2008 (pdf available on ANGEL) - *Footwear Used by Individuals with Diabetes and a History of Foot Ulcer*; Reiber, et al: *JRRD*, 2002, 39:5, 622-625. (pdf available on ANGEL)
Unit 2	**Prosthetic Components Distal to the Knee** A. Biomechanical Principles of Transtibial Prosthetics B. Transtibial Socket Design, Components and Suspension C. Prosthetic Socks D. Prosthetic Feet & K-Levels E. Transtibial Gait Deviations
• Reading	T2 - Ch 7 (pgs 137-142 & 146-151); 24; 26 T5 - Chs 29, 30 (pgs. 367-375), 31 pgs. 385-390), 32, 33 and 39; 39 (pgs 507-509; 510-513); 32 - AAOP Module "*Prosthetic Foot/Ankle Mechanisms"* - Bowker and Michael. *AAOS Atlas of Limb Prosthetics: Surgical, Prosthetic, and Rehabilitation Principles;* 2nd edition; 1992, reprinted 2002. Ch 18. (Available at http://www.oandplibrary.org/alp/chap18-02.asp)

Unit 3	**Patellar Tendon Bearing (PTB) Prosthesis & Variations** A. Bench Alignment B. Skin Disorders and Management C. Coding for Transtibial & Symes Prostheses D. TT Prescription Recommendation E. Static & Dynamic Alignment F. TSB - Locking Liner & Suction
• Reading	T5 = Chapters 33 (pgs 409-420; 423-427); 39; 48 (pgs 589-606); 49 (pgs 621-623; 626; 628-631); 50; 55 (pg. 701-710); T2 = Chapters 26; 27; - *Trans-tibial Alignment – Normal Bench Alignment*; Lannon. *OrthoLetter*; ISPO, 2003. (pdf available on ANGEL) – Carroll and Edelstein, *Prosthetics and Patient Management: A Comprehensive Clinical Approach*, Ch. 5, pgs 53-65 (pdf available on ANGEL) – *Caring for Your Skin*, from First Step: A Publication of the Amputee Coalition of America; Rossbach. Vol 4, 2005 (pdf available on ANGEL) –OPIE Software (Provided) - *Conventional and Hydrostatic Transtibial Interface Comparison*; Kahle. *JPO 1999*; Vol 11, No 4, pg 85-91. (pdf available on ANGEL) - *The UCLA total surface bearing suction below knee prosthesis*. Staats TB, Lundt J. *Clin Prosthet Orthot* 1987; 11:118-130. (pdf available on ANGEL) - *Canadian Association of Prosthetists and Orthotists – Clinical Aspects of Lower Extremity Prosthetics* (**CAPO**), 1991, Ch 2.1 Biomechanics of Socket Fit, pg 59-67. (pdf available on ANGEL)
Unit 4	**Symes Prosthesis =** A. Syme's Amputation – Surgical Technique & Rationale B. Socket Designs & Prosthetic Feet for the Syme's Ankle Disarticulation Prosthesis C. Biomechanics of the Ankle Disarticulation Prosthesis – Gait & Alignment D. Syme's Measurement Steps
• Reading	T5 – Chs 36; 37 T2 = Chs 22 (pgs 579-580); 25 (pgs 668-677) - Bowker and Michael. *AAOS Atlas of Limb Prosthetics: Surgical, Prosthetic, and Rehabilitation Principles;* 2nd edition; 1992, reprinted 2002. Ch 17. (Available at http://www.oandplibrary.org/alp/chap17-01.asp) - Canadian Association of Prosthetists and Orthotists (CAPO). *Clinical Aspects of Lower Extremity Prosthetics: Transtibial, Symes and Partial Foot Amputations*; 1991. Sections 3.0 - 3.8. (pdf available on ANGEL)
Lab Projects 1a, 1b & 1c	Students utilize patient &/or mock models to practice: (a) ace wrapping residual limb, (b) measuring & fitting limb for shrinkers and (c) fitting of pre-fabricated post-operative systems; instructor critique of each aspect of project
Lab Project 2	Prosthetic Foot Identification Lab = students rotate from station-to-station (8-10 total) of various prosthetic feet to identify components, describe characteristics, evaluate function and answer questions or perform a different task with each prosthetic foot. Students to complete & turn in worksheet at end of lab session
Lab Project 3	PTB Prosthesis = students will work in pairs with one patient model; each student will evaluate, assess, measure & capture a negative impression for a PTB designed socket; students will then convert negative impression to working positive model that will be modified; students will fabricate pelite liner with distal end pad as well as diagnostic socket; students will use socks & sock-ply fit as well as neoprene or cuff strap suspension; patient models will be fit; instructor evaluates fit & function; students then work in pairs to complete transfer alignment & fabricate definitive laminated socket; instructor check out & critique at the end of the task
Lab Project 4	PTB SC/SP Prosthesis = students will work in pairs with one patient model or on each other; each student will evaluate, assess, measure & capture a PTB SC/SP negative impression; students will convert negative impression to positive working model that will be modified; students will then fabricated pelite medial wedge to fit inside a PTB SC/SP

	diagnostic proximal brim; then, the proximal brim with medial pelite wedge will be fit and function assessed for adequate suspension; final device will be critiqued by instructor
Lab Project 5	TSB Locking Liner Prosthesis = students work in pairs with one patient model; each student will evaluate, assess, measure & capture a negative impression for a TSB design socket; students will then convert negative impression to a working positive model that will be modified; students will fabricate a diagnostic socket attached to endoskeletal components with K2 or K3 level prosthetic foot; bench align components onto an alignable system; fit device on patient model; fit & function of device critiqued by instructor; students then work in pairs to complete transfer alignment & fabricate definitive laminated socket; instructor check out & critique at the end of the task; ALSO students assess function of device on Gait Rite mat system; acquire, process, analyze and present data to peers & instructor.
Lab Project 6	TSB Suction Liner Prosthesis = students work in pairs with one patient model; each student will evaluate, assess, measure & capture a negative impression for a TSB design socket; students will then convert negative impression to a working positive model that will be modified; students will fabricate a diagnostic socket attached to endoskeletal components with K3 or K4 level prosthetic foot; bench align components onto an alignable system; fit device on patient model; fit & function of device critiqued by instructor; students then work in pairs to complete transfer alignment & fabricate definitive laminated socket; instructor check out & critique at the end of the task; ALSO students assess function of device on Gait Rite mat system; acquire, process, analyze and present data to peers & instructor.
Lab Project 7	Synthesis Project – students work with patient models to assess & develop treatment plan; each student will then evaluate, measure & capture a negative impression of residual limb; socket design will be determined by student; students will then convert negative impression to a working positive model that will be modified according to the treatment plan; students will fabricate a diagnostic socket attached to endoskeletal components with clinically indicated K-Level prosthetic foot; students will then fit device; fit & function of device critiqued by instructor. If time permits, students will have patient models ambulate on Gait Rite Mat system to acquire, process, analyze and then present data to peers and instructor.

PRO 3301C Transtibial Prosthetics

2013 Course Table of Content

2011 Course Schedule (Lectures, Labs, *Patient/Models, Exams, Holidays)

Wk	Date	Unit	Topic Project	Title
1	??	1	A	**- Introduction to Courses & Syllabi** **- Review Anatomy & Biomechanics of the Foot & Ankle;**
1	??	1 Lab	B-F	**- Clinical Assessment of the Foot & Ankle** **- Clinical Assessment of TT Residual Limb** **- Etiology & Incidence of TT Amputation** **- Post-Operative Management of the Lower Extremity Amputation** **- Early & Temporary Prosthetic Fitting** Clinical Evaluation of Foot & Ankle
2	??	Labs		1a. Elastic Bandage Wrapping Exercise 1b. Shrinker Measurement and Fitting Exercise
2	??	1	G-H	1c. Pre-fabricated Post-op Prosthetic Fitting **- Ox & Px Management of the Neuropathic Foot** **- Partial Foot Prosthoses** Evaluation of a High Risk Foot & Partial Foot Prosthosis Casting
3	??	2	A-C	**- Biomechanics of Transtibial Prosthetics** **- Transtibial Socket Design, Components & Suspension** **- Prosthetic Socks**

3	??	2 Lab 3, Lab	D-E A	**- Prosthetic Feet & K Levels** **- Transtibial Gait Deviations** 2. Prosthetic Foot Identification Exercise 3. PTB Prosthesis demo casting
4	??	3, Lab		3. PTB Prosthesis – Cast & pour impression
4	??	3, Lab		3. PTB Prosthesis – Modify & fabricate pelite liner with end pad
5	??	3, Lab		3. PTB Prosthesis – Demo fabricate Diagnostic Socket
5	??	3 Lab 3	A-C	**- PTB Bench Alignment** **- Skin Disorders and Management** 3. PTB Prosthesis – Complete Fabrication of Diagnostic Socket & Bench Align **- Transtibial Coding**
6	??	3 Lab	D	**- TT Prescription Recommendation** 3. PTB Prosthesis – Demo: Fitting, Evaluation & Transfer of Alignment
6	??	Lab		3. PTB Prosthesis – Fitting & Evaluation of Diagnostic socket; Transfer of Alignment ; Laminate Socket
7	??	Lab		4. PTB-SC/SP – Demo: Casting & Modification
7	??	Lab		4. PTB – SC/SP – Cast , pour impression & modify
8	??	Lab		4. PTB- SC/SP - Pull Kealy liner & begin diagnostic socket
8	??			4. PTB- SC/SP - Fitting & Evaluation of brim
9	??			**SPRING BREAK**
10	??	1-3 Lab	**Up to 3C**	**Midterm Exam** **- Total Surface Bearing** 5. TSB Locking Liner – Demo: Casting & Measuring
10	??	Lab		5. TSB Locking Liner – Casting, Measuring and Modifications
11	??	 Lab		**Review Midterms** 5. TSB Locking Liner – Demo: Diagnostic socket & bench align
11	??	Lab		5. TSB Locking Liner – Fabricate diagnostic socket, bench align, Gait Assessment, Transfer Alignment, fabricate laminate definitive socket, restore alignment, check-out & critique
12	??	Lab		6. TSB Suction Liner – Demo: Evaluate, measure & casting
12	??	Lab		6. TSB Suction Liner – Evaluate, measure, casting & modification
13	??	Lab		6. TSB Suction Liner – Demo: Diagnostic socket & bench alignment
13	??	Lab		6. TSB Suction Liner – Diagnostic socket & bench alignment
14	??	4	A-C?	**- Symes Amputation – Surgical Technique & Rationale** **- Socket Design & Prosthetic Feet for the Syme's Ankle Disarticulation Prosthesis** **- Biomechanics of the Ankle Disarticulation Prosthesis – Gait & Alignment**
14	??			6. TSB Suction Liner – Fit & evaluate: Transfer alignment, fabricate polymer definitive socket, critique & check out **- Symes Measurement Steps**
15	??	 Lab		7. Synthesis Project - Assess patient model & develop treatment plan; Image capture for proposed px & pour cast
15	??	Lab		7. Synthesis Project - Cast modification; Fabricate diagnostic socket, set-up and bench align
16	??	Lab		7. Synthesis Project - Fit prosthesis
16	??	Lab		7. Synthesis Project - Align & evaluate prosthesis; Fabricate Prosthesis to completion
17	??			**Discussion Board Case Study Presentations**
17	??			**Final Written Exam** in Trans Tibial Prosthetics **Final Practical Exam** in Trans Tibial Prosthetics

PRO 3301C Transtibial Prosthetics
Laboratory Assessment Rubric
Project #1

Assignment Title: ___# 1a = Elastic Bandage Wrapping Exercise_____
____#1b = Shrinker Measuring and Fitting Exercise_____
____#1c = Fitting of Prefabricated Postoperative System_____

Student Name: _____ Submission Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	____
Knowledge	Scores 72 to 80 on the Academy module "Postoperative Management of the Lower Extremity Amputation".	Scores 64 to 71 on the Academy module.	Scores 56 to 63 on the Academy module.	Scores 62 or below on the Academy module.	____
Measurements	Appropriate and accurate landmarks identified and marked; measurements taken and recorded.	1-2 minor errors on landmarks or measurements.	3-4 minor errors on landmarks or measurements.	More than 4 minor errors or a single major error on landmarks or measurements.	____
Fit & Function of ACE wrapping	ACE wrapping fits and functions properly to model.	ACE wrapping fits and functions properly following 1-2 minor adjustments.	ACE wrapping fits and functions properly after 3 or more adjustments.	ACE wrapping does not fit and/or function properly.	____
Fit & Function of Shrinker	Shrinker fits and functions properly to model.	Shrinker fits and functions properly following 1-2 minor adjustments.	Shrinker fits and functions properly after 3 or more adjustments.	Shrinker does not fit and/or function properly.	____
Fit & Function of Prefabricated Postoperative System	Device fits and functions properly to model.	Device fits and functions properly following 1-2 minor adjustments.	Device fits and functions properly after 3 or more adjustments.	Device does not fit and/or function properly.	____

Score: _____

Comments:

PRO 3301C Transtibial Prosthetics
Laboratory Assessment Rubric
Project #2

Assignment Title: ___*Prosthetic Foot Identification Exercise* _____

Student Name: _____ Submission Date: _____

1. What is the classification of this group of prosthetic feet? Please biomechanically justify your answer.
2. Within this particular prosthetic foot, what components/materials are used to control the (a) heel; (b) keel; and (c) toe? Please explain when and why you would recommend this particular foot design for a transtibial patient?
3. What movements does this prosthetic foot classification allow? Please identify the prosthetic foot classification as well as describe which anatomical structure(s) is this group replacing.
4. What are the clinical indications for this type of foot? What K-level is this prosthetic foot indicated? Please explain the advantages as well as the disadvantages of this particular prosthetic foot design.
5. What are the advantages for this type of foot? Explain how this prosthetic foot replaces the functional tasks of the missing anatomy during the stance phase of gait.
6. What are the disadvantages for this type of foot? When would this prosthetic foot be clinically indicated?
7. Question for a Symes level prosthetic foot
8. A station with four different prosthetic feet labeled “a” through “d’ and a question for the student to identify the prosthetic foot for a Medicare patient functional category of K-2.
9. A station with four different prosthetic feet labeled “a’ through ‘d’ and a question for the student to identify the prosthetic foot for a Medicare patient functional category of K-0

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	Student is prepared for lab and has reviewed the material.			Student is not prepared and has not reviewed the material.	____
Knowledge	Scores 95 to 100 on the Academy module “Prosthetic Foot/Ankle Mechanisms”.	Scores 85 to 94 on the Academy module.	Scores 75 to 84 on the Academy module.	Scores 74 or below on the Academy module.	

Score: _____

Comments:

PRO 3301C Transtibial Prosthetics
Laboratory Assessment Rubric
Project #3

Student Name: _____ Submission Date: _____

Assignment Title: _____*PTB Prosthesis*_____ Partner: _____

Patient: _____ Diagnosis: _____

Side: **L** or **R** or **Bilat** Foot Size: _____ Ht: _____ Wt: _____ K-level: _____

	Target 10	**Acceptable 8**	**Emergent 6**	**Unacceptable 4**	**Score**
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly. To include: ht, wt, ROM (active & passive); residual limb length; circumferences; etc.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Landmarks	Appropriate and accurate landmarks identified and marked; To include: patella, patella tendon, tibial tubercle, fibular head, crest of tibia, other boney prominences.	1-2 minor errors on landmarks.	3-4 minor errors on landmarks.	More than 4 minor errors or a single major error on landmarks.	
Measurements & Image Capture	Measurements taken and recorded; impression or scan taken. Negative impression is appropriate for residual limb length, ML and AP.	1-2 minor errors on measurements, impression or scan.	3-4 minor errors on measurements, impression or scan.	More than 4 minor errors or a single major error on measurements, impressions or scan.	

Positive Modification Model	Appropriate and accurate alignment of pipe for AP & ML; Build-ups (Fib head, tibial tubercle, patella, hamstrings & posterior shelf) and reductions (patella tendon, anterior compartment, medial flare, lateral fibular shaft, popliteal & gastroc bulge) Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Socket fitting	Patient is comfortable; able to flex their knee to 90°; adequate sock ply; Anterior & Posterior Trimlines are acceptable; Medial & Lateral trimlines are acceptable; Fit is acceptable	1-2 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	3-4 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	More than 4 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	
Static Alignment	Pelvis is level; pylon is ⊥ to the floor; A-P placement of foot 1"; M-L placement of foot 1/2"; Suspension is appropriate and adequate.	1-2 errors in static and/or dynamic alignment.	3-4 errors in static and/or dynamic alignment.	More than 4 errors in static and/or dynamic alignment.	
Dynamic Alignment/ Gait Mat assessment	Complete = 3	Incomplete = 2	Not done = 0		
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, finish, fasteners and straps. Smooth edges and lines. Overall appearance is acceptable.	1-2 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	3-4 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	More than 4 minor or a single major error on materials, components, finish, fasteners, straps or edges.	
Billing & Documentation	**Billing and documentation is complete and thorough.**	**1-2 errors in billing and/or documentation.**	**3-4 errors in billing and/or documentation**	**More than 4 minor or a single major error in billing and/or documentation.**	

Comments: **Score: _____**

PRO 3301C Transtibial Prosthetics
Laboratory Assessment Rubric
Project #4

Student Name: _____ Submission Date: _____

Assignment Title: __*PTB-SC/SP Socket Design*_____ Partner: _____

Patient: _____ Diagnosis: _____

Side: **L** or **R** or **Bilat** Foot Size: _____ Ht: _____ Wt: _____ K-level: _____

	Target 10	**Acceptable 8**	**Emergent 6**	**Unacceptable 4**	**Score**
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly. To include: ht, wt, ROM (active & passive); residual limb length; circumferences; AP's; ML's; PML's; etc.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Landmarks	Appropriate and accurate landmarks identified and marked; To include: patella, patella tendon, tibial tubercle, fibular head, crest of tibia, other boney prominences.	1-2 minor errors on landmarks.	3-4 minor errors on landmarks.	More than 4 minor errors or a single major error on landmarks.	
Measurements & Image Capture	Measurements taken and recorded; impression or scan taken. Negative impression is appropriate for residual limb length, circumferences, ML's	1-2 minor errors on measurements, impression or scan.	3-4 minor errors on measurements, impression or scan.	More than 4 minor errors or a single major error on measurements, impressions or scan.	

	and AP's.				
Positive Modification Model	Appropriate and accurate alignment of pipe for AP & ML; Build-ups (Fib head, tibial tubercle, patella, hamstrings & posterior shelf) and reductions (patella tendon, anterior compartment, medial flare, lateral fibular shaft, popliteal & gastroc bulge) Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Medial Wedge & Brim Fabrication	Pelite medial wedge is fabricated appropriately based on: location; shape; thickness; beveled edges; Proximal brim is fabricated appropriately based on: correct material; procedure; smoothed edges.	1-2 minor errors with pelite wedge or brim fabrication.	3-4 minor errors with pelite wedge or brim fabrication.	More than 4 minor errors or a single major error with pelite wedge or brim fabrication.	
Socket fitting	Patient is comfortable; able to flex their knee to 90°; adequate sock ply; Anterior & Posterior Trim lines are acceptable; Medial & Lateral trim lines are acceptable; PML is adequate. Suspension is achieved.	1-2 errors in either patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines; or inadequate suspension.	3-4 errors in either patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines; or inadequate suspension.	More than 4 errors in either patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines; or inadequate suspension.	
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, finish, fasteners and straps. Smooth edges and lines. Overall appearance is acceptable.	1-2 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	3-4 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	More than 4 minor or a single major error on materials, components, finish, fasteners, straps or edges.	
Billing & Documentation	**Billing and documentation is complete and thorough.**	**1-2 errors in billing and/or documentation.**	**3-4 errors in billing and/or documentation**	**More than 4 minor or a single major error in billing and/or documentation.**	

Comments: **Score: _____**

PRO 3301C Transtibial Prosthetics
Laboratory Assessment Rubric
Project #5

Student Name: _____ Submission Date: _____

Assignment Title: _____TSB-LL *Prosthesis*_____ Partner: _____

Patient: _____ Diagnosis: _____

Side: **L** or **R** or **Bilat** Foot Size: _____ Ht: _____ Wt: _____ K-level: _____

	Target 10	**Acceptable 8**	**Emergent 6**	**Unacceptable 4**	**Score**
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly. To include: ht, wt, ROM (active & passive); residual limb length; circumferences; AP's; ML's; etc.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Landmarks	Appropriate and accurate landmarks identified and marked; To include: patella, patella tendon, tibial tubercle, fibular head, crest of tibia, other boney prominences.	1-2 minor errors on landmarks.	3-4 minor errors on landmarks.	More than 4 minor errors or a single major error on landmarks.	
Measurements & Image Capture	Measurements taken and recorded; impression or scan taken. Negative impression is appropriate for residual limb	1-2 minor errors on measurements, impression or scan.	3-4 minor errors on measurements, impression or scan.	More than 4 minor errors or a single major error on measurements,	

	length, circumferences, ML's and AP's.			impressions or scan.	
Positive Modification Model	Appropriate and accurate alignment of pipe for AP's, ML's and reductions; Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Socket fitting	Patient is comfortable; able to flex their knee to 90°; adequate sock ply; Anterior & Posterior Trimlines are acceptable; Medial & Lateral trimlines are acceptable; Fit is acceptable	1-2 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	3-4 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	More than 4 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	
Static Alignment	Pelvis is level; pylon is ⊥ to the floor; A-P placement of foot 1"; M-L placement of foot 1/2"; Suspension is appropriate and adequate.	1-2 errors in static and/or dynamic alignment.	3-4 errors in static and/or dynamic alignment.	More than 4 errors in static and/or dynamic alignment.	
Dynamic Alignment/Gait Mat assessment	Complete = 3	Incomplete = 2	Not done = 0		
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, finish, fasteners and straps. Smooth edges and lines. Overall appearance is acceptable.	1-2 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	3-4 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	More than 4 minor or a single major error on materials, components, finish, fasteners, straps or edges.	
Billing & Documentation	**Billing and documentation is complete and thorough.**	**1-2 errors in billing and/or documentation.**	**3-4 errors in billing and/or documentation**	**More than 4 minor or a single major error in billing and/or documentation.**	

Comments: **Score: _____**

PRO 3301C Transtibial Prosthetics
Laboratory Assessment Rubric
Project #6

Student Name: _____ Submission Date: _____

Assignment Title: _____TSB-Suction *Prosthesis*_____ Partner: _____

Patient: _____ Diagnosis: _____

Side: **L** or **R** or **Bilat** Foot Size: _____ Ht: _____ Wt: _____ K-level: _____

	Target 10	**Acceptable 8**	**Emergent 6**	**Unacceptable 4**	**Score**
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly. To include: ht, wt, ROM (active & passive); residual limb length; circumferences; AP's; ML's; etc.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Landmarks	Appropriate and accurate landmarks identified and marked; To include: patella, patella tendon, tibial tubercle, fibular head, crest of tibia, other boney prominences.	1-2 minor errors on landmarks.	3-4 minor errors on landmarks.	More than 4 minor errors or a single major error on landmarks.	
Measurements & Image Capture	Measurements taken and recorded; impression or scan taken. Negative impression is appropriate for residual limb	1-2 minor errors on measurements, impression or scan.	3-4 minor errors on measurements, impression or scan.	More than 4 minor errors or a single major error on measurements,	

	length, circumferences, ML's and AP's.			impressions or scan.	
Positive Modification Model	Appropriate and accurate alignment of pipe for AP's, ML's and reductions; Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Socket fitting	Patient is comfortable; able to flex their knee to 90°; adequate sock ply; Anterior & Posterior Trimlines are acceptable; Medial & Lateral trimlines are acceptable; Fit is acceptable	1-2 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	3-4 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	More than 4 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	
Static Alignment	Pelvis is level; pylon is ⊥ to the floor; A-P placement of foot 1"; M-L placement of foot 1/2"; Suspension is appropriate and adequate.	1-2 errors in static and/or dynamic alignment.	3-4 errors in static and/or dynamic alignment.	More than 4 errors in static and/or dynamic alignment.	
Dynamic Alignment/Gait Mat assessment	Complete = 3	Incomplete = 2	Not done = 0		
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, finish, fasteners and straps. Smooth edges and lines. Overall appearance is acceptable.	1-2 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	3-4 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	More than 4 minor or a single major error on materials, components, finish, fasteners, straps or edges.	
Billing & Documentation	**Billing and documentation is complete and thorough.**	**1-2 errors in billing and/or documentation.**	**3-4 errors in billing and/or documentation**	**More than 4 minor or a single major error in billing and/or documentation.**	

Comments: **Score: _____**

PRO 3301C Transtibial Prosthetics
Laboratory Assessment Rubric
Project #7

Student Name: _____ Submission Date: _____

Assignment Title: __*Synthesis Prosthesis Project*_____

Patient: _____ Diagnosis: _____

Side: **L** or **R** or **Bilat** Foot Size: _____ Ht: _____ Wt: _____ K-level: _____

Recommended Transtibial Prosthesis: _____

_____

_____

	Target 10	**Acceptable 8**	**Emergent 6**	**Unacceptable 4**	**NOTES**
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Assessment	Assessment performed and recorded correctly. To include: ht, wt, ROM (active & passive); residual limb length; circumferences; AP's; ML's; etc.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Landmarks	Appropriate and accurate landmarks identified and marked. Minimum to include: patella, patella tendon, tibial tubercle, fibular head, crest of tibia, other boney prominences.	1-2 minor errors on landmarks.	3-4 minor errors on landmarks.	More than 4 minor errors or a single major error on landmarks.	
Measurements &	Measurements taken and	1-2 minor errors on	3-4 minor errors on	More than 4 minor	

Image Capture	recorded; impression or scan taken. Negative impression is appropriate for residual limb length, circumferences, ML's and AP's.	measurements, impression or scan.	measurements, impression or scan.	errors or a single major error on measurements, impressions or scan.	
Positive Modification Model	Appropriate and accurate alignment of pipe for AP's, ML's; Build-ups and reductions are appropriate; Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Socket fitting	Patient is comfortable; able to flex their knee to 90°; adequate sock ply; Anterior & Posterior Trimlines are acceptable; Medial & Lateral trimlines are acceptable; Fit is acceptable	1-2 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	3-4 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	More than 4 errors in patient comfort & ability to flex knee to 90°; anterior, posterior, medial or lateral trim lines.	
Static Alignment	Pelvis is level; pylon is ⊥ to the floor; A-P placement of foot 1"; M-L placement of foot 1/2"; Suspension is appropriate and adequate.	1-2 errors in static and/or dynamic alignment.	3-4 errors in static and/or dynamic alignment.	More than 4 errors in static and/or dynamic alignment.	
Dynamic Alignment/Gait Mat assessment	Complete = 3	Incomplete = 2	Not done = 0		
Construction & Cosmesis	Device fabricated according to **recommendation**. Proper materials, components, finish, fasteners and straps. Smooth edges and lines. Overall appearance is acceptable.	1-2 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	3-4 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	More than 4 minor or a single major error on materials, components, finish, fasteners, straps or edges.	
Billing & Documentation	Billing and documentation is complete and thorough.	1-2 errors in billing and/or documentation.	3-4 errors in billing and/or documentation	More than 4 minor or a single major error in billing and/or documentation.	

Comments: **Score: _____**

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

PRO 3310C Lower Limb Orthotics I

2013 Course Syllabus

Instructors Thomas Chmielewski, LCPO

Office: OP210
Phone:727-341-4156
E-mail: Chmielewski.Tom@spcollege.edu

Prerequisites

Admission to the Orthotics and Prosthetics BAS program and completion of PRO 3100, PRO 3120C, PRO3200C, PRO 3500C

Co-requisites

None

Course Description

This course will present orthotic treatment modalities of the lower extremity distal to the knee. Students in this course will receive instruction on the assessment, formulation, implementation and follow up of an orthotic treatment plan for common foot and/or ankle disorders affecting pediatric, adult and geriatric populations. Concurrent lower extremity lab activities with patient models will allow the student to correlate clinical findings with evidence based practice to synthesize the significance of the appropriate choice of components, principles, material properties, and medical management. The student will interact with multiple orthotic systems. 122 contact hours.

Meeting Information

Fridays, Lectures 8:30 – 10:30pm
Fridays, Laboratory 10:30 – 5:00pm with 30 minute lunch

Class Location

Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Rooms OP 128, OP 203, OP 205 (see course schedule).

Major Learning Outcomes

Upon completion of this course, the student will be capable of:

Explaining the anatomy and biomechanics of the foot and ankle.
Completing a comprehensive lower limb orthotic evaluation/assessment.
Applying biomechanical principles in the development and design of the lower limb orthotic treatment plan.
Fabricating various lower limb orthotic devices.
Developing and implementing an effective follow-up plan to assure optimal fit and function of a lower limb orthosis.
Explaining the use of various lower limb orthotic designs.

Student Learning Outcomes

Upon completion of this course, the student will:

Explain the anatomy and biomechanics of the foot and ankle by:
Describing normal and abnormal anatomy and biomechanics.
Describing the processes involved in the development and maturation of the adult pattern of gait.
Describing common structural foot deformities.

2. Complete a comprehensive lower limb orthotic evaluation/assessment by:
Compiling a comprehensive patient history using standardized tools and methods of understand the patient's orthotic needs.
Evaluating specific functional clinical measurements using scientifically validated outcome measures.
Identifying impairments, functional limitations, goals and related biomedical objectives for the patient.
Documenting all information using established record keeping and coding techniques.

3. Apply biomechanical principles in the development and design of the treatment plan by:
a. using the appropriate techniques, tools, and equipment to provide an orthotic treatment plan.
b. considering the possible interaction between the device and the patient with respect to the corrective and accommodative treatment.
c. evaluating the fit and function of the orthosis used by the patient and making adjustments as necessary to obtain optimal function to meet patient goals.
d. performing transfer methods and initial gait and mobility instructions that provide for patient safety.
e. documenting the level of patient comprehension of instructions given.

4. Fabricate various lower limb orthotic devices by:
   a. selecting appropriate materials, components and alignments for the device chosen.
   b. modifying shoes and orthoses to meet the needs of the patient.
   c. casting and modifying various foot orthoses (FOs), supra-malleolar orthoses (SMOs), University of California Berkley Laboratories orthoses (UCBLs), and ankle foot orthoses (AFOs).

5. Develop and implement an effective follow-up plan to assure optimal ft and function of the lower limb orthosis by:
a. providing effective, culturally appropriate instruction to patients, family members and caregivers on the care, use and maintenance of the orthosis, skin care and wearing schedules for the devices.
b. developing a long term follow-up plan to include continual assessment, patient care and periodic evaluation to assure, maintain and document optimal fit and functionality of the orthotic device.
c. demonstrating follow-up assessments regarding fit and functionality of the device using scientifically validated outcome measures.
d. maintaining documentation of all interactions with patient and caregivers.

6. The student will explain the use of various lower limb orthotic designs by:
a. performing and/or observing a supervised assessment of a patient with an orthotic device.
b. performing and/or observing a supervised formation of a treatment plan for a patient with an orthotic device.
c. performing and/or observing implementation of a treatment plan for an orthotic device.

d. performing and/or observing a supervised follow-up plan for an orthotic device

Required Text Books (student purchase)

T1 Hsu, J; Michael, JW; Fisk, JR. *AAOS Atlas of Orthoses and Assistive Devices*, 4th ed. Philadelphia: Mosby Elsevier, 2008. ISBN 978-0-323-03931-4

T2 Lusardi, MM. and Nielson, CC. *Orthotics and Prosthetics in Rehabilitation*, 2nd ed. St. Louis: Saunders Elsevier, 2007. ISBN 978-0-7506-7479-9

T3 Seig, K and Adams, S. *Illustrated Essentials of Musculoskeletal Anatomy*, 5th ed. Gainsville, FL: Megabooks, 1993. ISBN 0-935157-077

T4 Shoe Modification book from APIS

T5 Smith, D., Michael J., Bowker, J., *Atlas of Amputations & Limb Deficiencies, 3rd Edition*, Rosemont, IL: American Academy of Orthopedic Surgeons, 2004, ISBN 0-89203-313-4

Supplemental Materials (provided)

- PowerPoint Presentations
- Assorted Handouts (various topics)
- Fabrication Manuals
- Assessment Rubrics
- AAPO On-Line Learning Center modules (AAOP OLC)

Technology

All students are expected to access **ANGEL** resource site as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Unit 1 Introduction to the Orthotic Management of the Foot — **Midterm**
Unit 2 Orthotic Management of the Foot — **Midterm**
Unit 3 Neuropathic Foot, Prosthoses and Shoes & Shoe Modifications — **Midterm**
Unit 4 Introduction to the Orthotic Management of the Ankle-Foot Complex — **Final**
Unit 5 Orthotic Management of the Ankle-Foot Complex Complex — **Final**

- Discussion Board Participation
- Other AAOP OLC Quizzes or Exercises incorporated into Lab Project Rubrics

Lab Project 1 Supportive and Rigid FOs — **Rubric 1**
Lab Project 2 UCBL FO — **Rubric 2**
Academy Today Quiz *"The Mechanics of Soft Tissue Damage"*
Lab Project 3 Accommodative FOs & Partial Foot Prosthosis — **Rubric 3**
OLC Module of the SSC "*Orthotic Treatment of the Neuropathic Foot*"
AAOP OLC module "*Orthotic Treatment of the Neuropathic Foot"*
Lab Project 4 Shoe & Shoe Modifications — **Rubric 4**
Lab Project 5 Metal AFO — **Rubric 5**
Lab Project 6 Molded PLS AFO and Molded Articulating AFO — **Rubric 6**
JPO Quiz 22-4B "*Trim line Severity Significantly Affects AFO Rotational Stiffness"*
Lab Project 7 Synthesis Project — **Rubric 7**
JPO Quiz 21-4B "*Effects of Clinically Prescribed Ankle Foot Orthoses on Ankle-Foot Roll-Over Shapes: A Case Series"*
Cumulative Final Exam — **Final Exam**

Assignments and Grading Scale

OLC module of the SCC "*Orthotic Treatment of the Neuropathic Foot"*	5%
Discussion Board Participation	15%
Rubric 1	5%
Rubric 2	5%
Rubric 3	5%
Rubric 4	5%
Midterm Exam	20%
Rubric 5	5%
Rubric 6	5%
Rubric 7	10%
Final Exam	20%
Total	**100 percent**

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required to pass this course. Late assignments will have a grade deducted for each day they are late.

Attendance Policy

Students must attend all class sessions. Should students not be present they must notify the program in advance of class by calling 341-4151. There are no excused absences in this program. Any student who misses MORE than five (5) classes, clinics or laboratory sessions is required to withdraw from that course and the O and P program. Each two times a student is late to class OR leaves class early counts as an absence. The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, plagiarism, bribery, misrepresentation, conspiracy and fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior. Students are required to submit their papers to www.turnitin.com for evaluation then print out the report and hand it in with their paper.

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus

Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

PRO 3310C Lower Limb Orthotics I

2012 Course Table of Content

Unit	Unit and Topic Titles
Unit 1	**Introduction to the Orthotic Management of the Foot** A. Anatomy & Biomechanics of the Foot & Ankle B. Clinical Assessment of the Foot & Ankle C. Pathomechanics of the Foot
Reading	T1- Chapters 1, 2, 22, 23, 25 T2- Chapter 9 T3- pgs 80-132
Unit 2	**Orthotic Management of the Foot** A. Foot Orthotic Treatment Plan B. Materials & Components C. Modifications for FOs D. FO Coding and Documentation
Reading	T1- Chapters 23 and 25 T2- Chapter 9 - OPIE Software (Provided)
Unit 3	**Neuropathic Foot, Prosthoses and Shoes & Shoe Modifications** A. Orthotic & Prosthetic Management of the Neuropathic Foot B. Partial Foot Prosthoses C. CROW Boot/Neuropathic Walkers D. Shoes & Shoe Modifications
Reading	*AAOP Online Module- Treatment of the Neuropathic Foot (SSC)* *AAOP Online Module- Biomechanics of Ambulation After Partial Foot Amputation (SSC)* T1- Chapters 24, 30 T2- Chapters 8, 21, 22, 25 T4 - pgs. 1 to VII-3 T5 – Chapters 34 & 35 - "*Footwear Used by Individuals with Diabetes & History of Foot Ulcer*"; JRRD; pdf (Provided) - "*Bivalve AFO for Treatment of Charcot Osteoarthoplasty*" by Roger Marzano, CPO, CPed; pdf (Provided)
Unit 4	**Introduction to Orthotic Management of the Ankle-Foot Complex** A. Orthotic Principles of AFOs B. Pathomechanics Distal to the Knee C. Assessment of the Lower Extremity Distal to the Knee D. The Orthotic Treatment Plan E. Coding and Documentation for AFOs
Reading	T1- Chapters 22, 26 (pgs 343-348) T2- Chapter 7 (pgs. 135-146), 10 T3- pgs 80-132 - "*Assessment Strategies for Lower Extremity Orthoses*", Lusardi & Nielsen, 1st edition, Ch 6. pdf (Provided) - OPIE Software (Provided) - Metal AFO Fabrication Manual (Provided)
Unit 5	**Orthotic Management of Ankle-Foot Complex** A. Patient Assessment & Treatment Plan for Plastic AFOs B. Materials & Components for Plastic/Hybrid AFOs C. Pediatric FOs, SMOs & AFOs D. Axial Resist AFOs E. Fracture Bracing
Reading	T1- Chapters 26-27, 30-34 T2- Chapters 4-7, 12, 14 - "*Clinical Assessment of Gait*"; Fish D., Nielsen, JP. JPO, April 1993, Vol 5, No 2,

	pgs. 39-48. pdf (Provided) - *"The Newborn Foot"*; Gore and Spencer. *Am Fam Physician*, 2004, Vol 69, pgs 865-872. - *"The Diagnosis of Flat Foot in the Child"*; Rose GK, Welton EA & Marshall T. *J Bone Joint Surg Br*, 1985, Vol 67, pgs 71-78. - *"Functional Bracing of Lower Extremity Fractures*"; Moore TJ. Ch 26, Atlas of Orthoses and Assistive Devices, 3rd edition1997. (pdf available on ANGEL)
Lab Project 1	Supportive and Rigid FOs – students cast each other (slipper cast and either foam box or digital scan); pour, modify and fabricate for each other 1 pair each of supportive and Rigid FOs; fit and adjust; instructor critique
Lab Project 2	UCBL FO – students cast each other (circumferential wrap); pour, modify and fabricate just one side UCBL; fit & adjust; instructor critique
Lab Project 3	Casting for Accommodative FOs & Partial Foot Prosthosis – students capture foam box impressions & digital scan of patient model (partial to full weight bearing impressions); present negative to instructor for critique
Lab Project 4	Cast for Custom Shoe & Shoe Modification Lab – students capture weight bearing impression of patient model; complete order form; instructor critique of negative and order; ALSO, students complete 2-3 different assigned shoe modifications on student shoes; students ambulate with shoes pre- & post-modifications and if time permits, use Gait Mat to assess pre- & post-modification ambulation; present shoes with modifications to instructor for critique
Lab Project 5	Metal AFO – student measure and create schema to each other for double upright AFOs; students fabricate device; fit device; assess device function on Gait Rite Mat; analyze, process and present data; instructor critique of metal AFO
Lab Project 6	Molded PLS AFO and Molded Articulating AFO – students work in pairs with one patient model to assess, measure & capture impression for AFO; instructor assigns biomechanically different devices for students to fabricate for patient; students then pour and modify impression; fabricate thermoplastic AFO; fit and adjust AFO to patient; assess patient *without* and *with* orthotic devices; collect, analyze, process & present data; instructor critique of completed device
Lab Project 7	Synthesis Project – students work with patient model to assess and develop treatment plan; student then measures & captures impression; pours & modifies the impression; fabricates recommended device; fits & adjusts recommended device; instructor critique of recommended device; student acquires gait data without and with orthotic intervention; data is processed, analyzed and presented to peers.

PRO 3310C Lower Limb Orthotics I

2012 Course Schedule

Wk	Date	Unit	Topic Project	Title
1	??	1 Lab	A-C	**Introduction the Orthotic Management of the Foot =** **Review Anatomy & Biomechanics of the Foot & Ankle; Clinical Assessment of the Foot & Ankle; Pathomechanics of the Foot** Clinical Evaluation of Foot & Ankle
1	??	2 Lab	A-C Projects1 & 2	**Foot Orthotic Treatment Plan; FO Materials & Components; Modifications for FOs** Project 1: Supportive and Rigid FOs – Cast, pour & modify Project 2: UCBL – Cast, pour & modify
2	??	2 Lab	D Projects1 & 2	**FO Coding & Documentation** Project 1: Supportive and Rigid FOs – Complete Fabrication Project 2: UCBL – Complete Fabrication
2	??	3 Lab	A-B Project 3	**Ox & Px Management of the Neuropathic Foot; Partial Foot Prosthoses** Project 3: Evaluation & Casting for Partial Foot Prosthosis; **Rubric 3**
3	??	3 Lab	C Projects1 & 2	**CROW Boot/Neuropathic Walkers** Project 1: Fitting & Critique of Supportive and Rigid FOs; **Rubric 1** Project 2: Fitting & Critique of UCBLs; **Rubric 2**
4	??	3 Lab	D Project 4	**Shoes & Shoe Modifications; How to Cast for Custom Shoes** Project 4: Cast for Custom Shoes & Complete Shoe Modifications Lab; Critique of Shoe Modifications; **Rubric 4**
5	??	4 Lab	A Project 5	**Orthotic Principles of AFOs; Pathomechanics Distal to the Knee** Project 5: Trace, Measure & Create Schema for Metal AFO
6	??	4 Lab	B Project 5	**Patient Assessment & AFO Treatment Plan** Project 5: Contour Frame and Calf Band for Metal AFO
7	??	4 Lab	C-D Project 5	**AFO Coding & Documentation** **Gait Assessment with & Without Ox** Project 5: Attach Stirrup, Metal Surface Conditioning & Fabricate Calf Cuff
8	??	4 Lab	E Project 5	**Gait Assessment with & Without Ox** Project 5: Fabricate to Completion; Fitting & Critique of Metal AFO; **Rubric 5**
9	**??**	**-**	**-**	**Spring Break**
10	??	5 Lab	A Project 6	**Midterm Exam** **Patient Assessment & Treatment Plan for Plastic/Hybrid AFOs** Project 6: Eval, Cast & Measure for PLS & Articulating AFOs
11	??	5 Lab	B Project 6	**Materials & Components for Plastic AFOs** Project 6: Modification and Fabrication for PLS & Articulating AFOs
12	??	5 Lab	C Project 6	**Pediatric FOs, SMOs & AFOs** Project 6: Complete Fabrication for PLS & Articulating AFOs
13	??	5 Lab	D Project 6	**Gait Assessment with & Without Ox** Project 6: Fitting & Critique of PLS & Articulating AFOs; **Rubric 6**
14	??	5 Lab	E Project 7	**Gait Assessment Without Ox** Project 7: Synthesis Project – Assess Patient Models, Develop Treatment Plan, Image Capture, Pour Cast or Design Schema
15	??	5 Lab	F Project 7	**Axial Resist AFOs; Fracture Bracing** Project 7: Fabricate to Completion
16	4-24	5 Lab	G Project 7	**Gait Assessment with Ox** Project 7: Fitting & Critique of Synthesis Project; **Rubric 8**
17	??	1 - 5		**Final Written & Practical Exam**

PRO 3310C Lower Limb Orthotics I
Laboratory Assessment Rubric
Project #1

Assignment Title: _____*Supportive and Rigid FOs*_____

Student Name: _____ Submission Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Image Capture & Measurements	Appropriate and accurate landmarks identified and marked; measurements taken and recorded; impression or scan taken.	1-2 minor errors on landmarks, measurements, impression or scan.	3-4 minor errors on landmarks, measurements, impression or scan.	More than 4 minor errors or a single major error on landmarks, measurements, impressions or scan.	
Model	Appropriate and accurate alignment, build-ups and reductions. Models are smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Models are mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models are somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, alignments, trim lines and finish.	1-2 errors on materials, components, alignments, trim lines and finish.	3-4 errors on materials, components, alignments, trim lines and finish.	More than 4 minor or a single major error on materials, components, alignments, trim lines and finish.	
Fit & Function	**Device fits and functions properly to patient and within shoe.**	**Device fits and functions properly following 1-2 minor adjustments.**	**Device fits and functions properly after 3 or more adjustments.**	**Device does not fit and/or function properly.**	

Score: _____

Comments:

PRO 3310C Lower Limb Orthotics I
Laboratory Assessment Rubric
Project #2

Assignment Title: _____*UCBL*_____

Student Name: _____ Submission Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Image Capture & Measurements	Appropriate and accurate landmarks identified and marked, measurements taken and recorded, impression or scan.	1-2 minor errors on landmarks, measurements, impression or scan.	3-4 minor errors on landmarks, measurements, impression or scan.	More than 4 minor errors or a single major error on landmarks, measurements, impression or scan.	
Model	Appropriate and accurate alignment, build-ups and reductions. Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Model is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, alignments, trim lines and finish.	1-2 errors on materials, components, alignments, trim lines and finish.	3-4 errors on materials, components, alignments, trim lines and finish.	More than 4 minor or a single major error on materials, components, alignments, trim lines and finish.	
Fit & Function	**Device fits and functions properly to patient and within shoe.**	**Device fits and functions properly following 1-2 minor adjustments.**	**Device fits and functions properly after 3 or more adjustments.**	**Device does not fit and/or function properly.**	

Score: _____

Comments:

PRO 3310C Lower Limb Orthotics I
Laboratory Assessment Rubric
Project #3

Assignment Title: __*Accommodative FOs & Partial Foot Prosthosis*_____

Student Name: _____ Submission Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Image Capture & Measurements	Appropriate and accurate landmarks identified and marked; measurements taken and recorded; impression or scan.	1-2 minor errors on landmarks, measurements, impression or scan.	3-4 minor errors on landmarks, measurements, impression or scan.	More than 4 minor errors or a single major error on landmarks, measurements, impression or scan.	
Model	Appropriate and accurate alignment, build-ups and reductions. Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Model is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	

Score: _____

Comments:

PRO 3310C Lower Limb Orthotics I
Laboratory Assessment Rubric
Project #4

Assignment Title: __Cast for Custom Shoes and Shoe Modification Lab_____

Student Name: _____ Submission Date: _____

Shoe Modifications completed: 1._____
2._____
3. _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Image Capture & Measurements	Appropriate and accurate landmarks identified and marked; measurements taken and recorded; impression or scan.	1-2 minor errors on landmarks, measurements, impression or scan.	3-4 minor errors on landmarks, measurements, impression or scan.	More than 4 minor errors or a single major error on landmarks, measurements, impression or scan.	
Model	Appropriate and accurate alignment. Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Model is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Shoe Modifications	Appropriate and accurate alignment. Modifications are smooth, flowing and cosmetically appealing.	1-2 minor errors on alignment. Model is mostly smooth and flowing.	3-4 errors on alignment. Model is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment.	

Score: _____

Comments:

PRO 3310C Lower Limb Orthotics I
Laboratory Assessment Rubric
Project #5

Assignment Title: ____*Metal AFO* _____ DAAJ Set-up: _____
Student Name: _____ Submission Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Measurements & Tracing	Appropriate and accurate landmarks identified and marked; measurements taken and recorded; and tracing taken.	1-2 minor errors on landmarks, measurements, or tracing.	3-4 minor errors on landmarks, measurements or tracing.	More than 4 minor errors or a single major error on landmarks, measurements or tracings.	
Model or Schema	Appropriate and accurate alignment and clearances. Schematic is smooth and flowing.	1-2 minor errors on alignment and/or clearances. Schematic is mostly smooth and flowing.	3-4 errors on alignment and/or clearances. Schematic is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, clearances and/or schema.	
Construction & Cosmesis	Device fabricated according to instructions. Proper components, ankle settings, alignments, trim lines, finish, fasteners and straps.	1-2 errors on components, ankle settings, alignments, trim lines, finish, fasteners or straps.	3-4 errors on components, ankle settings, alignments, trim lines, finish, fasteners or straps.	More than 4 minor or a single major error on components, ankle settings, alignments, trim lines, finish, fasteners or straps.	
Fit & Function	**Device fits and functions properly.**	**Device fits and functions properly following 1-2 minor adjustments.**	**Device fits and functions properly after 3 or more adjustments.**	**Device does not fit and/or function properly.**	
Gait Mat Assessment criteria	**Complete = 3**	**Incomplete = 2**	**Not done = 0**		

Score: _____

PRO 3310C Lower Limb Orthotics I
Laboratory Assessment Rubric
Project #6

Assignment Title: ____*Molded PLS AFO and/or Articulating AFO*____Patient: _____

Diagnosis: _____

Student Name: _____ Submission Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Measurements & Image Capture	Appropriate and accurate landmarks identified and marked; measurements taken and recorded; impression or scan taken.	1-2 minor errors on landmarks, measurements, impression or scan.	3-4 minor errors on landmarks, measurements, impression or scan.	More than 4 minor errors or a single major error on landmarks, measurements, impressions or scan.	
Model	Appropriate and accurate alignment, build-ups and reductions. Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, alignments, trim lines, finish, fasteners and straps.	1-2 errors on materials, components, alignments, trim lines, finish, fasteners or straps.	3-4 errors on materials, components, alignments, trim lines, finish, fasteners or straps.	More than 4 minor or a single major error on materials, components, alignments, trim lines, finish, fasteners or straps.	
Fit & Function	**Device fits and functions properly to patient and within shoe.**	**Device fits and functions properly following 1-2 minor adjustments.**	**Device fits and functions properly after 3 or more adjustments.**	**Device does not fit and/or function properly.**	
Billing & Documentation	**Billing and documentation is complete and thorough.**	**1-2 errors in billing and/or documentation.**	**3-4 errors in billing and/or documentation**	**More than 4 minor or a single major error in billing and/or documentation.**	
Gait Mat Assessment criteria	**Complete = 3**	**Incomplete = 2**	**Not done = 0**		

Comments: **Score: _____**

PRO 3310C Lower Limb Orthotics I

Laboratory Assessment Rubric

Project #7

Synthesis Project

Student Name: _____ Submission Date: _____

Patient Model: _____ Device: _____

Components and/or ankle settings: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	**Student manages their patient in a safe and professional manner.** The student is prepared for lab, has reviewed the material, is appropriately attired, and possesses the appropriate tools and documents.	Student demonstrates only 1-2 minor errors in patient management, professionalism, preparation, dress and tools.	Student demonstrates 3-4 minor errors in patient management, professionalism, preparation, dress and tools.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Image Capture & Measurements	Appropriate and accurate landmarks identified and marked; measurements taken and recorded; impression, scan or tracing taken.	1-2 minor errors on landmarks, measurements, impression, scan or tracing.	3-4 minor errors on landmarks, measurements, impression, scan or tracing.	More than 4 minor errors or a single major error on landmarks, measurements, impressions, scan or tracings.	
Model or Schema	Appropriate and accurate alignment, build-ups and reductions. Models or schematics are smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Models and schematics or mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models and schematics or somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, alignments, trim lines, finish, fasteners and straps.	1-2 errors on materials, components, alignments, trim lines, finish, fasteners or straps.	3-4 errors on materials, components, alignments, trim lines, finish, fasteners or straps.	More than 4 minor or a single major error on materials, components, alignments, trim lines, finish, fasteners or straps.	
Fit & Function	**Device fits and functions properly.**	**Device fits and functions properly following 1-2 minor adjustments.**	**Device fits and functions properly after 3 or more adjustments.**	**Device does not fit and/or function properly.**	
Gait Mat Assessment criteria	**Complete = 3**	**Incomplete = 2**	**Not done = 0**		
Billing & Documentation	**Complete = 3**	**Incomplete = 2**	**Not done = 0**		

Score: _____

Comments:

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

PRO 3801L
ORTHOTICS AND PROSTHETICS
CLINICAL ROTATION

INSTRUCTOR:
Arlene Gillis, M. Ed, CP, LPO
Office Hours:
Office Location: OP 212, HEC
Phone: 727-341-4153
E-mail: gillis.arlene@spcollege.edu

ACADEMIC DEPARTMENT:
Dean:
Office Phone:
Office Location:
Academic Chair:
ECampus Web Page Link:

Meeting Information:
Thursday 12-2 except case study presentation dates ~Auditorium. Please check the ANGEL calendar weekly for schedule changes when we meet for case studies. We will have both groups.

Class Location:
Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Auditorium, OP 128, off-site clinical rotation.

COURSE INFORMATION:

Course Description:
Prerequisite: Admission to the Orthotics and Prosthetics (O&P) BAS program. This course is part of a series of clinical rotations in which students observe, assist, and practice patient care and device fabrication in an environment that prepares them for an orthotic or prosthetic residency. Students study traditional and emerging topics related to the O&P field and are then placed at a clinical agency to practice skills under close supervision of an American Board Certified (ABC) prosthetist/orthotist. The topic of concentration in each clinical rotation is different; however, students are required to demonstrate mastery of patient and clinical assessments; the design, implementation, and follow-up of comprehensive treatment plans; technical skills; and communication skills with increasing competency as they progress through the series. Students are required to document

patient interactions and case analysis of their clinical experiences, and to present case studies to an audience of peers. 110 contact hours.

80 clinical site hours. 1 Case Study Presentation. 1 Written Paper. 3 AAOP Learning Modules/exams. 1 AOPA Webcast/exam. Precepter Evaluation. Weekly/monthly Typhon Inputs. 4 Guest Lecturers.

Major Learning Outcomes:

1. The student will conduct a comprehensive orthotic and prosthetic patient assessment.
2. The student will formulate and implement a comprehensive orthotic and prosthetic treatment plan.
3. The student will assess the effectiveness of a comprehensive orthotic and prosthetic treatment plan and design a modified plan for continued implementation of the device.
4. The student will document patient/practitioner encounters for clinical decision making and communication for legal and reimbursement purposes.
5. The student will use communication skills expected of entry level O&P professionals with practitioners, patients, and caregivers encountered in the clinical environment.

Course Objectives Stated in Performance Terms:

1. The student will conduct a comprehensive orthotic and prosthetic patient assessment by:
   a. collecting patient data and measurements to form a comprehensive patient history.
   b. selecting and executing specific functional clinical examinations, including: range of motion, manual muscle testing, e-ray assessment, diagnostic imaging, joint stability assessment and skin integrity assessment.
2. The student will formulate and implement a comprehensive orthotic and prosthetic treatment plan by:
   a. evaluating the findings from the patient assessment to determine a treatment plan.
   b. developing a treatment plan based on patient needs.
   c. identifying the design, materials and components to support the treatment plan.
   d. selecting the appropriate materials and techniques in order to obtain a patient model or image, including: tracings, impressions and CAD/CAM scans.
   e. modifying and preparing the plaster model or computer image.
   f. selecting appropriate materials and components for the prosthesis/orthosis.
   g. fabricating and assembling the prosthesis/orthosis.
   h. assessing and aligning the prosthesis/orthosis to provide maximum function and comfort.
3. The student will assess the effectiveness of a comprehensive orthotic and prosthetic treatment plan and design a modified plan for continued implementation of the device by:
   a. analyzing the results of the patient follow up assessment.
   b. determining, if any, the necessary adjustments to the orthosis/prosthesis based upon

follow up assessments to ensure progress, goals, and comfort.
c. modifying the orthosis/prosthesis.

4. The student will document patient/practitioner encounters for clinical decision making and communication for legal and reimbursement purposes by:
   a. recording patient/practitioner data into the Typhon website.
   b. accessing American Academy of Orthotists and Prosthetists (AAOP) Learning Modules online and completing the exams.
   c. accessing American Orthotic and Prosthetic Association (AOPA) Webcasts online and completing the exam.

5. The student will use communication skills expected of entry level O&P professionals with practitioners, patients, and caregivers encountered in the clinical environment.

Criteria Performance Standard:

Upon successful completion of the course the student will, with a minimum of 75% accuracy, demonstrate mastery of each of the above stated objectives through classroom measures developed by individual course instructors.

TOPICS

O&P Clinical Rotation I:	Evidenced Based Practice	2 credits
O&P Clinical Rotation II:	Psychology of the Disabled	2 credits
O&P Clinical Rotation III:	Ethics and Professionalism	2 credits
O&P Clinical Rotation IV:	Business/Practice Management	2 credits

REQUIRED TEXTBOOK & OTHER RESOURCE INFORMATION:

Houghton, P. and Houghton, T. APA: The Easy Way! 2nd edition. Flint, Michigan: Baker College. ISBN: 978-0-923568-96-2

Supplemental Materials (provided)

Assorted Handouts

AAOP Memberships

Available on-line @ www.oandp.org
To access the AAOP Learning Modules **free**:
Click Paul E. Leimkuehler Online Learning Center (right side of page)
Click Create a FREE account (red box in middle of page)
Complete the Non-member form
Click Create My Account

Student memberships are available at a cost of $36 plus a $15 application fee. Memberships go through June 30, 2013. You will need a credit card.
To complete student application form:
Click Memberships
Click Join Today
Click Online Application
Complete Membership Form
Click Submit

AAOP Learning Modules
Go to AAOP website at www.oandp.org
Click Paul E. Leimkuehler On-Line Learning Center
Click the Evidence Based Practice link.
Scroll thru the Learning Modules for the assigned title.
Click on the assigned title.
Click Enter Student Code (code supplied by the instructor)
Enter the course code
Click Submit
Click View Session
Review the assigned material and when ready…
Click Take Final Exam
Click on Get Exam
Complete the exam, then…
Click Submit
Complete the course evaluation, then…
Click Submit Survey & Exam Results
If you failed the exam, then…
Click Try Again
If you passed, then
Click Close Window

Your exam scores & survey responses will be placed in a file for your instructor to review. Grades will be transferred to Angel.

AOPA Learning Modules

Go to AOPA website at www.aopanet.org/webcast
Click on AOPAversity Module 1 - "What is Medicare" link
Enter password: aopa5314
Click Submit
Review the assigned material and when ready....
Complete the Module 1 quiz

Other Critical Course Expectations :

All students are expected to access ANGEL and Typhon resource sites as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Case Study Presentation (1)	Timely Presented
1-3 page written paper (1)	Timely Completed
AAOP Modules (3) 1. Evaluate the Problem 2. Formulate the Appropriate Question 3. Assess the Available Resources	Timely Completed
AOPA Modules (1) 1. What is Medicare?	Timely Completed
Preceptor Evaluation	Timely Inputted
Typon Inputs	Timely Inputted
Guest Lecturers (4)	Attendance Required

Assignments and Grading Scale

Case Study Presentation (1)	30%
1-3 Page Written Paper (1)	20%
3 AAOP and 1 AOPA Modules (4 total)	30%
Preceptor Evaluation	10%
Typhon Inputs	10%
Guest Lecturers (4)	Attendance Required

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required on each portion/section to pass this course.
Students will have two opportunities to pass the culminating exam.
Late assignments will have a grade deducted for each day they are late.

Attendance Policy

The college-wide attendance policy is included in the Syllabus Addendum
http://www.spcollege.edu/central/asa/addendum.htm .

For this course Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by calling (727)341-4151 or notifying the instructor via email. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.

Tardiness is defined as arriving after the official start time of a class. Every **two** times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action.

The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior http://www.spcollege.edu/central/asa/addendum.htm

IMPORTANT DATES:

Course Dates: January 7, 2013 – May 3, 2013.
Drop/Add: * is the last day to drop and receive a refund.
Withdrawal Dates: * is the last day to withdraw with a grade of 'W'
Financial Aid: http://www.spcollege.edu/getfunds

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721.

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege.edu*.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

STUDENTS' EXPECTATIONS AND INSTRUCTOR'S EXPECTATIONS

Online /Student Conduct

http://www.spcollege.edu/ecampus/help/conduct.htm

Online Student, Faculty and Staff Expectations and Performance Targets
http://www.spcollege.edu/ecampus/help/expectations.htm

Syllabus Addendum:
Please open and print the Addendum: http://www.spcollege.edu/webcentral/policies.htm

STUDENT SURVEY OF INSTRUCTION:

The student survey of instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential and anonymous and will be used solely for the purpose of performance improvement.

ADDITIONAL COURSE INFORMATION:

Weekly Reports (input into Typhon website)
Weekly reports are to be submitted to Typhon at the end of each week. Inputs should be completed in a clear concise format.

Monthly Logs (input into Typhon website)
Monthly logs are to be submitted to Typhon by the 30th of each month.

Case Study Presentation Topics
Oral case study presentation will be due as assigned. PowerPoint is required for this presentation. See sample outline below.

Clinical Rotation Check List (input into Typhon website)
Clinical rotation checklist must be maintained per semester for each facility. The preceptor must sign off on Typhon prior to your final week at the site.

Guidelines for Presenting Case Studies
(This is just a guide not required in this format)

The intent of the Preceptorship experience is to provide real world clinical experience which should augment your formal classes at St. Petersburg College. We have the requirement of a case study presentation to help you organize your approach and further your learning process when providing services to people with severe disabilities. In particular, we want you to fully understand the diagnosis of the person you are treating, and why the prosthesis or orthotic is appropriate. Please present a logical rationale for the orthosis or prosthesis provided. Why this particular design and not another? What are the biomechanical principles used in this orthosis or prosthesis? What is the goal: ambulation? Reduction of deformity? Limitation of deformity? Reduction of pain? etc. Try to choose cases which are relevant to the clinical classes that you are currently taking. In other words, choose a TT during TT, TF during TF an AFO during LLOxI, a KAFO during LLOxII, and a Boston Brace during Spinal II, etc. Research and site evidence based practice rationale for utilizing specific devices for the patient.

During your monthly Preceptorship, you will be required to choose 1 case study and present to the class utilizing Power Point. Remember: patient confidentiality is very important. Do not use real patient names. Meeting dates will be assigned on calendar.

I will be looking to ensure that you have utilized Evidence Based Practice in the formulation and implementation of your treatment plan. If you are not able to see a patient from start to finish, please ask your supervisor to look at the chart for evaluation or intervening progress. You may look up the diagnosis and recommended O&P treatments in your texts to further illuminate your write-up. Remember, you need to prove or attest that the Rx is appropriate in the Assessment section, based upon your objective and subjective findings.

Late case studies will not be accepted. Please speak with Mrs. Gillis if you have a legitimate reason that you cannot submit your work on time. This is a firm deadline - no exceptions!

If you have questions about the case study or the Preceptorship in general, contact Arlene Gillis.

Again, use the case guidelines to help you in your case presentation; especially the Objective and Assessment sections.

PRECEPTORSHIP CASE OUTLINE
(Guide not required format please use EBP)

NAME(Patient XYZ-) DATE, HT, WT, AGE,SEX,OCCUPATION
PRESCRIPTION (Rx)
- **Name of referring physician**
- **Appropriate terminology to describe components (HCFA)**

DIAGNOSIS (Dx) - Determined by:
- **Referring physician on Rx**
- **Available medical history**
- **Communication with Patient**

HISTORY (Hx)
- **DOI, Surgery, Prior Treatment, Progress in recovery, Any other information medically relevant**

OBJECTIVE FINDINGS
- **Physical exam, Muscle test, ROM, shrinkage, angular change/deformity, Gait, Length of residual limb, Biomechanical description of functional loss or instability, Condition of current prosthesis or orthosis.**

ASSESSMENT
- **For initial evaluation, new prosthesis/orthosis, or return visit after an absence:**
  - **Info supportive of the Rx with respect to function, expectations, and component decisions and recommendations**
  - **Physical exam with ROM/MMT**
  - **Gait analysis**
  - **Current prosthesis/orthosis evaluation**
  - **Analysis/prediction of function (K level for prosthetics)**
  - **Biomechanical description of functional loss or instability**
  - **Analysis of mental status, motivation level**
  - **Prognosis**
  - **Analysis of current problem**
  - **Level of independence**
  - **Description of functional loss and expected outcome of intervention**

PLAN/PROGRESS (Px)
- **Formulate a treatment plan utilizing evidence based practice**
- **Research and reference articles to support why you chose the device for the patient, appropriate devices for the patient's condition, outcome measures for the patient, etc.**
- **Summary of overall treatment plan including other disciplines**
- **time schedule (site evidence based practice)**
- **achievement of goals or justification of failure to achieve goals**
- **return appointments/follow up schedule**

PATIENT/FAMILY EDUCATION
- **Document specific instructions that were given and printed documents that accompanied service; e.g. donning and doffing instructions, care and maintenance, precautions and limitations of the prosthesis or orthosis, wearing schedules**

Remember your tips for success in this course:

1. Focus on the TASK at hand.
2. Be respectful and prompt; always be professional in your interactions.
3. Learn good time management skills.
4. Develop successful study strategies that can carry over for a lifetime of learning.
5. Communicate your concerns to preceptors and instructors.
6. Ask questions at the appropriate time.
7. Commit yourself.
8. Be deliberate and intentional to complete your task.
9. Learn from your mistakes.

SIGNATURE PAGE:

I have read, understand, and agree to abide fully by the parameters set in this Syllabus and Syllabus Addendum.

Student Signature: **Date:**

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

PRO 3801L
ORTHOTICS AND PROSTHETICS
CLINICAL ROTATION

INSTRUCTOR:
Arlene Gillis, M. Ed, CP, LPO
Office Hours:
Office Location: OP 212, HEC
Phone: 727-341-4153
E-mail: gillis.arlene@spcollege.edu

ACADEMIC DEPARTMENT:
Dean:
Office Phone:
Office Location:
Academic Chair:
ECampus Web Page Link:

Meeting Information:
Thursday 12-2 except case study presentation dates ~Auditorium. Please check the ANGEL calendar weekly for schedule changes when we meet for case studies. We will have both groups.

Class Location:
Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Auditorium, OP 128, off-site clinical rotation.

COURSE INFORMATION:

Course Description:
Prerequisite: Admission to the Orthotics and Prosthetics (O&P) BAS program. This course is part of a series of clinical rotations in which students observe, assist, and practice patient care and device fabrication in an environment that prepares them for an orthotic or prosthetic residency. Students study traditional and emerging topics related to the O&P field and are then placed at a clinical agency to practice skills under close supervision of an American Board Certified (ABC) prosthetist/orthotist. The topic of concentration in each clinical rotation is different; however, students are required to demonstrate mastery of patient and clinical assessments; the design, implementation, and follow-up of comprehensive treatment plans; technical skills; and communication skills with increasing competency as they progress through the series. Students are required to document

patient interactions and case analysis of their clinical experiences, and to present case studies to an audience of peers. 110 contact hours.

80 clinical site hours. 1 Book Review. 1 Psychology Assignment. 1 AOPA Learning Module/Exam. 1 Case Study Presentation. Preceptor Evaluation. Weekly/monthly Typhon Inputs. 3 Guest Lecturers.

Major Learning Outcomes:

1. The student will conduct a comprehensive orthotic and prosthetic patient assessment.

2. The student will formulate and implement a comprehensive orthotic and prosthetic treatment plan.

3. The student will assess the effectiveness of a comprehensive orthotic and prosthetic treatment plan and design a modified plan for continued implementation of the device.

4. The student will document patient/practitioner encounters for clinical decision making and communication for legal and reimbursement purposes.

5. The student will use communication skills expected of entry level O&P professionals with practitioners, patients, and caregivers encountered in the clinical environment.

Course Objectives Stated in Performance Terms:

1. The student will conduct a comprehensive orthotic and prosthetic patient assessment by:
   a. collecting patient data and measurements to form a comprehensive patient history.
   b. selecting and executing specific functional clinical examinations, including: range of motion, manual muscle testing, e-ray assessment, diagnostic imaging, joint stability assessment and skin integrity assessment.

2. The student will formulate and implement a comprehensive orthotic and prosthetic treatment plan by:
   a. evaluating the findings from the patient assessment to determine a treatment plan.
   b. developing a treatment plan based on patient needs.
   c. identifying the design, materials and components to support the treatment plan.
   d. selecting the appropriate materials and techniques in order to obtain a patient model or image, including: tracings, impressions and CAD/CAM scans.
   e. modifying and preparing the plaster model or computer image.
   f. selecting appropriate materials and components for the prosthesis/orthosis.
   g. fabricating and assembling the prosthesis/orthosis.
   h. assessing and aligning the prosthesis/orthosis to provide maximum function and comfort.

3. The student will assess the effectiveness of a comprehensive orthotic and prosthetic treatment plan and design a modified plan for continued implementation of the device by:
   a. analyzing the results of the patient follow up assessment.
   b. determining, if any, the necessary adjustments to the orthosis/prosthesis based upon follow up assessments to ensure progress, goals, and comfort.

Other Critical Course Expectations :

All students are expected to access ANGEL and Typhon resource sites as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Book Review (1) "It's Just a Matter of Balance" – Kevin Garrison	Timely Completed
Psychology Assignment (1)	Timely Completed
AOPA Module (1) 1. O & P Basics	Timely Completed
Case Study Presentation (1)	Timely Presented
Preceptor Evaluation	Timely Inputted
Typon Inputs	Timely Inputted
Guest Lecturers (3)	Attendance Required

Assignments and Grading Scale

Book Review (1) "It's Just a Matter of Balance" – Kevin Garrison	10%
Psychology Assignment (1)	30%
AOPA Module (1)	15%
Case Study Presentation (1)	25%
Preceptor Evaluation	10%
Typhon Inputs	10%
Guest Lecturers (3)	Attendance Required

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required on each portion/section to pass this course.
Students will have two opportunities to pass the culminating exam.
Late assignments will have a grade deducted for each day they are late.

Attendance Policy

The college-wide attendance policy is included in the Syllabus Addendum
http://www.spcollege.edu/central/asa/addendum.htm **.**

For this course Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by calling (727)341-4151 or notifying the instructor via email. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.

Tardiness is defined as arriving after the official start time of a class. Every **two** times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action.

The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior
http://www.spcollege.edu/central/asa/addendum.htm

IMPORTANT DATES:

Course Dates: May 13, 2013 – June 7, 2013
Drop/Add: * is the last day to drop and receive a refund
Withdrawal Dates: * is the last day to withdraw with a grade of 'W'
Financial Aid: http://www.spcollege.edu/getfunds

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721.

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege.edu*.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

STUDENTS' EXPECTATIONS AND INSTRUCTOR'S EXPECTATIONS

Online /Student Conduct

http://www.spcollege.edu/ecampus/help/conduct.htm

Online Student, Faculty and Staff Expectations and Performance Targets
http://www.spcollege.edu/ecampus/help/expectations.htm

Syllabus Addendum:
Please open and print the Addendum: http://www.spcollege.edu/webcentral/policies.htm

STUDENT SURVEY OF INSTRUCTION:
The student survey of instruction is administered in courses each semester. It is designed to improve th quality of instruction at St. Petersburg College. All student responses are confidential and anonymous and will be used solely for the purpose of performance improvement.

c. modifying the orthosis/prosthesis.

4. The student will document patient/practitioner encounters for clinical decision making and communication for legal and reimbursement purposes by:
   a. recording patient/practitioner data into the Typhon website.
   b. accessing American Academy of Orthotists and Prosthetists (AAOP) Learning Modules online and completing the exams.
   c. accessing American Orthotic and Prosthetic Association (AOPA) Webcasts online and completing the exam.

5. The student will use communication skills expected of entry level O&P professionals with practitioners, patients, and caregivers encountered in the clinical environment.

Criteria Performance Standard:

Upon successful completion of the course the student will, with a minimum of 75% accuracy, demonstrate mastery of each of the above stated objectives through classroom measures developed by individual course instructors.

TOPICS

O&P Clinical Rotation I:	Evidenced Based Practice	2 credits
O&P Clinical Rotation II:	Psychology of the Disabled	2 credits
O&P Clinical Rotation III:	Ethics and Professionalism	2 credits
O&P Clinical Rotation IV:	Business/Practice Management	2 credits

REQUIRED TEXTBOOK & OTHER RESOURCE INFORMATION:

Houghton, P. and Houghton, T. APA: The Easy Way! 2nd edition. Flint, Michigan: Baker College. ISBN: 978-0-923568-96-2

Supplemental Materials (provided)

Garrison, Kevin. It's Just a Matter of Balance." (Provided by instructor).
Assorted Handouts

AOPA Learning Modules

Go to AOPA website at www.aopanet.org/webcast
Click on AOPAversity Module 7 - "O & P Basics" link
Enter password: aopa2386
Click Submit
Review the assigned material and when ready....
Complete the Module quiz

SIGNATURE PAGE:

I have read, understand, and agree to abide fully by the parameters set in this Syllabus and Syllabus Addendum.

Student Signature: **Date:**

ADDITIONAL COURSE INFORMATION:

Weekly Reports (input into Typhon website)
Weekly reports are to be submitted to Typhon at the end of each week. Inputs should be completed in a clear concise format.

Monthly Logs (input into Typhon website)
Monthly logs are to be submitted to Typhon by the 30th of each month.

Case Study Presentation Topics
Oral case study presentation will be due as assigned. PowerPoint is required for this presentation. See sample outline below.

Clinical Rotation Check List (input into Typhon website)
Clinical rotation checklist must be maintained per semester for each facility. The preceptor must sign off on Typhon prior to your final week at the site.

Guidelines for Presenting Case Studies
(This is just a guide not required in this format)

The intent of the Preceptorship experience is to provide real world clinical experience which should augment your formal classes at St. Petersburg College. We have the requirement of a case study presentation to help you organize your approach and further your learning process when providing services to people with severe disabilities. In particular, we want you to fully understand the diagnosis of the person you are treating, and why the prosthesis or orthotic is appropriate. Please present a logical rationale for the orthosis or prosthesis provided. Why this particular design and not another? What are the biomechanical principles used in this orthosis or prosthesis? What is the goal: ambulation? Reduction of deformity? Limitation of deformity? Reduction of pain? etc. Try to choose cases which are relevant to the clinical classes that you are currently taking. In other words, choose a TT during TT, TF during TF an AFO during LLOxI, a KAFO during LLOxII, and a Boston Brace during Spinal II, etc. Research and site evidence based practice rationale for utilizing specific devices for the patient.

During your monthly Preceptorship, you will be required to choose 1 case study and present to the class utilizing Power Point. Remember: patient confidentiality is very important. Do not use real patient names. Meeting dates will be assigned on calendar.

I will be looking to ensure that you have utilized Evidence Based Practice in the formulation and implementation of your treatment plan. If you are not able to see a patient from start to finish, please ask your supervisor to look at the chart for evaluation or intervening progress. You may look up the diagnosis and recommended O&P treatments in your texts to further illuminate your write-up. Remember, you need to prove or attest that the Rx is appropriate in the Assessment section, based upon your objective and subjective findings.

Late case studies will not be accepted. Please speak with Mrs. Gillis if you have a legitimate reason that you cannot submit your work on time. This is a firm deadline - no exceptions!!

If you have questions about the case study or the Preceptorship in general, contact Arlene Gillis.

Again, use the case guidelines to help you in your case presentation; especially the Objective and Assessment sections.

PRECEPTORSHIP CASE OUTLINE
(Guide not required format please use EBP)

NAME(Patient XYZ-) DATE, HT, WT, AGE,SEX,OCCUPATION
PRESCRIPTION (Rx)
- **Name of referring physician**
- **Appropriate terminology to describe components (HCFA)**

DIAGNOSIS (Dx) - Determined by:
- **Referring physician on Rx**
- **Available medical history**
- **Communication with Patient**

HISTORY (Hx)
- **DOI, Surgery, Prior Treatment, Progress in recovery, Any other information medically relevant**

OBJECTIVE FINDINGS
- **Physical exam, Muscle test, ROM, shrinkage, angular change/deformity, Gait, Length of residual limb, Biomechanical description of functional loss or instability, Condition of current prosthesis or orthosis.**

ASSESSMENT
- **For initial evaluation, new prosthesis/orthosis, or return visit after an absence:**
  - **Info supportive of the Rx with respect to function, expectations, and component decisions and recommendations**
  - **Physical exam with ROM/MMT**
  - **Gait analysis**
  - **Current prosthesis/orthosis evaluation**
  - **Analysis/prediction of function (K level for prosthetics)**
  - **Biomechanical description of functional loss or instability**
  - **Analysis of mental status, motivation level**
  - **Prognosis**
  - **Analysis of current problem**
  - **Level of independence**
  - **Description of functional loss and expected outcome of intervention**

PLAN/PROGRESS (Px)
- **Formulate a treatment plan utilizing evidence based practice**
- **Research and reference articles to support why you chose the device for the patient, appropriate devices for the patient's condition, outcome measures for the patient, etc.**
- **Summary of overall treatment plan including other disciplines**
- **time schedule (site evidence based practice)**
- **achievement of goals or justification of failure to achieve goals**
- **return appointments/follow up schedule**

PATIENT/FAMILY EDUCATION
- **Document specific instructions that were given and printed documents that accompanied service; e.g. donning and doffing instructions, care and maintenance, precautions and limitations of the prosthesis or orthosis, wearing schedules**

Remember your tips for success in this course:

1. Focus on the TASK at hand.
2. Be respectful and prompt; always be professional in your interactions.
3. Learn good time management skills.
4. Develop successful study strategies that can carry over for a lifetime of learning.
5. Communicate your concerns to preceptors and instructors.
6. Ask questions at the appropriate time.
7. Commit yourself.
8. Be deliberate and intentional to complete your task.
9. Learn from your mistakes.

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

PRO 4371C Upper Extremity Orthotics

2013 Course Syllabus

Instructors Tom Chmielewski

Office Location: OP210
Office Hours: TBD
Phone: 727-341-4156
E-mail: Chmielewski.Tom@spcollege.edu

Prerequisites

Admission to the Orthotics and Prosthetics BAS program.

Co-requisites

None

Course Description

This course will present orthotic treatment modalities of the upper extremity. Student in this course will receive instruction on the assessment, formulation, implementation and follow up of an orthotic treatment plan for common finger, wrist, elbow and/or shoulder disorders affecting pediatric, adult and geriatric populations. Concurrent upper extremity lab activities with patient models will allow the student to correlate clinical findings with evidence based practice to synthesize the significance of the appropriate choice of components, principles, material properties and medical management. The student will interact with multiple orthotic systems. 92 contact hours.

Meeting Information

Lectures: Monday - Friday, 8:30 - 10:30 am
Laboratories: Monday - Friday, 10:30-5:30 pm with lunch

Class Location

Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Rooms OP 128, OP 203, OP 205 (see course schedule).

Major Learning Outcomes

Upon completion of this course the student will be capable of:

Explaining the anatomy and biomechanics of the shoulder, elbow, wrist and fingers.
Completing a comprehensive upper limb orthotic evaluation/assessment.
Applying biomechanical principles in the development and design of the upper limb orthotic treatment plan.
Fabricating various upper limb orthotic devices.
Developing and implementing an effective follow-up plan to assure optimal fit and function of the upper limb orthotic device.
The student will explain the use of various upper limb orthotic designs.

Student Learning Outcomes
Upon completion of this course, the student will:

Explain the anatomy and biomechanics of the shoulder, elbow, wrist and fingers by:
Describing normal and abnormal anatomy and biomechanics.
Describing the processes involved in the development of and types of prehension.
Describing common structural deformities of the fingers, wrist, elbow and shoulder.

Complete a comprehensive upper limb orthotic evaluation/assessment by:
Compiling a comprehensive patient history using standardized tools and methods to understand the patient's orthotic needs.
Evaluating specific functional clinical measurements using scientifically validated outcome measures.
Identifying impairments, functional limitations, goals and related biomedical objectives for the patient.
Documenting all information using established record keeping and coding techniques.

Apply biomechanical principles in the development and design of the upper limb orthotic treatment plan by:
Using appropriate techniques, tools and equipment to provide an orthotic treatment plan.
Considering the possible interaction between the device and the patient with respect to the corrective and accommodative treatment.
Evaluating the fit and function of the orthosis used by the patient and making adjustments as necessary to obtain optimal function to meet patient goals.
Documenting the level of patient comprehension of instructions given.

4. Fabricate and fit upper limb orthotic devices by:
a. selecting appropriate materials, components and alignments for the devices chosen.
b. modifying orthoses to meet the needs of the patient.
c. casting and modifying various hand orthoses (HOs), wrist-hand orthoses (WHOs), elbow orthoses (EOs) and shoulder-elbow-wrist-hand orthoses (SEWHOs).

5. Develop and implement an effective follow-up plan to assure optimal fit and function of the upper limb orthotic device by:
a. providing effective, culturally appropriate instruction to patients, family members and caregivers of the care, use and maintenance of the orthosis, skin care and wearing schedules for the devices.
b. developing a long term follow-up plan to include continual assessment, patient care and periodic evolution to assure, maintain and document optimal fit and functionality of the orthotic device.
c. demonstrating follow-up assessments regarding fit and functionality of the device using scientifically validated outcome measures.
d. maintaining documentation of all interactions with patients and caregivers.

6. The student will explain the use of various upper limb orthotic designs by:
    a. performing and/or observing a supervised assessment of a patient with an orthotic device.
    b. performing and/or observing a supervised formation of a treatment plan for a patient with an orthotic device.

c. performing and/or observing implementation of a treatment plan for an orthotic device.
d. performing and/or observing a supervised follow-up plan for an orthotic device.

Required Text Books (student purchase)

T1 Hsu, J., et al. AAOS Atlas of Orthoses & Assistive Devices, 4th ed. Philadelphia: Mosby Elsevier, 2008. ISBN 978-0-323-03931-4

T2 Lusardi, M. and Nielson, C. *Orthotics and Prosthetics in Rehabilitation*, 2nd ed. St. Loius: Saunders Elsevier, 2007. ISBN-13: 978-0-7506-7479-9

T3 Seig, K and Adams, S. *Illustrated Essentials of Musculoskeletal Anatomy*, 5th ed. Gainsville, FL: Megabooks, 1993. ISBN 978-0-935157-07-9

Supplemental Materials (provided)

- PowerPoint Presentations
- Assorted Handouts (various topics)
- Fabrication Manuals
- Assessment Rubrics
- AAOP On-Line Learning Center modules (AAOP OLC)

Technology

All students are expected to access **ANGEL** resource site as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Unit 1 Introduction to Upper Extremity Orthotics	**Midterm**
Unit 2 Orthotic Interventions for the Upper Extremity	**Midterm & Final**
Unit 3 Pathologies of the Upper Extremity	**Midterm & Final**

- Discussion Board Participation
- Other AAOP OLC Quizzes or Exercises incorporated into Lab Project Rubrics

Project 1 Metal Hand Orthosis (HO)	**Rubric 1**
Project 2 Metal Wrist Hand Orthosis (WHO)	**Rubric 2**
Project 3 Thermoplastic Wrist Hand Orthoses (WHO)	**Rubric 3**
Project 4 Prehension orthoses (WD WHO)	**Rubric 4**
Project 5 Shoulder elbow wrist hand Orthosis (molded SEWHO)	**Rubric 5**
Project 6 Low Temperature Plastic wrist fracture brace	**Rubric 6**
Project 7 Custom Fitting Lab	**Rubric 7**
Project 8 Synthesis Project	**Rubric 8**
Cumulative Final Exam	**Final Exam**

Assignments and Grading Scale

AAOP OLC module(s)	*??* %
Discussion Board Participation	?? %
Rubric 1	?? %

Rubric 2	?? %
Rubric 3	?? %
Rubric 4	?? %
Midterm Exam	20 %
Rubric 5	?? %
Rubric 6	?? %
Rubric 7	?? %
Rubric 8	?? %
Final Exam	20 %
Total	**100 %**

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required to pass this course. Late assignments will not be accepted.

Late Assignments will not be accepted. Make-ups will be allowed only for extenuating circumstances such as accidents, hospitalization, family tragedy or uncontrollable natural occurrences. Documentation will be required in these cases. The course Instructor and the Instructor in Charge, (Mrs. Gillis), should be notified by email within 24 hours of an absence and it is the student's responsibility to obtain any missed materials.

Attendance Policy

Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by calling (727)341-4151 or notifying the instructor via email. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.
Tardiness is defined as arriving after the official start time of a class. Every two times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action.
The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior Students are required to submit their papers to www.turnitin.com for evaluation print out the report and hand it in with their paper.

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you

need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on **ANGEL** for your convenience. Log in to **ANGEL** to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

Additional Information can be found in the Syllabus Addendum:
http://www.spcollege.edu/central/asa/addendum.htm

PRO 4371C Upper Extremity Orthotics

2013 Course Table of Content

Unit	Unit and Topic Titles
Unit 1	**Introduction to Upper Extremity (UE) Orthotics** A. Introduction to UE Orthoses B. UE Anatomical Review & Palpation C. UE Biomechanics & Prehension Patterns D. UE ROM & MMT E. Clinical Assessment of the UE
Reading	**T1** - Chapters 12 and 13 **T2** – Chapter 17 **T3** – pages 1 -78 - Levangie and Norkin (2011) *Joint Structure and Function: A Comprehensive Analysis*, 5th edition. Chs 7 – 9. - Instructions for use of Upper Limb Analysis Forms (pdf available on ANGEL) - Technical Analysis Form (TAF) (pdf available on ANGEL)
Unit 2	**Orthotic Interventions for the Upper Extremity** A. Principles of UE Orthotic Design B. Introduction to Metal Hand Orthoses (HdOs) C. WHO Systems, Components & Additional Attachments D. The Wrist Driven WHO E. Introduction to Elbow & Shoulder Orthoses F. Mobile Arm Supports G. UE Coding and Documentation
Reading	**T1** - Chapters 13, 15, 16, 18 & 20 **T2** - Chapters 12 & 17 - Levangie and Norkin (2011) *Joint Structure and Function: A Comprehensive Analysis*, 5th edition. Chs 7 – 9. - OPIE Software (Provided) - Rosen, et al (1987) The team approach to orthotic management in quadriplegia. *Clin Pros Orth*, vol 11, no 4, pgs 201-209. (pdf available on ANGEL) - Herder et al (2006) Principles and design of a mobile arm support for people with muscular weakness. *JRRD*, Aug-Sept, vol 43, no 5, pgs 591-604. (pdf available on ANGEL)
Unit 3	**Pathologies** A. Orthotic Management of Cerebral Vascular Accident and Traumatic Brain Injury B. Orthotic Management of Spinal Cord Injury C. Orthotic Management of Thermal Injuries D. Orthotic Management of Arthritis E. Orthotic Management of Brachial Plexus Injuries F. Current Concepts in Fracture Bracing G. Orthotic Management of Cumulative Trauma Disorders
Reading	**T1** - Chapters 14-21 **T2** - Chapters 12, 17 & 18 - Cuttle and Kimble. (2010) First aid treatment of burn injuries, *Wound Practice and Research*, Feb, vol 18, no 1, pgs 6 - 13. (pdf available on ANGEL) - Sarmiento, A. (2006) The evolution of functional bracing of fractures. *Br JBJS*, Feb, vol 88, no 2, pgs 141-148. (pdf available on ANGEL) - Recommended: Goodman and Fuller. (2009) *Pathology: Implications for the Physical Therapist*, 3rd edition. Chs 10 (pgs 433-442), 23 (pgs 1147-1150), 27 (pgs 1250-1258), 32, 33, 34 (pgs 1496-1516),
	Suggested Laboratory Projects/Exercises to Compliment Didactic Curriculum

Lab Project 1	**Metal Hand Orthosis (HdO)** – students work in pairs; fabricate from measurements of student models; fit & adjust; finish with instructor critique
Lab Project 2	**Metal Wrist Hand Orthosis (WHO) –** conversion of HdO of Lab #1 into a static WHO; students continue to work with same partner; fit & adjust; finish with instructor critique
Lab Project 3	**Thermoplastic Wrist-Hand Orthosis (WHO)** – 2 students per 1 patient model; assess, measure, cast real patient models; fabricate and fit devices; finish with instructor critique
Lab Project 4	**Prehension Wrist-Hand Orthsosis (WD WHO)** – fabricate from measurements & impression of student models to each other; fit & adjust; finish with instructor critique
Lab Project 5	**Shoulder-Elbow-Wrist-Hand Orthosis (SEWHO) –** students work in pairs; students cast & measure each other for custom articulated elbow orthosis; fit and adjust; finish with instructor critique;
Lab Project 6	**Low Temperature Plastic Wrist Fracture Brace** – students fit each other with off the shelf fx orthoses: humeral, ulnar and Colles'
Lab Project 7	**Custom Fitting Lab** – Multiple stations set-up with variety of off-the-shelf devices; students move from station to station trying on, assessing fit, function, etc.; Devices could include: shoulder abduction pillows, slings, airplane splint; Gunslinger Ox; Elbow ROM Ox; elbow immobilizer, Elbow with dynamic/torsion joints; Tennis elbow orthosis, neoprene sleeves, Carpal tunnel syndrome Ox, other wrist support; thumb spicas; finger rings, etc. Possible add a Demonstration of a MAS??
Lab Project 8	**Synthesis Project –** Multiple stations set up with clinical scenarios at each station; students have to complete 2 or 3 stations; once at a station, student reads clinical scenario and has to develop an orthotic recommendation & treatment plan on the spot. Various UE Ox devices can be available in the room for the students to use as visual aids; Ultimately students will have to give an on the spot clinical presentation describing the scenario, most likely clinical presentation; most likely functional limitations and then finish with justifications and Ox recommendation. **No fabrication.**

PRO 4371C Upper Extremity Orthotics
General Laboratory Assessment Rubric
Project _____

Assignment Title: _____

Student Name: _____ Submission Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 7 to 8 on lab quiz.	Scores 6 on the lab quiz,	Scores 5 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Measurements	Appropriate and accurate landmarks identified and marked; measurements taken and recorded.	1-2 minor errors on landmarks, measurements or recording.	3-4 minor errors on landmarks, measurements or recording.	More than 4 minor errors or a single major error on landmarks, measurements or recording.	
Model	Appropriate and accurate alignment and clearances.	1-2 minor errors on alignment and/or clearances.	3-4 errors on alignment and/or clearances.	More than 4 minor errors or a single major error on alignment and/or clearances.	
Construction & Cosmesis	Device fabricated according to instructions. Proper components, alignments, trim lines, finish, fasteners and straps.	1-2 errors on components, alignments, trim lines, finish, fasteners or straps.	3-4 errors on components, alignments, trim lines, finish, fasteners or straps.	More than 4 minor or a single major error on components, alignments, trim lines, finish, fasteners or straps.	
Fit & Function	**Device fits and functions properly.**	**Device fits and functions properly following 1-2 minor adjustments.**	**Device fits and functions properly after 3 or more adjustments.**	**Device does not fit and/or function properly.**	

Score: _____

Comments:

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards. Upper Extremity Orthotics was re-sequenced to the summer semester.

PRO 4331C Transfemoral Prosthetics

2013 Course Syllabus

Instructors

Angela Courtade
Office: OP212
Phone:727-341-4151
E-mail:Courtade.Angela@spcollege.edu

Prerequisites

PRO 3301C with a grade of "C" or better and Admission to the Orthotics and Prosthetics Program.

Co-requisites

None

Course Description

This course will present prosthetic treatment modalities of the lower extremity proximal to the knee. Students in this course will receive instruction on the assessment, formulation, implementation and follow up of a prosthetic treatment plan for knee disarticulation, transfemoral, hip disarticulation and hemipelvectomy amputation levels. Concurrent lower extremity lab activities with patient models will allow the student to correlate clinical findings with evidence based practice to synthesize the significance of the appropriate choice of components, principles, material properties, socket design, prosthetic alignment and medical management. Application of technology including CAD/CAM imaging will be incorporated throughout the course projects. Relevant case studies will be discussed to facilitate clinical problem solving skills. 176 contact hours.

Meeting Information

Tuesdays, Lectures 8:30 - 11:30am
Tuesdays, Laboratory 12:00 – 6:00pm

Class Location

Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Rooms OP 128, OP 203, OP 205 (see course schedule).

Major Learning Outcomes
Upon completion of this course, the student will be capable of:

Explaining the anatomy and biomechanics of the knee disarticulation, transfemoral, hip disarticulation and hemipelvectomy residual limb.
Completing a comprehensive lower residual limb evaluation/assessment.
Applying biomechanical principles in the development and design of knee disarticulation, transfemoral, hip disarticulation and/or hemipelvectomy treatment plans.
Fabricating transfemoral and/or knee disarticulation prosthetic devices.
Developing and implementing an effective follow-up plan to assure optimal fit and function of the transfemoral and/or knee disarticulation prosthesis.
Explaining the use of various transfemoral and knee disarticulation prosthetic designs.

Student Learning Outcomes
Upon completion of this course, the student will:

Explaining the anatomy and biomechanics of the knee disarticulation, transfemoral, hip disarticulation and hemipelvectomy residual limb by:
Contrasting intact and amputated lower extremity anatomy and biomechanics.
Describing various amputation procedures and techniques proximal to the knee.
Describing the processes involved in the development and maturation of the adult pattern of gait.

2. Complete a comprehensive lower residual limb evaluation/assessment by:
Compiling a comprehensive patient history using standardized tools and methods to understand the patient's prosthetic needs.
Evaluating specific functional clinical measurements using scientifically validated outcome measures.
Identifying the design, materials, components, and alignment to support the prosthetic treatment plan to meet the patient's goals and biomechanical objectives.
Documenting all information using established record keeping and coding techniques.

3. Apply biomechanical principles in the development and design of knee disarticulation, transfemoral, hip disarticulation and/or hemipelvectomy treatment plans by:
a. using the appropriate techniques, tools, and equipment to provide a prosthetic intervention.
b. discerning the possible interaction between the device and the patient with respect to applied forces and contact.
c. assessing the quality and structural stability of the prosthesis based on the needs and goals of the patient.
d. evaluating the fit and function of the prosthesis as used by the patient and making adjustments as necessary to obtain optimal function and meet patient goals.
e. performing transfer methods and initial gait and mobility instructions that provide for patient safety.
f. documenting the level of patient comprehension of the instructions given.

4. Fabricating transfemoral and/or knee disarticulation prosthetic devices by:
a. evaluating, measuring and casting various transfemoral and/or knee disarticulation residual limbs.
b. selecting the appropriate socket designs, interface material, socket material and modifying the residual limb impression to obtain optimal function to meet patient goals.
c. selecting the appropriate components and alignment to obtain optimal function to meet patient goals and medical management.
selecting appropriate materials, components and alignments for the device chosen.

5. Developing and implementing an effective follow-up plan to assure optimal ft and function of the transfemoral and/or knee disarticulation prostheses by:
a. providing effective, culturally appropriate instruction to patients, family members and caregivers on the care, use and maintenance of the prosthesis, skin care and wearing schedules for the device.
b. developing a long term follow-up plan to include continual assessment, patient care and periodic evaluation to assure, maintain and document optimal fit and functionality of the prosthetic device.
c. demonstrating follow-up assessments regarding fit and functionality of the device using scientifically validated outcome measures.
d. maintaining documentation of all interactions with patient and caregivers.

6. Explaining the use of various transfemoral and knee disarticulation prosthetic designs by:
a. performing and/or observing a supervised assessment of a patient with a transfemoral and/or knee disarticulation residual limb.
b. performing and/or observing a supervised formation of a treatment plan for a patient with a transfemoral and/or knee disarticulation residual limb.
c. performing and/or observing implementation of a treatment plan for a patient with a transfemoral and/or knee disarticulation residual limb.
d. performing and/or observing a supervised follow-up plane for a patient with a transfemoral and/or knee disarticulation residual limb.

Required Text Books (student purchase)

T1 Hsu, J; Michael, JW; Fisk, JR. *AAOS Atlas of Orthoses and Assistive Devices*, 4th ed. Philadelphia: Mosby Elsevier, 2008. ISBN 978-0-323-03931-4

T2 Lusardi, MM. and Nielson, CC. *Orthotics and Prosthetics in Rehabilitation*, 2nd ed. St. Louis: Saunders Elsevier, 2007. ISBN 978-0-7506-7479-9

T3 Seig, K and Adams, S. *Illustrated Essentials of Musculoskeletal Anatomy*, 5th ed. Gainsville, FL: Megabooks, 1993. ISBN 0-935157-077

T4 Shoe Modification book from APIS Footwear, 2239 Tyler Avenue, South El Monte, CA 91733. 1-888-937-2747

T5 Smith, D., Michael J., Bowker, J., *Atlas of Amputations & Limb Deficiencies, 3rd Edition*, Rosemont, IL: American Academy of Orthopedic Surgeons, 2004, ISBN 0-89203-313-4

T6 Care of the Combat Amputee. The Borden Institute, 2010. http://www.bordeninstitute.army.mil/published_volumes/amputee/amputee.html

Supplemental Materials (provided)

- PowerPoint Presentations
- Assorted Handouts (various topics)
- Fabrication Manuals
- Assessment Rubrics
- AAPO On-Line Learning Center modules (AAOP OLC)

Technology

All students are expected to access **ANGEL** resource site as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Unit 1	Amputation Surgeries & Post-Operative Care	**Midterm**
Unit 2	Quadrilateral Brim & Prosthetic Components Proximal to the Knee	**Midterm**
Unit 3	Ischial Containment Socket Design	**Final**
Unit 4	Knee and Hip Disarticulations; Transpelvic and Bilateral Lower Limb Ampuations	**Final**

- Discussion Board Participation
- Other AAOP OLC Quizzes or Exercises incorporated into Lab Project Rubrics

Lab Projects 1a & 1b	Elastic Bandage Wrapping & Shrinker Fitting Exercise	**Rubric 1**
Lab Project 2	Quadrilateral Brim Casting Exercise	**Rubric 2**
Lab Project 3	Ischial Containment (IC) Casting Exercise	**Rubric 3**
Lab Project 4	IC Prosthesis with Suction Suspension	**Rubric 4**
Lab Project 5	IC Flexible Socket/Rigid Frame Prosthesis	**Rubric 5**
Lab Project 6	Synthesis Project	**Rubric 6**
Cumulative Final Exam		**Final Exam**

Assignments and Grading Scale

Discussion Board Participation	15%
Rubric 1	7%
Rubric 2	7%
Rubric 3	7%
Rubric 4	7%
Midterm Exam	20%
Rubric 5	7%
Rubric 6	10%
Final Exam	20%
Total	**100 percent**

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required to pass this course. Late assignments will have a grade deducted for each day they are late.

Attendance Policy

Students must attend all class sessions. Should students not be present they must notify the program in advance of class by calling 341-4151 there are no excused absences in this program. Any student who misses MORE than five (5) classes, clinics or laboratory sessions is required to withdraw from that course and the O and P program. Each two times a student is late to class OR leaves class early counts as an absence. The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, plagiarism, bribery, misrepresentation, conspiracy and fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior. Students are required to submit their papers to www.turnitin.com for evaluation then print out the report and hand it in with their paper.

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus

Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

PRO 4331C Transfemoral Prosthetics

2013 Course Table of Content

Unit	Unit and Topic Titles
Unit 1	**Amputation Surgery & Post-Operative Care** A. Anatomy & Biomechanics of the Knee & Hip B. Incidence & Etiology of Transfemoral (TF) Amputation C. Postoperative Management of the TF Lower Extremity Amputation D. Clinical Assessment of TF Residual Limb
♦ Reading	**T2** - Chapters 7 (pgs 137-142); 14 (pgs 363-64); 20; 22 (pgs 583-587) & 23 **T3** - pgs 79-132 **T5** – Chapters 1-6, 42 (pgs 533-538), 48 (pgs 589-606) **T6** – Chapters 8 - 13 - *Estimating the Prevalence of Limb Loss in the United States: 2005 to 2050*; Ziegler-Graham, et al; *Arch Phys Med Rehabil*; Vol 89, pgs 422-429; March 2008. (pdf available on ANGEL) - *Fact Sheet: Amputation Statistics by Cause –Limb Loss in the United States*; Amputee Coalition of America, NLLIC Staff; Revised 2008. (pdf available on ANGEL) -*The Transfemoral Amputation Level, Part 1 – "Doc, It's Ten Times More Difficult!";* Smith DG; *inMotion*, Vol 14, Issue 2, March/April 2004. (pdf available on ANGEL) - AAOP Module *"Postoperative Management of the Lower Extremity Amputation"* - Carroll and Edelstein, *Prosthetics and Patient Management: A Comprehensive Clinical Approach*, 2006, Ch 5 and Appendices A - C; SLACK, Thorofare, NJ. (pdfs available on ANGEL)
Unit 2	**Quadrilateral Brim & Prosthetic Components Proximal to the Knee** A. Biomechanical Principles of Transfemoral Prosthetics B. Transfemoral Quadrilateral Socket Design & Anatomical Relationship C. Transfemoral Suspension & Components D. K-Levels & Prosthetic Knees E. Quad Brim Bench Alignment F. Transfemoral Gait Deviations
♦ Reading	**T2** - Chapters 3 (pgs 60-68) and 28 (745-758; 764-773) **T5** – Chapters 29, 30 (pgs. 375-384), 31 (pgs. 391-394), 32, 33 (pgs 409-427); 43 (pgs 541-555); and 53 **T6** – Chapters 8 and 20. - *Functional Considerations in the Fitting of Above Knee Prostheses*. Radcliffe. *Artificial Limbs*; Vol 2, Num 1, pgs. 35-60, 1955. (pdf available on ANGEL) - AAOP Module "*Prosthetic Foot/Ankle Mechanisms"* - AAOP Module "*Alignment Secrets (We Should Already Know)"*
Unit 3	**Ischial Containment Socket Design** A. Evolution of Ischial Containment Socket Design B. Transfemoral Prescription Recommendation C. Coding for Transfemoral Prostheses
♦ Reading	**T2** - Chapters 28 **T5** - Chapters 33 and 43 (pgs 545-555) - *Biomechanics and Shape of the Above-Knee Socket Considered in Light of the Ischial Containment Concept.* Pritham CH. *POI Journal for ISPO*, 1990, Vol 14, No 1, pgs 9 – 21. (pdf available on ANGEL) - *The Amputee Mobility Predictor: An Instrument to Assess Determinants of the Lower-Limb Amputee's Ability to Ambulate*. Gailey RS, et al. *Arch Phys Med Rehabil*, May 2002, Vol 83, pgs 613-627. (pdf available on ANGEL) - OPIE Software (provided)
Unit 4	**Knee and Hip Disarticulations; Transpelvic Amputation** A. Knee Disarticulation – Incidence, Etiology and Surgical Management B. Knee Disarticulation – Prosthetic Management C. Hip Disarticulation & Transpelvic Surgical Management D. Hip Disarticulation & Transpelvic Biomechanics

	E. Hip Disarticulation & Transpelvic Components F. Bilateral Lower Limb Amputations
♦ Reading	**T2** - Chapters 22 (pgs 583-585); 28 (pgs 745-753); 29 and 30 (pgs 811-816) **T5** – Chapters 32, 40, 41, 44, 45, 49, 64 (pgs 796-797) and 68 **T6** – Chapter 20 - Bowker and Michael. *AAOS Atlas of Limb Prosthetics: Surgical, Prosthetic, and Rehabilitation Principles;* 2nd edition; 1992, reprinted 2002. Ch 19A (pdf available on ANGEL) - *Overview of Knee Disarticulation*. Starke G. *JPO*, 2004, Vol 16; No 4; pgs 130-137. (pdf available on ANGEL) - *Hip Disarticulation: A Prosthetic Follow-Up*. Shurr, Cook, Buckwalter and Cooper. *Orthotics and Prosthetics*, 1983, Vol 37, No 3, pgs. 50-57. (pdf available on ANGEL) - *The Evolution of the Canadian-Type Hip Disarticulation Prosthesis*. McLaurin CA. *Artificial Limbs*, 1957, Vol 4, No 2, pgs. 22-28. (pdf available on ANGEL) - *Biomechanics of the Hip Disarticulation Prosthesis*. Radcliffe CW. Artificial Limbs, 1957, Vol 4, No 2, pgs. 29-38. (pdf available on ANGEL)
Lab Projects 1a & 1b	Students utilize patient &/or mock models to practice: (a) ace wrapping residual limb, (b) measuring & fitting limb for shrinkers
Lab Project 2	Quadrilateral Brim Casting Exercise = students work in pairs; they will evaluate, measure, cast, pour and modify for a Quadrilateral Brim designed socket to each other from prefabricated Quad Brims; then they will fabricate only the upper ⅓ – ½ of the socket out of diagnostic material creating a 'partial socket' which allows the student model's intact leg anatomy to fit; students will then utilize these partial sockets in stands to assess the fit & adjust the diagnostic socket; students then present Quad Brim designed partial sockets to instructor for critique
Lab Project 3	Ischial Containment Socket Casting Exercise = students work in pairs; they will evaluate, measure and cast each other for an Ischial Containment Brim designed socket; students will present their negative impressions to the instructor for critique
Lab Project 4	Ischial Containment Socket with Suction Suspension = students work in pairs with one patient model; each student will evaluate, measure and capture a negative impression of the TF residual limb; each student will then convert that negative impression into a working positive model that they will modify according to their particular patient model's needs to achieve suction suspension; each student will fabricate a diagnostic socket from the working positive model and then bench align the socket onto alignable endoskeletal components for a K2 functional level patient; each student will then assess the fit of the device; fit critiqued by instructor; ALSO students assess function of device on Gait Rite mat system; acquire, process, analyze and present data to peers & instructor.
Lab Project 5	Ischial Containment Designed Flexible Socket/Rigid Frame Prosthesis = students work in pairs with one patient model; each student will evaluate, measure and capture a negative impression of the TF residual limb; each student will then convert that negative impression into a working positive model that they will modify according to their particular patient model's needs to achieve suspension (i.e. locking liner OR lanyard OR Seal-In Liner); each student will fabricate a diagnostic socket from the working positive model and then bench align the socket onto alignable endoskeletal components for a K3 or greater functional level patient; each student will then assess the fit of the device; fit critiqued by instructor; ALSO students assess function of device on Gait Rite mat system; acquire, process, analyze and present data to peers & instructor.
Lab Project 6	Synthesis Project = students work with patient models to assess & develop treatment plan; each student will then evaluate, measure & capture a negative impression of the residual limb; socket design & K-level classification will be determined by student; students will then convert negative impression to a working positive model that will be modified according to the treatment plan; students will fabricate a diagnostic socket attached to endoskeletal components with clinically indicated K-Level prosthetic

	components; students will then fit device; fit & function of device critiqued by instructor. If time permits, students will have patient models ambulate on Gait Rite Mat system to acquire, process, analyze and then present data to peers and instructor.

PRO 4331C Transfemoral Prosthetics

2013 Course Table of Content

(Lectures, Labs, Patient/Models, Exams/Check-Out, Holidays)

Wk	Date	Unit	Topic Project	Title
1	Mon	1	A	**- Introduction to Courses & Syllabi** **- Anatomy & Biomechanics of the Knee & Hip**
1	Wed	1	B C	**- Incidence & Etiology of Transfemoral (TF) Amputation** **- Postoperative Management of the TF Lower Extremity Amputation**
1	Thurs	1 2 2 Lab Lab	D A B	**- Clinical Assessment of the TF Residual Limb** **- Biomechanical Principles of TF Prosthetics** **- TF Quadrilateal Socket Design & Anatomical Relationship** 1a. Elastic Bandage Wrapping Exercise 1b. Shrinker Measurement and Fitting Exercise 2. Quad Brim Exercise - Patterns
2	Wed	Lab		2. Quad Brim Exercise – Casting Demo & Quad **Pattern Exercise Due**
2	Thurs	Lab		2. Quad Brim Exercise – Students measure, cast, pour impression, & modify proximal portion of diagnostic socket
3	Wed	2	C D	**- Transfemoral Suspension & Components** **- K-Levels & Prosthetic Knees**
3	Thurs	Lab		2. Students complete fabrication of proximal portion of diagnostic Quad Brim Socket.
4	Tues	Lab		2. Quad Brim Exercise – Students fit, evaluate function, adjust/modify diagnostic socket *on each other.*
4	Wed	2 Lab	E	**- Quad Brim Bench Alignment** 2. Quad Brim Exercise – Students present diagnostic socket to Instructor for **check-out**
4	Thurs	2 3 Lab	F A	**- Transfemoral Gait Deviations** - Demonstration exercise with TF patient model on Gait Rite to see real time TF Gait Deviations **- Evolution of Ischial Containment Socket Design** 3. Ischial Containment Casting Exercise – Students *cast each other* for IC designed socket. Students present negative impression to Instructor for **evaluation and check-out**
5	Wed	Lab		4. Instructor Demo evaluate, measure & cast **Patient Model** for IC designed socket with suction suspension.
5	Thurs	Lab		4. Students evaluate, measure and cast **Patient Models** for IC designed socket with suction suspension. Students begin plaster modification of positive model.
6	Wed	3	B C	**- Transfemoral Prescription Recommendation** **- Coding for Transfemoral Prostheses**
6	Thurs	Lab		4. Students complete plaster modification of positive model & fabricate diagnostic socket for IC designed socket with suction suspension.
7	Wed	Lab		4. Instructor Demo on **Patient Model** fitting of IC designed diagnostic socket with suction suspension. This is a static fitting utilizing a fitting stand.
7	Thurs	Lab Lab		4. Students fit IC designed diagnostic sockets with suction suspension on **Patient Models**. This is a static fitting utilizing fitting stands. 4. Students remodel and/or re-pull IC designed diagnostic sockets and then bench align onto alignable components.
8	Wed			**Midterm Exam…Units 1 & 2**
8	Thurs	Lab Lab		4. Students fit, assess and evaluate function of bench aligned diagnostic prosthesis on **Patient Models** utilizing both static and dynamic alignment techniques. 4. Students work in pairs to transfer the acquired alignment of *just one*

				diagnostic prosthesis onto an alignment jig. Students then work in pairs to laminate, restore alignment and complete final prosthesis fabrication.
9	Wed	Lab		4. Students work in pairs with **Patient Models** to present final IC designed socket with suction suspension prosthesis to Instructor of **evaluation and check-out.**
9	Thurs	4 Lab	A B	**- Knee Disarticulation – Incidence, Etiology & Surgical Management** **- Knee Disarticulation – Prosthetic Management** 5. Students evaluate, measure and cast **Patient Models** for IC designed Flexible Socket/Rigid Frame prosthesis.
10	Wed	4	C D	**- Hip Disarticulation & Transpelvic Surgical Management** **- Hip Disarticulation & Transpelvic Biomechanics**
10	Thurs	Lab		5. Students modify impressions and begin fabrication of diagnostic socket for IC Flexible Socket/Rigid Frame prosthesis.
11	Wed	Lab		5. Students fabricate diagnostic socket for IC Flexible Socket/Rigid Frame prosthesis.
11	Thurs	Lab		5. Students complete fabrication of diagnostic socket for IC Flexible Socket/Rigid Frame prosthesis and then bench align
12	Wed	4	E F	**- Hip Disarticulation & Transpelvic Components** **- Bilateral Lower Limb Amputations**
12	Thurs	Lab		5. Students fit, assess and evaluate function of bench aligned IC Flexible Socket/Rigid Frame diagnostic prosthesis on **Patient Models.** 5. Students work in pairs to transfer acquired alignment of just one diagnostic prosthesis onto an alignment jig. Students then work in pairs to laminate, restore alignment and complete final fabrication.
13	Wed	Lab		5. Students work with **Patient Models** in pairs to present final IC Flexible Socket/Rigid Frame prosthesis to Instructor for **evaluation and check-out.**
13	Thurs	Lab		6. Synthesis Project – Students assess **Patient Models** and develop treatment plan, image capture for proposed prosthesis and pour cast. 6. Synthesis Project – Students modify casts.
14	Wed			**Thanksgiving Holiday**
14	Thurs			**Thanksgiving Holiday**
15	Wed	Lab		6. Synthesis Project – Students complete plaster modifications and begin diagnostic socket fabrication
15	Thurs	Lab		6. Synthesis Project – Complete fabrication of diagnostic socket and bench align.
16	Wed			**Discussion Board Case Study Presentations**
16	Thurs	Lab		6. Synthesis Project – Students fit diagnostic, bench aligned prosthesis on **Patient Models** and complete static & dynamic assessment. 6. Synthesis Project – Students adjust/modify/re-pull diagnostic socket as well as transfer alignment.
17	Wed			**Final Written Exam** in Transfemoral Prosthetics
17	Thurs			6. Synthesis Project – **Patient Models** return to allow students to fit and evaluate prosthesis during dynamic assessment. Students present final prosthesis to Instructor for **evaluation and check-out.** **Final Practical Exam** in Transfemoral Prosthetics

PRO 4331C Transfemoral Prosthetics
Laboratory Assessment Rubric
Project #1

Assignment Title: ___# 1a = Elastic Bandage Wrapping Exercise_____
____#1b = Shrinker Measuring and Fitting Exercise_____

Student Name: _____ Submission Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 or 10 on quiz.	Scores 8 on quiz.	Scores 7 on quiz.	Scores 6 or below on quiz.	
Measurements	Appropriate and accurate landmarks identified and marked; measurements taken and recorded.	1-2 minor errors on landmarks or measurements.	3-4 minor errors on landmarks or measurements.	More than 4 minor errors or a single major error on landmarks or measurements.	
Fit & Function of ACE wrapping	ACE wrapping fits and functions properly to model.	ACE wrapping fits and functions properly following 1-2 minor adjustments.	ACE wrapping fits and functions properly after 3 or more adjustments.	ACE wrapping does not fit and/or function properly.	
Fit & Function of Shrinker	Shrinker fits and functions properly to model.	Shrinker fits and functions properly following 1-2 minor adjustments.	Shrinker fits and functions properly after 3 or more adjustments.	Shrinker does not fit and/or function properly.	

Score: _____

Comments:

PRO 4331C Transfemoral Prosthetics
Laboratory Assessment Rubric
Project #2

Student Name: _____ Submission Date: _____

Assignment Title: _____Quad Brim Casting Exercise_____ Partner: _____

Side: **L** or **R** Foot Size: _____ Ht: _____ Wt: _____ K-level: _____

	Target 10	**Acceptable 8**	**Emergent 6**	**Unacceptable 4**	**Score**
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 or 10 on lab quiz.	Scores 8 on lab quiz.	Scores 7 on lab quiz.	Scores 6 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly. To include: ht, wt, Hipe ROM (active & passive); residual limb length; circumferences; etc.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Quad Brim	Appropriate sized brim chosen			Inappropriate sized brim chosen	
Landmarks	Appropriate and accurate landmarks identified and marked; To include: adductor longus tendon; greater troch; ischium; distal end of bone.	1-2 minor errors on landmarks.	3-4 minor errors on landmarks.	More than 4 minor errors or a single major error on landmarks.	
Measurements & Image Capture	Measurements taken and recorded; impression or scan taken. Negative impression is appropriate for: residual limb length; ML and AP; and brim	1-2 minor errors on measurements, impression or scan.	3-4 minor errors on measurements, impression or scan.	More than 4 minor errors or a single major error on measurements, impressions or scan.	

	coverage.				
Positive Modification Model	Appropriate and accurate alignment of pipe for AP & ML. Brim shape maintained. Correct modifications for: iliofemoral angle; lateral sulcus; anterior wall with flares; scarpa's triangle; rectus femoral channel. Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Model is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Socket fitting	Patient is comfortable. Socket has smooth trim lines and anatomically correct contours. Fit is acceptable	1-2 errors in patient comfort, socket trim lines or contours.	3-4 errors in patient comfort, socket trim lines or contours.	More than 4 errors in patient comfort, socket trim lines or contours. Socket fit is unacceptable.	
Billing & Documentation	Billing and documentation is complete and thorough.	1-2 errors in billing and/or documentation.	3-4 errors in billing and/or documentation	More than 4 minor or a single major error in billing and/or documentation.	

Comments: **Score: _____**

PRO 4331C Transfemoral Prosthetics
Laboratory Assessment Rubric
Project #3

Student Name: _____ Submission Date: _____

Assignment Title: _____IC Casting Exercise_____ Partner: _____

Side: **L** or **R** Foot Size: _____ Ht: _____ Wt: _____ K-level: _____

	Target 10	**Acceptable 8**	**Emergent 6**	**Unacceptable 4**	**Score**
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 or 10 on lab quiz.	Scores 8 on lab quiz.	Scores 7 on lab quiz.	Scores 6 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly. To include: ht, wt, Hip ROM (active & passive); residual limb length; circumferences; etc.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Landmarks	Appropriate and accurate landmarks identified and marked; To include: ASIS; adductor longus tendon; greater troch; ischium.	1-2 minor errors on landmarks.	3-4 minor errors on landmarks.	More than 4 minor errors or a single major error on landmarks.	
Measurements	Measurements taken and recorded. skeletal ML; AP (various methods); Ramus angle; length of Ischium to floor; Rectus Femoris prominence; circumference at Ischial level	1-2 minor errors on measurements, impression or scan.	3-4 minor errors on measurements, impression or scan.	More than 4 minor errors or a single major error on measurements, impressions or scan.	
Negative Impression	Negative impression is within 1” of recorded measurement for skeletal ML within 1” & AP, ramus angle within 10 degrees and adequate brim coverage to contain the inferior and medial aspects of the Ischium				

Comments: **Score: _____**

PRO 4331C Transfemoral Prosthetics
Laboratory Assessment Rubric
Project #4

Student Name: _____ Submission Date: _____

Assignment Title: _IC Socket with Suction Suspension_____ Partner: _____

Side: **L** or **R** Foot Size: _____ Ht: _____ Wt: _____ K-level: _____

	Target 10	**Acceptable 8**	**Emergent 6**	**Unacceptable 4**	**Score**
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 or 10 on lab quiz.	Scores 8 on lab quiz.	Scores 7 on lab quiz.	Scores 6 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly. To include: ht, wt, Hip ROM (active & passive); residual limb length; circumferences; etc.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Landmarks	Appropriate and accurate landmarks identified and marked; To include: ASIS; adductor longus tendon; greater troch; ischium.	1-2 minor errors on landmarks.	3-4 minor errors on landmarks.	More than 4 minor errors or a single major error on landmarks.	
Measurements	Measurements taken and recorded. Measured skeletal ML and AP are within 1” of anatomical; Ramus angle within 10 degrees; length of Ischium to floor; Rectus Femoris prominence; circumference at Ischial level;	1-2 minor errors on measurements, impression or scan.	3-4 minor errors on measurements, impression or scan.	More than 4 minor errors or a single major error on measurements, impressions or scan.	
Positive Modification Model	Appropriate and accurate alignment of pipe; Medial wall is in LOP; Inferior ischial wall 30-45°; Inferior ischial shelf proper flexion; Inferior ischial shelf proper adduction; Ischial containment wall 3/4:” tall; Posterior containment	1-3 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	4-5 errors on alignment, build-ups and/or reductions. Models is somewhat smooth and flowing.	More than 5 minor errors or a single major error on alignment, build-ups and/or reductions.	

	wall ¾”’ Iliofemoral angle; Lateral sulcus; Anterior wall with flares; Ramus exit transition; Model is smooth and flowing.				
Socket Fitting	Patient is comfortable; Anterior wall with flares; Adequate shape and relief for adductor longus; Medial wall height is adequate; Ramus exit transition is correct; Ischium is contained within socket; Posterior & lateral trim lines are acceptable; Suction is achieved.	1-3 errors in patient comfort & trim lines	4-5 errors in patient comfort & trim lines.	More than 5 errors in patient comfort & trim lines	
Static Alignment	Pelvis is level; Px foot flat on the floor; TKA in sagittal plane is correct for prosthetic knee used; Coronal alignment of the foot is within 1” lateral to the ischium to no further than bisection of the socket	1-2 errors in static and alignment.	3-4 errors in static alignment.	More than 4 errors in static alignment.	
Dynamic Alignment/ Gait Mat assessment	Complete = 3	Incomplete = 2	Not done = 0		
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, finish, fasteners and straps. Smooth edges and lines. Overall appearance is acceptable.	1-2 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	3-4 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	More than 4 minor or a single major error on materials, components, finish, fasteners, straps or edges.	
Billing & Documentation	Billing and documentation is complete and thorough.	1-2 errors in billing and/or documentation.	3-4 errors in billing and/or documentation	More than 4 minor or a single major error in billing and/or documentation.	

Comments: **Score: _____**

PRO 4331C Transfemoral Prosthetics
Laboratory Assessment Rubric
Project #5

Student Name: _____ Submission Date: _____

Assignment Title: _IC Flexbile Socket/Rigid Frame Prosthesis_____ Partner: _____

Side: **L** or **R** Foot Size: _____ Ht: _____ Wt: _____ K-level: _____

	Target 10	**Acceptable 8**	**Emergent 6**	**Unacceptable 4**	**Score**
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 or 10 on lab quiz.	Scores 8 on lab quiz.	Scores 7 on lab quiz.	Scores 6 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly. To include: ht, wt, Hip ROM (active & passive); residual limb length; circumferences; etc.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Landmarks	Appropriate and accurate landmarks identified and marked; To include: ASIS; adductor longus tendon; greater troch; ischium.	1-2 minor errors on landmarks.	3-4 minor errors on landmarks.	More than 4 minor errors or a single major error on landmarks.	
Measurements	Measurements taken and recorded. Measured skeletal ML and AP are within 1” of anatomical; Ramus angle within 10 degrees; length of Ischium to floor; Rectus Femoris prominence; circumference at Ischial level;	1-2 minor errors on measurements, impression or scan.	3-4 minor errors on measurements, impression or scan.	More than 4 minor errors or a single major error on measurements, impressions or scan.	
Positive Modification Model	Appropriate and accurate alignment of pipe; Medial wall is in LOP; Inferior ischial wall 30-45°; Inferior ischial shelf proper flexion; Inferior ischial shelf proper adduction; Ischial containment wall 3/4:” tall; Posterior containment	1-3 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	4-5 errors on alignment, build-ups and/or reductions. Models is somewhat smooth and flowing.	More than 5 minor errors or a single major error on alignment, build-ups and/or reductions.	

	wall ¾" Iliofemoral angle; Lateral sulcus; Anterior wall with flares; Ramus exit transition; Model is smooth and flowing.				
Socket Fitting	Patient is comfortable; Anterior wall with flares; Adequate shape and relief for adductor longus; Medial wall height is adequate; Ramus exit transition is correct; Ischium is contained within socket; Posterior & lateral trim lines are acceptable;	1-3 errors in patient comfort & trim lines	4-5 errors in patient comfort & trim lines.	More than 5 errors in patient comfort & trim lines	
Static Alignment	Pelvis is level; Px foot flat on the floor; TKA in sagittal plane is correct for prosthetic knee used; Coronal alignment of the foot is within 1" lateral to the ischium to no further than bisection of the socket.	1-2 errors in static and /or dynamic alignment.	3-4 errors in static and/or dynamic alignment.	More than 4 errors in static and/or dynamic alignment.	
Dynamic Alignment/ Gait Mat assessment	Complete = 3	Incomplete = 2	Not done = 0		
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, finish, fasteners and straps. Smooth edges and lines. Overall appearance is acceptable.	1-2 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	3-4 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	More than 4 minor or a single major error on materials, components, finish, fasteners, straps or edges.	
Billing & Documentation	Billing and documentation is complete and thorough.	1-2 errors in billing and/or documentation.	3-4 errors in billing and/or documentation	More than 4 minor or a single major error in billing and/or documentation.	

Comments: **Score: _____**

PRO 4331C Transfemoral Prosthetics
Laboratory Assessment Rubric
Project #6

Student Name: _____ Submission Date: _____

Assignment Title: __*Synthesis Prosthesis Project*_____

Patient: _____ Diagnosis: _____

Side: **L** or **R** or **Bilat** Foot Size: _____ Ht: _____ Wt: _____ K-level: _____

Recommended Transfemoral Prosthesis: _____

_____

_____

	Target 10	**Acceptable 8**	**Emergent 6**	**Unacceptable 4**	**NOTES**
Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 or 10 on lab quiz.	Scores 8 on lab quiz.	Scores 7 on lab quiz.	Scores 6 or below on the lab quiz	
Assessment	Assessment performed and recorded correctly. To include: ht, wt, Hip ROM (active & passive); residual limb length; circumferences; etc.	1-2 minor errors in assessment performance and/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Landmarks	Appropriate and accurate landmarks identified and marked. Minimum to include: ASIS; adductor longus tendon; greater troch; ischium.	1-2 minor errors on landmarks.	3-4 minor errors on landmarks.	More than 4 minor errors or a single major error on landmarks.	

Measurements & Image Capture	Measurements taken and recorded. Measured skeletal ML and AP are within 1" of anatomical; Ramus angle within 10 degrees; length of Ischium to floor; Rectus Femoris prominence; circumference at Ischial level;	1-2 minor errors on measurements, impression or scan.	3-4 minor errors on measurements, impression or scan.	More than 4 minor errors or a single major error on measurements, impressions or scan.	
Positive Modification Model	Appropriate and accurate alignment of pipe; Medial wall is in LOP; Inferior ischial wall 30-45°; Inferior ischial shelf proper flexion; Inferior ischial shelf proper adduction; Ischial containment wall 3/4:" tall; Posterior containment wall ¾"' Iliofemoral angle; Lateral sulcus; Anterior wall with flares; Ramus exit transition; Model is smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Model is mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models is somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Socket fitting	Patient is comfortable; Anterior wall with flares; Adequate shape and relief for adductor longus; Medial wall height is adequate; Ramus exit transition is correct; Ischium is contained within socket; Posterior & lateral trim lines are acceptable;	1-2 errors in patient comfort & trim lines.	3-4 errors in patient comfort & trim lines.	More than 4 errors in patient comfort & trim lines.	
Static Alignment	**Statically:** Pelvis is level; Px foot flat on the floor; TKA in sagittal plane is correct for prosthetic knee used; Coronal alignment of the foot is within 1" lateral to the ischium to no further than bisection of the socket.	1-2 errors in static and/or dynamic alignment.	3-4 errors in static and/or dynamic alignment.	More than 4 errors in static and/or dynamic alignment.	
Dynamic Alignment/	Complete = 3	Incomplete = 2	Not done = 0		

Gait Mat assessment					
Construction & Cosmesis	Device fabricated according to **recommendation**. Proper materials, components, finish, fasteners and straps. Smooth edges and lines. Overall appearance is acceptable.	1-2 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	3-4 errors on materials, components, finish, fasteners or straps; edges are mostly smooth.	More than 4 minor or a single major error on materials, components, finish, fasteners, straps or edges.	
Billing & Documentation	Billing and documentation is complete and thorough.	1-2 errors in billing and/or documentation.	3-4 errors in billing and/or documentation	More than 4 minor or a single major error in billing and/or documentation.	

Comments: **Score: _____**

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

PRO 3311C Lower Limb Orthotics II

2013 Course Syllabus

InstructorsTom Chmielewski

Office Location:OP210
Phone: 727-341-4156
E-mail: Chmielewski.Tom@spcollege.edu
Office Hours: TBD

Prerequisites

PRO 3310C with a grade of "C" or better and Admission to the Orthotics and Prosthetics Program.

Co-requisites

None

Course Description

This course will present orthotic treatment modalities of the lower extremity proximal to the knee. Students in this course will receive instruction on the assessment, formulation, implementation and follow up of an orthotic treatment plan for common knee, hip and/or total lower extremity disorders affecting pediatric, adult and geriatric populations. Concurrent lower extremity lab activities with patient models will allow the student to correlate clinical findings with evidence based practice to synthesize the significance of the appropriate choice of components, principles, material properties and medical management. The student will interact with multiple orthotic systems. 122 contact hours

Meeting Information

Lecture: Fridays, 8:30 am – 10:30 noon
Lab: Fridays, 10:30 am – 5:30 pm with 1 hour lunch

Class Location

Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Rooms OP 128, OP 203, OP 205 (see course schedule).

Major Learning Outcomes

Upon completion of this course the student will be capable of:

Explaining the anatomy and biomechanics of the knee, hip and total lower extremity.
Completing a comprehensive lower limb orthotic evaluation/assessment.
Applying biomechanical principles in the development and design of the lower limb orthotic treatment plan.

4. Fabricating various lower limb orthotic devices.
5. Developing and implementing an effective follow-up plan to assess optimal fit and function of the lower limb orthotic device.
6. Explaining the use of various lower limb orthotic devices.

Student Learning Outcomes

Upon completion of this course, the student will be capable of:

Explaining the anatomy and biomechanics of the knee, hip and total lower extremity by:
Describing normal and abnormal anatomy and biomechanics.
Describing the processes involved in the development and maturation of the adult pattern of gait.
Describing common structural deformities of the knee and/or hip.

Completing a comprehensive lower limb orthotic evaluation/assessment by:
Compiling a comprehensive patient history using standardized tools and methods to understand the patient's orthotic needs.
Evaluating specific functional clinical measurements using scientifically validated outcome measures.
Identifying impairments, functional limitations, goals and related biomedical objectives for the patient.
Documenting all information using established record keeping and coding techniques.

Applying biomechanical principles in the development and design of the lower limb orthotic treatment plan by:
Using appropriate techniques, tools and equipment to provide an orthotic treatment plan.
Considering the possible interaction between the device and the patient with respect to the corrective and accommodative treatment.
Evaluating the fit and function of the orthosis used by the patient and making adjustments as necessary to obtain optimal function to meet patient goals.
Performing transfer methods and initial gait and mobility instructions that provide for patient safety.
Documenting the level of patient comprehension of instructions given.

4. Fabricating various lower limb orthotic devices by:
   a. Selecting appropriate materials, components and alignments for the devices chosen.
   b. Modifying orthoses to meet the needs of the patient.
   c. Casting and modifying various knee orthoses (KOs), knee-ankle-foot orthoses (KAFOs), hip orthoses (HOs), and hip-knee-ankle-foot orthoses (HKAFOs).

5. Developing and implementing an effective follow-up plan to assess optimal fit and function of the lower limb orthotic device by:
   a. Providing effective, culturally appropriate instruction to patients, family members and caregivers on the care, use and maintenance of the orthosis, skin care and wearing schedules for the devices.
   b. Developing a long-term follow-up plan to include continual assessment, patient care and periodic evaluation to assure, maintain and document optimal fit and functionality of the orthotic device.

c. Demonstrating follow-up assessments regarding fit and functionality of the device using scientifically validated outcome measures.
d. Maintaining documentation of all interactions with patients and caregivers.

6. Explaining the use of various lower limb orthotic devices by:
a. Performing and/or observing a supervised assessment of a patient with an orthotic device.
b. Performing and/or observing a supervised formation of a treatment plan for a patient with an orthotic device.
c. Performing and/or observing implementation of a treatment plan for an orthotic device.
d. Performing and/or observing a supervised follow-up plan for an orthotic device.

Required Text Books (student purchase)

T1 Hsu, J; Michael, JW; Fisk, JR. *AAOS Atlas of Orthoses and Assistive Devices*, 4th ed. Philadelphia: Mosby Elsevier, 2008. ISBN 978-0-323-03931-4

T2 Lusardi, MM. and Nielson, CC. *Orthotics and Prosthetics in Rehabilitation*, 2nd ed. St. Louis: Saunders Elsevier, 2007. ISBN 978-0-7506-7479-9

T3 Seig, K and Adams, S. *Illustrated Essentials of Musculoskeletal Anatomy*, 5th ed. Gainsville, FL: Megabooks, 1993. ISBN 0-935157-077

T4 Shoe Modification book from APIS

Recommended Text Book:

Levangie, PK and Norkin, CC. Joint Structure and Function: A Comprehensive Analysis, 5th ed. Philadelphia: FA Davis Company, 2011. ISBN 978-0-8036-2362-0

Supplemental Materials (provided)

- PowerPoint Presentations
- Assorted Handouts (various topics)
- Fabrication Manuals
- Assessment Rubrics
- AAOP On-Line Learning Modules (AAOP student membership required)

Technology

All students are expected to access ANGEL resource site as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Unit 1	Introduction to Orthotic Management of the Knee	**Midterm**
Unit 2	Orthotic Management of the Knee	**Midterm**
Unit 3	Introduction to Orthotic Management of the Hip	**Final Exam**
Unit 4	Orthotic Management of the Hip	**Final Exam**
Unit 5	Pathologies of the Lower Extremity	**Midterm & Final Exam**

- Discussion Board Participation
- Other AAOP OLC quizzes or exercises incorporated into Lab Project Rubrics

Lab Project 1 Image capture technique for Knee Orthoses **Rubric 1**

Lab Project 2 Metal Double Upright KAFO	**Rubric 2**
Lab Project 3 Thermoplastic KAFO	**Rubric 3**
Lab Project 4 Hip Orthosis Fitting Exercise	**Rubric 4**
Lab Project 5 PreStride KAFO-SC Exercise	**Rubric 5**
Cumulative Final Exam	**Final Exam**

Assignments and Grading Scale

Discussion Board Participation	15%
AAOP OLC module = "KAFOs for Ambulation"	5%
Rubric 1	8%
Rubric 2	8%
Midterm Exam	20%
Rubric 3	8%
Rubric 4	8%
Rubric 5	8%
Final Exam	20%
Total	**100 percent**

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required to pass this course. Late assignments will have a grade deducted for each day they are late.

Attendance Policy

Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by calling (727) 341-4151 or notifying the instructor via email. There are NO excused absences in the program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.

Tardiness is defined as arriving after the official start time of a class. Every **two** times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action.

The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior Students are required to submit their papers to www.turnitin.com for evaluation print out the report and hand it in with their paper.

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

PRO 3311C Lower Limb Orthotics II

2013 Course Table of Content

Unit	Unit and Topic Titles
Unit 1	**Introduction to Orthotic Management of the Knee** A. Anatomy Review of the Knee B. Biomechanics of the Knee Joint C. Clinical Assessment of the Knee D. Pathomechanics of the Knee
Reading	T1 = Chapters 1, 2, and 22 T3 = pgs 80-132 Recommended: Levangie and Norkin = Chapter 11.
Unit 2	**Orthotic Management of the Knee** A. Biomechanics of the Knee Joint B. Orthotic Management of the Knee C. Knee Orthosis L-Coding and Documentation D. Introduction to KAFOs E. Biomechanical Basis for KAFOs F. KAFO L-Coding and Documentation G. Biomechanics and Gait Analysis
Reading	T1 = Chapters 3-5, 22, 26, 27, 29, 31 and 32 T2 = Chapters 3, 7 and 11-15 - OPIE Software (Provided) - **AAOP online module** = Annual Meeting Module = *"The Effect of Stance Control Orthoses on Gait Characteristics and Energy Expenditure in Knee-Ankle-Foot Orthosis Users"* - **AAOP online module** = JPO Quiz 22-3A **=** "*Usage Follow-Up After a Knee Ankle Foot Orthoses Selection and Training Program in Spinal Cord Injury Patients"* - O&P Business News = *Stance Control Orthosis: Revolutionizing Patient Care* http://www.oandpbiznews.com/200310a/cover_story.asp Recommended: Levangie and Norkin = Chapters 11 and 14
Unit 3	**Introduction to Orthotic Management of the Hip** A. Hip Anatomy B. Biomechanics of the Hip Joint C. Clinical Assessment of the Hip D. Pathomechanics of the Hip
Reading	T1 = Chapters 22, 26, 28 and 35-39 T2 = Chapters 3, 7 and 11-15 Recommended: Levangie and Norkins = Chapters 10 and 14 *Maramed On-Line-"Clinical Studies" tab: Current Concepts in Fracture Bracing Pt. 2*
Unit 4	**Orthotic Management of the Hip** A. Biomechanics of HKAFOs, HOs and More B. Orthotic Management of the Hip C. HKAFOs, Standing Frames and Parapodiums D. RGOs E. Current Concepts in Lower Extremity Fracture Bracing F. HKAFO L-Coding and Documentation
Reading	

Unit 5	**Pathologies of the Lower Extremity** A. Orthotic Management of Post Polio Syndrome B. Orthotic Management of Myelomenigocele C. Orthotic Management of DDH & LCP D. Orthotic Management of Guillian Barre Syndrome
Reading	T1 = Chapters 27, 28, 31, 32 and 35 - 39 T2 = Chapters 3, 7 and 11-15 **- AAOP On-line Module**- Use of an Ankle-Foot Orthosis to Optimize Hip and Knee Biomechanics Following Stroke, Bowers, R. & Meadows, B., code: hang 10 (take quiz)
Lab Project 1	**Image Capture Techniques for Knee Orthoses =** - Students work in pairs; each student will capture an impression for a knee orthosis utilizing each of the following techniques: measurement, tracing, casting, scanning, upright standing as well as supine; Students then each design an orthotic recommendation for both a custom fabricated as well as an off-the-shelf knee orthosis based on given clinical scenarios; impression techniques, measurement form, recommendation, L-coding and documentation critiqued by instructor
Lab Project 2	**Metal Double Upright KAFO =** Students work in pairs; each student will assess, measure, trace, create schema, fabricate and fit a double upright KAFO; Within pairs of students, one will have free motion knee joints while the other will have drop locks; ankle joints will be dual chamber with variable settings; gait analysis will be done with device on; all paperwork and documentation turned into instructor; instructor critique device fitting, function.
Lab Project 3	**Thermoplastic KAFO =** Students work in pairs with a patient model; each student will assess, measure, capture a negative, convert to a positive working model on which modifications will be done; each student will fabricate a device with clinically indicated knee joints (i.e. free motion, locked, polycentric or posterior offset) as well as clinically indicated ankle joints (i.e. solid/no joint; dorsi assist; limited or free motion; Each student will then fit their devices on the patient model; gait analysis will be done with the patients for two scenarios: (1) without device (if possible, depending on patient safety) and (2) with device; gait analysis data collected, processed, analyzed and presented to instructor with all necessary documentation and L-coding; instructor critique of fit & function of device.
Lab Project 4	**Hip Orthosis Fitting Exercise =** Students will work in pairs to fit each other with a variety of hip orthoses; each student will measure, assess and then fit devices (i.e. hip abduction pillows, Hip abduction Orthosis with specific hip joint settings {free, limited or locked motion}; with and without knee joint/KAFO attachments); in addition, a variety of pediatric hip orthoses will also be available for hands-on experience; instructor critique of fitting of hip abduction orthoses
Lab Project 5	**PreStride KAFO-SC Exercise =** Students work in groups to fit each other with the Becker Orthopedic Immediate Fit PreStride Stance Control KAFO with guest speaker, Gary Bedard. Gait analysis will be conducted with various knee settings, data processed and presented to instructor. If time permits, additional orthoses will also be used on the GaitRite system as a comparison of function (i.e. knee immobilizer, KAFO with drop locked knee joints from Project #2; KAFO free motion, etc.) in real time.

Assignment Title: _____

Student Name: _____ Submission Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Assessment	Assessment performed and recorded correctly.	1-2 minor errors in assessment performance or/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	____
Image Capture & Measurements	Appropriate and accurate landmarks identified and marked, measurements taken and recorded, impression, scan or tracing taken.	1-2 minor errors on landmarks, measurements, impression, scan or tracing.	3-4 minor errors on landmarks, measurements, impression, scan or tracing.	More than 4 minor errors or a single major error on landmarks, measurements, impressions, scan or tracings.	____
Model or Schema	Appropriate and accurate alignment, build-ups and reductions. Models or schematics are smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Models and schematics or mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models and schematics or somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	____
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, alignments, trim lines, finish, fasteners and straps.	1-2 errors on materials, components, alignments, trim lines, finish, fasteners or straps.	3-4 errors on materials, components, alignments, trim lines, finish, fasteners or straps.	More than 4 minor or a single major error on materials, components, alignments, trim lines, finish, fasteners or straps.	____
Fit & Function	Device fits and functions properly.	Device fits and functions properly following minor adjustments.	Device fits and functions properly after numerous adjustments.	Device does not fit and/or function properly.	____
Preparation/ Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	____

Score: _____

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

PRO 3505 Clinical Problem Solving
2011 Syllabus

Instructors:

James Barr, BS, CPO, LPO
Office Location: OP 126
Phone: 727-345-4151
E-mail #1 barrcpo@aol.com E-mail #2 barr.james@spcollege.edu

Meeting Information:

Lecture: Thursday, 4:00 to 6:00 PM

Class Location:

Lecture: Bankers Insurance Group Building, Room OP 126, Caruth Health Education Campus (HEC).

Prerequisites:

Admission to the Orthotics & Prosthetics BAS Program or permission of the Dean.

Course Description:

This course will focus on the development and presentation of comprehensive orthotic/prosthetic treatment plans through the analysis and synthesis of information gleaned through the clinical evaluation and assessment process. 32 contact hours.

Major Learning Outcomes:

The student will develop knowledge and understanding of the roles and responsibilities of the prosthetist-orthotist in providing comprehensive orthotic and prosthetic treatment.
The student will develop knowledge and understanding of the collaborative role of the prosthetist-orthotist within an interdisciplinary rehabilitation team in providing patient-centered care.
The student will learn to use the results of diagnosis specific clinical assessments in the formulation of comprehensive orthotic and prosthetic treatment plans.

Student Learning Outcomes: Upon completion of this course the student will be capable of:

The student will develop knowledge and understanding of the roles and responsibilities of the prosthetist-orthotist in providing comprehensive orthotic and prosthetic treatment.

Describing evidence-based practice and its utility in solving clinical problems.
Understanding and carrying out the roles and responsibilities regarding ethical clinical practice.

The student will develop knowledge and understanding of the collaborative role of the prosthetist-orthotist within an interdisciplinary rehabilitation team in providing patient-centered care.

Appropriate and effective referral of patients to other health-care professionals.
Appropriate and effective consultation with other health care professionals and caregivers.
Appropriate and effective written, oral and nonverbal communication with other health care professionals.
Appropriate and effective with the patient and/or caregiver regarding recommended prosthetic/orthotic treatment plan.

The student will learn to apply the results of diagnosis specific clinical assessments with knowledge of orthotics-prosthetics, and other related fields in the formulation of comprehensive orthotic and prosthetic treatment plans.

Determining a patient's prosthetic/orthotic needs.
Applying knowledge of basic biomechanical force systems used in orthotics and prosthetics.
Applying knowledge of current prosthetic-orthotic components, including; indications, contraindications, and selection criterion.
Applying knowledge of corrective versus accommodative designs and the device-patient interface.
Interpreting assessment and formulating orthotic-prosthetic treatment plans.

Required Text Books:

T1 Hsu, J., et al. *AAOS Atlas of Orthoses & Assistive Devices*, 4th Ed. Philadelphia: Mosby Elsevier, 2008. ISBN 978-0-323-03931-4

T2 Lusardi, M. and Nielson, C. *Orthotics and Prosthetics in Rehabilitation*, 2nd Ed. St. Loius: Saunders Elsevier, 2007. ISBN-13: 978-0-7506-7479-9

T3 Smith D., Michael, J. and Bowker, J. *Atlas of Amputations & Limb Deficiencies.* 3rd ed. American Academy of Orthopaedic Surgeons, 2004. ISBN 0-89203-313-4

T4 Salter, R. *Textbook of Disorders and Injuries of the Musculoskeletal System*, 3rd Ed. Baltimore: Williams and Wilkins, 1990. ISBN 0-6830-7499-7

AAOP Memberships:

Available on-line @ oandp.org
Click Memberships
Click On-Line Applications
Complete the application form. You will need a credit card. Student membership cost $36 plus an application fee of $15.
Click Submit

AAOP Learning Modules:

Go to AAOP website at oandp.org
Click On-Line Learning Center
Click Log in for a Full Access

Enter Username and Password
Scroll thru the Academy Learning Modules, JPO articles or Case studies for the assigned title.
Click on the assigned title.
Click Enter Student Code (code supplied by the instructor)
Enter the course code
Click Submit
Click View Session
Review the assigned material and when ready…
Click Take Final Exam
Click on Get Exam
Complete the exam, then…
Click Submit
Complete the course evaluation, then…
Click Submit Survey & Exam Results
If you failed the exam, then…
Click TRY AGAIN
If you passed, then
Click Close Window

Your exam scores & survey responses will be placed in a file for your instructor to review. Grades will be transferred to Angel.

Technology:

All students are expected to access ANGEL resource site as well as the College of Orthotics & Prosthetics Student Commons.

Academic Honesty:

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior
Students are required to submit their papers to www.turnitin.com for evaluation print out the report and hand it in with their paper.

Assignments and Grading Scale:

Quiz 1	10%
Quiz 2 (Summation of all EBP Online Quizzes)	10%
Quiz 3	10%
Quiz 4	10%
Case Studies (7) 5% Each	35%
Final Exam	25%

Exams will be closed book exams; midterms and finals will be given at the appropriate times each semester as outlined by the program exam schedule. Final exams will not to be administered early.

ANGEL exams should be administered and proctored in room 205 A-B utilizing the programs computers not personal computers

Lab Exams should be administered the last week of classes and before exam week

Grading Scale in Program:

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%
A minimum of a C is required to pass this course.

Late Assignments will have a grade deducted for each day they are late.

Course Evaluation Strategies:

Unit 1- Practitioner Roles & Responsibilities	Quiz 1
Unit 2- Evidence Based Practice	Quiz 2
Unit 3- The Rehabilitation Team	Quiz 3
Unit 4- Topics in Clinical Decision Making	Quiz 4
Unit 5- Prosthetic Case Studies	Rubric x 4
Unit 6- Orthotic Case Studies	Rubric x 3
Final	Final Exam

Attendance Policy:

Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by calling (727)341-4151 or notifying the instructor via email. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.

Tardiness is defined as arriving after the official start time of a class. Every **two** times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action.

The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course.

Special Accommodations:

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721.

Emergency Preparedness:

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.
This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu .

PRO 3505 Clinical Problem Solving
2011 Course Content

Unit	Unit and Topic Titles
Unit 1	**Practitioner Roles and Responsibilities** Domains and Tasks Ethics Round Table Discussion
Reading	ABC Practice Analysis of Certified Practitioners in the Discipline of Orthotics and Prosthetics http://www.abcop.org/certification/OrthotistsProsthetists/Documents/PracticeAnalysis_SS04.pdf Code of Professional Responsibility http://www.abcop.org/about/Documents/Code%20of%20Professional%20Responsibility.pdf Scope of Practice http://www.abcop.org/certification/OrthotistsProsthetists/Documents/Scope%20of%20Practice%20FINAL%204-21-11%20WEB.pdf
Assessment	Quiz 1
Unit 2	**Evidence Based Practice (AAOP Online Module Password)** Step 1: Evaluate the Problem (barr2011) Step 2: Form an Appropriate Question (barr2011) Step 3: Assess Available Resources (barr2011) Step 4: Search for Available Evidence (barr2011) Step 5: Critically Evaluate the Evidence (barr2011) Step 6: Apply the Gathered Information (barr2011) EBP Overview Round Table Discussion
Reading	T2 Chapter 6- An Evidence-based Approach to Orthotic and Prosthetic Rehabilitation The Academy Today- Evidence Based Practice: Talking the Talk, Walking the Walk www.oandp.org/AcademyTODAY/2007Apr/2.asp AAOP State of the Science Conference Prodeedings @ www.oandp.org Developing Evidence-Based Care Protocols http://www.oandp.com/articles/2010-08_01.asp
Assessment	Quiz 2 (Summation of 3, 4, 5, 6, EBP Online Quizzes)
Unit 3	**The Rehabilitation Team** The Rehab Team **(AAOP Online Module Password)** (barr2011) Practitioner/Patient Interaction: How to Avoid and Resolve Conflict

	Round Table Discussion
Reading	T2 Chapter 1- Orthotics and Prosthetics in Rehabilitation: The Multidisciplinary Approach The O&P Edge- Total Patient Care: Just A Dream? www.oandp.com/edge/issues/articles/2003-12_03.asp The O&P Edge- Who Should Lead the Rehab Team? www.oandp.com/edge/issues/articles/2004-04_05.asp
Assessment	Quiz 3 and Online Quiz
Unit 4	**Topics in Clinical Decision Making** Orthotic Prescription Replace v. Repair Effective Communications Custom-made v. Prefabricated Accommodation v. Correction Clinical Decision Making Round Table Discussion
Reading	T1 Chapter 2- The Orthotic Prescription AAOP On-Line Challenges Associated with Previous Orthotic/Prosthetic Wearers @ www.oandp.org JPO Patient Education Information: Readability of Prosthetic Publications www.oandp.org/jpo/library/printArticle.asp?printArticleId=1994_04_113
Assessment	Quiz 4
Unit 5	**Prosthetic Case Studies**
Reading	As needed to prepare case studies.
Assessment	Critiques, Rubrics
Unit 6	**Orthotic Case Studies**
Reading	As needed to prepare case studies.
Assessment	Critiques, Rubrics

PRO 3505 Clinical Problem Solving
2011 Course Schedule

Wk	Day	Unit	Topic	Title
1	8-25	1 1	1 2	Domains and Tasks Code of Professional Responsibility

2	9-1	1 2 2 2 2 2 2 2	3 1 2 3 4 5 6 7	Round Table Discussion and **Quiz 1** (EBP) Step 1: Evaluate the Problem (Online) Step 2: Form an Appropriate Question (Online) Step 3: Assess Available Resources (Online) Step 4: Search for Available Evidence (Online) Step 5: Critically Evaluate the Evidence (Online) Step 6: Apply the Gathered Information (Online) EBP Overview
3	9-8	2 3 3	8 1 2	**Quiz 2 All Due** (Summation of all EBP Online Quizzes) The Rehabilitation Team Practitioner/Patient Interaction (Online)
4	9-15	3 4 4	3 1 2	Round Table Discussion **Quiz 3 Written & Online Due** Orthotic Prescription Replace v. Repair
5	9-22	4 4	3 4	Effective Communications Custom-made v. Prefabricated
6	9-29	4 4	5 6	Accommodation v. Correction Clinical Decision Making
7	10-6	4 5	7 1	Round Table Discussion and **Quiz 4** Assignment of Prosthetic Case Study 1 (Explanation)
8	10-13	5 5	1 2	Presentation of Prosthetic Case Study 1, **Rubric** Assignment of Prosthetic Case Study 2
9	10-20	5 5	2 3	Presentation of Prosthetic Case Study 2 **Rubric** Assignment of Prosthetic Case Study 3
10	10-27	5 5	3 4	Presentation of Prosthetic Case Study 3 **Rubric** Assignment of Prosthetic Live Case Study 4
11	11-3	5 6	4 1	Presentation of Prosthetic Live Case Study 4 **Rubric** Assignment of Orthotic Case Study 1
12	11-10	6 6	1 2	Presentation of Orthotic Case Study 1**Rubric** Assignment of Orthotic Case Study 2
13	11-17	6 6	2 3	Presentation of Orthotic Case Study 2 **Rubric** Assignment of Orthotic Case Study 3
14	11-24			Thanksgiving Day- No Class
15	12-1	6	3	Presentation of Orthotic Case Study 3 **Rubric**
16	12-8			**Final exam Review**
17	12-15	-	-	**Final Exam (TBA)**

Assignments are subject to change. Please revisit on Angel weekly.

PRO 3505 Clinical Problem Solving
2011 Case Studies

Case studies are assigned to student groups to help them develop their critical thinking and problem solving skills as they relate to the orthotic and prosthetic management of a variety of common and less-common pathologies. By working in small groups, students

will also have an opportunity to use and develop their team management and team participation skills.

Student groups and case studies will be assigned by your course instructor. You will have a week to research and prepare a parsimonious oral presentation and defense of your case (15 to 20 minutes). Work and presentation tasks are to be shared equally by the group members. Each group will also be responsible for preparing the clinical forms, prescription and patient education forms for each case.

Topics to be covered in the presentation include:
Overview of the case
Pathogenesis, pathology, diagnosis and treatment of the condition
Patient assessment requirements (clinical exams and forms)
Orthotic and/or prosthetic goals (objectives, short-term and long-term)
Orthotic and/or prosthetic treatment plans -rejected
Orthotic and/or prosthetic treatment plan- recommended (prescription)
Materials, components, design and fitting criteria (work order)
Patient education materials (donning and doffing, wear schedule, etc.)

The primary resources to be employed include:
Textbook of Disorders and Injuries of the Musculoskeletal System
Atlas of Orthotics and Assistive Devices
Atlas of Amputations and Limb Deficiencies
Orthotics and Prosthetics in Rehabilitation
AAOP State of the Science Conference Proceedings
Medical Dictionary

Case study presentations will be assessed by a second group of students using the Case Study Presentation Assessment Rubric.

Your clinical forms, patient education forms, prescriptions, work orders, etc. will be assessed by a third group of students for clarity, spelling, and appearance of content using the Case Study Materials Assessment Rubric.
.

You will need to provide copies of both Rubrics to the instructor for each of the groups and individual for Orthotic Case Study 4.

PRO 3505 Clinical Problem Solving

Case Study Presentation Assessment Rubric

Case Study #_____

Group: _____ Presentation Date: _____

	Target 10	Acceptable 8.0	Emergent 6.0	Unacceptable 4.0	Score
Delivery (20%)	Student/group projected a professional demeanor. The delivery was well rehearsed. Important information was emphasized.	The delivery was appropriate.	The delivery was spotty with awkward moments.	Student/group was not prepared. The delivery was awkward throughout.	____
Eye Contact (20%)	Student/group maintained eye contact with the audience, only occasionally refers to notes.	Student/group maintained eye contact most of the time but frequently returned to notes.	Student/group mostly read from notes. Occasional eye contact with the audience.	Student/group read from notes. Little to no eye contact with the audience.	____
Elocution (20%)	Student/group used a clear voice, precise pronunciation of terms, and indicated enthusiasm through verbal and nonverbal energy.	Student/group used a clear voice, pronounced most terms correctly and could be heard by most of the audience	Student/group used a low voice, incorrectly pronounced terms and was difficult to hear during portions of the presentation.	Student/group mumbled, incorrectly pronounced terms and spoke to quietly for the audience to hear.	____
Content Knowledge (20%)	Student/group demonstrated full knowledge of the information with explanations and elaborations.	Student/group at ease with the information but seldom elaborated.	Student/group uncomfortable with information and answered only rudimentary questions.	Student/group did not understand the information and could not answer questions.	____
Materials (20%)	Student/group materials consistent with presentation	Student/group materials somewhat consistent w/ presentation	Student/group materials inconsistent w/ presentation	Student/group materials are not consistent with presentation	____

PRO 3505 Clinical Problem Solving

Case Study Materials Assessment Rubric

Case Study #_____

Group: _____ Presentation Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Clarity of Content (20%)	Materials are easy to read. Written clearly.	Materials are easy to read, but some areas are distracting. Lacking clarity.	Materials overall readability are difficult and vague.	Materials are difficult to read. Does not flow.	____
Spelling & Grammar (20%)	Materials grammar and spelling are correct.	Materials are overall sound. Little or no editing required.	Materials have only a few grammar or spelling errors.	Materials have very frequent grammar and/or spelling errors.	____
Appearance of Materials (20%)	Materials are visually pleasing. Appropriate use of content. Well organized.	Materials are mostly structured. Good content. Organized.	Materials are somewhat structured. Busy or distracting. Lacks content. Somewhat unorganized.	Materials are cluttered. Confusing. Unorganized. Difficult to read.	____
Materials Complete (40%)	All materials are complete and accurate. Very informative and concise.	Materials are mostly complete. Fairly accurate. Mostly informative.	Materials are somewhat inaccurate. Lack some information.	Materials have major portions missing or incomplete. Weak on information. Inaccurate.	____

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

PRO 4XXX Advanced Topics
2013 Course Syllabus

Instructors

Angela Courtade
Office Location: OP212
Office Hours: TBD
Phone: 727-341-4151
E-mail: Courtade.Angela@spcollege.edu

Prerequisites

Admission to the Orthotics and Prosthetics BAS program.

Co-requisites

None

Course Description

The course builds on current prosthetic and orthotic design principles by introducing additional available technologies and research trends. Topics to include: image capture and computer aided design; osseointegration; limb regeneration; direct neural control and limb transplants; recreational and high activity devices; adaptive sports equipment; and sensory feedback. 77 contact hours

Meeting Information

Mondays, Lecture 9:00am -11:00am
Mondays, Lab 12:00 - 3:00pm

Class Location

Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Rooms OP 126, OP 203, OP 205 (see course schedule).

Major Learning Outcomes

Upon completion of this course, the student will be capable of:

Discussing current and emerging orthotic and prosthetic technologies.
Comparing these advanced and emerging technologies to current orthotic and prosthetic design principles.
Evaluating these technologies for their application in a clinical setting to improve patient outcomes.

Student Learning Outcomes

Upon completion of this course, the student will be capable of:

1. Discussing current and emerging orthotic and prosthetic technologies by:
   a. participating in lecture presentations.
   b. reviewing and reading references, journals and textbooks.
   c. participating in exercises, assignments and group discussions.
   d. observing the function of various orthotic and prosthetic technologies.

2. Comparing these advanced and emerging technologies to current orthotic and prosthetic design principles by:
   a. analyzing the advanced and emerging technologies.
   b. identifying the clinical indications and contraindications for the technology.
   c. identifying the clinical advantages and disadvantages for the technology.
   d. indentifying present uses or projected uses for the technology.
   e. indentifying any existing commercially available technologies.
   f. describing mechanisms by which the orthotic and/or prosthetic technologies function.

3. Evaluating these technologies for their application in a clinical setting to improve patient outcomes by:
   a. identifying research and development that is occurring in alternative or emerging technologies in prosthetic and orthotic design.
   b. analyzing literature sources which justify the use of alternative or emerging technologies in prosthetic and orthotic designs.
   c. assessing the efficacy of these current and emerging technologies with healthcare outcome measures.

Required Text Books (student purchase)

T1 Hsu, J; Michael, JW; Fisk, JR. *AAOS Atlas of Orthoses and Assistive Devices*, 4th ed. Philadelphia: Mosby Elsevier, 2008. ISBN 978-0-323-03931-4

T2 Lusardi, MM. and Nielson, CC. *Orthotics and Prosthetics in Rehabilitation*, 2nd ed. St. Louis: Saunders Elsevier, 2007. ISBN 978-0-7506-7479-9

T5 Smith, D., Michael J., Bowker, J., *Atlas of Amputations & Limb Deficiencies, 3rd Edition*, Rosemont, IL: American Academy of Orthopedic Surgeons, 2004, ISBN 0-89203-313-4

T6 Care of the Combat Amputee. The Borden Institute, 2010. http://www.bordeninstitute.army.mil/published_volumes/amputee/amputee.html

Supplemental Materials (provided)

- PowerPoint Presentations
- Assorted Handouts (various topics)
- Fabrication Manuals
- Assessment Rubrics
- AAOP Online Learning Modules (AAOP Student Membership required)

Technology

All students are expected to access **ANGEL** resource site as well as the College of Orthotics & Prosthetics Student Commons

Course Evaluation Strategies

Unit 1 Sensory Feedback Mechanisms in O & P
Unit 2 Image Capture & Prototyping in O & P
Unit 3 Osseointegration & Limb Regeneration
Unit 4 Direct Neural Control & Limb Transplants
Unit 5 Advances in Lower Extremity Orthotics
Unit 6 Advances in Upper Extremity Prosthetics
Unit 7 Advances in Prosthetic Foot & Ankle Design
Unit 8 Advances in Prosthetic Knee & Hip Design
Unit 9 Advances in Suspension Variations
Unit 10 Advances in Cosmetic Coverings & Design
Unit 11 Recreational & High Activity Devices in O & P

- Online exercises (i.e. AAOP/OLC Quizzes)
- Discussion Board participation
- Write and present a paper on a topic of interest that relates to advanced or emerging technology

Lab Exercise/Activity 1 Feedback Array to be applied/attached to an O & P Device; ***Build the device; attach sensor; assess fit & function; and present outcomes if time permits.***
Lab Exercise/Activity 2 Observe the carving of a positive model of a body segments.
Lab Exercise/Activity 3 Movie of Osseointegration
Lab Exercise/Activity 4 Movie of Direct Neural Control
Lab Exercise/Activity 5 Fit & Function of Stance Control Orthosis; ***Capture real time data on Gait Rite System if time permits.***
Lab Exercise/Activity 6 Upper Socket Design & Suspension
Lab Exercise/Activity 7 Fit & Function of Powered Controlled Feet/Ankle; ***Capture real time data on Gait Rite System if time permits***
Lab Exercise/Activity 8 Fit & Function of Powered Knee and/or Hip; ***Capture real time data on Gait Rite System if time permits.***
Lab Exercise/Activity 9 Utilize COMPASS for alignment
Lab Exercise/Activity 10 Face Mold
Lab Exercise/Activity 11 Adaptive Equipment

Cumulative Final Exam

Assignments and Grading Scale

Online exercises/participation	up to 68 pts
Discussion Board participation (11 total exercises with up to 4 pts each)	44 pts
Paper of Topic of Interest	50 pts
Presentation of Topic of Interest	100 pts
Lab Exercises (11 total at 10 pts each)	110 pts
Final Exam	**100 pts**
Total Course Points	**472 pts**

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required to pass this course. Late assignments will have a grade deducted for each day they are late.

Assignments

1. Online exercises/participation from the Online Learning Center of the American Academy of Orthotists & Prosthetists (www.oandp.org/olc/)

A. *Annual Meeting:* Powered Lower Limb Prosthetics and Orthotics: Current Technologies and Future Directions
- at: http://www.oandp.org/olc/course.asp?course_id=24e7dbe4-f4a1-4c2c-b575-1f7273f2b74
- points possible = 24

B. *Academy Today*: AT Vol. 7-2: Evidence Note: Outcomes Associated with the Use of Microprocessor and Non-Microprocessor Controlled Prosthetic Knees After Unilateral Transfemoral Limb Loss
- at: http://www.oandp.org/olc/course.asp?course_id=9D91AA38-5D19-4739-A44A-4FC5492A7BCE
- points possible = 12

C. *Select O & P Topics*: Hip Disarticulation and Hemi-Pelvectomy Clinical Applications Utilizing Sub-Atmospheric Suspension Systems (Module 4)
- at: http://www.oandp.org/olc/course.asp?course_id=2818c65b-1fc3-4683-a94f-a6722868e5db
- points possible = 10

D. *JPO*: JPO 24-2A: Patient Training for Functional Use of Pattern Recognition Controlled Prostheses
- at: http://www.oandp.org/olc/course.asp?course_id=D109D40B-DAE2-41AC-8B00-24AD79C9006A
- points possible: 12

OR

JPO: JPO 24-2B: The Effects of Weight and Inertia of the Prosthesis on the Sensitivity of EMG Pattern Recognition in Relax State
- at: http://www.oandp.org/olc/course.asp?course_id=292EC929-4187-4A0B-BD7B-E3E420A7F5E3
- points possible = 12

2. Discussion Board Participation

Prior to the start of each new Unit Lecture, the student will be required to submit one question about that lecture topic to the instructor through ANGEL. The question, with answer, must have at least two cited references. Scoring will be the following: "Complete" = 2 points; "Incomplete" = 1 point; and "No Participation" = 0 points.

The Instructor will then choose 2-5 student questions to post on the Discussion Board AFTER class. Each student will have two days to respond to 1 of 5 questions. Again, the student's response must be cited. Scoring will be: "Complete" = 2 points; "Incomplete" = 1 point; and "No Participation" = 0 points. It is expected that the postings will be more detailed than simply 'I agree" or 'yes' or 'I disagree', etc. The responses must be appropriate, thought provoking, cited from available literature and original to receive full credit.

Total points possible = 44 points

ALL questions posted on the Discussion Board will then be eligible to be used for the Final Exam at the end of the semester.

Lack of participation in any discussion board posting will result in the student earning a '0' for that exercise. Receiving more than two (2) scores of '0' throughout the semester will result in the student failing this portion of the class.

3. Paper and Presentation of Topic of Interest

The student will sign up for one of the following 'Advanced Technologies' early in the semester. They will then have to write an overview of that technology. All references must be cited. The paper will be due by the end of the 15th week of class. ***Please see example grading rubric below, pg 11.***

Total points possible = 100

Also, the student will have to prepare and present a presentation of their findings to the class. The presentation must be in PowerPoint and submitted to the instructor via ANGEL by the beginning of class time of the 16th week. The presentation is not to exceed 10 minutes. Inclusion of video, graphics, images, etc. to enhance the information is encouraged.

In addition to submitting the PowerPoint to the instructor, the student must also submit at least 3 multiple-choice questions (with answers) from their presentation. The questions need to be relevant to the topic and cited. ***Please see example grading rubric below, pg. 12.***

Total points possible = 50

ALL student submitted multiple choice questions will then be eligible to be used for the Final Exam at the end of the semester.

Possible topics of interest =

CAD – Prosthetics
CAD – Orthotics
Electromagnetic Rheo – Logical Knee
Energy Storing/Dynamic Response AFOs
FES
Geriatric, Pediatric or Bilateral Patients
Microprocessor Technology
Mobility Aids
Myoelectric Terminal Devices
Neural Control
Osseointegration
Powered Ankles
Powered Knees
Scoliosis Technology
Stance Control Orthoses (SCOs)
Targeted Muscle Reinnervation (TMR)
Selection of own topic with instructor approval

4. Lab Exercises

Each Unit Topic will have a corresponding lab activity. Participation in the lab activity is mandatory. See each Rubric below for scoring.

Possible points = 10 each

Total possible points = 110

5. Final Exam

The final exam will be cumulative and will consist of 100 questions covering all 11 Unit Topics. The exam will consist of multiple choice, short answer and essay type questions. The questions will come from lecture materials, required readings, discussion board responses, and student generated questions from PowerPoint presentations.

Total possible points = 100

Attendance Policy

Students must attend all class sessions. Should students not be present they must notify the program in advance of class by calling 341-4151. There are no excused absences in this program. Any student who misses MORE than five (5) classes, clinics or laboratory sessions is required to withdraw from that course and the O and P program. Each two times a student is late to class OR leaves class early counts as an absence. The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior

Students are required to submit their papers to www.turnitin.com for evaluation print out the report and hand it in with their paper.

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your

course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on **ANGEL** for your convenience. Log in to **ANGEL** to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

PRO 4XXXC Advanced Topics and Lab
2013 Course Table of Contents

PRO 40XXC Advanced Topics
2013 Course Schedule
(Lectures**,** Labs**, *Patient/Models, Exams, Holidays)**

Wk	Date	Unit	Title
1	?	1	- Sensory and Feedback Mechanisms in O & P
1	?		**Lab Exercise/Activity 1 Student Models** Feedback Array to be applied/attached to an O & P Device
2	?	1	- Sensory and Feedback Mechanisms in O & P
2	?		**Lab Exercise/Activity 1 Student Models** Feedback Array to be applied/attached to an O & P Device
3	?	2	- Image Capture & Prototyping in O & P
3	?		**Lab Exercise/Activity 2** Observe the carving of a positive model of a body segment
4	?	3	- Osseointegration & Limb Regeneration
4	?		**Lab Exercise/Activity 3 Patient Model or Movie** of Osseointegration
5	?	4	- Direct Neural Control & Limb Transplants
5	?		**Lab Exercise/Activity 4 Patient Model or Movie** of Direct Neural Control
6	?	5	- Advances in Lower Extremity Orthotic
6	?		**Lab Exercise/Activity 5 Patient &/or Student Models** Fit & Function of Stance Control Orthosis,
7	?	6	- Advances in Upper Extremity Prosthetics
7	?		**Lab Exercise/Activity 6 Patient Models** Upper Extremity Socket Design & Suspension
8	?	7	**-** Advances in Prosthetic Foot and Ankle Design
8	?		**Lab Exercise/Activity 7 Patient &/or Student Models** Fit & Function of Powered
9	??	8	**-** Advances in Prosthetic Knee and Hip Design
9	??		**Lab Exercise/Activity 8 Patient &/or Student Models** Fit & Function of Powered
10	??	8	**-** Advances in Prosthetic Knee and Hip Design
10	??		**Lab Exercise/Activity 8 Patient &/or Student Models** Fit & Function of Powered
11	??	9	**-** Advances in Suspension Variations
11	??		**Lab Exercise/Activity 9 Patient Models** Utilize COMPASS for alignment
12	??	10	- Advances in Cosmetic Coverings and Design
12	??		**Lab Exercise/Activity 10 Patient Model or Movie** Face Mold
13	??	11	- Recreational and High Activity Devices in O & P
13	??		**Lab Exercise/Activity 11 Patient Model or Movie** Adaptive Equipment
14	??		**Thanksgiving Holiday**
14	??		**Thanksgiving Holiday**
15	??		(Work on Topic of Interest)
15	??		(Work on Topic of Interest)
16	??		**Presentation of Topic of Interest**
16	??		**Presentation of Topic of Interest**
17	??		**Final Exam**
17	??		**Final Exam**

PRO 40xx Advanced Topics and Lab

Paper of Interest

Rubric

Name: _____

Topic: _____

	A Level	B Level	C Level	D Level
Introduction (10 pts)	The introduction *Was well organized *Smoothly pulled the reader into the topic *Presented the main focus of the paper *Adequate content for an introduction *Wrote for the correct audience (10 pts)	The introduction had one limitation: * Disorganized *Not smooth * Did not present the main focus of the paper *Too detailed or too sketchy *Rocky first sentences (8 pts)	The introduction had two of these limitations: * Disorganized *Not smooth * Did not present the main focus of the paper *Too detailed or too sketchy *Rocky first sentences (7 pts)	The introduction had three or more limitations listed at left or required major changes (6 pts)
Content (20 pts)	The content of the paper *Was clear *Had a unified focus *Focused on important information *Adequately explained concepts *Was correct; References not over 5 years old (20 pts)	The content of the paper had one of these limitations: *Hard to understand *Included irrelevant or too much detailed information *Failed to explain concepts *Had a disjointed focus *Incorrect information (17 pts)	The content of the paper had two of these limitations: *Was hard to understand *Included irrelevant or too much detailed information *Failed to explain concepts *Had a disjointed focus *Incorrect information (15 pts)	The content of the paper was not clearly written and difficult to understand. OR had three or more limitations listed at left. (13 pts)
Paragraph Organization (20 pts)	Paragraphs in the paper *Had clear topic sentences *Were about a single topic *Were organized at the paragraph level *Had transitions from one paragraph to another (20 pts)	Paragraphs in the paper had one of these limitations: *Poor topic sentences *Run on paragraphs or Too brief paragraphs *Lacked organization within the paragraph *Lacked transitions from one paragraph to another. (17)	Paragraphs in the paper had two of these limitations: *Poor topic sentences *Run on paragraphs or Too brief paragraphs *Lacked organization within the paragraph *Lacked transitions from one paragraph to another. (15)	Paragraphs in the paper had three or more of the limitations at left. (13 pts)
Paper Organization (20 pts)	The paper's organization was *Easy to follow *Presented in a logical manner * Integrated information *Summarized information when needed *Used headers	The paper had one of the following limitations: *organization was not logical *information was not consistently integrated together *information was not summarized when needed	The paper had two of the following limitations: *organization was not logical *information was not consistently integrated together *information was not summarized when needed	The paper was disorganized and illogical. OR had three or more of the limitations listed at left.

	(20 pts)	*Headers were missing (17 pts)	*Headers were missing (15 pts)	(13 pts)
Writing Style (10 pts)	The style of writing is *professional *easy to understand *uses appropriate vocabulary *mature syntax style (10 pts)	Writing is affected by one of the following limitations: *jargon *wordiness *redundant phrasing *awkward syntax structures *choppy sentences *run-on sentences *incorrect use of vocabulary (8 pts)	Writing is affected by two of the following limitations: *vocabulary jargon *wordiness *redundant phrasing *awkward syntax structures *choppy sentences *run-on sentences *incorrect use of vocabulary (7 pts)	Writing is affected by three or more limitations occurring 3 or more times. (6 pts)
Writing Mechanics (10 pts)	The paper is free of spelling, grammar, & punctuation errors. (10 pts)	The paper has less than 5 errors in spelling, grammar, or punctuation. (8 pts)	The paper has 6-10 errors in spelling, grammar, or punctuation. (7 pts)	The paper has more than 10 errors in spelling, grammar, or punctuation. (6 pts)
APA (10 pts)	All APA rules are followed for citations, numbers, quotes, references, headers, etc. (10 pts)	The paper has less than 5 APA rule errors. (8 pts)	The paper has 6-10 APA rule errors. (7 pts)	The paper has more than 10 APA rule errors. (6 pts)

Comments: 100 points possible; **Total Score = _____**

PRO 40xx Advanced Topics and Lab

PowerPoint Presentation of Paper of Interest

Rubric

Name: _____

Topic: _____

	Target 10	**Acceptable 7.5**	**Emergent 5**	**Score**
Organization	The information was organized in a logical sequence that was easy to follow throughout.	The student presented the information in a logical sequence with only minor lapses in organization.	The student presented information in a random sequence that was difficult to follow.	
Slides	The slides were well formulated, readable and included visuals to complement the text.	The slides were well formulated but difficult to read &/or did not include visuals to complement the text.	The slides were not well-formulated, difficult to read and did not include visuals.	
Slide Format	Format and instructions were followed for the length of presentation. No typos or grammatical errors.	Format and instructions were followed for length but types &/or grammatical errors were present.	Format was not followed and typos and grammatical errors are present.	
Content	Topic was covered thoroughly and correct	Topic was covered with only minor lapses of information.	Topic was not thorough and lacked information.	
Multiple Choice Questions	Three questions (minimum) with answers are prepared, cited and grammatically correct.	Three questions (minimum) were prepared but were not cited and/or contained grammatical errors.	Minimum number of questions not prepared or cited.	

Comments: 50 points possible; **Total Score = _____**

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

This is a new course and therefore does not yet have results from any SSI.

Describe the changes made to this course based upon the evaluation results.

This is a new course.

PRO 3801L
ORTHOTICS and PROSTHETICS
CLINICAL ROTATION

INSTRUCTOR:
Arlene Gillis, M. Ed, CP, LPO
Office Hours:
Office Location: OP 212, HEC
Phone: 727-341-4153
E-mail: gillis.arlene@spcollege.edu

ACADEMIC DEPARTMENT:
Dean:
Office Phone:
Office Location:
Academic Chair:
ECampus Web Page Link:

Meeting Information:
Thursday 12-2 except case study presentation dates ~Auditorium. Please check the ANGEL calendar weekly for schedule changes when we meet for case studies. We will have both groups.

Class Location:
Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Auditorium, OP 128, off-site clinical rotation.

COURSE INFORMATION:

Course Description:
Prerequisite: Admission to the Orthotics and Prosthetics (O&P) BAS program. This course is part of a series of clinical rotations in which students observe, assist, and practice patient care and device fabrication in an environment that prepares them for an orthotic or prosthetic residency. Students study traditional and emerging topics related to the O&P field and are then placed at a clinical agency to practice skills under close supervision of an American Board Certified (ABC) prosthetist/orthotist. The topic of concentration in each clinical rotation is different; however, students are required to demonstrate mastery of patient and clinical assessments; the design, implementation, and follow-up of comprehensive treatment plans; technical skills; and communication skills with increasing competency as they progress through the series. Students are required to document

patient interactions and case analysis of their clinical experiences, and to present case studies to an audience of peers. 110 contact hours.

80 clinical site hours. 1 Critical Thinking Project Presentation. 2 Case Studies. Precepter Evaluation. Weekly/monthly Typhon Inputs. 4 Guest Lecturers.

Major Learning Outcomes:

1. The student will conduct a comprehensive orthotic and prosthetic patient assessment.

2. The student will formulate and implement a comprehensive orthotic and prosthetic treatment plan.

3. The student will assess the effectiveness of a comprehensive orthotic and prosthetic treatment plan and design a modified plan for continued implementation of the device.

4. The student will document patient/practitioner encounters for clinical decision making and communication for legal and reimbursement purposes.

5. The student will use communication skills expected of entry level O&P professionals with practitioners, patients, and caregivers encountered in the clinical environment.

Course Objectives Stated in Performance Terms:

1. The student will conduct a comprehensive orthotic and prosthetic patient assessment by:
   a. collecting patient data and measurements to form a comprehensive patient history.
   b. selecting and executing specific functional clinical examinations, including: range of motion, manual muscle testing, e-ray assessment, diagnostic imaging, joint stability assessment and skin integrity assessment.

2. The student will formulate and implement a comprehensive orthotic and prosthetic treatment plan by:
   a. evaluating the findings from the patient assessment to determine a treatment plan.
   b. developing a treatment plan based on patient needs.
   c. identifying the design, materials and components to support the treatment plan.
   d. selecting the appropriate materials and techniques in order to obtain a patient model or image, including: tracings, impressions and CAD/CAM scans.
   e. modifying and preparing the plaster model or computer image.
   f. selecting appropriate materials and components for the prosthesis/orthosis.
   g. fabricating and assembling the prosthesis/orthosis.
   h. assessing and aligning the prosthesis/orthosis to provide maximum function and comfort.

3. The student will assess the effectiveness of a comprehensive orthotic and prosthetic treatment plan and design a modified plan for continued implementation of the device by:
   a. analyzing the results of the patient follow up assessment.
   b. determining, if any, the necessary adjustments to the orthosis/prosthesis based upon follow up assessments to ensure progress, goals, and comfort.

c. modifying the orthosis/prosthesis.

4. The student will document patient/practitioner encounters for clinical decision making and communication for legal and reimbursement purposes by:
   a. recording patient/practitioner data into the Typhon website.
   b. accessing American Academy of Orthotists and Prosthetists (AAOP) Learning Modules online and completing the exams.
   c. accessing American Orthotic and Prosthetic Association (AOPA) Webcasts online and completing the exam.

5. The student will use communication skills expected of entry level O&P professionals with practitioners, patients, and caregivers encountered in the clinical environment.

Criteria Performance Standard:

Upon successful completion of the course the student will, with a minimum of 75% accuracy, demonstrate mastery of each of the above stated objectives through classroom measures developed by individual course instructors.

TOPICS

O&P Clinical Rotation I:	Evidenced Based Practice	2 credits
O&P Clinical Rotation II:	Psychology of the Disabled	2 credits
O&P Clinical Rotation III:	Ethics and Professionalism	2 credits
O&P Clinical Rotation IV:	Business/Practice Management	2 credits

REQUIRED TEXTBOOK & OTHER RESOURCE INFORMATION:

Houghton, P. and Houghton, T. APA: The Easy Way! 2nd edition. Flint, Michigan: Baker College.
ISBN: 978-0-923568-96-2

Supplemental Materials (provided)

Assorted Handouts

Other Critical Course Expectations :

All students are expected to access ANGEL and Typhon resource sites as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Critical Thinking Project Presentation (1)	Timely Presented
Case Study Presentations (2)	Timely Presented
Preceptor Evaluation	Timely Inputted
Typon Inputs	Timely Inputted
Guest Lecturers (4)	Attendance Required

Assignments and Grading Scale

Critical Thinking Project Presentation (1)	40%
Case Study Presentations (2)	40%
Preceptor Evaluation	10%
Typhon Inputs	10%
Guest Lecturers (4)	Attendance Required

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required on each portion/section to pass this course.
Students will have two opportunities to pass the culminating exam.
Late assignments will have a grade deducted for each day they are late.

Attendance Policy

The college-wide attendance policy is included in the Syllabus Addendum
http://www.spcollege.edu/central/asa/addendum.htm .

For this course Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by calling (727) 341-4151 or notifying the instructor via email. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.

Tardiness is defined as arriving after the official start time of a class. Every **two** times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action.

The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior
http://www.spcollege.edu/central/asa/addendum.htm

IMPORTANT DATES:

Course Dates: Start and End Date of the Semester
Drop/Add: * is the last day to drop and receive a refund
Withdrawal Dates: * is the last day to withdraw with a grade of 'W'
Financial Aid: http://www.spcollege.edu/getfunds

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721.

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege.edu*.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

STUDENTS' EXPECTATIONS AND INSTRUCTOR'S EXPECTATIONS

Online /Student Conduct
http://www.spcollege.edu/ecampus/help/conduct.htm

Online Student, Faculty and Staff Expectations and Performance Targets
http://www.spcollege.edu/ecampus/help/expectations.htm

Syllabus Addendum:
Please open and print the Addendum: http://www.spcollege.edu/webcentral/policies.htm

STUDENT SURVEY OF INSTRUCTION:

The student survey of instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential and anonymous and will be used solely for the purpose of performance improvement.

SIGNATURE PAGE:

I have read, understand, and agree to abide fully by the parameters set in this Syllabus and Syllabus Addendum. **Student Signature:** **Date:**

ADDITIONAL COURSE INFORMATION:

Weekly Reports (input into Typhon website)
Weekly reports are to be submitted to Typhon at the end of each week. Inputs should be completed in a clear concise format.

Monthly Logs (input into Typhon website)
Monthly logs are to be submitted to Typhon by the 30th of each month.

Case Study Presentation Topics
Oral case study presentations will be due as assigned. PowerPoint is required for this presentation. See sample outline below.

Clinical Rotation Check List (input into Typhon website)
Clinical rotation checklist must be maintained per semester for each facility. The preceptor must sign off on Typhon prior to your final week at the site.

Guidelines for Presenting Case Studies
(This is just a guide not required in this format)

The intent of the Preceptorship experience is to provide real world clinical experience which should augment your formal classes at St. Petersburg College. We have the requirement of a case study presentation to help you organize your approach and further your learning process when providing services to people with severe disabilities. In particular, we want you to fully understand the diagnosis of the person you are treating, and why the prosthesis or orthotic is appropriate. Please present a logical rationale for the orthosis or prosthesis provided. Why this particular design and not another? What are the biomechanical principles used in this orthosis or prosthesis? What is the goal: ambulation? Reduction of deformity? Limitation of deformity? Reduction of pain? etc. Try to choose cases which are relevant to the clinical classes that you are currently taking. In other words, choose a TT during TT, TF during TF an AFO during LLOxI, a KAFO during LLOxII, and a Boston Brace during Spinal II, etc. Research and site evidence based practice rationale for utilizing specific devices for the patient.

During your monthly Preceptorship, you will be required to choose 2 case studies and present to the class utilizing Power Point. Remember: patient confidentiality is very important. Do not use real patient names. Meeting dates will be assigned on calendar.

I will be looking to ensure that you have utilized Evidence Based Practice in the formulation and implementation of your treatment plan. If you are not able to see a patient from start to finish, please ask your supervisor to look at the chart for evaluation or intervening progress. You may look up the diagnosis and recommended O&P treatments in your texts to further illuminate your write-up. Remember, you need to prove or attest that the Rx is appropriate in the Assessment section, based upon your objective and subjective findings.

Late case studies will not be accepted. Please speak with Mrs. Gillis if you have a legitimate reason that you cannot submit your work on time. This is a firm deadline - no exceptions!!

If you have questions about the case study or the Preceptorship in general, contact Arlene Gillis.

Again, use the case guidelines to help you in your case presentation; especially the Objective and Assessment sections.

PRECEPTORSHIP CASE OUTLINE
(Guide not required format please use EBP)

NAME(Patient XYZ-) DATE, HT, WT, AGE,SEX,OCCUPATION
PRESCRIPTION (Rx)
Name of referring physician
Appropriate terminology to describe components (HCFA)

DIAGNOSIS (Dx) - Determined by:
Referring physician on Rx
Available medical history
Communication with Patient

HISTORY (Hx)
DOI, Surgery, Prior Treatment, Progress in recovery, Any other information medically relevant

OBJECTIVE FINDINGS
Physical exam, Muscle test, ROM, shrinkage, angular change/deformity, Gait, Length of residual limb, Biomechanical description of functional loss or instability, Condition of current prosthesis or orthosis.

ASSESSMENT
For initial evaluation, new prosthesis/orthosis, or return visit after an absence:
- **Info supportive of the Rx with respect to function, expectations, and component decisions and recommendations**
- **Physical exam with ROM/MMT**
- **Gait analysis**
- **Current prosthesis/orthosis evaluation**
- **Analysis/prediction of function (K level for prosthetics)**
- **Biomechanical description of functional loss or instability**
- **Analysis of mental status, motivation level**
- **Prognosis**
- **Analysis of current problem**
- **Level of independence**
- **Description of functional loss and expected outcome of intervention**

PLAN/PROGRESS (Px)
- **Formulate a treatment plan utilizing evidence based practice**
- **Research and reference articles to support why you chose the device for the patient, appropriate devices for the patient's condition, outcome measures for the patient, etc.**
- **Summary of overall treatment plan including other disciplines**
- **time schedule (site evidence based practice)**
- **achievement of goals or justification of failure to achieve goals**
- **return appointments/follow up schedule**

PATIENT/FAMILY EDUCATION
Document specific instructions that were given and printed documents that accompanied service; e.g. donning and doffing instructions, care and maintenance, precautions and limitations of the prosthesis or orthosis, wearing schedules

Remember your tips for success in this course:

1. Focus on the TASK at hand.
2. Be respectful and prompt; always be professional in your interactions.
3. Learn good time management skills.
4. Develop successful study strategies that can carry over for a lifetime of learning.
5. Communicate your concerns to preceptors and instructors.
6. Ask questions at the appropriate time.
7. Commit yourself.
8. Be deliberate and intentional to complete your task.
9. Learn from your mistakes.

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

EGN3443

Statistical Topics in Engineering

Instructors: Carol Weideman

Office Hours: TBD

Office Location: OP220

Phone: 727-341-4151

E-mail:

Meeting Information:

Class Location:

Caruth Health Education Campus (HEC), O & P 128

Prerequisites:

Admission to the Orthotics & Prosthetics MAS Program or permission of the Dean. MAC4312.

Course Description:

Prerequisite: Admission to the Orthotics and Prosthetics Masters program, MAC4312. This course is an introduction to basic concepts of statistical analysis with special emphasis on engineering applications. The course covers the topics of probability, discrete and continuous random variables and their sampling distributions, joint probability distributions, descriptive statistics, estimation of parameters, hypothesis testing and statistical inference for one and two samples, simple linear regression, and design of experiments. 47 contact hours.

Major Learning Outcomes:

The student will apply basic concepts of probability and use probabilities to assess risk in engineering applications.

The student will apply the fundamental concepts of random variables and their sampling distributions to statistical inferences.

The student will use joint probability distributions are to make statistical inferences.

The student will apply the methods of descriptive statistics.

The student will understand and apply the general concepts of point estimation of parameters.

The student will use with the fundamental concepts of statistical inference as they apply to engineering applications.

The student will apply the basic principles of simple linear regression and correlation to practical problems in today's society.

The student will understand and apply the basic principles of design of experiments in engineering applications.

Student Learning Outcomes:

Upon completion of this course:

The student will apply basic concepts of probability and use probabilities to assess risk in engineering applications by:

Describing sample spaces and event for random variables using graphs, tables, lists or tree diagrams
Interpreting probabilities and using probabilities of outcomes to calculate probabilities of events in discrete sample spaces.
Using permutations and combinations to count the number of outcomes in both an event and a sample space.

Calculating the probabilities of joint events such as unions and intersections from the probabilities of individual events.
Interpreting and calculating conditional probabilities of events.
Determining the independence of events and use independence to calculate probabilities.

The student will apply the fundamental concepts of random variables and their sampling distributions to statistical inferences by:

determining probabilities from probability mass functions and the reverse for discrete random variables

determining probabilities from probability density functions for continuous random variables

Determining probabilities from cumulative distribution functions and cumulative distribution functions from probability mass functions and the reverse

Understanding assumptions for common discrete and continuous random variables

Selecting an appropriate discrete or continuous probability distribution to calculated probabilities in specific application

calculating the probabilities, and determine means and variances for:

discrete random variables including uniform, binomial, geometric and negative binomial, hypergeometric and Poisson random variables.

normal and standard normal random variables

Standardizing normal distribution random variables

Approximating probabilities for some binomial and Poisson distributions

The student will use joint probability distributions to make statistical inferences by:

using joint probability mass functions and joint probability density functions to calculate probabilities

calculating marginal and conditional probability distributions from joint probability distributions

interpreting and calculating covariances and correlations between random variables

calculating means and variances for linear combinations of random variables and calculate probabilities for linear combinations of normally distributed random variables

The student will apply the methods of descriptive statistics to:

compute and interpret sample statistics, including mean, median, mode, variance, standard deviation, range and quartiles.

construct and interpret visual data displays, including

stem-and-leaf display
histogram
boxplot
comparison of two or more samples using boxplots and other visual displays
using time series plots to visually display important features of time-oriented data

explain the concept of random sampling

construct and interpret normal probability plots

The student will apply the general concepts of point estimation of parameters by:

a. explaining the role of the normal distribution as a sampling distribution

b. applying the Central Limit Theorem to statistical inference problems.

c. explaining important properties of point estimates, including bias, variance and mean square error.

constructing point estimates using the method of moments and the method of maximum likelihood.

constructing a point estimator using the Bayesian approach

The student will use with the fundamental concepts of statistical inference as they apply to problems in engineering applications by:

a. constructing confidence intervals for the mean, variance, standard deviation of a normal distribution, using the normal or t-distribution.

explaining the three types of interval estimates: confidence interval, prediction interval and tolerance intervals.

utilizing hypothesis testing concerning a parameter including:

(1) structuring engineering decision-making problems as hypothesis tests.

(2) testing hypotheses on the mean of a normal distribution using either a z-test or t-test procedure.

(3) testing hypotheses on the variance or standard deviation of a population.

(4) testing hypotheses on a population proportion

using the p-value approach for making decisions in hypothesis tests.

Computing power and type II error probability, and making sample size decisions for tests on means, variances and proportion.

using chi-square goodness of fit to check distributional assumptions.

The student will apply the basic principles of simple linear regression and correlation to practical problems in today's society by:

a. using simple linear regression for building empirical models using engineering and scientific data

b. using the method of least-squares to estimate the parameters in a linear regression model.

c. analyzing residuals to determine if the regression model is an adequate fit to the data and to determine if underlying assumptions are met.

d. testing statistical hypotheses and constructing confidence intervals on regression model estimates.

e. using the regression model to make predictions of future observations and constructing appropriate prediction intervals.

f. demonstrating when to apply the correlational model

g. using simple transformations to achieve a linear regression model.

The student will understand and apply the basic principles of design of experiments and analysis of variance in engineering applications by:

designing experiments involving a single factor and understanding how analysis of variance is used to analyze data from these experiments

designing and conducting experiments involving several factors using a factorial design approach

Assessing model adequacy with residual plots

using multiple comparisons to identify specific differences between means

understanding differences between fixed and random effects

understanding the blocking principle and how it is used to isolate the effects of nuisance factors

designing and conducting experiments involving the randomized complete block design

Required Text Books:

T1 Douglas C. Montgomery and George C. Runyon, ***Applied Statistics and Probability for Engineers***, Fifth Edition. Wiley, 2011

ISBN-13: 978-0-470-05304-1

T2 George E. P. Box and Friends, ***Improving Almost Anything: Ideas and Essays,*** Revised Edition, Wiley, 2006. ISBN-13: 978-0-471-72755-2

Student Edition: Minitab (http://www.onthehub.com/minitab/)

Supplemental Materials:

Angel Course Materials- PowerPoint Presentations

Article Analysis and Summary Form
Chapter Quizzes
Chapter Minitab Datasets

Technology:

All students are expected to access ANGEL resource site as well as the College of Orthotics & Prosthetics Student Commons.

Assignments and Grading Scale:

Chapter Quizzes	10%
Participation	10%
Reflective Readings	15%
Minitab Homework assignments	15%
Midterm Exam	25%
Final Exam	25%

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%
A minimum of a C is required to pass this course.

Late Assignments will have a grade deducted for each day they are late.

Course Evaluation Strategies:

Chapter Quizzes	Chapters 2-9, 11, 13, 14
Participation	Chapters 1-14 Comprehensive
Reflective Readings	Five assigned readings
Minitab Homework Assignments	Chapters 6, 7, 8, 9, 11, 13, 14
Midterm Exam	Chapters 1-6
Final Exam	Chapters 7-14

Attendance Policy:

Students may miss no more than 2 days of class. Each subsequent absence will lower the student's grade by 1 letter grade per absence. Three late arrivals are equivalent to one absence. Furthermore it will be the student's responsibility to make up the work. It will not be presented again. All absences must be excused.

Academic Honesty:

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior

Special Accommodations:

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721.

Emergency Preparedness:

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu .

Week	Date	Topics, Readings, Assignments, Deadlines
1		Course Introduction and Overview Chapter 1: Role of Statistics in Engineering *Montgomery & Runger, Applied Statistics and*

Week	Date	Topics, Readings, Assignments, Deadlines
		Probability for Engineers, pp.1-17
2		Chapter 2: Section 1-6: Probability *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp.17-55*
3		Chapter 2: Sections 7, 8: Probability (cont) Chapter 3: Sections 1, 2, 3, 4: Discrete Random Variables *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp.55-77* Chapter 2 Quiz Due
4		Chapter 3: Sections 5, 6, 7, 8, 9: Discrete Random Variables (cont) *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp.77-106* Chapter 3 Quiz Due
5		Chapter 4: Sections 1-5: Continuous Random Variables *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp.106-118* Reflective Reading 1 Due
6		Chapter 4: Sections 5-12: Continuous Random Variables (cont) *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp.118-151* Chapter 4 Quiz Due
7		Chapter 5: Joint Probability Distributions *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp. 152-190* Chapter 5 Quiz Due Reflective Reading 2 Due
8		Chapter 6: Descriptive Statistics *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp. 191-222* Chapter 6 Quiz Due Chapter 6 Minitab Homework Due
9		Midterm Examination: Chapters 1-6
10		Chapter 7: Sampling Distributions, Point Estimation

Week	Date	Topics, Readings, Assignments, Deadlines
		Chapter 8: Sections 1, 2: Statistical Intervals for a Single Sample *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp. 223-266* Chapter 7 Quiz Due Reflective Reading 3 Due Chapter 7 Minitab Homework Due
11		Chapter 8: Sections 3-6: Statistical Intervals Single Sample (cont) Chapter 9: Sections 1-2: Tests of Hypotheses Single Sample *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp. 266- 310* Chapter 8 Quiz Due Chapter 8 Minitab Homework Due
12		Chapter 9: Sections 3-9: Tests of Hypotheses Single Sample (cont) *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp. 310-350* Chapter 9 Quiz Due Chapter 9 Minitab Homework Due
13		Chapter 11: Sections 1-7: Simple Linear Correlation *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp. 401-431* Reflective Reading 4 Due
14		Chapter 11: Sections 8, 9: Simple Linear Correlation Chapter 13: Sections 1-3: Design of Single Factor Experiments *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp. 431-447, 513-537* Chapter 11 Quiz Due Chapter 11 Minitab Homework Due
15		Chapter 13: Section 4 : Design of Single Factor Experiments (cont) Chapter 14: Sections 1-3: Design of Experiment Several Factors *Montgomery & Runger, Applied Statistics and Probability for Engineers, pp. 538-550, 551-568* Chapter 13 Quiz Due

Week	Date	Topics, Readings, Assignments, Deadlines
		Chapter 14 Quiz Due Chapters 13, 14 Minitab Homework Due
16		Reflective Reading 5 Due Final Examination

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

PRO 4850 Senior Capstone

2012 Course Syllabus

Instructors

Tom Chmielewski, LPO
Office Location: OP 210, HEC
Phone: 727-341-4156
E-mail: chmielewski.thomas@spcollege.edu

Arlene Gillis, LPO
Office Location: OP 212, HEC
Phone: 727-341-4153
E-mail: gillis.arlene@spcollege.edu

Office Hours: Mondays 4 – 6 pm
Wednesdays 4 – 6 pm

Prerequisites

Admission to the Orthotics and Prosthetics BAS program or by permission of the Dean

Co-requisites

None

Course Description

The Senior Capstone course is designed to assess the student's comprehensive knowledge of orthotics and prosthetic. Students in this course are required to successfully complete and pass both sections (written and clinical) of a culminating exam, as well as a course-specific culminating exam. (32 contact hours).

Meeting Information

Thursdays 9:30 –11:30 am Lecture/Review, Case Studies and Exam Preparation

Class Location

Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Rooms OP 128, 203, 205

Major Learning Outcomes

Upon completion of this course the student will be capable of:

Performing a comprehensive orthotic and prosthetic patient assessment.
Formulating a comprehensive orthotic and prosthetic treatment plan.
Implementing a comprehensive orthotic and prosthetic treatment plan.

Student Learning Outcomes
Upon completion of this course, the student will be capable of:

Perform a comprehensive patient assessment by:
Completing a comprehensive patient history.
Selecting and executing specific functional clinical examinations, including: range of motion, manual muscle testing, x-ray assessment, diagnostic imaging, joint stability assessment and skin integrity assessment.

Formulate a comprehensive treatment plan by;
Evaluating the findings in the patient assessment to determine a treatment plan.
Developing a treatment plan based on patient needs.
Identifying the design, materials and components to support the treatment plan.

Implement a comprehensive treatment plan by;
Selecting the appropriate materials and techniques in order to obtain a patient model or image, including: tracings, impressions and CAD/CAM scans.
Modifying and prepare the plaster model or computer image.
Selecting appropriate materials and components for the orthoses.
Fabricating and assembling the orthoses.
Assessing and aligning the orthoses to provide maximum function and comfort.

Reference Text Books

Capstone Review Handbook (SPC OPSS)

Shurr, Donald and Michael, John, Prosthetics and Orthotics, 2nd ed. Prentice Hall, 2002. ISBN 0-8385-8133-1

Smith D., Michael J., Bowker J. *Atlas of Amputations & Limb Deficiencies.* 3rd Edition. Rosemont, IL: American Academy of Orthopedic Surgeons; 2004. ISBN 0-89203-313-4

Hsu, J., et al. AAOS Atlas of Orthoses & Assistive Devices, 4th ed. Philadelphia: Mosby Elsevier, 2008. ISBN 978-0-323-03931-4

Seymour R., *Prosthetics and Orthotics, Lower Limb and Spinal*: Baltimore, MD: Lippincott Williams & Wilkins, 2002. ISBN 978-0-7817-2854-6

Lusardi, M. and Nielson, C. *Orthotics and Prosthetics in Rehabilitation*, 2nd ed. St. Louis: Saunders Elsevier, 2007. ISBN-13: 978-0-7506-7479-9

http://www.oandp.org/jpo/library/2003_04S_049.asp

Supplemental Materials

Power Point Lectures from Previous Courses
AAOP Online Learning Modules
Assorted Handouts

AAPO Memberships

Available on-line @ oandp.org
Click Memberships

Click On-Line Applications
Complete the application form. You will need a credit card. Student membership cost $36 plus an application fee of $15.
Click Submit

AAOP Learning Modules

Go to AAOP website at oandp.org
Click On-Line Learning Center
Click Log in for a Full Access
Enter Username and Password
Scroll thru the Academy Learning Modules, JPO articles or Case studies for the assigned title.
Click on the assigned title.
Click Enter Student Code (code supplied by the instructor)
Enter the course code
Click Submit
Click View Session
Review the assigned material and when ready…
Click Take Final Exam
Click on Get Exam
Complete the exam, then…
Click Submit
Complete the course evaluation, then…
Click Submit Survey & Exam Results
If you failed the exam, then…
Click Try Again
If you passed, then
Click Close Window

Your exam scores & survey responses will be placed in a file for your instructor to review. Grades will be transferred to Angel.

Technology

All students are expected to access ANGEL resource site as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Culminating Exam

Written Section	Written Exam
Clinical Simulation Section	Clinical Simulation Exam
Capstone course material	Capstone Advanced Technologies test

Assignments and Grading Scale

Written Exam Section	35%
Clinical Simulation Exam Section	45%
Capstone Advanced Technologies Test	10%
Student Activities: Course assignments, online learning modules, And in-class practice sessions	10%

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%
A minimum of a C is required on each portion/section to pass this course.

Students will have **two** opportunities to pass the written and clinical simulation exam sections.

Assignments and quizzes (Online Learning Modules) are to be completed by midnight of the designated due date. Make-ups will be allowed only for extenuating circumstances such as accidents, hospitalization, family tragedy or uncontrollable natural occurrences.

Attendance Policy

Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by contacting the instructor (chmielewski.thomas@spcollege.edu) or the instructor-in-charge (gillis.arlene@spcollege.edu) **and** by calling **(727) 341-4151**. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.

Tardiness is defined as arriving after the official start time of a class. Every **two** times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action.

The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior
Students are required to submit their papers to www.turnitin.com for evaluation print out the report and hand it in with their paper.

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

Emergency Preparedness

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on ANGEL for your convenience. Log in to ANGEL to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

Email Communications outside your SPC Courses:

Your **Live@edu** student email is the college's official way to communicate with you **outside** of your ANGEL courses. It is important that you use your **SPC student email** account for any electronic correspondence with SPC, as your personal email may get sent to spam and/or be deleted. You will periodically be receiving important updates, notices, or official communication from SPC that will *only* be sent to your school account, thus be sure to regularly check your **Live@edu** email. Your student email account includes features other than just communication that you may find useful in planning and managing your college experience. For more information on the full capabilities of the system, **watch a short video tutorial here,** or go to MYSPC and click on Technical Support/Support Center.

PRO 4850 Senior Capstone
2012 Course Schedule

Wk	Day	Title
1	1-12	Syllabus & Course Objectives, Anatomy Overview, Clinical Assessment Overview MMT/ROM/Clinical Tests. Review casting for polymer AFO and tracing & measuring for conventional metal KAFO. Bring shorts for next week: Eval & Tracing for KAFO paired student activity **Preview OPSS Articulating AFO Casting and Metal AFO Tracing prior to class on 1-19-12**
2	1-19	Castings for Polymer AFO and Eval, measure and tracing capture for metal KAFO Patient/Models *Combined & extended class: 8;30 – 2:00 o'clock **OLM** Effects of clinically prescribed ankle foot orthoses on ankle-foot roll-over shapes: a case study (code: titan) **Due 1-25-12**
3	1-26	Lower Limb Orthotics Overview of Hip, Knee and Ankle, Case Studies KAFO Tracing & Reversing Schema **OLM** Dermatological Problems with Prosthetic Roll-on Liners (code:titan) **Due 2-1-12**
4	2-2	Lower Limb Prosthetics Overview, Case Studies Disarticulations: Hip, Knee and Syme **Preview OPSS Transfemoral IC Free Hand Casting prior to class 2-9-12**
5	2-9	Transfemoral IC & Transtibial PTS Castings Patient/Models **OLM** Usage Follow-up After a Knee Ankle Foot Orthoses Selection and Training Program in Spinal Cord Injury Patients (code titan) **Due 2-15-12** **Preview OPSS Halo Application and TLSO Casting prior to class 2-16-12**
6	2-16	Spinal Orthotics Overview, Case Studies SCI Halo & CTO Fitting, Conventional Spinal Orthoses
7	2-23	**Written Exam**
8	3-1	Lower Limb Prosthetics: Bench Alignments and Gait Analysis **Preview OPSS Boston Brace Fitting prior to class on 3-15-12**
9	3-8	**Spring Break No Classes**
10	3-15	Spinal Orthotics: Curvature Assessment, Reading Radiographs, Cobbing, Blueprinting **Written Re-Exam (Testing Center) (as needed)**

11	3-22	**AAOP Meeting in Atlanta No Classes**
12	3-29	**Clinical Simulation Exam** **Patient/Models**
13	4-5	Advanced Prosthetics mini-workshop Justin Pratt, Ossur
14	4-12	Advanced Orthotics mini-workshop John Schulte, Fillauer RGO & SCK,, ABC Exam preparation tips **OLM Clinometric Properties of Timed Walking Events among Patient Populations Commonly Encountered in Orthotic and Prosthetic Rehabilitation (code: titan)** **OLM Clinically Relevant Outcome Measures in Orthotics and Prosthetics (code: titan)** **Both Due 4-18-12**
15	4-19	Professionalism, Ethics and Critical Thinking **Clinical Simulation Re-Exam (as needed)** **Patient/Models**
16	4-26	Case Studies: Formulation of a Treatment Plan, Coding, and Follow-Up
17	Week of 5-2	Capstone Advanced Technologies Test: Material taken from Workshops, Case Study Treatment Plans, Ethics and State Licensure Laws and OLMs

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

PRO 3801L
ORTHOTICS and PROSTHETICS
CLINICAL ROTATION

INSTRUCTOR:
Arlene Gillis, M. Ed, CP, LPO
Office Hours:
Office Location: OP 212, HEC
Phone: 727-341-4153
E-mail: gillis.arlene@spcollege.edu

ACADEMIC DEPARTMENT:
Dean:
Office Phone:
Office Location:
Academic Chair:
ECampus Web Page Link:

Meeting Information:
Thursday 12-2 except case study presentation dates ~Auditorium. Please check the ANGEL calendar weekly for schedule changes when we meet for case studies. We will have both groups.

Class Location:
Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Auditorium, OP 128, off-site clinical rotation.

COURSE INFORMATION:

Course Description:
Prerequisite: Admission to the Orthotics and Prosthetics (O&P) BAS program. This course is part of a series of clinical rotations in which students observe, assist, and practice patient care and device fabrication in an environment that prepares them for an orthotic or prosthetic residency. Students study traditional and emerging topics related to the O&P field and are then placed at a clinical agency to practice skills under close supervision of an American Board Certified (ABC) prosthetist/orthotist. The topic of concentration in each clinical rotation is different; however, students are required to demonstrate mastery of patient and clinical assessments; the design, implementation, and follow-up of comprehensive treatment plans; technical skills; and communication skills with increasing competency as they progress through the series. Students are required to document

patient interactions and case analysis of their clinical experiences, and to present case studies to an audience of peers. 110 contact hours.

80 clinical site hours. 1 Facility Presentation. 1 Mission Statement. 2 Case Study Presentations. 3 AOPA Webcast/exam. Precepter Evaluation. Weekly/monthly Typhon Inputs. 5 Guest Lecturers.

Major Learning Outcomes:

1. The student will conduct a comprehensive orthotic and prosthetic patient assessment.
2. The student will formulate and implement a comprehensive orthotic and prosthetic treatment plan.
3. The student will assess the effectiveness of a comprehensive orthotic and prosthetic treatmer plan and design a modified plan for continued implementation of the device.
4. The student will document patient/practitioner encounters for clinical decision making and communication for legal and reimbursement purposes.
5. The student will use communication skills expected of entry level O&P professionals with practitioners, patients, and caregivers encountered in the clinical environment.

Course Objectives Stated in Performance Terms:

1. The student will conduct a comprehensive orthotic and prosthetic patient assessment by:
   a. collecting patient data and measurements to form a comprehensive patient history.
   b. selecting and executing specific functional clinical examinations, including: range of motion, manual muscle testing, e-ray assessment, diagnostic imaging, joint stability assessment and skin integrity assessment.

2. The student will formulate and implement a comprehensive orthotic and prosthetic treatment plan by:
   a. evaluating the findings from the patient assessment to determine a treatment plan.
   b. developing a treatment plan based on patient needs.
   c. identifying the design, materials and components to support the treatment plan.
   d. selecting the appropriate materials and techniques in order to obtain a patient model or image, including: tracings, impressions and CAD/CAM scans.
   e. modifying and preparing the plaster model or computer image.
   f. selecting appropriate materials and components for the prosthesis/orthosis.
   g. fabricating and assembling the prosthesis/orthosis.
   h. assessing and aligning the prosthesis/orthosis to provide maximum function and comfort.

3. The student will assess the effectiveness of a comprehensive orthotic and prosthetic treatment plan and design a modified plan for continued implementation of the device by:
   a. analyzing the results of the patient follow up assessment.
   b. determining, if any, the necessary adjustments to the orthosis/prosthesis based upon

follow up assessments to ensure progress, goals, and comfort.
c. modifying the orthosis/prosthesis.

4. The student will document patient/practitioner encounters for clinical decision making and communication for legal and reimbursement purposes by:
   a. recording patient/practitioner data into the Typhon website.
   b. accessing American Academy of Orthotists and Prosthetists (AAOP) Learning Modules online and completing the exams.
   c. accessing American Orthotic and Prosthetic Association (AOPA) Webcasts online and completing the exam.

5. The student will use communication skills expected of entry level O&P professionals with practitioners, patients, and caregivers encountered in the clinical environment.

Criteria Performance Standard:

Upon successful completion of the course the student will, with a minimum of 75% accuracy, demonstrate mastery of each of the above stated objectives through classroom measures developed by individual course instructors.

TOPICS

O&P Clinical Rotation I:	Evidenced Based Practice	2 credits
O&P Clinical Rotation II:	Psychology of the Disabled	2 credits
O&P Clinical Rotation III:	Ethics and Professionalism	2 credits
O&P Clinical Rotation IV:	Business/Practice Management	2 credits

REQUIRED TEXTBOOK & OTHER RESOURCE INFORMATION:

Houghton, P. and Houghton, T. APA: The Easy Way! 2nd edition. Flint, Michigan: Baker College.
ISBN: 978-0-923568-96-2

Supplemental Materials (provided)

Assorted Handouts

AOPA Learning Modules

Go to AOPA website at www.aopanet.org/webcast
Click on AOPAversity Module link and enter password:
1. "Enrolling in Medicare and Medicaid" – password = aopa0855
2. "Establishing an O & P Practice" – password = aopa3215
3. "Acquiring an O & P Business" – password = aopa6521

Click Submit
Review the assigned material and when ready....
Complete the Module quiz.

Other Critical Course Expectations :

All students are expected to access ANGEL and Typhon resource sites as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies

Facility Presentation (1)	Timely Presented
Mission Statement (1)	Timely Completed
Case Study Presentations (2)	Timely Presented
AOPA Modules (3) 1. Enrolling in Medicare and Medicaid 2. Establishing an O & P Practice 3. Acquiring an O & P Business	Timely Completed
Preceptor Evaluation	Timely Inputted
Typon Inputs	Timely Inputted
Guest Lecturers (5)	Attendance Required

Assignments and Grading Scale

Facility Presentation (1)	20%
Mission Statement (1)	10%
Case Study Presentations (2)	30%
3 AOPA Modules (3)	20%
Preceptor Evaluation	10%
Typhon Inputs	10%
Guest Lecturers (5)	Attendance Required

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

A minimum of a C is required on each portion/section to pass this course.
Students will have two opportunities to pass the culminating exam.
Late assignments will have a grade deducted for each day they are late.

Attendance Policy

The college-wide attendance policy is included in the Syllabus Addendum
http://www.spcollege.edu/central/asa/addendum.htm .

For this course Students are expected to attend all class sessions. When students are not present, they must notify the program in advance of the class by calling (727) 341-4151 or notifying the instructor via email. There are NO excused absences in this program. Students missing more than 25% of a scheduled class session, be it at the beginning or end of that day's session, will also be indicated as absent.

Tardiness is defined as arriving after the official start time of a class. Every **two** times a student is late to a class, or leaves class early, counts as an absence. Students that leave prior to the instructor giving a formal class dismissal may also be subject to disciplinary action.

The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points. Any student who misses five or more classes, clinics or laboratory sessions is required to withdraw from that course.

Lab Safety Procedures

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior
http://www.spcollege.edu/central/asa/addendum.htm

IMPORTANT DATES:

Course Dates: Start and End Date of the Semester
Drop/Add: * is the last day to drop and receive a refund
Withdrawal Dates: * is the last day to withdraw with a grade of 'W'
Financial Aid: http://www.spcollege.edu/getfunds

Special Accommodations

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721.

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Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

STUDENTS' EXPECTATIONS AND INSTRUCTOR'S EXPECTATIONS

Online /Student Conduct
http://www.spcollege.edu/ecampus/help/conduct.htm

Online Student, Faculty and Staff Expectations and Performance Targets
http://www.spcollege.edu/ecampus/help/expectations.htm

Syllabus Addendum:
Please open and print the Addendum: http://www.spcollege.edu/webcentral/policies.htm

STUDENT SURVEY OF INSTRUCTION:

The student survey of instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential and anonymous and will be used solely for the purpose of performance improvement.

SIGNATURE PAGE:

I have read, understand, and agree to abide fully by the parameters set in this Syllabus and Syllabus Addendum.

Student Signature: **Date:**

ADDITIONAL COURSE INFORMATION:

Weekly Reports (input into Typhon website)
Weekly reports are to be submitted to Typhon at the end of each week. Inputs should be completed in a clear concise format.

Monthly Logs (input into Typhon website)
Monthly logs are to be submitted to Typhon by the 30th of each month.

Case Study Presentation Topics
Oral case study presentations will be due as assigned. PowerPoint is required for this presentation. See sample outline below.

Clinical Rotation Check List (input into Typhon website)
Clinical rotation checklist must be maintained per semester for each facility. The preceptor must sign off on Typhon prior to your final week at the site.

Guidelines for Presenting Case Studies
(This is just a guide not required in this format)

The intent of the Preceptorship experience is to provide real world clinical experience which should augment your formal classes at St. Petersburg College. We have the requirement of a case study presentation to help you organize your approach and further your learning process when providing services to people with severe disabilities. In particular, we want you to fully understand the diagnosis of the person you are treating, and why the prosthesis or orthotic is appropriate. Please present a logical rationale for the orthosis or prosthesis provided. Why this particular design and not another? What are the biomechanical principles used in this orthosis or prosthesis? What is the goal: ambulation? Reduction of deformity? Limitation of deformity? Reduction of pain? etc. Try to choose cases which are relevant to the clinical classes that you are currently taking. In other words, choose a TT during TT, TF during TF an AFO during LLOxI, a KAFO during LLOxII, and a Boston Brace during Spinal II, etc. Research and site evidence based practice rationale for utilizing specific devices for the patient.

During your monthly Preceptorship, you will be required to choose 2 case studies and present to the class utilizing Power Point. Remember: patient confidentiality is very important. Do not use real patient names. Meeting dates will be assigned on calendar.

I will be looking to ensure that you have utilized Evidence Based Practice in the formulation and implementation of your treatment plan. If you are not able to see a patient from start to finish, please ask your supervisor to look at the chart for evaluation or intervening progress. You may look up the diagnosis and recommended O&P treatments in your texts to further illuminate your write-up. Remember, you need to prove or attest that the Rx is appropriate in the Assessment section, based upon your objective and subjective findings.

Late case studies will not be accepted. Please speak with Mrs. Gillis if you have a legitimate reason that you cannot submit your work on time. This is a firm deadline - no exceptions!!

If you have questions about the case study or the Preceptorship in general, contact Arlene Gillis.

Again, use the case guidelines to help you in your case presentation; especially the Objective and Assessment sections.

PRECEPTORSHIP CASE OUTLINE
(Guide not required format please use EBP)

NAME(Patient XYZ-) DATE, HT, WT, AGE,SEX,OCCUPATION
PRESCRIPTION (Rx)
Name of referring physician
Appropriate terminology to describe components (HCFA)

DIAGNOSIS (Dx) - Determined by:
Referring physician on Rx
Available medical history
Communication with Patient

HISTORY (Hx)
DOI, Surgery, Prior Treatment, Progress in recovery, Any other information medically relevant

OBJECTIVE FINDINGS
Physical exam, Muscle test, ROM, shrinkage, angular change/deformity, Gait, Length of residual limb, Biomechanical description of functional loss or instability, Condition of current prosthesis or orthosis.

ASSESSMENT
For initial evaluation, new prosthesis/orthosis, or return visit after an absence:
- **Info supportive of the Rx with respect to function, expectations, and component decisions and recommendations**
- **Physical exam with ROM/MMT**
- **Gait analysis**
- **Current prosthesis/orthosis evaluation**
- **Analysis/prediction of function (K level for prosthetics)**
- **Biomechanical description of functional loss or instability**
- **Analysis of mental status, motivation level**
- **Prognosis**
- **Analysis of current problem**
- **Level of independence**
- **Description of functional loss and expected outcome of intervention**

PLAN/PROGRESS (Px)
- **Formulate a treatment plan utilizing evidence based practice**
- **Research and reference articles to support why you chose the device for the patient, appropriate devices for the patient's condition, outcome measures for the patient, etc.**
- **Summary of overall treatment plan including other disciplines**
- **time schedule (site evidence based practice)**
- **achievement of goals or justification of failure to achieve goals**
- **return appointments/follow up schedule**

PATIENT/FAMILY EDUCATION
Document specific instructions that were given and printed documents that accompanied service; e.g. donning and doffing instructions, care and maintenance, precautions and limitations of the prosthesis or orthosis, wearing schedules

Remember your tips for success in this course:

1. Focus on the TASK at hand.
2. Be respectful and prompt; always be professional in your interactions.
3. Learn good time management skills.
4. Develop successful study strategies that can carry over for a lifetime of learning.
5. Communicate your concerns to preceptors and instructors.
6. Ask questions at the appropriate time.
7. Commit yourself.
8. Be deliberate and intentional to complete your task.
9. Learn from your mistakes.

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

PRO 4350C Spinal Orthotics
2014 Syllabus

Instructors:

Tom Chmielewski
Office Location: OP210
Office Hours: TBD
Phone: 727-341-4156
E-mail: Chmielewski.Tom@spcollege.edu

Prerequisites:

Admission to the Orthotics and Prosthetics BAS program.

Co-requisites:

None

Course Description:

This course will present prosthetic treatment modalities of the spine and cranium. Students will receive instruction on the assessment, formulation, implementation and follow up of an orthotic treatment plan for common spinal and cranial disorders affecting pediatric, adult and geriatric populations. Concurrent lab activities with patient models will allow the student to correlate clinical findings with evidence based practice to synthesize the significance of the appropriate choice of components, principles, material properties and medical management. The student will interact with multiple prosthetic systems. 137 contact hours.

Meeting Information:

Lecture: Fridays 8:30 – 11:30 am
Laboratory: Fridays 12:00 – 6:00pm

Class Location:

Banker's Insurance Group College Building, J.E. Hanger College of Orthotics and Prosthetics, Caruth Health Education Campus (HEC), Rooms OP 128, OP 203, OP 205 (see course schedule).

Major Learning Outcomes:
Upon completion of the course, the student will be capable of:

Explaining the anatomy and biomechanics of the spinal column, pelvis and cranium.
Completing a comprehensive spinal orthotic evaluation/assessment.
Applying biomechanical principles in the development and design of the spinal orthotic treatment plan.
Fabricating and fitting spinal orthotic devices.
Developing and implementing an effective follow-up plan to assure optimal fit and function of the spinal orthotic device.
Explaining the use of various spinal orthotic designs.

Student Learning Outcomes:
Upon completion of this course, the student will:

1. Explain the anatomy and biomechanics of the spinal column, pelvis and cranium by:
a. Describing normal and abnormal spinal anatomy and biomechanics.
b. Describing the processes involved in the development and maturation of the adult spinal column.
c. Describing common structural deformities of the spine.
d. Describing common structural deformities of the infant cranium.

2. Complete a comprehensive spinal orthotic evaluation/assessment by:
a. Compiling a comprehensive patient history using standardized tools and methods to understand the patient's orthotic needs.
b. Evaluating specific functional clinical measurements using scientifically validated outcome measures.
c. Identifying impairments, functional limitations, goals and related biomedical objectives for the patient.
d. Documenting all information using established record keeping and coding techniques.

3. Apply biomechanical principles in the development and design of the spinal orthotic treatment plan by:
a. Using appropriate techniques, tools and equipment to provide an orthotic treatment plan.
b. Considering the possible interaction between the device and the patient with respect to corrective and accommodative treatment.
c. Evaluating the fit and function of the orthosis used by the patient and making adjustments as necessary to obtain optimal function to meet patient goals.
d. Performing transfer methods and mobility instructions that provide for patient safety.
e. Documenting the level of patient comprehension of instructions given.

4. Fabricate and fit spinal orthotic devices by:
a. Selecting appropriate materials, components and alignments for the devices chosen.

b. Modifying orthoses to meet the needs of the patient.
c. Casting and/or modifying various cervical orthoses (COs), cervico-thoracic orthoses (CTOs), thoraco-lumbar-sacral orthoses (TLSOs) and lumbo-sacral orthoses (LSOs).
d. Casting and/or measuring various cervico-lumbo-sacral orthoses (CTLSOs) and thoraco-lumbar-sacral orthoses (TLSOs) for the treatment of scoliosis and/or kyphosis.
e. Casting and/or measuring various cranial remolding devices for the treatment of pediatric skull deformities.

5. Develop and implement an effective follow-up plan to assure optimal fit and function of the spinal orthotic device by:
a. Providing effective, culturally appropriate instruction to patients, family members and caregivers on the care, use and maintenance of the orthosis, skin care and wearing schedules for the device.
b. Developing a long term follow-up plan to include continual assessment, patient care and periodic evaluation to assure, maintain and document optimal fit and functionality of the orthotic device.
c. Demonstrating follow-up assessments regarding fit and functionality of the device using scientifically validated outcome measures.
d. Maintaining documentation of all interactions with patients and caregivers.

6. Explaining the use of various spinal orthotic designs by:
a. Performing and/or observing a supervised assessment of a patient with an orthotic device.
b. Performing and/or observing a supervised formulation of a treatment plan for a patient with an orthotic device.
c. Performing and/or observing implementation of a treatment plan for an orthotic device.
d. Performing and/or observing a supervised follow-up plan for an orthotic device.

Required Text Books: (student purchase)

T1 Hsu, J; Michael, JW; Fisk, JR. *AAOS Atlas of Orthoses and Assistive Devices*, 4th ed. Philadelphia: Mosby Elsevier, 2008. ISBN 978-0-323-03931-4

T2 Lusardi, MM. and Nielson, CC. *Orthotics and Prosthetics in Rehabilitation*, 2nd ed. St. Louis: Saunders Elsevier, 2007. ISBN 978-0-7506-7479-9

T3 Seig, K and Adams, S. *Illustrated Essentials of Musculoskeletal Anatomy*, 5th ed. Gainsville, FL: Megabooks, 1993. ISBN 0-935157-077

Supplemental Materials:

- PowerPoint Presentations
- Assorted Handouts (various topics)
- Fabrication Manuals
- Assessment Rubrics
- AAOP On-Line Learning Modules (AAOP student membership required)

Technology:

All students are expected to access **ANGEL** resource site as well as the College of Orthotics & Prosthetics Student Commons.

Course Evaluation Strategies:

Unit 1 Introduction to Orthotic Management of the Spine
Midterm
Unit 2 Orthotic Management of Spinal Disorders & Trauma
Midterm
Unit 3 Orthotic Management of Scoliosis & Kyphosis **Final**
Unit 4 Orthotic Management of the Cranium **Final**
Unit 5 Assistive Devices, Seating Systems & Cad Cam **Final**

- Discussion Board Participation
- Other AAOP OLC Quizzes or Exercises incorporated into Lab Project Rubrics

Lab Project 1 Palpation Exercise
Rubric 1
Lab Project 2 LSO Corset Fitting
Rubric 2
Lab Project 3 Custom Anterior Opening LSO
Rubric 3
Lab Project 4 Off-the-Shelf TLSOs & LSOs: Jewetts, CASH, TLSO Corsets,
Rubric 4
Chairback, Knight-Taylor & modular LSOs and TLSOs
Midterm Exam
Midterm
Lab Project 5 Custom Bivalved TLSO
Rubric 5
Lab Project 6 Off-the-Shelf COs, CTOs & HALOs: Philly, Miami J, SOMI,
Rubric 6
Minerva & HALO vest/ring application
Lab Project 7 Scoliosis Orthosis
Rubric 7
Lab Project 8 Shaping Helmets
Rubric 8
Cumulative Final Exam **Final**
Exam

Assignments and Grading Scale:

Discussion Board Participation	6 %
AAOP module "Orthotic Treatment of Idiopathic Scoliosis"	7 %
AAOP module "Orthotic Treatment of Deformational Plagiocephaly	7 %

Rubric 1	5 %
Rubric 2	5 %
Rubric 3	5 %
Rubric 4	5 %
Midterm Exam	20 %
Rubric 5	5 %
Rubric 6	5 %
Rubric 7	5 %
Rubric 8	5 %
Final Exam	20 %
Total	**100 %**

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%
A minimum of a C is required to pass this course. Late assignments will have a grade deducted for each day they are late.

Attendance Policy:

Students must attend all class sessions. Should students not be present they must notify the program in advance of class by calling 341-4151. There are no excused absences in this program. Any student who misses MORE than five (5) classes, clinics or laboratory sessions is required to withdraw from that course and the O and P program. Each two times a student is late to class OR leaves class early counts as an absence. The third absence from a class/lab session results in the final grade being lowered by 4 percentage points. The fourth absence results in a deduction of 8 percentage points.

Lab Safety Procedures:

Students are required to review the lab safety procedures outlined in the student handbook.

Academic Honesty:

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior
Students are required to submit their papers to www.turnitin.com for evaluation print out the report and hand it in with their paper.

Special Accommodations:

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your

safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

Emergency Preparedness:

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

This syllabus is currently available on **ANGEL** for your convenience. Log in to **ANGEL** to confirm that you have access, reporting any difficulty to SPC Student Technical Call Center at 727-341-4357 or online via email at *Onlinehelp@spcollege*.edu.

Communication: After going to https://angel.spcollege.edu/frameIndex.htm , logging in and clicking on the courses you are currently enrolled in and clicking on the course. Click/open and then click/open Announcements. The instructor will place important announcements throughout the semester in this site.

PRO 4350C Spinal Orthotics

2014 Course Table of Contents

Unit	Unit and Topic Titles
Unit 1	**Introduction to Orthotic Management of the Spine** A. Anatomy & Biomechanics of the Spine B. Clinical Assessment of the Spine & TAF C. Introduction to Spinal Orthotics D. Design Principals and Biomechanical Basis for Spinal Orthoses
Reading	T1 = Chs 6 & 7 T2 = Ch15 T3 = pages 133-176 - Levangie & Norkin, Joint Structure and Function, 5th edition, Chs 4 & 5 - TAF for Spine (pdf available on ANGEL) - Magee DJ. (2008) *Orthopedic Physical Assessment, 5th edition*, Ch 15 Assessment of Posture. (pdf available on ANGEL)
Unit 2	**Orthotic Management of Spinal Disorders and Trauma** A. Spinal Disorders B. Spinal Trauma C. Coding and Documentation for Spinal Orthoses
Reading	T1 = Chapter 8, 10 & 11 T2 = Chapter 15 - AAOP OLC module = "A New Approach to Stabilization of the Cervical Spine in Infants"; *Academy Today* vol 1.1.
Unit 3	**Orthotic Management of Scoliosis & Kyphosis** A. Introduction to Scoliosis and Kyphosis B. X-Ray & Clinical Assessment of Scoliosis & Kyphosis C. Orthotic Management for Scoliosis & Kyphosis D. Coding and Documentation for Scoliosis & Kyphosis
Reading	T1 = Ch 9 T2 = Chapter 16 - AAOP OLC module = "Orthotic Treatment of Idiopathic Scoliosis and Scheuermann's Kyphosis" - Annotated Bibliography – 2009 Bracing Manuals for Scoliosis from Scoliosis Research Society website www.srs.org/professionals/education_materials/SRS_bracing_manual/ (pdf available on ANGLE) - The Boston Brace Manual - Bracing for Scheuermann's - The Milwaukee CTLSO - AAOP OLC module = "Coronal Plane Trunk Shifts and Decompensational Perspectives in a New Design of Asymmetrical TLSO Module"; 2004 Thranhardt Lecture
Unit 4	**Orthotic Management of the Cranium** A. Skull Anatomy B. Cranial Deformities C. Skull Assessment D. Orthotic Management of the Skull
Reading	T1 = Chapter 40 - AAOP OLC module = "Orthotic Treatment of Deformational Plagiocephaly,

	Brachycephaly and Scaphocephaly"; SSC Findings - An Overview of Torticollis, The Academy Today, Vol. 6 No. 3 June 2010 - AAOP OLC module = Accuracy and Reliability of a System for the Digital Capture of Infant Head Shapes in the Treatment of Cranial Deformities"; JPO Quiz 20-2A
Unit 5	**Assistive Devices, Seating Systems & CadCam** **Cad/Cam Applications in Cranial and Spinal Orthotics** Image Capture Modifications Ordering and Milling
Reading	T1 = Chs 42 - 45 T2 = Ch 19 **Cad/Cam Applications in Cranial and Spinal Orthotics** Omega Tracer 11.0 User's Guide: Sect. 5.8, Spinal Applications, pgs. 136-147 Omega Tracer 11.0: Sect. 8.2 Spinal Shapes by Measurement, pgs. 246-255 Omega Tracer 11.0: Sect. 5.5 Cranial Applications, pgs. 101-113 - AAOP OLC module = "Pushing the Clinical Envelope with CAD/CAM"; *Academy Today*, vol 5-4.
Lab Project 1	Palpation Exercise = Students work in groups of no more than 3; Students will practice palpating anatomical landmarks related to the spine and spinal orthotics; Students will have to assess and capture measurements related to spinal orthotics in two positions: (1) standing and (2) side lying utilizing the 'log rolling' technique; instructor will evaluate landmarks and measurements for check-out.
Lab Project 2	LSO & TLSO Corset fittings = Students work in groups of no more than 3 on patient or student models; Students will take necessary measurements for devices; Students will then fit model with 1 each (1 LSO and 1 TLSO corset) appropriately sized device in two different positions: (1) standing and (2) lying supine; Students will need to educate the patient models on the proper donning & doffing techniques, recommended wearing schedule and basic hygiene in and out of device; students will then present device to instructor for critique.
Lab Project 3	Custom Anterior Opening LSO = Students assess, measure and image capture patient models; a positive model is created and modified; thermoform and finish device; assess fit & function on patient models; instructor critique
Lab Project 4	Off-the-Shelf TLSO & LSOs fitting exercise = Students measure & fit each other with off-the-shelf devices (at a minimum: Jewetts, CASH, TLSO corsets, Chairback, Knight-Taylor, and modular LSOs & TLSOs); assess fit & function; instructor critique
Lab Project 5	Custom bivalved TLSO = Students assess, measure and image capture patient models; a positive model is created and modified; thermoform and finish device; assess fit & function on patient models; instructor critique
Lab Project 6	Off-the-Shelf COs, CTOs & HALOs = Students measure & fit each other with off-the-shelf devices (at a minimum: foam collar, Philly collar, Miami J, SOMI, Minerva and HALO vest fitting with simulated ring and pin placement); assess fit & function; instructor critique

Lab Project 7	Scoliosis Orthosis = Students will practice blue-printing sample radiographs of various types of scoliotic curves; Students will also participate in Boston Brace's demonstration of scoliosis brace fabrication by use of mini-foam modules; Students will work with miniaturized foam modules and will then transfer trimlines from a blueprinted radiograph to the foam module to simulate what would happen clinically for a low-profile scoliosis fitting; final trimmed out device will be presented to the instructor for evaluation and critique.
Lab Project 8	Shaping Helmets = Students are assigned a foamed infant head from the instructor; student has to assess, measure and capture a negative impression of the head; Student then has to write out a recommendation for a treatment plan to include clinical findings, measurements, identification of the type of cranial shape and then a recommendation; paperwork is evaluated and critiqued by the instructor.

PRO 4350C Spinal Orthotics

Laboratory Assessment Rubric

Assignment Title: _____

Student Name: _____ Submission Date: _____

	Target 10	Acceptable 8	Emergent 6	Unacceptable 4	Score
Preparation & Professionalism	Student is prepared for lab, has reviewed the material, is appropriately attired, possesses the appropriate tools and documents and manages their patient in a safe and professional manner.	Student demonstrates only 1-2 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates3-4 minor errors in preparation, dress, tools, patient management, and professionalism.	Student demonstrates more than 4 minor errors or a single major error effecting patient safety and/or treatment outcome.	
Knowledge	Scores 9 to 10 on lab quiz.	Scores 8 on lab quiz.	Scores 7 on the lab quiz,	Scores 5 or less on the lab quiz	
Assessment	Assessment performed and recorded correctly.	1-2 minor errors in assessment performance or/or record keeping.	3-4 minor errors in assessment performance and/or record keeping	More than 4 minor errors or a single major error in assessment performance and/or record keeping	
Image Capture & Measurements	Appropriate and accurate landmarks identified and marked, measurements taken and recorded, impression, scan or tracing taken.	1-2 minor errors on landmarks, measurements, impression, scan or tracing.	3-4 minor errors on landmarks, measurements, impression, scan or tracing.	More than 4 minor errors or a single major error on landmarks, measurements, impressions, scan or tracings.	
Model or Schema	Appropriate and accurate alignment, build-ups and reductions. Models or schematics are smooth and flowing.	1-2 minor errors on alignment, build-ups and/or reductions. Models and schematics or mostly smooth and flowing.	3-4 errors on alignment, build-ups and/or reductions. Models and schematics or somewhat smooth and flowing.	More than 4 minor errors or a single major error on alignment, build-ups and/or reductions.	
Construction & Cosmesis	Device fabricated according to instructions. Proper materials, components, alignments, trim lines, finish, fasteners and straps.	1-2 errors on materials, components, alignments, trim lines, finish, fasteners or straps.	3-4 errors on materials, components, alignments, trim lines, finish, fasteners or straps.	More than 4 minor or a single major error on materials, components, alignments, trim lines, finish, fasteners or straps.	
Fit & Function	Device fits and functions properly.	Device fits and functions properly following minor adjustments.	Device fits and functions properly after numerous adjustments.	Device does not fit and/or function properly.	

Score: _____

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards. Spinal Orthotics was re sequenced to the last semester. The purchase and use of Xray boards for cobbing are also newly implemented.

PRO 4361C

Upper Extremity Prosthetics 2012

Instructors:

Angela Courtade, CPO, LPO

Phone 727-341-4151

Joseph Shamp, CPO

Phone 727-341-4151

E-mail shamp.joseph@spcollege.edu

Meeting Information:

Location 128, 203 and 205 HEC
Lecture and Lab: Wednesday 10:30 am-7:00 pm

Prerequisites:

Admission to the Orthotics & Prosthetics BAS Program.

Course Description:
This course will offer prosthetic treatment options for patients with upper extremity amputations. The course will incorporate knowledge gained from the foundational course work of: Biomechanics; Gait Analysis & Pathomechanics; Human Anatomy & Physiology; and Clinical Methods. The Students in this course will receive instruction on the assessment, formulation, implementation and follow-up care for an upper extremity treatment plan for pediatric and adult populations. Concurrent upper extremity lab activities with patient models will provide the students to associate clinical findings with evidence based practice to synthesize the significance of the appropriate choice of principles, materials properties, components, socket designs and medical management. The student will interact with upper extremity systems specific to transradial and transhumeral levels incorporating Figure of 8&9 harness systems, anatomical suspension variants and single and dual control cable systems. 92 contact hours.

Major Learning Outcomes:

The student will explain the anatomy and biomechanics of the partial hand, wrist disarticulation, transradial, elbow disarticulation, transhumeral, shoulder disarticulations and/or Interscapulothoracic residual limb.

The student will perform a comprehensive upper limb patient assessment.

The student will apply biomechanical principles in the development and design of the upper extremity treatment plans.

4. The student will fabricate transradial and transhumeral prosthetic devices.

5. The student will develop and implement an effective follow-up plan to assure optimal fit and function of an upper extremity prosthesis.

6. The student will discriminate and distinguish between various upper extremity designs and components.

Student Learning outcomes:

The student will explain the anatomy and biomechanics of the partial hand, wrist disarticulation, transradial, elbow disarticulation, transhumeral, shoulder disarticulations and/or Interscapulothoracic residual limb by:
Contrasting intact and amputated upper extremity anatomy and biomechanics
Describing various amputation procedures and techniques relative to upper extremity amputations
Describing the process involved in the function of the upper extremity residual limb as is relates to biomechanical function of the prosthesis.

The student will perform a comprehensive upper limb patient assessment by:
Completing a comprehensive patient history using standardized tools and methods to obtain an understanding of the individual's potential prosthetic needs.
assembling a comprehensive patient history including: previous medical, pathologies/dysfunctions, wounds, testing from other disciplines, surgeries, diagnostic imaging, determine safe use of device, understanding of instructions. Patient goals, personal implications of impairment, vocation, recreational activities, daily functional demands, social issues, financial information.
evaluating specific functional clinical examinations, including: manual muscle testing, range of motion, skin integrity, sensory testing, proprioception, joint stability, volumetric measures, pain and effect, neuromuscular integration, posture evaluation, balance evaluation, motor control cognitive ability, relevant psychological/emotional assessments, current prosthetic management and reviewing charted evidence .
using established record keeping techniques.
establishing a relationship with the patient and/or caregiver.

The student will apply biomechanical principles in the development and design of the upper extremity treatment plans by:
Using the appropriate techniques, tools and equipment to provide partial hand, wrist disarticulation, transradial, elbow disarticulation, transhumeral, shoulder disarticulations and/or Interscapulothoracic intervention
Disconcerting the possible interaction between the device and the patient with respect to the applied forces and contact
Evaluating the fit and function of the prosthesis used by the patient and making adjustments necessary to obtain optimal function to meet the patients goals.
Performing transfer methods and initial mobility instructions that provide patient safety
Documenting the level of patient comprehension of the instructions given.

The student will fabricate transradial and transhumeral prosthetic devices by.
Evaluating, measuring and casting transradial and transhumeral residual limbs.
Selecting the appropriate socket design, interface material, socket material and modifying the residual limb impression to obtain optimal function to meet patient goals.
Selecting appropriate materials, components and alignment to obtain optimal function to meet patient goals.

The student will develop and implement an effective follow-up plan to assure optimal fit and function of the upper extremity prosthesis by:
demonstrating effective, culturally appropriate instructions to patients, family members and caregivers on the care, use and maintenance of the prosthesis, skin care and wearing schedule for the device.
developing a long term follow up plan to include continual assessment, patient care and periodic evaluation to assure, maintain and document optimal fit and functionality of the prosthetic device.
demonstrating follow up assessment regarding the fit and function of the prosthesis.
assessing the function and reliability of the device using scientifically validated outcome measures
documenting all interactions with the patient and caregivers.

The student will discriminate and distinguish between various upper extremity designs and components by:
performing and/ or a supervised assessment of a patient with an upper extremity residual limb.
performing and/ or observing a supervised formulation of a treatment plan for a patient with an upper extremity amputation.
performing a supervised implementation of a treatment plan for a patient with an upper extremity amputation.
Performing and/ or observing a supervised follow up plan for a patient with an upper extremity amputation.

Required Text Books:

Atlas of Amputations & Limb Deficiencies; by Douglas G. Smith, MD; John W. Michael, ME; John H. Bowker, MD; Editors 3rd edition

ISBN: 0-89203-313-4 **(ATLAS)**

Prosthetics and Patient Management: A Comprehensive Clinical Approach. Kevin Carroll, Joan E. Edelstein. Slack Inc: Thorofare NJ;2006.

Additional Suggested Text Books:

Functional Restoration of Adults and Children with Upper Extremity Amputations. Robert H Meier MD , Diane J. Atkins OTR. Demos Medical Publishing ; 2004
ISBN 1888799730 / 9781887999736

Powered Upper Limb Prostheses Ashok Muzumdar Editor Springer-Verlag, Berlin

Supplemental Materials:

Angel Course Materials-
PowerPoint Presentations
Various Handouts
Laboratory Fabrication Instructions
Laboratory Assignment Assessment Rubrics
Online Learning Modules

AAOP Memberships:

Available on-line @ oandp.org
Click Memberships
Click On-Line Applications
Complete the application form. You will need a credit card. Student membership cost $36 plus an application fee of $15.
Click Submit

AAOP Learning Modules:

Go to AAOP website at oandp.org
Click On-Line Learning Center
Click Log in for a Full Access

Enter Username and Password
Scroll thru the Academy Learning Modules, JPO articles or Case studies for the assigned title.
Click on the assigned title.
Click Enter Student Code (code supplied by the instructor)
Enter the course code
Click Submit
Click View Session
Review the assigned material and when ready…
Click Take Final Exam
Click on Get Exam
Complete the exam, then…
Click Submit
Complete the course evaluation, then…
Click Submit Survey & Exam Results
If you failed the exam, then…
Click TRY AGAIN
If you passed, then
Click Close Window
Your exam scores & survey responses will be placed in a file for your instructor to review.
Grades will be transferred to Angel.

Technology:

All students are expected to access ANGEL resource site as well as the College of Orthotics & Prosthetics Student Commons.

Assignments and Grading Scale:

Class Participation/Attendance	Required
Online Modules, Quizzes & Assignments	20%
Lab Projects	30%
Midterm Exam	20%
Final Exam	30%

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%
A minimum of a C is required to pass this course.
Late Assignments will have a grade deducted for each day they are late.

Course Evaluation Strategies

Unit 1	Midterm Exam, Final Exam
Unit 2	Midterm Exam, Final Exam
Unit 3	Final Exam
Project 1 Mock Transradial Prosthesis	Midterm Exam, Lab Assessment 1
Project 2 Partial Finger/Hand Impression	Midterm Exam. Lab Assessment 2
Project 3 Transradial Prosthesis	Midterm Exam, Lab Assessment 3
Project 4 Transhumeral Prosthesis	Final Exam, Lab Assessment 4
Project 5 Myoelectric Prosthesis	Final Exam, Lab Assessment 5

Attendance Policy and Missed exams tests or quizzes:

Students may miss no more then 3 days of class. Furthermore it will be the student's responsibility to make up the work it will not be presented again to them. Each subsequent absence will lower the student's grade by 1 letter grade per absence. Three late arrivals are equivalent to one absence. All absences must be excused. We have many specialists coming in to go over the material with you please do your best to treat them with respect and appreciation for taking time out of their work schedules to share their specialty with you.

Make up exams, tests or quizzes will only be allowed for extenuating circumstances such as accidents, hospitalization, family tragedy or uncontrollable natural occurrences. Documentation will be required in these cases.
The course instructor will need to be notified within 24 hours of an absence. The student will be responsible for requesting any missed hand out materials.

Academic Honesty:

Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy and Fabrication are defined in Rule 6Hx23-4.33-461, Student Affairs: Academic Honesty Guidelines, Classroom Behavior Students are required to submit their papers to www.turnitin.com for evaluation print out the report and hand it in with their paper.

Special Accommodations:

If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you need assistance during an emergency classroom evacuation, please contact your campus Learning Specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at HEC 727-341-3721

Emergency Preparedness:

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

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PRO 43616 Upper Extremity Prosthetics
Spring Course Schedule 2012

(Extenuating circumstances may require the scheduled to be changed at the discretion of the instructor)

Wk	Lecture Topic	Readings & Online Modules	Lab Topic
1/11 **Unit**	Anatomical Terminology, Upper Limb Anatomy, Anatomical Movements, MMT, ROM and Pathologies, Psychological	MA Chapter 3,4 & 5 OPR Chapter 33 Atlas Chapters 8, 13,14 & 24	Anatomy Manual Muscle Testing Range of Motion **Project 1- Mock Prosthesis** Initial visit,

1	Considerations Partial hand amputations Prosthetic/Orthotic intervention		casting, measuring for conventional mock transradial prosthesis, prepare and fill mold.
1/18 **Unit 1**	Transradial amputations, Body Powered Components	OPR Chapter 32 Atlas Chapter 9,15,16 PPM Chapter 12 (141-147) *AAOP Module-* Survey of UE Users in Sweden and UK.	Prepare positive model, fabricate mock socket with Constant friction wrist unit.
1/25 **Unit 1**	Krukenberg Procedure Transradial Harness and Cable system Wrist Disarticulations Sports and Recreation	Atlas Chapters 10,17,26 *JPO 18-3B Augmenting the Reality of Phantom limbs*	Assemble Figure of 8 harness, triceps cuff, flexible hinges, VO hook and single control Bowden cable . Finish fabrication and assemble mock prosthesis.
2/1 **Unit 1**	Assemble harness, triceps cuff and cable. Finish fabrication and assemble mock prosthesis.	*AAOP Module* Phantom Limb Development in Congenitally Upper Limb-deficient Individuals	Fit mock transradial prosthesis and evaluate function **L-coding project for conventional prosthesis**
2/8 **Unit 2**	Self suspending socket designs.	Articles On Angel- *Munster Type Below Elbow Socket & Three Quarter Socket Design* Handout- *Northwestern Supracondylar Suspension* JPO *TRAC 2003 Vol. 15 Number 4*	**Transradial patient models** **Project 2- Self suspending prosthesis** Cast transradial patient models for Muenster style self suspending prosthesis
2/15 **Unit 2**	Externally Powered Control-Myoelectric Introduction	Atlas Chapter 11 (145-163) &12 (173-188) PPM Chapter 13	Modify positive model and pull test socket.
2/22	. Myo testing Pediatric -Transradial	AAOP Module-Sensor Hand Speed OPR Chapter 31	**Transradial patient models** Fit transradial self-suspending test sockets to

Unit 2		Atlas Chapters 69, 70,71 PPM Chapter 15 (182-188)	patient models. Myo test patient models. Pour test sockets **L-coding- Myoelectric Project**
2/29	**Midterm Exam Units 1 &2**	Units 1&2	Fabricate 2nd socket for OttoBock Myo course 4/25. **Project 3** Duplicate, laminate self suspending socket and Figure of 9 harness
3/7	No Class -Spring Break		No Lab -Spring Break
3/14 **Unit 3**	Transhumeral and Elbow disarticulation conventional prostheses.	Atlas Chapters 18&19 PPM Chapter 12 (147-150) AAOP Modules Biomechanical Discussion of current and Emergent UL Prosthetic Interface Designs…& Evolution of Upper Limb Socket designs	**Transhumeral Patient Models** **Project 4- Transhumeral Prosthesis** Evaluate, Measure and Cast Transhumeral Patient Models
3/21 **Unit 3**	Modify Transhumeral positive models and pull test sockets	***AAOP Meeting Atlanta***	Modify Transhumeral positive models and pull test sockets
3/28 **Unit 3**	Complete test socket fabrication	Atlas Chapter 18 &19	**Transhumeral Patient Models** Fit Transhumeral suction test sockets and pour positive model for fabrication
4/4 **Unit 3**	Transhumeral Myoelectric. Shoulder Disarticulation and Interscapularthoracic amputations and prostheses	Atlas Chapters 20 &21, 189-190 AAOP Module Enhancing the functional Envelope:	Modify socket and prepare for fabrication **L-coding- Transhumeral Project**
4/11 **Unit 3**	Guest Speaker- TBA	*AAOP Module* New Possibilities for UE Prosthetics	Assemble figure of 8 harness, dual control cable, conventional E-400 elbow & attach forearm
4/18	Pediatric TH	Atlas	**Transhumeral Patient Models**

Unit 3	Brachial Plexus Injuries Bilateral Considerations Future of UE Prosthetics	Chapter s 25, 72 pages190-193 PPM Chapter 12 (150-153 AAOP Module Brachial Plexus injury- A case study in Prosthoses	Fit Transhumeral socket with forearm attachment, figure of 8 harness and dual control cable system
4/25 **Unit 3**	Otto Bock- Myoelectric course- Review myo components- hands, wrists and Elbows	Otto Bock Modules	**Transradial patient models** **Myo Electric Prosthesis Project** Otto Bock Myo Course Transradial Patient fittings with Myoelectric components and Laminated socket with Fig of 9 harness
5/1	**Final Exam Units 1-3**		**Lab Final Exam-** **Component Identification**

By signing below, you agree that you have read, understand and will comply with guidelines and expectations set forth in this syllabus including the program rules, policies and procedures outlined in the handbook.

Student Name (signed) _____ Date _____

Student Name (printed) _____

Instructors Signature _____Date received _____

Please sign and date. A copy will be kept in your course file.

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction is given to each student. Results are anonymous. A sample of this survey is included in Appendix 11.

Summarize the results of the evaluation of this course.

The results of the SSI for this course were discussed by faculty and influenced the changes mentioned below

Describe the changes made to this course based upon the evaluation results.

All courses were enhanced to meet new Master's standards.

Florida State University Master's Program MSIE-EMOP Syllabi

***Due to the simultaneous occurrence of the Self Study with our transition to a consortium, Master's Program syllabi may be incomplete. Complete syllabi will be available before the start of classes in fall 2014.**

EIN 5182/EIN 5322, Fall 2012
Introduction to Engineering Management

Instructor: Dr. Changchun Zeng
Room: A254 (COE), 239 (MRB)
Office hours and location: 2:00-4:00pm, Monday, A254 (COE)
Phone: 410-6273 (COE), 645-8995 (MRB)
Email: zeng@eng.fsu.edu

Class hours
1:30-4:00pm (Wed), A223 (COE)

Course Description:
This course introduces the principles, tools and techniques of modern engineering management using the framework of the product/project life cycle. Emphasis is on the management of technology and on the engineering methods for planning, decision making and controlling during product/project conceptualization, design, development and production. Engineering management principles and practices are illustrated using individual assignments, group projects and case studies.

Evaluation and Course Grade:

Evaluation:

Group assignments		20%
Individual assignments		20%
Semester project	20%	
Exams		40%
Exam#1: 20%		
Exam#2: 20%		

Grading: **A**: 90-100; **B**: 80-90; **C**: 70-79; **D**: 60-69; **F**: <60

Course policy:
Assignments: written assignments need to be turned in at stated time and date or they will not be accepted for grading.
Make up policy: No make-up effort for any assignments and/or exams will be granted unless for legitimate reasons allowed by university with proof of evidence

Required Textbook:
1. Chang, C. M., ***Engineering Management: Challenges in the New Millennium***, 2005, Pearson
2. Liberatore, M. J. and Nydick, R. L., ***Decision Technology, Modeling, Software and Applications***, John Wiley & Sons

Reading Reference:

Books:
Management of Technology, Thamhain, Hans J., John Wiley & Sons, New York, 2005

The Management of Engineering, Bennett, F. Lawrence, John Wiley & Sons, New York, 1996

Managing Technological Innovation: Competitive Advantage from Change, Betz, F., 3rd Ed., John Wiley & Sons, New York, 2011

Project Management in Practice, 3rd ed., Mantle, S. J., Meredith, J. R., Shafer, S. M., Sutton, M. M., Wiley 2007

Journals: California Management Review

Computer and Industrial Engineering

Engineering Management Journal

European Journal of Operation Research

Harvard Business Review

IEEE Transaction of Engineering Management

IIE Transactions

Interfaces

Journal of the Operational Research Society

Omega

Project Management Journal

Sloan Management Review

Magazines, newspapers, and others:

Economist

Business Week

Bloomberg

Wallstreet Journal

Harvard Business Review

Fortune

Forbes

Knowledge at Wharton

Course Topics (tentative)

Week	Topic	Readings
1	Introduction	Notes
2	MoT and challenge	Notes
3	Engineering management: the functions	(CMC) Chs 1-5
4	Product development and multi-criteria decision making	Note (LN) Chs 9 & 10
5	Product development and multi-criteria decision making Project review #1	Notes (LN) Chs 9 & 10
6	Technological innovation Capital project evaluation	(CMC) Chs 6-8 Notes
7	**Exam #1**	
8	Simulation modeling	(LN) Chs 12, 13 & 15
9	Simulation modeling	(LN) Chs 12, 13 & 15
10	Project planning and scheduling	(LN) Chs 17 & 18 Notes
11	Project planning and scheduling	(LN) Chs 17 & 18 Notes
12	Project review #2, Engineering ethics	Notes
13	**Thanksgiving, No Class**	
14	**Exam #2**	
15	Project presentations & course review	
16	**Final Examination Week**	

MC: Chang, C. M., ***Engineering Management: Challenges in the New Millennium***, 2005, Pearson
N: Liberatore, M. J. and Nydick, R. L., ***Decision Technology, Modeling, Software and Applications***, John
/iley & Sons, New York

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Additional information:

Honor Code:
FAMU Honor Code
Certain values that reflect academic honesty and integrity are expected of all students enrolled at Florida A&M University. These values, although not explicitly stated as a "Code of Conduct," help to define the behaviors and performance expected of all students enrolled at FAMU: honesty, truth, integrity, fairness, supportiveness, caring, loyalty, law-abiding, effectiveness, collegiality, academic freedom, scholarship, physical and mental health, and social consciousness.
FSU Honor Code

Students are expected to uphold the Academic Honor Code published in The Florida State University Bulletin and the Student Handbook. The Academic Honor System of The Florida State University is based on the premise that each student has the responsibility (1) to uphold the highest standards of academic integrity in the student's own work, (2) to refuse to tolerate violations of academic integrity in the university community, and (3) to foster a high sense of integrity and social responsibility on the part of the university community. Please see the following web site for a complete explanation of the Academic Honor Code and possible sanctions in the case of violations.
http://www.fsu.edu/~dof/forms/honorpolicy.pdf

The department's Academic Learning Compact contains important information that will help you better understand the objectives of the programs and expected learning outcome, and can be found at http://www.eng.fsu.edu/outcomes.

Americans with disabilities act (ADA):

Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the appropriate university office. For FAMU students, this is the Learning Development and Evaluation Center (LEDC). For FSU students this is the Student Disability Resource Center (SDRC); and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to students with disabilities,

FAMU students should contact the:
Learning Development and Evaluation Center
667 Ardelia Court
Tallahassee, FL 32307
(850) 599.3180

FSU students should contact the:
Student Disability Resource Center
874 Traditions Way
108 Student Services Building
Tallahassee, FL 32306-4167
(850) 644-9566 (Voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
http://www.disabilitycenter.fsu.edu/

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction will be given to each student. Results will be anonymous

Summarize the results of the evaluation of this course.

This is a new course, no student evaluation has been done at this time. One will be done after the first course launches in 2014.

Describe the changes made to this course based upon the evaluation results.

This is a new course.

NGR 5172, Advanced Pathophysiology/Neuroscience for Orthotic and Prosthetics

Fall 2010

Instructor Contact Information

Name:
James Whyte IV, ND, ARNP
Address:
FSU College of Nursing
Room 415
98 Varsity Way
Tallahassee, Fl 32306-4310

Email:
jwhyte@nursing.fsu.edu

Phone:
850-644-5359-office
229-233-5138-Home
229-740-0153-Cell

Class Times

On Line

Credit Hours and Prerequisites

Credit Hours: 4 semester hours

Prerequisites: Admission to the Prosthetic and Orthotic Program

Course Description

This course is designed to build on basic pathophysiology principles and explore the principles of normal body functions and pathophysiological changes that occur as a result of disease, lifestyle, and homeostatic changes in the body. Altered pathophysiological health is explored at the genetic, cellular and organ system level. Epidemiology, pathophysiological processes and related systems interaction are examined. Course covers understanding of the central nervous system and relevant clinical applications. Disease processes across the life span are explored and orthotic and prosthetic case studies are used to demonstrate the clinical assessment approaches for the advanced orthotic and prosthetic student.

Course Objectives

By the completion of the course, the student will be able to:

Integrate knowledge from the physical, biological, and social sciences to gain an understanding of human pathophysiological functioning using a lifespan approach. (I.1; I.2) (1,3,4,,7,8)

Analyze the association between normal physiology and pathological processes across the lifespan (I.1; I.2; III.1; III.2; III.4; III.5; III.8) (1,3,4,7,8)

Examine the essential ways in which normal physiological functions are altered in diseased states and how these alternations are manifested in a clinical setting. (I.1; I.2) (1,3,4,7,8)

Elucidate for selected acute and chronic disease states the etiology, population at risk, clinical and diagnostic manifestations. (I.1; I.2) (1,3,4,7,8)

Apply self-learning principles to evaluate and integrate current research and evidenced based findings to gain an understanding of pathophysiological alterations in selected acute and chronic disease statesas they relate to orthotic and prosthetic (I.1; I.2; III.1; III.2: III.4: III.5; III.8; VIII.1; VIII.2) (1,3,4,7,8)

Utilize a case study format to present the pathophysiological concepts integrating assessment, diagnosis and treatment modalities of selected acute and chronic disease states as they relate to orthotics and prosthetics. (I.1; I.2; III.1; III.2; III.4; III.5; III.8; VIII.1; VIII.2) (1,3,4,7,8)

Integrate and analyze the study of neuroscience and how it relates to field of orthotics and prosthetics.

Examine the human growth and development and how it impacts orthotic and prosthetic field.

Application of psychological concepts to illness and disability. Awareness of social supports and constraints, activities across the lifespan, and integration of these factors into clinical practice. Strategies for dealing with patients in distress, and symptoms requiring referral to other professionals.

Course Materials Required

Textbooks:

Required Course Texts:

McCance, K.L. & Huether, S.E. (2005). Pathophysiology*: The biologic basis for disease in adults and children.* (5th Ed.) St. Louis, MO: Elsevier. ISBN 978-0-323-03507-1

American Psychological Association (2010). *Publication Manual (6th Ed).* Washington D.C.: American Psychological Association.

Teaching Learning Strategies

Readings, annotated bibliographies, examinations, case studies, written papers

Grading Scale

A	94-100
A-	90-93.9
B+	86-89.9
B	83-85.9
B-	80-82.9
C	75-79.9
D	66-74.9
F	0-65.9

Course Requirements and Grading

Module Quizzes……25%

Group Problem Solving Postings……10%

Unit Examinations…… …… 45%

Final Exam …… 20%

Course Schedule and Assignments

Course Schedule

Week	Date	Topic	Assignments/Readings
1	23 August	Course Introduction Differential diagnosis and systems based approaches to integrating pathophysiology to clinical decision-making. Cellular function and dysfunction Genes and Genetic Diseases.	Readings: Chapter-1, 2, 4 and 5. Assignments: Introductory Posting Module Quizzes-Sunday Midnight)
2	30 August	Fluid and electrolyte balance. Inflammation and immunity Fever	Readings: Chapter-3, 6, 8 Assignments: Module Quizzes-Sunday Midnight) Discussion-1
3	6 September	Adaptive immunity	Readings: Chapter-7 Assignments: Module Quizzes-Sunday Midnight) Discussion-2

		Immune System Disorders	
4	13 September	Biologic Stress in disease states.	Readings: Chapter-10, 11, 12 Assignments: Module Quizzes-Sunday Midnight) Discussion-3
		Oncogenesis	
5	20 September	Central nervous system dysfunction	Readings: Chapters 14, 15, 16, 17 Assignments: Exam-1
		Acquired neuropathy and peripheral nervous system dysfunction.	
6	27 September	Endocrine function and patterns of dysfunction.	Readings: Unit-VI Chapters 25, 26, 27 Assignments: Module Quizzes-Sunday Midnight) Discussion-4
		The hematopoetic system	
7	4 October	Structure, function and diseases of the endothelial tissues of the cardiovascular system.	Readings: Unit IX Assignments: Module Quizzes-Sunday Midnight) Discussion-5
		The heart: Structural and electrophysiologic dysfunction.	

8	11 October	The developing heart and congenital heart diseases. The pulmonary system-Diseases of the lower respiratory system.	Readings: Chapter 31 Unit X Assignments: Quiz-6 Discussion-6
9	18 October	Diseases of the upper respiratory tract. Kidney function and dysfunction.	Readings: Unit X Unit XI Assignments: Exam-2
10	25 October	Other disorders of the urologic system in adults and children.	Readings: Unit 9 Assignments: Module Quizzes-Sunday Midnight) Discussion-7
11	1 November	Reproductive function in women. Reproductive function in men.	Readings: Unit VII Assignments: Module Quizzes-Sunday Midnight) Discussion-8
12	8 November	Structure and function of the gastrointestinal system.	Readings: Unit XII Assignments:

			Exam-3
13	15 November	The musculoskeletal system-Bones-structure and dysfunction.	Readings: Unit XIII Assignments Module Quizzes-Sunday Midnight) Discussion-9
14	22 November	The integument-structure and function Disease.	Readings: Unit XIV Assignments: Module Quizzes-Sunday Midnight) Discussion-10
15	29 November	Final Examination Posted Exact date/time of posting TBD	

Course Requirements

Quizzes-There are scheduled quizzes for the course which correspond with each module. These will be offered each week. The purpose is to give the students the opportunity to apply the course materials. Guidance will be provided each week with regards to the expectations and possibilities associated with the quiz from the previous class meeting.\

Weekly Discussion Problems-These will be problems posted in such a way that they will simulate in class discussion. They will be graded based upon your individual level of contribution to the group. These will require an initial posting by Tuesday at Midnight, with at least one additional posting that involves classmate interaction by Friday. They will be graded on a 0-10 scale. The maximum score available to students who do not interact with classmates will be 8/10.

Unit Examinations-There will be a total of 3 unit examinations placed on offer throughout the course. These will be very difficult exams, and will be offered on line and

in open book format. You will complete these during a prescribed period of time using whatever resources you see fit.
Final Examination-This examination will be very similar to the unit exams save that ½ of the material will be cumulative, with the remaining material coming from the material encompassing the unit contained in the material for the week.

Course Policies

Attendance and Participation Policies:
Students are expected to attend all class meetings. Missed assignments and or quizzes must be pre-arranged with the course instructor.

Americans with Disabilities Act:
Students with disabilities needing academic accommodation should:
(1) register with and provide documentation to the Student Disability Resource Center; (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:
Student Disability Resource Center
97 Woodward Avenue, South
108 Student Services Building
Florida State University
Tallahassee, Fl 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
http://www.disabilitycenter.fsu.edu/

ACADEMIC HONOR SYSTEM:

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of Students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to " . . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at http://dof.fsu.edu/honorpolicy.htm)

COPYRIGHT NOTICE

This course website may contain copyrighted materials that are used in compliance with U.S. Copyright Law. Under that law, materials may not be saved to your computer, revised, copied, or distributed without permission. They are to be used in support of instructional activity as part of this course only and shall be limited to the duration of the

course, unless otherwise specified by the instructor or owner of the material. You may only download or print materials at the direction of your instructor, who knows which materials, are copyrighted and which are not. For more information, see the **FSU Copyright Guidelines**.

Students must comply with all policies published in the College of Nursing Graduate Handbook.

Course Schedule and Assignment due dates:

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction will be given to each student. Results will be anonymous

Summarize the results of the evaluation of this course.

This is a new course, no student evaluation has been done at this time. One will be done after the first course launches in 2014.

Describe the changes made to this course based upon the evaluation results.

This is a new course.

MAN5245 Organizational Behavior O & P Focus

This syllabus is not yet completed

EIN5930 Research Methodology
Fall 2012

Catalog Data: EIN 5930-1, Research Methodology (3 Credits)
Instructor: Dr. Tao (Ted) Liu
Office: Room COE B373 E
Tel: 410-6606
Email: liutao@eng.fsu.edu
Class meeting time and place: 1:30 – 4:00 pm (Tuesday), COE B212
Office Hours: 2:00 - 4:00pm (Thursday) or by appointment

Course Descriptions and Objectives

Research - the key leading to new knowledge, discoveries and innovations is a process of defining research problems, collecting, analyzing, recording and interpreting information to answer questions. This process is being undertaken within a framework of a set of philosophies; uses procedures, methods and techniques that have been tested for their validity and reliability; and is designed to be unbiased and objective. With these basic principles as a guideline, this course will provide a structured and easily understandable step-by-step approach for the students to learn the key components that comprise a sound research process. The following aspects will be covered in the class:

Definition, characteristics, and types of research
Principles for doing good research
Key steps in research process
Research Ethics
Proposal writing and intellectual property rights

The objective for this course is to equip the students with the skills and abilities to critically evaluate the work of others, to formulate, design, conduct and report their own research project, and to clearly present new ideas and results through written and spoken communication.

Contents

Introduction to research
Principles for doing good research
Research Process – Critically reading and understanding literatures
Research Process – Formulating a research problem
Research Process – Developing working hypotheses, Identifying variables, and preparing the research design
Research Process – Selection/construction instrument for data collection, sample design and data collection
Research Process – Data process, display, analysis and interpretation
Research Process – Writing research report
Research Process - Assessment of research results
Research Ethics, Proposal writing and intellectual property rights

Prerequisites

None

Textbook

Ranjit Kumar, Research Methodology: A Step-by-step Guide for Beginners (3rd Edition), SAGE Publications Ltd., 2011, ISBN 978-1-84920-300-5

Assessment

The following indicates percentage contribution towards final assessment of the class.

Class participation	10 %
Quiz (2)	20 %
Literature review reports and presentations (3)	50 %
Research process planning and report abstracts (1)	20%

Quiz

Quiz will be used to assess a student's knowledge and skills related to the research methodology, ethics, and intellectual property rights. The quiz questions are typically in a format of fill in the blank, true/false, and multiple choices.

Literature review reports and presentations

In this assignment, the instructor will distribute ONE (1) and each student is asked to select TWO (2) research papers that are relevant to his/her future research or are of interest to him/her to practice literature reading skills. After critically reading and understanding each of the research paper, the student will write a report and present it in the class. The report should discuss the key elements (12) being introduced in the class for critically evaluating and understanding a research paper. Each report should be less than 2 pages (12 Times font, single space); and the corresponding presentation is limited to 10 minutes.

Research process planning and report abstracts

Each student will select a research problem/topic appropriate to their degree or of sufficient interest to her/himself and write a report to sketch the planned research process. The report should discuss each of the key elements that comprise the research process being discussed in the class. In the report, the student should also include an abstract (not a full research paper) to succinctly summarize his/her plans. Including the abstract (less than 700 words), the report should be less than 3 pages (12 Times font, single space).

Grading Policy

90-100	A
80- 89	B
70- 79	C
60- 69	D
<60	F

Class Procedure

This course will be taught by means of lectures, projects, and group discussions. All students are required to attend all class sessions. All students are also expected to fully participate in class discussion.

Class Policy

Students have to turn in the assignments in time. No make-up work is accepted unless prior arrangements are worked out with the instructor.

In accordance with the "first-day-attendance" policy, those who miss the first class without prior notice will be dropped from the course automatically.

Attendance in class is mandatory and will be taken at the beginning of each class. Students exceeding TWO (2) unexcused absences will automatically lose 10 % of the final grade.

Students are entirely responsible for any material covered in lectures they miss

Students are bound by the university's Academic Honor Code. Violation is subject to sanctions.

Honor policy can be found at http://www.fsu.edu/~dof/forms/honorpolicy.pdf

Reference to IE's Academic Learning Compact can be found at

http://www.eng.fsu.edu/outcomes

Late homework will not be accepted except for delays due to serious illness or other documented difficulties. Whenever possible, advanced request for extension is expected. Discussions on homework and class notes are encouraged. However, exchange of written information in completing the assignments is not permitted.

No make-up exams will be given unless the student notifies the instructor in advance AND provides an appropriate document supporting the legitimacy of absence on the scheduled exam date. Students are bound by their university's Academic Honor Code and are subject to sanctions if they are found in violation of the Code. Possible sanctions include but are not limited to: (1) a failing grade on an exam or assignment, (2) a failing grade in the course, (3) dismissal from the academic program, or (4) dismissal from the university.

AMERICANS WITH DISABILITIES ACT:

Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the appropriate university office. For FAMU students, this is the Learning Development and Evaluation Center (LEDC). For FSU students this is the Student Disability Resource Center (SDRC); and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

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FSU students should contact :
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(850) 644-9566 (Voice)
(850) 644-8504 (TDD)
http://www.disabilitycenter.fsu.edu

Class Schedule

EIN5930 Research Methodology- Fall 2012				
WEEK	**CLASS PERIOD**	**DATE (Tuesday)**	**TOPIC**	**Assignments**
1	**1**		**Introduction to research**	**Class notes**

	2	8/28	Course requirements	
2	3	9/4	Principles for doing good research	Ch.1 & 2
	4		Research process – a quick view	
3	5	9/11	Reading and understanding research – (I)	Ch. 3 and Handouts Students select the 1st research paper
	6			
4	7	9/18	Reading and understanding research - (II)	Ch.3 and Class notes
	8			
5	9	9/25	Reading and understanding research - (III)	Student turn in the literature reading report for the 1st paper
	10			Students select the 2nd research paper
6	11	10/2	Research process – Formulating a research problem	Ch.4
	12		Class discussion (based on 1st and 2nd paper you selected)	
7	13	10/9	Student presentations for Reading and Understanding Literature (for both 1&2 paper)	Student turn in the literature reading report for the 2nd paper
	14			Instructor distributes the 3rd research paper
8	15	10/16	Research process – Developing working hypotheses, identifying variables, and preparing the research design	Ch.5, 6, & 7
	16			
9	17	10/23	Quiz #1	Student turn in the literature reading report for the 3nd paper
	18		Student presentations for Reading and Understanding Literature (for 3rd paper)	
10	19	10/30	Research process - Selection/construction instrument for data collection, sample design and data collection (I)	Ch. 9, 11, &12
	20			
11	21	11/6	Research process - Selection/construction instrument for data collection, sample design and data collection (II)	Ch. 9, 11, &12
	22			
12	23	11/13	Research process - Data process, display, analysis and interpretation	Ch. 15 & 16
	24			
13	25	11/20	Research process - assessment of research results and report writing	Ch. 17 & 18
	26			
14	27	11/27	Research ethics	Ch. 14 and Class notes
	28		Intellectual property rights	
15	29	12/4	Quiz #2	Class notes
			Writing research proposal	
17	Final Week	12/14	Research process planning and report abstract due	

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction will be given to each student. Results will be

anonymous

Summarize the results of the evaluation of this course.

This is a new course, no student evaluation has been done at this time. One will be done after the first course launches in 2014.

Describe the changes made to this course based upon the evaluation results.

This is a new course.

EMA 5182 Composite Materials Engineering
Fall 2012

Catalog Data: EMA 5182, Composite Material Engineering (3 Credits)
Instructor: Dr. Zhiyong (Richard) Liang and Dr. Tao (Ted) Liu

Dr. Zhiyong (Richard) Liang
Office: Room A260
Tel: 410-6673
Email: liang@eng.fsu.edu

Dr. Tao (Ted) Liu
Office: Room B373 E
Tel: 410-6606
Email: liutao@eng.fsu.edu

Time and Place: 10:45 am – 12:00 pm (Monday and Wednesday), A125
Office Hours: 4:00-6:00pm Thursday or by appointment

Course Objectives

Composite materials are becoming more and more important and popular in both military and civil applications because of their low density, high specific strength and stiffness, excellent durability, design and manufacturing flexibility, and affordability. Unlike conventional metal and ceramic materials, composites are made from two or more than two distinct materials and these constituent materials are properly combined together through interface. Composites can offer better or new properties or characters that their constitute materials can not provide individually. Composite properties can be tailored based on its microstructure-property relationship to meet specific application requirements, which provides important freedom and optimization for material selection and applications in the real world. This course provides the basic concepts and fundamental understanding of fiber-reinforced composite materials. Four major aspects of composite materials will be discussed in the class: constituent materials and interface, mechanical and functional properties, manufacturing and applications, and characterization and testing. Two laboratory demonstrations and two class projects are also included in the class. Upon the completion of the class, the participants will gain the essential basic knowledge to enable them effectively participate in the research and applications of composite materials.

Prerequisites

EIN 3390C/4390C (Manufacturing Processes and Materials Engineering)
CHM 1045, 1045L (General Chemistry 1 and Laboratory) or equivalent courses

Contents

Introduction to composite materials
Reinforcement materials
Resin matrix materials
Interface and microstructure
Material characterizations for polymeric composites
Mechanical properties
Mechanical property testing and characterization
Manufacturing principles and applications
Laboratory demonstrations and class projects

Class Procedure
This course will be taught by means of lectures, projects and laboratory demonstrations. All students are required to attend all class and examination sessions. All students are also expected to fully participate in class discussion.

Textbook
Fiber-Reinforced Composites (Third Edition), P.K. Mallick, Taylor & Francis, Inc., 2007, ISBN-13: 9780849342059 *(Electronic copy of this book is available for your study through FSU library CRCnetBASE ebook database)*

Introduction to Nanocomposite Materials - Properties, Processing, Characterization, DEStech Publications, Inc. 2007, ISBN: 978-1-932078-54-1 (*Hardcopy of this book is available for your borrowing from Dr. Liu)*

Recommended Reading
An Introduction to Composite Materials (Second Edition), D. Hull and T.W. Clyne, Cambridge University Press, 1996, ISBN 0-521-38855-4

Assessment
The following indicates percentage contribution towards final assessment of the class.

Class participation	5% (no more than twice class absence)
2 Labs	5%
4 assignments	40%
2 projects	10%
Midterm Exam	20%
Final Exam	20%

Grading Policy

90-100	A
80- 89	B
70- 79	C
60- 69	D
Less than 60	F

Class Policy
Students have to turn in the assignments in time. No make-up work is accepted.
Students are bound by the university's Academic Honor Code. Violation is subject to sanctions.
Honor policy can be found at http://www.fsu.edu/~dof/forms/honorpolicy.pdf
Reference to IE's Academic Learning Compact can be found at
http://www.eng.fsu.edu/outcomes
Late homework will not be accepted except for delays due to serious illness or other documented difficulties. Whenever possible, advanced request for extension is expected.
No make-up exams will be given unless the student notifies the instructor in advance AND provides an appropriate document supporting the legitimacy of absence on the scheduled exam

date. Students are bound by their university's Academic Honor Code and are subject to sanctions if they are found in violation of the Code. Possible sanctions include but are not limited to: (1) a failing grade on an exam or assignment, (2) a failing grade in the course, (3) dismissal from the academic program, or (4) dismissal from the university.

AMERICANS WITH DISABILITIES ACT:

Students with disabilities needing academic accommodation should:
(1) register with and provide documentation to the appropriate university office. For FAMU students, this is the Learning Development and Evaluation Center (LEDC). For FSU students this is the Student Disability Resource Center (SDRC); and
(2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to students with disabilities,

FAMU students should contact the:
Learning Development and Evaluation Center
667 Ardelia Court
Tallahassee, FL 32307
(850) 599.3180

FSU students should contact the:
Student Disability Resource Center
874 Traditions Way
108 Student Services Building
Tallahassee, FL 32306-4167
(850) 644-9566 (Voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
http://www.disabilitycenter.fsu.edu/

Class Schedule

Composites Materials Engineering - Fall 2011						
WEEK	**CLASS PERIOD**	**DATE**	**DAY**	**TOPIC**	**Instructor**	**Assignments**
1	1	8/27	Mon	Introduction to composite materials	Liang	
	2	8/29	Wed	Characteristics of composite materials	Liu	

2	**3**	**9/3**	**Mon**	**Labor Day Holiday – No Class**	**Liu**	
	4	**9/5**	**Wed**	**Introduction to reinforcement materials/ Glass fibers**	**Liu**	**HW 1 Assignment**
3	**5**	**9/10**	**Mon**	**Carbon and graphite fibers**	**Liu**	
	6	**9/12**	**Wed**	**Aramid fibers and other high performance polymeric fibers**	**Liu**	**HW1 Due**
4	**7**	**9/17**	**Mon**	**Nanomaterials enabled nanocomposites**	**Liu**	
	8	**9/19**	**Wed**	**Introduction to polymers for composite applications**	**Liu**	**HW2 Assignment**
5	**9**	**9/24**	**Mon**	**Epoxy resins**	**Liu**	
	10	**9/26**	**Wed**	**Unsaturated polyester resins**	**Liu**	**HW2 Due**
6	**11**	**10/1**	**Mon**	**High temperature resins**	**Liu**	
	12	**10/3**	**Wed**	**Thermoplastic resins**	**Liu**	
7	**13**	**10/8**	**Mon**	**Interface in composites**	**Liu**	**HW3 Assignment**
	14	**10/10**	**Wed**	**Material characterization for polymeric composites**	**Liu**	**Project I Assignment**
8	**15**	**10/15**	**Mon**	**Midterm exam**	**Liu**	**HW3 Due**
	16	**10/17**	**Wed**	**Project I: Thermal analysis for characterizing polymeric composites**	**Liu**	**Project I - Lab**
9	**17**	**10/22**	**Mon**	**Mechanical properties and analysis**	**Liang**	
	18	**10/24**	**Wed**	**Mechanical properties and analysis**	**Liang**	**Project I Due**
10	**19**	**10/29**	**Mon**	**Mechanical properties and analysis**	**Liang**	
	20	**10/31**	**Wed**	**Mechanical properties and analysis**	**Liang**	
11	**21**	**11/5**	**Mon**	**Mechanical property tests**	**Liang**	
	22	**11/7**	**Wed**	**Introduction to composite fabrications**	**Liang**	
12	**23**	**11/12**	**Mon**	**Veterans' Day Holiday. No Classes.**	**Liang**	
	24	**11/14**	**Wed**	**Hand layup and spray process**	**Liang**	**Project II Assignment (TBD)**
13	**25**	**11/19**	**Mon**	**Lab I: Mechanical Property Testing of Composite Materials**	**Liang**	
	26	**11/21**	**Wed**	**Filament winding and pultrusion processes**	**Liang**	**HW4**
14	**27**	**11/26**	**Mon**	**Thanksgiving Day Holiday – No Class**	**Liang**	
	28	**11/28**	**Wed**	**LCM processes**	**Liang**	**HW4 Due**
15	**29**	**12/3**	**Mon**	**Autoclave and vacuum bagging processes/ Composite applications**	**Liang**	**Project II Due**
16	**30**	**12/5**	**Wed**	**Lab II: Manufacturing of Composite Materials - Hand Layup and Vacuum Bagging**	**Liang**	
17	**31**	**12/10-14**	**TBD**	**Final exam**		

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction will be given to each student. Results will be anonymous

Summarize the results of the evaluation of this course.

This is a new course, no student evaluation has been done at this time. One will be done after the first course launches in 2014.

Describe the changes made to this course based upon the evaluation results.

This is a new course.

NGR 5140 Pharmacology for advanced Practice

Summer 2010

Course Name: **Pharmacology for Advanced O & P Practice**
On-Line Course Offering

Course Number: **NGR 5140**

Credit Hours: 3 Semester Hours

Course Placement: Graduate Program

Course Pre-requisites: Admission to O & P program

Course Co-requisites: None

Faculty: James Whyte IV, ND, ARNP

Room 415 School of Nursing

Office (850) 644-5359
Cell (229) 740-0153
Home (229) 233-5138

Course Description: This course provides a broad overview of pharmacology using a lifespan approach. Special consideration is given to professional, practice related and statutory issues related to prescribing. A broad overview of agents commonly used in primary care will be provided, with special consideration of the pharmaceutical properties, indications for, precautions with and selection of commonly prescribed agents. This will follow a system specific approach, with special attention paid to issues specific to the various stages of the lifespan. The concepts of compliance and collaboration will be examined in the context of effecting positive changes for the client. The course emphasis will be placed on facilitating pharmacologic management of patients for advanced prosthetic and orthotic clinicians in independent and collaborative practice. Case studies will relate to O & P.

Course Objectives: Upon course completion the student will be able to:

1. Evaluate the advanced practice role in the management and collaborative management of pharmacologic agents within legal and ethical constraints.

2. Analyze major pharmacologic groups including pharmaceutical, pharmacodynamic and pharmacokinetic phases of drug action.

3. Analyze major pharmacologic groups with respect to their indications and use in primary care patient populations across the life span.

4. Evaluate compliance of advanced practice clients with respect to pharmacologic therapy, and implement appropriate strategies to facilitate change as needed.

5. Select appropriate pharmacologic agents which reflect current trends in prescribing.
6. Evaluate pharmacologic agents effects on orthotic and prosthetic patients.
7. Analyze the effect of typical medications used with orthotic and prosthetic treatment plans for common pathologies and deceases. (diabetic, cardiac patients, vascular, cp…trauma, spinal pain)

Required Texts:

Edmunds, M. W., & Mayhew, M. S. (2008). Pharmacology for the primary care provider (3rd ed.). St. Louis, Missouri: Elsevier Mosby. ISBN 0323051316.

Course Content: See Course Schedule

Teaching/Learning Strategies:

Lecture
Discussion board with class interaction
Assigned readings
Case studies
Examinations

Course Requirements:

Weekly Discussion Board Postings
Students will first post their answer to the discussion question. This must be posted by Wednesday at midnight.
Students will respond to or comment on at least 2 of their classmate's postings. All postings are due by Sunday at midnight.
Students who have had comments made on their posting, will answer the comments in a professional manner.
Grades will be based upon the content of comments and responses, completeness of postings and responses per course guidelines and timeliness of interactions with your colleagues in the course.

Case Study Assignments
(1) Students will be provided with a data set reflecting a patient's condition. Questions and issues will be included with the data package. The student will perform an in-depth examination of the case, perform a review of the pertinent literature and provide an opinion regarding the case.

(2) Case studies will be posted in the course assignments section of the course web page. They will be made available on Monday of each week, at the time that the lecture for that week is posted. The case study for each week must be posted by Sunday at Midnight.

Evidence Based Analysis of a Pharmacologic Agent
Students are to submit a paper utilizing the format contained on the course web page. Each of the sections must contain the elements outlined in the format.
Students must speak to the quality of the research study and corresponding application to practice. Comparison and analysis of the available clinical trials must be made. The core of the analysis will be based upon (3) research articles. The use of non research-based articles will result in a deduction of 25% for each non research based article.
The paper will be a maximum of 3 pages in length not counting the title page. It is to be APA formatted.

Written Examinations
Students are to complete three course examinations. Examinations will be based upon the content presented in lectures and the assigned readings.

Testing, Grading, and Course Evaluation Policy and Procedures:

Weekly Discussion Board Postings	10%
Weekly Case Studies	20%
Evidence Based Analysis of a Pharmacologic Agent (2)	10%
On Line Examinations (3)	60%

Grading Scale:

A	90 through 100
B+	86 through 89.9
B	83 through 85.9
B-	80 through 82.9
C	75 through 79.9
D	60 through 74.9
F	below 60

Attendance and participation policies:
Students will observe all deadlines contained in the course schedule. All students must access the web page and download the week's lecture by 10 PM on Monday of each week. Failure to do

so will result in a deduction of 1% from their final score, unless the infraction is excused by the instructor ahead of time. All assignments are due on the appointed date as per the course schedule. Assignments will be deducted by 1% from the total possible points for each day late, unless this was excused by the instructor prior to the due date.

University Curriculum Committee Approved Academic Honor Policy and ADA Statement

ACADEMIC HONOR POLICY: The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to ". . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at http://dof.fsu.edu/honorpolicy.htm.)

AMERICANS WITH DISABILITIES ACT: Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center; and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

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For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center 874 Traditions Way 108 Student Services Building Florida State University Tallahassee, FL 32306-4167 (850) 644-9566 (voice) (850) 644-8504 (TDD) sdrc@admin.fsu.edu http://www.disabilitycenter.fsu.edu/ The **School of Nursing** strictly adheres to the Florida State University Academic Honor Code as stated and as delineated in the FSU General Bulletin. In addition, the following apply in the School of Nursing: the SON Academic Honesty Policy, the SON Plagiarism Policy, the Substance Abuse Policy, and the SON Professional Critical Behaviors Policy. Each policy can be found on the School of Nursing website at:

http://www.fsu.edu/%7Enursing/policy.html "

Course Schedule

Week	Lecture Topic	Readings	Assignments	Exams

Beginning			Due	
10 May 2010	***Introduction to Prescribing*** ***Adverse Medication Reactions***	Chapter -1 Chapter-2 Chapter -8	View Introductory Video in Course Library	
17 May 2010	***Phases of Drug Action*** ***Dermatologic Agents***	Chapter-3 Chapter-11	Case Study-1 Posted Monday, due by Sunday at Midnight. Weekly Posting to Discussion Board Initial posting due Wednesday at Midnight, response to the other postings due midnight Sunday.	
24 May 2010	***Clinical Antimicrobial Therapy***	Unit-14	Case Study-2 Posted Monday, due by Sunday at Midnight.	
31 May 2010	***Pain Management*** ***Rheumatology***	Chapter-34 Ch2pter-42 Unit-9	Case Study-3 Posted Monday, due by Sunday at Midnight. Weekly Posting to Discussion Board Initial posting due Wednesday at Midnight, response to the other postings due midnight Sunday.	
7 June 2010	***Neurological Agents***	Chapter-43 Chapter-44 Chapter-45	Case Study-4 Posted Monday, due by Sunday at Midnight. Weekly Posting to Discussion Board	
14 June 2010	***Psychopharmacology***	Unit-11	Case Study-5 Posted Monday, due by Sunday at Midnight. Weekly Posting to Discussion Board Initial posting due Wednesday at Midnight, response to the other postings due midnight Sunday	**Exam-1 Posted Thursday Due Sunday at Midnight**
21 June 2010	***Respiratory Pharmacology***	Unit-5	Case Study-6 Posted Monday, due by Sunday at Midnight. Weekly Posting to Discussion Board Initial posting due Wednesday at Midnight, response to the other postings due midnight Sunday. Evidence Based Analysis of a	

			Pharmacologic Agent-1 Due Midnight Sunday	
28 June 2010	***Pharmacologic Management of Hypertension***	Chapter -15 Chapter -18 Chapter -19 Chapter- 20	Case Study-7 Posted Monday, due by Sunday at Midnight. Weekly Posting to Discussion Board Initial posting due Wednesday at Midnight, response to the other postings due midnight Sunday.	
5 July 2010	***Chronic Coronary Syndromes*** ***Lipid Disorders and Anticoagulation***	Chapter-16 Chapter -17 Chapter-22 Chapter-23	Case Study-8 and 9 Posted Monday, due by Sunday at Midnight. Weekly Posting to Discussion Board Initial posting due Wednesday at Midnight, response to the other postings due midnight Sunday. Evidence Based Analysis of a Pharmacologic Agent-2 Due Midnight Sunday	
12 July 2010	***Endocrinology***	Unit-12	Case Study-10 Posted Monday, due by Sunday at Midnight. Weekly Posting to Discussion Board Initial posting due Wednesday at Midnight, response to the other postings due midnight Sunday.	**Exam-2 Posted Thursday Due Sunday at Midnight**
19 July 2010	***Gastrointestinal Agents***	Unit-7	Case Study-11 Posted Monday, due by Sunday at Midnight. Weekly Posting to Discussion Board Initial posting due Wednesday at Midnight, response to the other postings due midnight Sunday.	
26 July 2010	***Women's Health*** ***Urologic Agents*** ***Men's Health***	Unit -13 Chapter-31 Chapter-32	Case Study-12 Posted Monday, due by Sunday at Midnight. Weekly Posting to Discussion Board Initial posting due Wednesday at Midnight, response to the other postings due midnight Sunday.	
2 August 2010				**Final Examination-Time TBD**

Evidence Based Analysis of a Pharmacologic Agent

Outline

Introduction

Identify the disease or condition that you are addressing.

Identify the pathophysiology or component of the pathophysiology that you propose to address with the chosen therapy.

Therapy

Identify the agent that you propose to use to treat the problem.

Relate the agent to the actual pathophysiology that it addresses, and compare this to the pathophysiology outlined in the introduction.

Evidence

Select a minimum of (3) research papers that explain the efficacy and possible risks associated with the therapy.

Provide an analysis based upon the evidence that indicates the degree to which the therapy is (1) effective and (2) safe.

Clinical Implications

Summarize by indicating, based upon the evidence, the utility of this agent in treating the problem delineated in the paper.

Describe how the program collects feedback from the students about this course so it may be improved.

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Summarize the results of the evaluation of this course.

This is a new course, no student evaluation has been done at this time. One will be done after the first course launches in 2014.

Describe the changes made to this course based upon the evaluation results.

This is a new course.

BUL5810 The Legal and Ethical Environment of Business

***This Syllabi is not yet completed.**

EIN5XXX Advanced Materials for O & P

Instructor: Okenwa Okoli

Class Hours: TBD

Office Hours: See schedule

Recommended Texts

Fiber-reinforced Composites. P.K. Mallick (Dekker Mechanical Engineering) 3rd Ed.
Analysis and Performance of Fiber Composites. Bhagwan D. Agarwal, Lawrence J. Broutman, K. Chandrashekhara 3rd Ed.

Course Description

This course focuses on design and manufacturing issues pertaining to the cost effective production of prosthetic devices using advanced composite materials. It will consider service elements as comfort, aesthetics, customization, durability, ease of use, costs, and service life. This course strongly emphasizes the hands-on experience and will be class and lab based. The lab component of this class is denoted as **EIN 5936-2 - Advanced Materials in Prosthetics and Orthotics Lab (2)**

Course Objective

The appreciation of the use of advanced composite materials in prosthetics devices, enabling the O&P practitioner make better decisions whilst providing patient care.

Structure

The following topics will be covered:

Performance criteria for prosthetic sockets and orthotic devices
Mechanical behavior of composite laminates
Materials characterization
Design and manufacturing of prosthetic devices
Customization – Production economics

Cheating

This attracts a stiff penalty ranging from exam disqualification to appearance before the exams board. Please refer to the University honor code.

In-Class Behavior

The class room is a professional environment. All students are to conduct themselves in a professional manner. **Disruptive behavior in the classroom will not be tolerated. If you need to use the restrooms, please do so before class.** Failure to comply will lead to disciplinary action. Please refer to the University honor code.

Assessment

The syllabus is subject to change. The course will be assessed through two class projects requiring written reports, a mid-semester exam, and a final exam.

The following indicate percentage contributions towards the final assessment.

Attendance (5%)

2 group projects. (40%)

1 mid semester exam (25%)

Finals (30%)

Attendance

Attendance is mandatory. Written permission **must** be obtained from the Departmental Chair in all cases of absence. Continuous absenteeism will attract a 15% penalty towards the final grade. Late assignments will **not** be accepted.

Grade Policy

Passing Grades		Failing Grades	
90 - 100	A		
80 - 89	B	51 - 59	D
60 - 79	C	0 - 50	F

Honor Code

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1. Uphold the highest standards of academic integrity in the student's own work,

2. Refuse to tolerate violations of academic integrity in the University community, and,

3. Foster a high sense of integrity and social responsibility on the part of the University community.

ADA Requirements

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2. Bring a letter to the instructor from the SDRC indicating you need academic accommodations. This should be done within the first week of class.

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For more information about services available to FSU students with disabilities, contact the Assistant Dean of Students: sdrc@admin.fsu.edu,Student Disability Resource Center, 08 Kellum Hall, Florida State University, Tallahassee, FL 32306-4066, (850) 644-9566.

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Describe the changes made to this course based upon the evaluation results.

This is a new course.

EIN6xxx Clinical Rotation Topic O & P Practice Management
***This Syllabus has not yet been completed**

Approved Elective Syllabi

***Not all syllabi have been completed and submitted**

Missing elective syllabi include:
MAR5125 Marketing Strategy
EIN5243 Engineering Data Analysis
EIN5353 Engineering Economics and Financial Analysis

EIN 5930 Nanomaterials and Nanotechnology

Spring 2011

FAMU: 2542
FSU: 07800

Instructor: Dr. Mei Zhang

Office: Room A258

Tel: 850-410-6607

E-mail: mzhang@eng.fsu.edu

Time and Place: 4:35-7:05 pm Wednesday, COE A337

Office Hour: 9:00-12:00 am Wednesday or by appointment

Pre-Requisite: EMA 5182 Composite Material Engineering

Course Objectives:

Nanotechnology is the construction and utilization of functional structures designed from atomic/molecular scale and with at least one characteristic dimension measured in nanometers. Such materials and systems can be rationally designed to exhibit novel and significantly improved physical, chemical, and biological properties, phenomena, and processes because of their size. Nanomaterials are a key part of nanotechnology. This introductory course is designed to provide students the basic understanding and up-to-date knowledge on nanostructured materials, characterization methods, nano-devices, and nano-fabrication through class lectures, literature reading, and hand-on lab experiments. Upon the completion of the class, the participants will gain the essential knowledge for them to effectively participate in the researches of nanomaterials and nanofabrication.

Topics

Size effect
Nanoparticles and properties
Measurement and characterization methods
Carbon nanomaterials and composites
Nano-biomaterials

Nanodevices
Nanoscale modeling and simulation
Nanofabrication

References

Book: Introduction to Nanotechnology, Charles P. Poole Jr and Frank J. Ovens, John Wiley & Sons, Inc., 2003, ISBN 0-471-07935-9;

Nanotechnology: A Gentle Introduction to the Next Big Idea, Mark Ratner and Daniel Ratner, Prentice Hall, 2003, ISBN 0-131-01400-5;

Nanotechnology: Understanding Small Systems, Ben Rogers, Sumita Pennathur, and Jesse Adams, CRC Press, 2006, ISBN 0-8493-8207-6.

Papers: from several Journals and Conferences of Nanotechnologies, Materials Science and Engineering

Grading Policy

Attendance: **5%** (all students are required to attend all class and examination sessions. All students are expected to fully participate in class discussion. A student who exceeds more than 3 unexcused absences in classes automatically loses 5 points assigned to the attendance in the final grade.)

Four projects will be conducted individually in the class:

Four class presentation and discussion: **40%**

Five reports submitted individually: **35%**

Final exam: **20%**

Final Grading Policy

85-100 A 70- 84 B
60- 69 C 51- 59 D

0 - 50 F

Class Schedule

DATE	TOPIC	PROJECT ASSIGNMENT
Jan 5	Course Introduction	
Jan 12	Size dependence of properties	
Jan 19	Nanoparticles (quantum effect)	
Jan 26	Case studies of nanoparticles and properties	Presentation and report (1)
Feb 2	Measurement and characterization methods (SEM, TEM, AFM, etc.)	
Feb 9	SEM and AFM experiments (Lab)	Report (2)
Feb 16	Carbon based nanostructures (fullerene, carbon nanotubes, and graphene)	
Feb 23	Nanotube-based hybrid materials	
Mar 2	Cases studies of nanomaterials	Presentation and report (3)
Mar 9	SPRING BREAK	
Mar 16	Nano-biomaterials and systems	
Mar 23	Nanosensors, actuators, solar cells, and fuel cell devices	
Mar 30	Cases studies of nano-devices	Presentation and report (4)
Apr 6	Nanoscale modeling and simulation	
Apr 13	Nanofabrication (top down and bottom up)	
Apr 20	Case studies of nanofabrication / course review	Presentation and report (5)
TBD	Final exam	

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Summarize the results of the evaluation of this course.

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Describe the changes made to this course based upon the evaluation results.

This is a new course.

ESI 5247 – Engineering Experiments
Spring 2011

Instructor: Dr. Arda Vanli
Office: COE B373D **Tel:** 410-6354 **Email:** oavanli@eng.fsu.edu
Office Hours: Tuesday, Thursday 10:00am -11:00am, or by appointment

Class Hours: Monday, Wednesday 9:15am -10:30 am, **Room**: COE – A223

Course Objectives and Outcomes
The objective of the course is to provide an understanding of the methods for designing experiments and analyzing data. The course deals with the types of experiments that are frequently conducted in engineering and industrial systems to improve performance. The goal is for you to learn how to plan and conduct experiments effectively and learn how to analyze the resulting data to obtain statistically valid conclusions.

Textbook
Design and Analysis of Experiments (7th edition), by D.C. Montgomery, John Wiley & Sons, New York (2009)

Prerequisites
(1) ESI 5243: Engineering Data Analysis. Equivalent courses on statistical methods, regression analysis and data analysis are accepted only with approval of the instructor.
(2) A mathematics course involving matrix and vector algebra.

Exams and Grading Policy:
- Your course grade is based on one midterm, one final exam, homework assignments and computer project. The weights of these components in your final grade will be as follows:
  - Homework : 20%
  - Project : 20%
  - Midterm Exam : 25%
  - Final Exam : 35%
- Exam dates
  - Midterm : **February 21, 2010**
  - Final : **April 18, 2010**

Homework
Homework problems will be assigned from the textbook or other texts. The homework will count towards 20% of the grade. Use of statistical software and programming may be required to complete assignments.

Project
Experimentation is best learned by doing. The project will consist of planning, conducting and analyzing an experiment using DOE techniques. The context of the project is limited by your interests and can be related to your research or previous work or internship experience. The project must be performed in teams of 2-3 persons.

Project proposals are due **February 16**. This should be a one-page description of the experiment you wish to conduct, specifying the objective of the experiment (e.g., optimization, characterization), factors you wish to vary, the response(s) of interest and how you will measure the responses. You will present the results of your project in class on **April 20**. A project report will not be required.

Software Use
We will be using Minitab and Design Expert statistical packages and MATLAB programming language to conduct statistical analyses for homework and project assignments. A 45-day free trial version of Design Expert is available for download at www.statease.com. These software packages are also available in the College of Engineering computer labs.

Topics	Book chapters
Introduction to DOE	Ch 1
Basic statistical concepts	Ch 2
Experiments with a single factor	Ch 3
Randomized block and latin square designs	Ch 4
Introduction to Factorial Experiments	Ch 5
2^k factorial designs	Ch 6
Blocking and Confounding in the 2^k factorial design	Ch 7
2^{k-p} fractional factorial designs	Ch 8
Response Surface Methods and designs	Ch 11
Experiments with random factors	Ch 13
Nested and Split-Plot designs	Ch 14

Grading Scale.
The grades will be based on the following scale:

- 90 – 100 : A
- 80 – 89 : B
- 70 – 79 : C
- 60 – 69 : D
- 0 -59 : F

Make-up Exam Policy:
There will be NO make-up, late or early exams unless the student obtains the **prior** approval from the course instructor. Approvals for make-up exams will only be granted for family and medical emergencies. In order to justify an absence from the test, students need to provide a **legitimate documentation** of its cause prior to or no later than the next class after the test. If a make-up examination is not granted, you will receive a **score of zero (0)** for the exam that you missed.

Academic Honor Code:

Students are expected to uphold the Academic Honor Code published in The Florida State University Bulletin and the Student Handbook. The Academic Honor System of The Florida

State University is based on the premise that each student has the responsibility (1) to uphold the highest standards of academic integrity in the student's own work, (2) to refuse to tolerate violations of academic integrity in the university community, and (3) to foster a high sense of integrity and social responsibility on the part of the university community.

Americans with Disabilities Act:

Students with disabilities needing academic accommodation should:

1. Register with and provide documentation to the appropriate university office. For FAMU students this is the Center for Disability Access and Resources (CeDAR). For FSU students this is the Student Disability Resource Center (SDRC); and
2. Bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

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Center for Disability Access and Resources
Phone: (850)599-3180
E-mail: cedar@famu.edu

FSU students should contact:
Student Disability Resource Center
Phone: (850) 644-9566
E-mail: sdrc@fsu.edu

This syllabus and other class materials are available in alternative format upon request.

Syllabus Change Policy:

Except for changes that substantially affect implementation of the grading policy or grading scale, this syllabus is a guide for the course and subject to change with advance notice.

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction will be given to each student. Results will be anonymous

Summarize the results of the evaluation of this course.

This is a new course, no student evaluation has been done at this time. One will be done after the first course launches in 2014.

Describe the changes made to this course based upon the evaluation results.

This is a new course.

EIN 4936 – 01 / ESI 5228 Course Outline – Spring 2011

Catalog Data:Introduction to ISO 9000 Credit 3.
Introduction to the ISO 9000 quality system standards. Quality auditing. Audit report writing. Documenting the requirements. Case studies and demonstrations.

Recommended Reading

1. **ISO 9000: 2000 New Requirements, 28 Requirements Checklist and Compliance Guide**
   by Jack Kanholm,64 pages 3rd edition (January 24, 2000), AQA Press; ISBN: 1882711076
2. **ISO 9000: The Year 2000 and Beyond**
   by Perry L. Johnson, **Hardcover** - 400 pages 3rd edition (June 16, 2000), McGraw-Hill Professional Publishing; ISBN: 007135655X.
3. **Understanding and Implementing ISO 9000:2000**
   by David L. Goetsch and S.B. Davies, 2nd ed. Prentice Hall, ISBN 0-13-041106-X

Instructor
Dr. Okenwa Okoli
TA: TBA
Class Time: Tuesday / Thursday11:45 - 13:00 hrs., Rm. A235

Office Hours: Rm. A 256
See attached schedule. Please note that I am willing to meet with you outside the indicated hours by appointment or 'drop-in' if I am available.

Email: okoli@eng.fsu.edu

Objectives
This course generally introduces the participant to the concept of quality improvement and management by the use of the ISO 9000 quality standards. In order to generate a good feel for the requirements of the standards, this course makes the student assume the position of the customer - requiring quality, the supplier - maintaining quality, and the auditor - proving compliance to quality statements.
On completion, participants will have a knowledge of the standards, and the overall audit process, including:
1. Planning
2. Executing
3. Reporting

Role play, lectures, supplementary video material, and an actual quality audit are the tools used to achieve the course objectives.

Contents
- A brief history of ISO 9000

Prepared by: Dr. Okenwa Okoli Date: 4th January 2011

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- ISO 9000 Family
- Quality Assurance
- Quality System Standards (ISO 9000:2000)
- Quality Auditing
- Audit Report Writing
- Communications
- Documenting the Requirements
- Case Study/Seminars
    - ISO 9000 and TQM
    - ISO/TS 16949
    - External quality audits

Please see the attached class schedule which may be subject to change. Updates will be on the class web site.

Cheating
This attracts a stiff penalty ranging from exam disqualification to appearance before the exams board. Please refer to the University honor code.

In-Class Behavior
The class room is a professional environment. All students are to conduct themselves in a professional manner. **Disruptive behavior in the classroom will not be tolerated. If you need to use the restrooms, please do so before class.** Failure to comply will lead to disciplinary action. Please refer to the University honor code.

External Quality Audit
An external audit will be conducted at the pleasure of CAT. You are to keep **all Fridays** in November free. If you **cannot** do this, you **should not register** for the course. **This quality audit is mandatory!**

Assessment
The syllabus is subject to change. The following indicate percentage contribution towards final assessment.
Attendance (5%)
Quizzes (10%)
Best 8 (for graduates) / best 5 (for undergraduates) assignments + 2 group projects. (40%)
1 mid semester exam (20%)
Finals (25%)

Attendance/Quizzes
Attendance is mandatory. Written permission must be obtained from the Departmental Chair in all cases of absence. Continuous absenteeism will attract a 15% penalty towards the final grade.

- Late assignments **lose 10 marks**.

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- Submission after class will **not** be accepted.
- A closed book quiz may be given at **any time during each lecture**. There will be **No Makeup's** for missed quizzes.
- 5 points for correct answers
- 2 points for incorrect answers. Extra 2 points when students see the TA or Instructor **within a week.**
- 2 points for permitted absence. No extra points will be given for quiz.
- 0 point for missed quizzes and **No Makeup's**.

Grade Policy

Passing Grades		Failing Grades	
90 - 100	A		
80 - 89	B	51 - 59	D
60 - 79	C	0 - 50	F

Honor Code

Students are expected to uphold the Academic Honor Code. The Academic Honor System of The Florida State University is based on the premise that each student has the responsibility to:

1. Uphold the highest standards of academic integrity in the student's own work,
2. Refuse to tolerate violations of academic integrity in the University community, and
3. Foster a high sense of integrity and social responsibility on the part of the University community.

ADA Requirements

Students with disabilities needing academic accommodations should:

1. Register with and provide documentation to the Student Disability Resource Center (SDRC).
2. Bring a letter to the instructor from the SDRC indicating you need academic accommodations. This should be done within the first week of class.

(This syllabus and other class materials are available in alternative format upon request.)
For more information about services available to FSU students with disabilities, contact the Assistant Dean of Students: sdrc@admin.fsu.edu,Student Disability Resource Center, 08 Kellum Hall, Florida State University, Tallahassee, FL 32306-4066, (850) 644-9566.

Prepared by: Dr. Okenwa Okoli Date: 4th January 2011

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Date	Lecture	Reading	HW #	Due Date
Jan 4	Welcome and Syllabus			
Jan 6	Video: ISO 9000 for the global market Lecture 1: Introduction to ISO 9000	Bk. 2: Chapters 1 & 2	L1	Jan 13
Jan 11	Lecture 2: ISO 9000 & the service sector	Bk. 3: Chapter 2	L2	Jan 18
Jan 13	Lecture 3: ISO 9000 family, QS models and implementation	Bk. 2: Chapters 3 & 4		
Jan 18	Lecture 4: Decoding ISO 9000:2000	Bk. 3: Chapter 3	L4	Jan 25
Jan 20	Lecture 5: Quality assurance	Bk. 2: Part 2 Bk. 3: Chapter 8 Bring ISO 9000-2008 standards to next class!	L5	Jan 27
Jan 25	Lecture 5: Contd. Bridgestone/Firestone case Interpretation of ISO 9000:2008 Standards begins!!!	Bk. 2: Part 2 Bk. 3: Chapter 8 Bk. 3: Chapter 4	Grp. 1	Mar 3
Jan 27	Interpretation of ISO 9000-2008 Standards	Bk. 3: Chapter 4		
Feb 1	Interpretation of ISO 9000-2008 Standards	Bk. 3: Chapter 4		
Feb 3	The Albatross!			
Feb 8	Lecture 6: Quality auditing	Bk. 2: Chapter 13 Bk. 3: Chapter 7	L6	Feb 15

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Feb 10	Lecture 7: Audits (Pre)	Bk. 2: Chapters 13 & 14 Bk. 3: Chapter 7	L7 In-class wk. 7	Feb 17
Feb 15	Lecture 8: Audits (During)	Bk. 2: Chapter 13 & 14	L8 In-class wk. 8	Feb 22
Feb 17	Lecture 9: Audits (Post)		L9	Feb 24
Feb 22	Lecture 10: Audits (NCR)	Bk. 3: Chapter 7	L10	Mar 1
Feb 24	Review session			
Mar 1	Exam 1			
Mar 3	Group Presentations			
Mar 8	Spring Break – No Class!!			
Mar 10	Spring Break – No Class!!			
Mar 15	Group Presentations			
Mar 17	Lecture 11: ISO 9000 & TQM			
Mar 22	Lecture 12: ISO 9000:2000 - Overview of changes			
Mar 24	Lecture 13: Other ISO standards	Bk. 1		
MAR. ??	Quality Audit: TBD- Full Day!!			
Mar 29	Lecture 14: Implementation of ISO 9000:2000 standards		Audit Report	TBD
Mar 31				
Apr 7	Exam Review			
Apr 12				
Apr 14				
TBD	Presentation Finals - TBD			

Prepared by: Dr. Okenwa Okoli Date: 4th January 2011

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I acknowledge that I have received and understand the information in the given syllabus.

Print Name:_____

Student # _____

Email: _____

Phone Number:_____

Signature: _____ Date: _____

NB: Signing this form indicates consent to use the last four digits of your student number when displaying documentation relevant to class.

Comments:

Prepared by: Dr. Okenwa Okoli Date: 4th January 2011

Describe how the program collects feedback from the students about this course so it may be improved.

At the end of each course a Student Survey of Instruction will be given to each student. Results will be anonymous

Summarize the results of the evaluation of this course.

This is a new course, no student evaluation has been done at this time. One will be done after the first course launches in 2014.

Describe the changes made to this course based upon the evaluation results.

This is a new course.

Appendix 8c) Completed Form B-8a for each subject taught I each of the courses for Sections C.1-C.7

Form B-8a -Section C Professional Curriculum (Sections C.1- C.7)

Directions: This form provides the Program the opportunity for verification of compliance with sections C.1 -C.7. Of Appendix B of the Standards and Guidelines for the Accreditation of Educational Programs in Orthotics and Prosthetics (Standards). This verification should be supported by information or data which should appear in an appendices section of the Self-Study Report.
For Section C .1-C.7, document how the standard is met at your institution and in your program and provide the exact location of supporting documentation within the appendices so reviewers have a clear indication of where information on standards compliance is located in your Self-Study Report.

Section C Professional Curriculum

C.1.0 Foundational Content Areas

The following content areas related to orthotics/prosthetics must be covered in the curriculum:

Standards	Course Title and Number	Page
C.1.1 Advanced clinical and applied technology	Biomechanics PRO 3100 Advanced Topics PRO 40xxC	157 303
C.1.2 Applied clinical skills	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363
C.1.3 Applied technical skills	Intro to O&P PRO3000C Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	150 183 197 218 254 263 284 352 363
C.1.4 Behavioral sciences	Senior Capstone PRO4850 Clinical Rotation II Topic Psychology of Disabled PRO3801L	336 244
C.1.5 Bioethics	Clinical Rotation III Topic Ethics PRO3801L	316
C.1.6 Biomechanics	Biomechanics PRO 3100	157

C.1.7 Clinical pathology	Clinical Pathology PRO3110 Lower Extremity Orthotic I PRO3310C Upper Extremity Orthotics PRO 4371C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO 4350C	165 218 254 284 352
C.1.8 Clinical pharmacology	Pharmacology NGR5140	399
C.1.9 Communication skills	Clinical Methods PRO3500C	183
C.1.10. Diagnostic studies	Clinical Pathologies PRO3110 Gait Analysis PRO3120C Spinal Orthotics PRO4350C	165 190 352
C.1.11 Evidence-based practice	Clinical Rotation I Topic EBP PRO 3801L Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	234 183 197 218 254 263 284 352 363
C.1.12 Gait analysis/pathomechanics	Gait Analysis PRO3120C Transtibial Prosthetics PRO 3301C Lower Extremity Orthotics I PRO 3310C Transfemoral Prosthetics PROJ 4331C Lower Extremity Orthotics II PRO 3311C	190 197 218 263 284
C.1.13 Health care economics	Practice Management PRO4600* offered this year only until beginning of Master's Program Clinical Rotation Topic Practice Management EIN6xxx	– 411
C.1.14 Human anatomy and physiology	Human A&P for O&P PRO3200C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	174 197 218 254 263 284 352 363
C.1.15 Kinesiology	Biomechanics PRO3100	157
C.1.16 Materials science	Advanced Materials for O&P EIN5xxx Advanced Material Lab EIN5xxx	408
C.1.17 Models of Disablement	Intro to O & P PRO3000 Clinical Rotation PRO3801L Senior Capstone PRO4850	150 234 336

C.1.18 Neuroscience	Human A&P for O&P PRO3200C Neurology NGR5172	174 380
C.1.19 Practice management	Practice Management PRO4600* offered this year only until beginning of Master's Program Clinical Rotation Topic Practice Management EIN6xxx	- 411
C.1.20 Professional issues	Practice Management PRO4600* offered this year only until beginning of Master's Program Clinical Rotation Topic Practice Management EIN6xxx The Legal and Ethical Environment of Business BUL5810	- 411 407
C.1.21 Rehabilitation science	Senior Capstone PRO4850	336
C.1.22 Research methods	Research Methodology EIN5962	389

The graduate must demonstrate the ability to complete the following essentials of the patient evaluation process competently. Please list the course title of number of the course that introduces these foundational content areas.

Standards	Course Title and Number	page
C.2.1 Perform comprehensive assessment of the patient using standardized tools and methods to obtain an understanding of the individual's potential orthotic/prosthetic needs that includes the specific competencies in C.2.5	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics IPRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363

C.2.2 Determine method and criteria for referring patient to other health care professionals	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics IPRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363
C.2.3 Document services using established record-keeping techniques to record patient assessment and treatment plans, to communicate fabrication requirements and to meet standards for reimbursement and regulations of external agencies	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363
C.2.4 Establish a relationship and effectively communicate with the patient or caregiver to gather cogent and useful information for orthotic/ prosthetic assessments.	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363

C.2.5. Specific competencies for patient assessment: Students must be knowledgeable in commonly encountered pathologies when assessing patients and the potential impact on the treatment plan, including but not limited to:		
A. Patient History		
i. Medical	Clinical Methods PRO3500C	183
ii. Pathologies/dysfunction	Clinical Methods PRO3500C Clinical Pathologies PRO3110	183 165
iii. Wounds	Clinical Methods PRO3500C	183
iv. Testing results from other disciplines	Clinical Methods PRO3500C	183
v. Surgeries	Clinical Methods PRO3500C	183
vi. Medications	Clinical Methods PRO3500C	183
vii. Diagnostic imaging	Clinical Methods PRO3500C	183

report(s)		
viii. Determine potential for safe use of device, including understanding instructions and "gadget tolerance."	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363
ix. Patient goals	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363
x. Personal implications of impairment	Clinical Methods PRO3500C	183
xi. Vocation	Clinical Methods PRO3500C	183
xii. Recreational activities	Clinical Methods PRO3500C	183
xiii. Daily functional demands	Clinical Methods PRO3500C	183
xiv. Social	Clinical Methods PRO3500C	183
xv. Financial information	Clinical Methods PRO3500C	183
B. Patient Assessment		
i. Strength	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363
ii. Joint integrity and range of motion	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363
iii. Sensory testing	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C	183 197 218 254 263 284

	Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	352 363
iv. Proprioceptive sense	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363
v. Joint stability	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363
vi. Volumetric measures	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	183 197 218 254 263 284 352 363
vii. Pain and effect/affect	Clinical Methods PRO3500C	183
viii. Tone	Clinical Methods PRO3500C	183
ix. Neuromusculoskeletal integration	Clinical Methods PRO3500C Human A&P for O&P PRO3200C	183 174
x. Observational gait analysis	Clinical Methods PRO3500C Gait Analysis PRO3120C	183 190
xi. Postural evaluation	Clinical Methods PRO3500C Gait Analysis PRO 3120C	183 190
xii. Balance evaluation	Clinical Methods PRO3500C Gait Analysis PRO 3120C	183 190
xiii. Motor control	Clinical Methods PRO3500C	183
xiv. Cognitive ability	Clinical Methods PRO3500C	183
xv. Relevant psychological/emotional assessment(s)	Clinical Methods PRO3500C	183
xvi. Skin integrity	Clinical Methods PRO3500C	183
xvii. Functional measurers	Clinical Methods PRO3500C	183
xviii. Evaluation of current orthotic/prosthetic management	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371	183 197 218 254

	Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	263 284 352 363
xix. Reviewing charted evidence of vital signs, including blood pressure, pulse and respiratory rate	Clinical Methods PRO3500C	183
C. Consult with other health care professionals.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	197 218 254 263 284 352 363
D. Possess a basic understanding of surgical procedures related to orthotic and prosthetic care and how these surgical techniques impact orthotic and prosthetic design and function. The following are recommended, but not all inclusive, surgical procedures:		
i.Amputation surgery and revision	Transtibial Prosthetics PRO 3301C Transfemoral Prosthetics PRO 4331C Upper Extremity Prosthetic PRO 4361C	197 263 363
ii. Rotationplasty	Transfemoral Prosthetics PRO 4331C	263
iii. Joint replacement	Lower Extremity Orthotics II PRO 3311C	284
iv. Tendon lengthening		
v. Ligament repairs/reconstruction		
vi. Skin grafting	Upper Extremity Orthotics PRO 4371C	254
vii. Bone resection for ulcer management		
viii. Rhizotomy		
ix. Spinal stabilization	Spinal Orthotics PRO 4350C	352
x. Internal fixation	Spinal Orthotic PRO 4350C	352
xii. Joint fusion		
xi. Nerve Release		
E. Pathologies		
Musculoskeletal Disorders		
- abnormal pronation and supination	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174

	Lower Limb Orthotics I PRO3310C	218
- adhesive capsulitis (shoulder)	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO4371C	165 174 254
- articular cartilage disorders	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174
- bursitis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174
- contractures	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I Pro3310C Lower Limb Orthotics II PRO3311C Upper Extremity Orthotics PRO4371 Transtibial Prosthetics PRO3301C Transfemoral Prosthetics PRO4331C Upper Extremity Prosthetics PRO4361C	165 174 218 284 254 197 263 363
- convex pes valgus	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- De Quevain's disease	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO4371	165 174 254
- disc herniation	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO4350C	165 174 352
- dislocations	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174
- Dupuytren's contracture first ray insufficiency	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO 4371C	165 174 254
- forefoot valgus	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- forefoot varus	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- fractures	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics I PRO 3310C Upper Extremity Orthotics PRO 4371C	165 174 218 254
- hallux rigidus	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- hallux valgus	Clinical Pathologies PRO3110	165 174

	Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	218
- kyphosis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO4350C	165 174 352
- ligamentous injuries	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics I PRO 3310C	165 174 218
- mallet finger	Clinical Pathologies PRO3110 Upper Extremity Orthotics PRO4371 Human A&P for O&P PRO3200C	165 254 174
- metatarsalgia	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- metatarsus adductus	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- metatarsus abductus	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- Morton's neuroma	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- osteoarthritis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics I PRO 3310C Upper Extremity Orthotics PRO 4371C	165 174 218 254
- osteoporosis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO 4350C	165 174 218
- plagiocephaly and related cranial disorders	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO 4350C	165 174 352
- plantar fasciitis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- plantar flexed first ray	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- posterior tibial dysfunction	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218
- rearfoot varus	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO3310C	165 174 218

- repetitive stress injuries	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO 4371C	165 174 254
- rotator cuff injuries	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO4371	165 174 254
- rheumatoid arthritis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO4371	165 174 254
- scoliosis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO4350C	165 174 352
- spinal stenosis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO4350C	165 174 352
- spondylolysis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO4350C	165 174 352
- spondylolisthesis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO4350C	165 174 352
- talipes calcaneovalgus	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics I PRO3310C	165 174 218
- tarsal coalitions	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics I PRO3310C	165 174 218
- trigger thumb and fingers	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO4371	165 174 254
- vertebral osyeomyelitis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO4350C	165 174 352
- Volkmann's contracture	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO 4371C	165 174 254
Neurologic disorders		
- cerebral vascular accident	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO 4371C	165 174 254
- Gullain Barre	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics I PRO 3310C	165 174 218
- hereditary motor and sensory disorders	Clinical Pathologies PRO3110	165

	Human A&P for O&P PRO3200C	174
- multiple sclerosis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics I PRO 3310C	165 174 218
- peripheral nerve injuries	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO 4371C	165 174 254
- peripheral neuropathies	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Transtibial Prosthetics PRO 3301C Lower Extremity Orthotics PRO 3310C	165 174 197 218
- poliomyelitis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotic II PRO 3311C	165 174 284
- spinal cord injuries	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO 4371C Spinal Orthotics PRO4350C	165 174 254 352
- transverse myelitis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO 4350C	165 174 352
- traumatic brain injuries	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO 4371C	165 174 254
Neuropathic disorders		
- Buerger's disease	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174
- diabetes mellitus	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO 3310C Transtibial Prosthetics PRO 3301C	165 174 218 197
- vascular disease	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Limb Orthotics I PRO 3310C Transtibial Prosthetics PRO 3301C	165 174 218 197
Pediatric disorders	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics I PRO 3310C Spinal Orthotics PRO 4350C	165 174 218 352
- arthrogryposis multiplex cogenita	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174
cerebral palsy	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics PRO 3310C	165 174 218

- developmental dysplasia of the hip	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics II PRO 3311C	165 174 284
- fibular deficiency	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Transtibial Prosthetics PRO 3301C	165 174 197
- Legg-Calve-Perthes	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics II PRO 3311C	165 174 284
- osteogenesis imperfecta	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174
- proximal femoral focal deficiency	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Transfemoral Prosthetics PRO 4331C	165 174 263
- spina bifida	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO 4350C Lower Extremity Orthotics I PRO 3310C	165 174 352 218
- spinal muscular atrophy	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO 4350C	165 174 352
- talipes equinovarus	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Lower Extremity Orthotics PRO 3310C	165 174 218
Other		
- burn injuries	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO 4371C	165 174 254
- cancers	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174
- complex regional pain syndrome	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174
- multiple limb loss	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Transtibial Prosthetics PRO 3301C Transfemoral Prosthetics PRO 4331C	165 174 197 263
- muscular dystrophies	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Spinal Orthotics PRO 4350C	165 174 352
- osteogenic sarcoma	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174
- osteomyelitis	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174
- post-operative complications spasticity	Clinical Pathologies PRO3110	165

	Human A&P for O&P PRO3200C	174
- trauma	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C Upper Extremity Orthotics PRO 4371C	165 174 254
- tumor	Clinical Pathologies PRO3110 Human A&P for O&P PRO3200C	165 174

C.3.0 Formulation
The graduate must demonstrate the ability to integrate and apply foundational knowledge and patient information to direct potential orthotic or prosthetic management

Standard	Course Title and Number	Tab
C.3.1 Synthesize and integrate foundational knowledge and evidence from literature with findings of the assessment of a patient.	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior CapstonePRO4850	165 197 218 254 263 284 352 363 336
C.3.2 Identify impairments or functional limitations, discern patient goals and determine related biomechanical objectives.	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850	165 197 218 254 263 284 352 363 336
C.3.3 In collaboration with the patient, design an intervention plan and an appropriate orthotic and/or prosthetic device to meet the needs of the patient and the biomechanical objectives.	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850	165 197 218 254 263 284 352 363 336

C.3.4 Demonstrate the ability to formulate a comprehensive treatment plan.	Clinical Methods PRO3500C Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850	165 197 218 254 263 284 352 363 336

C.4.0 Implementation: The graduate must demonstrate the ability to apply the necessary skills and procedures, including fabrication, to provide orthotic or prosthetic care.

Standards	Course Title and Number	Tab
C.4.1 Perform the necessary procedures and fabrication processes to provide prosthetic or orthotic services by using appropriate techniques, tools and equipment.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850	197 218 254 263 284 352 363 336
C.4.2 Discern the possible interaction between the device and the patient with respect to corrective and accommodative treatment.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850	197 218 254 263 284 352 363 336
C.4.3 Assess quality and structural stability of the orthosis or prosthesis based on the needs and goals of the patient.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850	197 218 254 263 284 352 363 336

C.4.4 Evaluate the fit and function of the orthosis or prosthesis as used by the patient, making adjustments as necessary to obtain optimal function and meet patient goals	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850	197 218 254 263 284 352 363 336
C.4.5 Perform transfer methods and initial gait and mobility instructions that provide for patient safety during appointments	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850	197 218 254 263 284 352 363 336
C.4.6 Provide effective, culturally appropriate instruction to patients, family members and caregivers on the care, use and maintenance of the orthosis or prosthesis, as well as skin care information and wearing schedule for the device	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850	197 218 254 263 284 352 363 336
C.4.7 Evaluate and document the level of patient comprehension of these instructions.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850	197 218 254 263 284 352 363 336

C.5.0 Follow-up: The graduate must demonstrate the ability to develop and implement an effective follow-up plan to assure optimal fit and function of the orthosis or prosthesis and monitor the outcome of the treatment plan.

Standard	Course Name and Number	Tab
C.5.1 Provide continuing patient care and periodic evaluation to assure, maintain and document optimal fit and function of the orthosis or prosthesis	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850 Clinical RotationsPRO3801L	197 218 254 263 284 352 363 336 234
C.5.2 Develop an effective long-term follow-up plan for comprehensive orthotic or prosthetic care.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850 Clinical RotationsPRO3801L	197 218 254 263 284 352 363 336 234
C.5.3 provide adequate education to assure the patient and caregivers understand the importance of adhering to the treatment plant and regular follow-up visits.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850 Clinical RotationsPRO3801L	197 218 254 263 284 352 363 336 234
C.5.4 Document all interactions with the patient and caregivers.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850 Clinical RotationsPRO3801L	197 218 254 263 284 352 363 336 234
C.5.5 Demonstrate follow-up assessment regarding fit and function of device	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C	197 218 254 263 284 352 363

	Senior Capstone PRO4850 Clinical RotationsPRO3801L	336 234
C.5.6 Assess the function and reliability of the device using scientifically-validated outcome measures.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Senior Capstone PRO4850 Clinical RotationsPRO3801L	197 218 254 263 284 352 363 336 234

C.6.0 Practice Management: The graduate must demonstrate the ability to identify and observe policies and procedures regarding human resource management, physical environment management, financial management and organizational management, including the following

Standard	Course Name and Number	Tab
C.6.1 Demonstrate knowledge of basic billing and coding procedures.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Clinical RotationsPRO3801L	197 218 254 263 284 352 363 336 234
C.6.2 Demonstrate knowledge of applicability of federal and state legislation and regulations associated with orthotic prosthetic services.	Will be addressed in The Legal and Ethical Environment of Business BUL5810 Was previously addressed in Practice Management	407
C.6.3 Demonstrate the ability to document clinical chart notes, legal compliance and insurance issues.	Transtibial Prosthetics PRO3301C Lower Extremity Orthotics I PRO3310C Upper Extremity Orthotics PRO4371 Transfemoral Prosthetics PRO4331C Lower Extremity Orthotics II PRO3311C Spinal Orthotics PRO4350C Upper Extremity Prosthetics PRO4361C Clinical RotationsPRO3801L	197 218 254 263 284 352 363 336 234
C.6.4 Demonstrate an understanding of how orthotists and prosthetists may deal with ethical and legal responsibilities related to patient management.	Will be addressed in The Legal and Ethical Environment of Business BUL5810 Was previously addressed in Practice Management	407
C.6.5 Demonstrate knowledge of the terminology specific to Medicare, with an understanding of	Clinical Rotation PRO3801L	234

L-coding history and usage, state regulations and third-party insurance reimbursements		

C.7.0 Professional/Personal Development: The graduate must be able to articulate the importance of personal and professional development including the following areas:

Standard	Course Title and Number	Tab
C.7.1 Lifelong learning with the goal of maintaining knowledge and skills at the most current level	Will be addressed in The Legal and Ethical Environment of Business BUL5810 Clinical Methods PRO3500C	407 183
C.7.2 Engagement in community service	Will be addressed in The Legal and Ethical Environment of Business BUL5810 Clinical Rotation PRO3801L	407 183
C.7.3 Engagement in service to and development of the profession	Will be addressed in The Legal and Ethical Environment of Business BUL5810	407
C.7.4 Attention to personal coping skills and potential for compassion fatigue.	Will be addressed in The Legal and Ethical Environment of Business BUL5810	407
C.7.5 Exemplification of professional responsibility and ethics.	Will be addressed in The Legal and Ethical Environment of Business BUL5810	407
C.7.6 Advocacy for and engagement in research to support the professions.	Will be addressed in Research Methodology EIN5962 Will be addressed in The Legal and Ethical Environment of Business BUL5810	389 407
C.7.7 Knowledge of O&P in the international community.	Will be addressed in The Legal and Ethical Environment of Business BUL5810	407

Appendix 8d)
Completed Form B-8b number of contact hours for each subject taught in each of the courses for Sections C.8.1-8.4

Form B-8b

Form B-8b- Section C Professional Curriculum (Sections C.8.1 – C.8.4)
Directions: This form provides the Program the opportunity for verification of compliance with sections C.8.1 – C.8.4. of Appendix B of the Standards and Guidelines for the Accreditation of Educational Programs in Orthotics and Prosthetics (Standards). This verification should be supported by information or data which should appear in an appendices section of the Self-Study Report. For Section C 8.1 – C. 8.4 document how the standard is met at your institution and in your program and provide the exact location of supporting documentation (page) within the appendices so reviewers have a clear indication of where information on standards compliance is located in your Self-Study Report.

Standard C.8.1 – C.8.4 of the Standards reads as follows (Orthoses/Prostheses):
This section provides a comprehensive list of procedures that must be covered in the curriculum. The program must provide, at a minimum, the designated level of incorporation into the curriculum for each device/component listed. The determined levels of educational inclusion reflect the current demands of the patient population and the profession.
1. *Knowledge of:*
2. *Knowledge of assessment or supervised assessment:*
3. *Knowledge of formulation of treatment plan or supervised formulation of treatment plan:*
4. *Knowledge of follow-up plan:*

Upper Limb Orthoses	**Course(s) Number/Title =**	**Page**	**Lecture/Activity**
Finger orthosis	*PRO 4371C - Upper Extremity Orthotics*	259	- Lecture 1A = Introduction to Upper Extremity Orthoses - Proj #7 = Fitting Lab - Students to fit each other with various off-the-shelf devices including: FO, HO, Thumb Spica, Carpal Tunnel and Airplane Splint - Discussion Board scenarios

Thermoplastic and metal hand orthoses (HdO)	Same as above	259	- Lecture 1A = Introduction to Upper Extremity Orthoses - Lecture 2B = Introduction to Metal HdOs - Lecture 3B = Orthotic Management of Spinal Cord Injuries - Lecture 3D = Orthotic Management of Arthritic Hands & Wrist - Proj #1 = Metal HO - Students assess, measure & mold each other OR patient model (if available); fabricate from kit; assess fit & function; possibly add outriggers (if clinically recommended); re-fit and again assess fit and function; instructor critique - Discussion Board scenarios
Thermoplastic and metal wrist-hand orthoses (WHO)	Same as above	259	- Lecture 1A = Introduction to Upper Extremity Orthoses - Lecture 2C = Introduction to Metal and Thermoplastic WHOs - Lecture 2D = Wrist Driven and Ratchet WHOs - All lectures in Unit 3 = Pathologies of the Upper Extremity - To include: Stroke and Traumatic Brain Injury; Spinal Cord Injury; Thermal Injuries; Arthritic Hand & Wrist; Brachial Plexus Injuries; Concepts in Fracture Bracing; and Cumulative Trauma Disorders - Proj #3 = Thermoplastic WHO - Students assess, measure & mold each other OR patient model (if available); modify positive; thermoform; trim, strap & finish device; assess fit & function; instructor critique - Proj #2 = Metal WHO - Students assess, measure & mold each other OR patient model (if available); fabricate from kit; assess fit & function; possibly add outriggers (if clinically recommended); re-fit and again assess fit and function; instructor critique - Proj #4 = Prehension Orthosis (Wrist Driven WHO) - Students assess, measure and mold each other OR patient model (if available); modify positive impression of fingers; fabricate from kit, assess fit & function; instructor critique - Discussion Board scenarios
Prehension orthosis -	Same as above	259	- Lecture 1A = Introduction to Upper Extremity Orthoses - Lecture 2C = Introduction to Metal and Thermoplastic WHOs

			- Lecture 2D = Wrist Driven and Ratchet WHOs - Lecture 3B = Orthotic Management of Spinal Cord Injury - Proj #4 = Prehension Orthosis (Wrist Driven WHO) - Students assess, measure and mold each other OR patient model (if available); modify positive impression of fingers; fabricate from kit, assess fit & function; instructor critique - Discussion Board scenarios
Additions and outriggers to HdOs and WHOs	Same as above	259	- Lecture 1A = Introduction to Upper Extremity Orthoses - Lecture 2B = Introduction to Metal HdOs - Proj #1 = Metal HO - Students assess, measure & mold each other OR patient model (if available); fabricate from kit; assess fit & function; possibly add outriggers (if clinically recommended); re-fit and again assess fit and function; instructor critique - Proj #2 = Metal WHO - Students assess, measure & mold each other OR patient model (if available); fabricate from kit; assess fit & function; possibly add outriggers (if clinically recommended); re-fit and again assess fit and function; instructor critique - Discussion Board scenarios
Elbow orthosis	Same as above	259	- Lecture 2E = Introduction to Elbow & Shoulder Orthoses - Lecture 3A = Orthotic Management of Stroke and Traumatic Brain Injury - Lecture 3G = Orthotic Management of Cumulative Trauma Disorders - Proj #7 = Custom Fitting Lab - Students will work in pairs and have an opportunity to fit each other with at one or two of each level of device: **SEWHO** = Mobile Arm Support, Airplane Splint, Gunslinger Orthosis and Shoulder Abduction Orthosis; **EO** = Tennis Elbow, ROM Ox (free, limited & locked motion); **Fracture Orthoses** = Humeral & Ulnar; **WHO** = Carpal Tunnel; Thumb Spica; - Discussion Board scenarios

Elbow-wrist-hand orthoses	Same as above	259	Same as above
Shoulder–elbow-wrist-hand orthoses, custom fit	Same as above	259	- Lecture1A = Introduction to Upper Extremity - Lecture 2E = Introduction to Elbow & Shoulder Orthoses - Lecture 2F = Mobile Arm Supports - Lecture 3B = Orthotic Management of Spinal Cord Injuries - Lecture 3E = Orthotic Management of Brachial Plexus Injuries - Proj #5 = custom molded SEWHO - Students assess, measure & mold each other OR patient model (if available); modify positive; thermoform, trim, strap & finish; instructor critique - Proj #7 = Custom Fitting Lab - Students will work in pairs and have an opportunity to fit each other with at one or two of each level of device: **SEWHO** = Mobile Arm Support, Airplane Splint, Gunslinger Orthosis and Shoulder Abduction Orthosis; **EO** = Tennis Elbow, ROM Ox (free, limited & locked motion); **Fracture Orthoses** = Humeral & Radial/Ulnar; **WHO** = Carpal Tunnel; Thumb Spica; - Discussion Board scenarios
Shoulder orthoses	Same as above	259	- Lecture1A = Introduction to Upper Extremity - Lecture 2E = Introduction to Elbow & Shoulder Orthoses - Lecture 3A = Orthotic Management of Stroke and Traumatic Brain Injury - Proj #7 = Custom Fitting Lab - Students will work in pairs and have an opportunity to fit each other with at one or two of each level of device: **SEWHO** = Mobile Arm Support, Airplane Splint, Gunslinger Orthosis and Shoulder Abduction Orthosis; **EO** = Tennis Elbow, ROM Ox (free, limited & locked motion); **Fracture Orthoses** = Humeral & Ulnar; **WHO** = Carpal Tunnel; Thumb Spica;
Wrist joints	Same as above	259	- Lecture1A = Introduction to Upper Extremity - Lecture 2C = Introduction to Metal and Thermoplastic WHOs - Lecture 2D = Wrist Driven and Ratchet WHOs - Proj #4 = Prehension Orthosis (Wrist Driven WHO)

			- Students assess, measure and mold each other OR patient model (if available); modify positive impression of fingers; fabricate from kit, assess fit & function; instructor critique
Elbow joints	Same as above	259	- Lecture1A = Introduction to Upper Extremity - Lecture 2E = Introduction to Elbow and Shoulder Orthoses - Lecture 3E = Orthotic Management of Brachial Plexus Injuries - Proj #5 = custom molded SEWHO - Students assess, measure & mold each other OR patient model (if available); modify positive; thermoform, trim, strap & finish; instructor critique - Proj #7 = Custom Fitting Lab - Students will work in pairs and have an opportunity to fit each other with at one or two of each level of device: **SEWHO** = Mobile Arm Support, Airplane Splint, Gunslinger Orthosis and Shoulder Abduction Orthosis; **EO** = Tennis Elbow, ROM Ox (free, limited & locked motion); **Fracture Orthoses** = Humeral & Ulnar; **WHO** = Carpal Tunnel; Thumb Spica;
Shoulder joints	Same as above	259	- Lecture1A = Introduction to Upper Extremity - Lecture 2E = Introduction to Elbow and Shoulder Orthoses - Lecture 3E = Orthotic Management of Brachial Plexus Injuries - Proj #5 = custom molded SEWHO - Students assess, measure & mold each other OR patient model (if available); modify positive; thermoform, trim, strap & finish; instructor critique - Proj #7 = Custom Fitting Lab - Students will work in pairs and have an opportunity to fit each other with at one or two of each level of device: **SEWHO** = Mobile Arm Support, Airplane Splint, Gunslinger Orthosis and Shoulder Abduction Orthosis; **EO** = Tennis
Fracture orthoses	Same as above	259	- Lecture1A = Introduction to Upper Extremity - Lecture 3F = Current Concepts in Fracture Bracing - Proj #6 = Low Temp Wrist fracture Brace - Students fabricate and fit to each other low temp wrist FX

			brace; assess fit & function; instructor critique - Proj #7 = Custom Fitting Lab - Students will work in pairs and have an opportunity to fit each other with at one or two of each level of device: **SEWHO** = Mobile Arm Support, Airplane Splint, Gunslinger Orthosis and Shoulder Abduction Orthosis; **EO** = Tennis Elbow, ROM Ox (free, limited & locked motion); **Fracture Orthoses** = Humeral & Ulnar; **WHO** = Carpal Tunnel; Thumb Spica; - Discussion Board scenarios

Form B-8b

Upper Limb Prostheses	**Course(s) Number/Title =**	**Page**	**Lecture/Activity**
Body Powered and Passive Components	*PRO4361C Upper Extremity Prosthetics*		
Terminal devices	Same as above	370	Lecture 2 Week 1/18: Body Powered Components
Passive hands	Same as above	370	Lecture 2 Week 1/18: Body Powered Components
Mechanical hands	Same as above	370	Lecture 2 Week 1/18: Body Powered Components
Sports, recreation and work terminal devices	Same as above	370	Lecture 3 Week 1/25: Sports and Recreation
Voluntary opening	Same as above	370	Lecture 2 Week 1/18: Body Powered Components Project 1 Mock Prosthesis – students cast/ measure, fabricate, and fit a mock prosthesis that includes a VO Hook.
Voluntary closing	Same as above	370	Lecture 2 Week 1/18: Body Powered Components
Wrists			
Constant friction	Same as above	370	Lecture 2 Week 1/18: Body Powered Components Project 1 Mock Prosthesis – students cast/measure, fabricate, and fit a mock prosthesis that includes a constant friction wrist unit.

	Quick disconnect	Same as above	370	Lecture 2 Week 1/18: Body Powered Components
Elbows				
	Rigid hinges	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis.
	Polycentric hinges	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis.
	Step-up hinges	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis.
	Residual limb-activated hinges	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis.
	Flexible hinges	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis.
	Outside locking elbow hinges	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis.
	Elbow joints, conventional	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis. Project 4. Transhumeral Prosthesis – students evaluate, measure/cast, fabricate and fit a prosthesis with figure of 8 harness, dual control cable, and conventional elbow.
Shoulder joints		Same as above	371	Lecture 12 Week 4/4: Shoulder Disartic and Interscapularthoracic amputations and prostheses.
Lift assist		Same as above	371	Lecture 12 Week 4/4: Shoulder Disartic and Interscapularthoracic amputations and prostheses.
Excursion amplifier		Same as above	371	Lecture 12 Week 4/4: Shoulder Disartic and Interscapularthoracic amputations and prostheses.
Externally Powered Components				
Electric hands		Same as above	370	Lecture 6 Week 2/15:Externally Powered Control Lecture 7 week 2/22: Myo Testing
Electric wrist rotator		Same as above	370	Lecture 6 Week 2/15:Externally Powered Control Lecture 7 week 2/22: Myo Testing
Electric elbows		Same as above	370	Lecture 6 Week 2/15:Externally Powered Control Lecture 7 week 2/22: Myo Testing

Digital control	Same as above	370	Lecture 6 Week 2/15:Externally Powered Control Lecture 7 week 2/22: Myo Testing
Proportional control	Same as above	370	Lecture 6 Week 2/15:Externally Powered Control Lecture 7 week 2/22: Myo Testing
Input devices			
Myoelectric control	Same as above	370	Lecture 6 Week 2/15:Externally Powered Control Lecture 7 week 2/22: Myo Testing
Switch control	Same as above	370	Lecture 6 Week 2/15:Externally Powered Control Lecture 7 week 2/22: Myo Testing
Touch pad	Same as above	370	Lecture 6 Week 2/15:Externally Powered Control Lecture 7 week 2/22: Myo Testing
Linear transducer	Same as above	370	Lecture 6 Week 2/15:Externally Powered Control Lecture 7 week 2/22: Myo Testing
Hybrid Control	Same as above	370	Lecture 6 Week 2/15:Externally Powered Control Lecture 7 week 2/22: Myo Testing
Partial Hand			
Passive	Same as above	369	Lecture 1 Week 1:Partial Hand Amputation and prosthetic/orthotic intervention
Body-powered, finger driven prostheses	Same as above	369	Lecture 1 Week 1:Partial Hand Amputation and prosthetic/orthotic intervention
Body-powered, cable-driven prostheses	Same as above	369	Lecture 1 Week 1:Partial Hand Amputation and prosthetic/orthotic intervention
Task-specific prostheses	Same as above	369	Lecture 1 Week 1:Partial Hand Amputation and prosthetic/orthotic intervention
Wrist Disarticulation			
Passive	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation
Figure 9 harness	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation Project 3 Duplicate Self Suspending Prosthesis – students will duplicate their self suspending prosthesis, laminate it, then fabricate a figure of 9 harness.
Figure 8 harness	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation Project 1 Mock Prosthesis – students will cast/measure, fabricate and fit a mock prosthesis with figure of 8 harness.

Shoulder saddle with chest strap harness	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation
Medial opening	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation
Expandable wall socket	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation
Foam sleeve suspension in continuous socket	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation
Frame with flexible inner liner	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation
Gel liners	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation
Suspension sleeves	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation
Single control cable	Same as above	370	Lecture 3 Week 1/25: Wrist Disarticulation
Transradial			
Passive prostheses	Same as above	370	Lecture 2 Week 1/18: Transradial amputations and body powered components
Figure 9 harness	Same as above	370	Lecture 2 Week 1/18: Transradial amputations and body powered components Project 3 Duplicate Self Suspending Prosthesis – students will duplicate their self suspending prosthesis, laminate it, then fabricate a figure of 9 harness.
Figure 8 harness	Same as above	370	Lecture 2 Week 1/18: Transradial amputations and body powered components Project 1 Mock Prosthesis – students will cast/measure, fabricate and fit a mock prosthesis with figure of 8 harness.
Shoulder saddle with chest strap harness	Same as above	370	Lecture 2 Week 1/18: Transradial amputations and body powered components
Anatomical suspension variants	Same as above	370	Lecture 5 Week 2/8: Self Suspending socket designs
Frame with flexible inner liner	Same as above	370	Lecture 2 Week 1/18: Transradial amputations and body powered components

Locking roll-on gel liners	Same as above	371	Lecture 2 Week 1/18: Transradial amputations and body powered components
Suspension sleeves	Same as above	371	Lecture 2 Week 1/18: Transradial amputations and body powered components
Single control cable	Same as above	371	Lecture 2 Week 1/18: Transradial amputations and body powered components
Elbow Disarticulation			
Passive	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Figure 8 harness	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Shoulder saddle with chest strap harness	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Medial opening	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Expandable wall socket	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Foam sleeve suspension in continuous socket	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Frame with flexible inner liner	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Gel liners	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Dual-control cable	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Transhumeral			
Passive	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Figure 8 harness	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Shoulder saddle with chest strap harness	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis

Frame with flexible liner	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Locking liners	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Suction	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Dual-control cable	Same as above	371	Lecture 9 Week 3/14: Transhumeral and Elbow disarticulation conventional prosthesis
Shoulder Disarticulation/ Interscapulothoracic			
Passive	Same as above	371	Lecture 12 Week 4/4: Shoulder Disarticulation and Interscapularthoracic amputations and prostheses
Figure 8 harness	Same as above	371	Lecture 12 Week 4/4: Shoulder Disarticulation and Interscapularthoracic amputations and prostheses
Chest strap harness	Same as above	371	Lecture 12 Week 4/4: Shoulder Disarticulation and Interscapularthoracic amputations and prostheses
Frame with flexible inner liner	Same as above	371	Lecture 12 Week 4/4: Shoulder Disarticulation and Interscapularthoracic amputations and prostheses
Gel liners	Same as above	371	Lecture 12 Week 4/4: Shoulder Disarticulation and Interscapularthoracic amputations and prostheses
Dual-control cable	Same as above	371	Lecture 12 Week 4/4: Shoulder Disarticulation and Interscapularthoracic amputations and prostheses

Lower Limb Orthoses	**Course(s) Number/Title =**	**Page**	**Lecture/Activity**
Foot orthoses -	*PRO 3310C – Lower Limb Ox I*	223	- Lecture = 2A Foot Orthotic Treatment Plan - Lecture = 2B FO Materials & Components - Lecture = 2C Modifications for FOs - Lecture = 2D FO Coding & Documentation - Lecture = 3A Orthotic & Prosthetic Management of the Neuropathic Foot - Lecture = 5C Pediatric FOs, SMOs & AFOs

			- Ox Proj #1 = Casting Demonstration/Project Instruction - Ox Proj #3 = Casting Demonstration/Project Instructions - AAOP online module and exam = "Treatment of the Neuropathic Foot" - Discussion Board scenarios
Accommodative	Same as above	223	- Lecture = 3A Orthotic & Prosthetic Management of the Neuropathic Foot - Ox Proj #3 = Casting Demonstration - AAOP online module and exam = "Treatment of the Neuropathic Foot"
Supportive/corrective	Same as above	223	- Lecture = 2A Foot Orthotic Treatment Plan - Lecture = 2B FO Materials & Components - Lecture = 2C Modifications for FOs - Lecture = 2D FO Coding & Documentation - Ox Proj #1 = Casting Demonstration/Project Instruction
Rigid foot orthoses	Same as above	223	- Lecture = 2A Foot Orthotic Treatment Plan - Lecture = 2B FO Materials & Components - Lecture = 2C Modifications for FOs - Lecture = 2D FO Coding & Documentation - Ox Proj #1 = Casting Demonstration/Project Instruction
UCBL	*PRO 3310C – Lower Limb Ox I*	223	- Lecture = 2C Modifications for FOs - Lecture = 2D FO Coding & Documentation - Ox Proj #2 = Casting Demonstrations/Project Instruction
Thermoplastic ankle-foot orthosis (AFO) –	*PRO 3310C – Lower Limb Ox I*	223	- Lecture = 4A Orthotic Principles of AFOs - Lecture = 4E Coding and Documentation for AFOs - Lecture = 5A Patient Assessment & Treatment Plan for Plastic AFOs - Lecture = 5B Materials & Components for Plastic/Hybrid AFOs - Lecture = 5C Pediatric FOs, SMOs & AFOs - Ox Proj #6 = Casting Demonstration/Project Instructions - Ox Proj #7 = Synthesis Project

			- Discussion Board scenarios
Solid AFO	Same as above	223	- Ox Proj #6 = Casting Demonstration/Project Instructions - Ox Proj #7 = Synthesis Project - Discussion Board scenarios
Posterior Leaf Spring	Same as above	223	- Ox Proj #6 = Casting Demonstration/Project Instructions - Ox Proj #7 = Synthesis Project - Discussion Board scenarios
Articulated AFO	Same as above	223	- Ox Proj #6 = Casting Demonstration/Project Instructions - Ox Proj #7 = Synthesis Project - Discussion Board scenarios
Supramalleolar AFO	*PRO 3310C – Lower Limb Ox I*	223	- Lecture = 5C Pediatric FOs, SMOs and AFOs
Thermoplastic knee-ankle-foot orthoses (KAFO)			This course's content and syllabi are being updated presently to include this topic.
Hip-knee-ankle-foot orthoses (HKAFO)			This course's content and syllabi are being updated presently to include this topic.
Metal Systems -			
AFO	*PRO 3310C – Lower Limb Ox I*	223	- Lecture = 4A Orthotic Principles of AFOs - Lecture = 4D The Orthotic Treatment Plan for Metal AFOs - Lecture = 4E Coding and Documentation for AFOs - Lecture = 5B Materials &Components for Plastic/Hybrid AFOs - Ox Proj #5 = Delineation-Tracing Demonstration /Project Instruction - Discussion Board scenarios
KAFO			This course's content and syllabi are being updated presently to include this topic.
HKAFO			This course's content and syllabi are being updated presently to include this topic.
Hybrid Systems -			
AFO	*PRO 3310C – Lower Limb Ox I*	223	- Lecture = 4A Orthotic Principles of AFOs - Lecture = 4D The Orthotic Treatment Plan for Metal AFOs - Lecture = 4E Coding and Documentation for AFOs - Lecture = 5A Patient Assessment & Treatment Plan for Plastic AFOs - Lecture = 5B Material & Components for Plastic/Hybrid AFOs - Discussion Board scenarios
KAFO			This course's content and syllabi are being updated presently to

				include this topic.
	HKAFO			This course's content and syllabi are being updated presently to include this topic.
Axial Resist Systems -				
	AFO	*PRO 3310C – Lower Limb Ox I*	223	- Lecture = 4A Orthotic Principles of AFOs - Lecture = 5B Material & Components for Plastic/Hybrid AFOs - Lecture = 5D Axial Resist AFOs
	KAFO			This course's content and syllabi are being updated presently to include this topic.
CROW / neuropathic walker		*PRO 3310C – Lower Limb Ox I*	223	- Lecture = 3A Orthotic & Prosthetic Management of the Neuropathic Foot - Lecture = 3C CROW Boot/Neuropathic Walkers - Lecture = 4A Orthotic Principles of AFOs - Instructor Demonstration of Evaluation & Casting for CROW/neuropathic walker in week 3 - AAOP online module and exam = "Treatment of the Neuropathic Foot" - Discussion Board scenarios
Total contact cast application				During the self-study process, this has been noted as to be lacking from our current curriculum. It will be addressed and implemented for the next scheduled course.
Fracture orthoses		*PRO 3310C – Lower Limb Ox I*	223	- Lecture = 4A Orthotic Principles of AFOs - Lecture = 5A Patient Assessment & Treatment Plan for Plastic AFOs - Lecture = 5.E. Fracture Bracing - Discussion Board scenarios
Standing frames				This course's content and syllabi are being updated presently to include this topic.
Reciprocating gait orthoses				This course's content and syllabi are being updated presently to include this topic.
Knee Orthoses -				This course's content and syllabi are being updated presently to include this topic.
	Compartmental Unloading			This course's content and syllabi are being updated presently to include this topic.
	Rehabilitative/Post-			This course's content and syllabi are being updated presently to

	operative Stabilization			include this topic.
	Dynamic			This course's content and syllabi are being updated presently to include this topic.
Pediatric hip orthoses - Scottish Rite hip orthoses, Pavlik harness				This course's content and syllabi are being updated presently to include this topic.
Hip orthoses				This course's content and syllabi are being updated presently to include this topic.
Ankle Joints for plastic and metal -		*PRO 3310C – Lower Limb Ox I*	223	- Lecture = **Metal AFOs**: 4D The Orthotic Treatment Plan for Metal AFOs - Lecture - **Plastic AFOs**: 5.B. Materials and Components for Plastic/Hybrid AFOs
	Free motion	Same as above	223	- Ox Proj #5 = Delineation-Tracing Demonstration /Project Instruction - Ox Proj #6 = Casting Demonstration/Project Instruction - Ox Proj #7 = Synthesis Project
	Limited motion	Same as above	223	- Ox Proj #5 = Delineation-Tracing Demonstration /Project Instruction - Ox Proj #6 = Casting Demonstration/Project Instruction - Ox Proj #7 = Synthesis Project
	Assists/Resists	Same as above	223	- Ox Proj #5 = Delineation-Tracing Demonstration /Project Instruction - Ox Proj #6 = Casting Demonstration/Project Instruction - Ox Proj #7 = Synthesis Project
Knee Joints -				This course's content and syllabi are being updated presently to include this topic.
	Free motion (standard, offset)			This course's content and syllabi are being updated presently to include this topic.
	Locked (drop, bail, ratchet, step lock)			This course's content and syllabi are being updated presently to include this topic.
	Stance lock			This course's content and syllabi are being updated presently to include this topic.
	Free swing (stance control)			This course's content and syllabi are being updated presently to include this topic.
Hip Joints -				This course's content and syllabi are being updated presently to include this topic.

	Free motion			This course's content and syllabi are being updated presently to include this topic.
	Locking			This course's content and syllabi are being updated presently to include this topic.
	Reciprocating			This course's content and syllabi are being updated presently to include this topic.
Ankle, knee and hip stops, assists/resists		**Ankle Stops, Assists/Resists** - Course = *PRO 3310C – Lower Limb Ox I* **Knee and Hip Stops, Assists/Resists** - Course = *PRO 3311C – Lower Limb Ox II*	223	**Ankle Stops, Assists/Resists** - Lecture = **Metal AFOs**: 4D The Orthotic Treatment Plan for Metal AFOs - Lectures = **Plastic AFOs**: 5B Materials and Components for Plastic/Hybrid AFOs - Ox Proj #5 = Delineation-Tracing Demonstration /Project Instruction - Ox Proj #6 = Casting Demonstration/Project Instruction - Ox Proj #7 = Synthesis Project **Knee and Hip Stops, Assists/Resists** - Lecture = This course's content and syllabi are being updated presently to include this topic. - Project = This course's content and syllabi are being updated presently to include this topic.
Special modifications		*PRO 3310C – Lower Limb Ox I*	223	- Lecture = 2C Modifications for FOs
	Carlson modification	Same as above	223	- Ox Proj #1 = Casting Demonstration/Project Instruction - Ox Proj #6 = Casting Demonstration/Project Instruction - Ox Proj #7 = Synthesis Project
	Varus/valgus controls-modifications	Same as above	223	- Ox Proj #1 = Casting Demonstration/Project Instruction - Ox Proj #6 = Casting Demonstration/Project Instruction - Ox Proj #7 = Synthesis Project
	Mid/hind foot posting	Same as above	223	- Ox Proj #1 = Casting Demonstration/Project Instruction - Ox Proj #6 = Casting Demonstration/Project Instruction - Ox Proj #7 = Synthesis Project
	Thermoplastic thigh cuff designs	Same as above		This course's content and syllabi are being updated presently to include this topic.

Lower Limb Prostheses	Course(s) Number/Title =	Page	Lecture/Activity
Prosthetic Feet -	*PRO 3301C – Transtibial Prosthetics* And *PRO 4331C – Transfemoral Prosthetics*	201 263	***PRO 3301C – Transtibial Prosthetics*** - Lecture = 2ABiomechanical Principles of Transtibial Prosthetics - Lecture = 2D Prosthetic Feet & K-Levels - Lecture = 3A Bench Alignment - Lecture = 3C Coding for Transtibial & Symes Prostheses - Lecture = 3D Transtibial Prescription Recommendation - Lecture = 3E Static & Dynamic Alignment - Projs # 2, #3and #5 - #7 - AAOP online module and exam = "Prosthetic Foot/Ankle Mechanisms" - Discussion Board scenarios ***PRO 4331C – Transfemoral Prosthetics*** - Lecture = 2C Components and Suspension - Projs #4, #5 and #6 - Discussion Board scenarios
SACH	Same as above	201	- Px Proj #2 = Prosthetic Foot Identification - Px Proj #3 = PTB Prosthesis - Possibly Proj #7 = Synthesis Project
Flexible keel	Same as above	201	- Px Proj #2 = Prosthetic Foot Identification - Px Proj #3 = PTB Prosthesis - Possibly Proj #7 = Synthesis Project
Dynamic response	Same as above	201	- Px Proj #2 = Prosthetic Foot Identification - Px Proj #5 = Total Surface Bearing with Locking Liner Prosthesis - Px Proj #6 = Total Surface Bearing with Suction Prosthesis - Possibly Proj #7 = Synthesis Project
Articulated	Same as above	201	- Px Proj #2 = Prosthetic Foot Identification - Px Proj #5 = Total Surface Bearing with Locking Liner Prosthesis - Px Proj #6 = Total Surface Bearing with Suction Prosthesis - Possibly Proj #7 = Synthesis Project

	Articulated, simulated	Same as above	201	- Px Proj #2 = Prosthetic Foot Identification - Px Proj #5 = Total Surface Bearing with Locking Liner Prosthesis - Px Proj #6 = Total Surface Bearing with Suction Prosthesis - Possibly Proj #7 = Synthesis Project
	Hybrid feet	Same as above	201	- Px Proj #2 = Prosthetic Foot Identification - Px Proj #5 = Total Surface Bearing with Locking Liner Prosthesis - Px Proj #6 = Total Surface Bearing with Suction Prosthesis - Possibly Proj #7 = Synthesis Project
Vertical shock, feature		*PRO 3301C – Transtibial Prosthetics* & *PRO 4331C – Transfemoral Prosthetics*	201 263	***PRO 3301C – Transtibial Prosthetics*** - Lecture = 2D Prosthetic Feet & K-Levels - AAOP online module and exam = "Prosthetic Foot/Ankle Mechanisms" - Discussion Board scenarios ***PRO 4331C – Transfemoral Prosthetics*** - Lecture 2C – Components and Suspension
Heel height adjustability		*PRO 3301C – Transtibial Prosthetics*	201	- Lecture = 2D Prosthetic Feet & K-Levels
Post-Operative Issues				
Post-op volume management		*PRO 3301C – Transtibial Prosthetics* & *PRO 43331C – Transfemoral Prosthetics*	201 263	***PRO 3301C – Transtibial Prosthetics*** - Lecture = 1E Postoperative Management of the Lower Extremity Amputation - Lecture = 1F Early & Temporary Prosthetic Fitting - Px Proj #1a –c = Elastic Bandage Wrapping, Shrinker Measurement & Fitting and Post-Operative Prosthetic Fitting - AAOP online module and Exam "Postoperative Management of the Lower Extremity Amputation" - Discussion Board scenarios ***PRO 43331C – Transfemoral Prosthetics*** - Lecture 1C Postoperative Management of the TF Lower Extremity Amputation - Px Proj #1a & #1b – Elastic Bandage Wrapping & Shrinker Fitting - Discussion Board scenarios

Soft dressings	Same as above	201 263	***PRO 3301C – Transtibial Prosthetics*** - Lecture = 1E Postoperative Management of the Lower Extremity Amputation - Lecture = 1F Early & Temporary Prosthetic Fitting - Px Proj #1a –c = Elastic Bandage Wrapping, Shrinker Measurement & Fitting and Post-Operative Prosthetic Fitting - AAOP online module and Exam "Postoperative Management of the Lower Extremity Amputation" - Discussion Board scenarios ***PRO 43331C – Transfemoral Prosthetics*** - Lecture 1C Postoperative Management of the TF Lower Extremity Amputation - Px Proj #1a & #1b – Elastic Bandage Wrapping & Shrinker Fitting - Discussion Board scenarios
Removable and non-removable rigid dressings	Same as above	201 263	***PRO 3301C – Transtibial Prosthetics*** - Lecture = 1E Postoperative Management of the Lower Extremity Amputation - Lecture = 1F Early & Temporary Prosthetic Fitting - Px Proj #1a –c = Elastic Bandage Wrapping, Shrinker Measurement & Fitting and Post-Operative Prosthetic Fitting - AAOP online module and Exam "Postoperative Management of the Lower Extremity Amputation" - Discussion Board scenarios ***PRO 43331C – Transfemoral Prosthetics*** - Lecture 1C Postoperative Management of the TF Lower Extremity Amputation - Px Proj #1a & #1b – Elastic Bandage Wrapping & Shrinker Fitting - Discussion Board scenarios
Immediate postoperative prostheses	Same as above	201	*PRO 3301C – Transtibial Prosthetics* - Lecture = 1E Postoperative Management of the Lower Extremity

			Amputation - Lecture = 1F Early & Temporary Prosthetic Fitting - Px Proj #1a –c = Elastic Bandage Wrapping, Shrinker Measurement & Fitting and Post-Operative Prosthetic Fitting - AAOP online module and Exam "Postoperative Management of the Lower Extremity Amputation" - Discussion Board scenarios ***PRO 43331C – Transfemoral Prosthetics*** - Lecture 1C Postoperative Management of the TF Lower Extremity Amputation - Px Proj #1a & #1b – Elastic Bandage Wrapping & Shrinker Fitting - Discussion Board scenarios
Preparatory prostheses	*PRO 3301C – Transtibial Prosthetics*	201	- Lecture = 1E Postoperative Management of the Lower Extremity Amputation - Lecture = 1F Early & Temporary Prosthetic Fitting - Discussion Board scenarios
Diagnostic sockets	*PRO 3301C – Transtibial Prosthetics* *&* *PRO 4331C – Transfemoral Prosthetics*	201 263	***PRO 3301C – Transtibial Prosthetics*** - Px Projs = Projects #3 - #7 - Discussion Board scenarios ***PRO 4331C – Transfemoral Prosthetics*** - Projects # 2, #4 - #6 - Discussion Board scenarios
Partial Foot			
Toe filler	*PRO 3301C – Transtibial Prosthetics* and *PRO 3310 C – Lower Limb Ox I*	201 223	- Lecture = Ox & Px Management of the Neuropathic Foot (1.G. for Transtibial Prosthetics and 3.A. for Lower Limb Ox I) - Lecture = Partial Foot Prostheses (1.H. for Transtibial Prosthetics and 3.B. for Lower Limb Ox I) - Ox Proj #3 = Casting Demonstration - AAOP online module and exam = "Treatment of the Neuropathic

			Foot" - AAOP online module and exam = "Biomechanics of Ambulation After Partial Foot Amputation" - Discussion Board scenarios
Slipper prostheses	Same as above	201 223	- Lecture = Ox & Px Management of the Neuropathic Foot (1.G. for Transtibial Prosthetics and 3.A. for Lower Limb Ox I) - Lecture = Partial Foot Prostheses (1.H. for Transtibial Prosthetics and 3.B. for Lower Limb Ox I) - Ox Proj #3 = Casting Demonstration - AAOP online module and exam = "Treatment of the Neuropathic Foot" - AAOP online module and exam = "Biomechanics of Ambulation After Partial Foot Amputation" - Discussion Board scenarios
Rocker sole, rigid sole shoe modification	*PRO 3310 C – Lower Limb Ox I*	**223**	- Lecture 3D = Shoes & Shoe Modifications - Ox Proj #4 = Shoe & Shoe Modifications – Demonstrations & project instructions
Solid/articulated AFO style partial foot prostheses	*PRO 3301C – Transtibial Prosthetics* And *PRO 3310 C – Lower Limb Ox I*	201 223	- Lecture = Ox & Px Management of the Neuropathic Foot (1.G. for Transtibial Prosthetics and 3.A. for Lower Limb Ox I) - Lecture = Partial Foot Prostheses (1.H. for Transtibial Prosthetics and 3B for Lower Limb Ox I) - Ox Proj #3 = Casting Demonstration - AAOP online module and exam = "Treatment of the Neuropathic Foot" - AAOP online module and exam = "Biomechanics of Ambulation After Partial Foot Amputation" - Discussion Board scenarios
Silicone prostheses	*PRO 3301C – Transtibial Prosthetics* and *PRO 3310 C – Lower Limb Ox I*	201	- Lecture = Ox & Px Management of the Neuropathic Foot (1.G. for Transtibial Prosthetics and 3.A. for Lower Limb Ox I) - Lecture = Partial Foot Prostheses (1.H. for Transtibial Prosthetics and 3.B. for Lower Limb Ox I) - Ox Proj #3 = Casting Demonstration

		223	- AAOP online module and exam = "Treatment of the Neuropathic Foot" - AAOP online module and exam = "Biomechanics of Ambulation After Partial Foot Amputation" - Discussion Board scenarios
Posterior opening prostheses	*PRO 3301C – Transtibial Prosthetics* and *PRO 3310 C – Lower Limb Ox I*	201 223	- Lecture = Ox & Px Management of the Neuropathic Foot (1.G. for Transtibial Prosthetics and 3.A. for Lower Limb Ox I) - Lecture = Partial Foot Prostheses (1.H. for Transtibial Prosthetics and 3.B. for Lower Limb Ox I) - Ox Proj #3 = Casting Demonstration - AAOP online module and exam = "Treatment of the Neuropathic Foot" - AAOP online module and exam = "Biomechanics of Ambulation After Partial Foot Amputation" - Discussion Board scenarios
Syme			
Patellar tendon bearing	*PRO 3301C – Transtibial Prosthetics*	201	- Lecture = 4B Socket Designs & Prosthetic Feet for the Syme's Ankle Disarticulation Prosthesis - Lecture = 4C Biomechanics of the Ankle Disarticulation Prosthesis
Total surface bearing	Same as above	201	- Lecture = 4B Socket Designs & Prosthetic Feet for the Syme's Ankle Disarticulation Prosthesis - Lecture = 4C Biomechanics of the Ankle Disarticulation Prosthesis
Posterior opening	Same as above	201	- Lecture = 4B Socket Designs & Prosthetic Feet for the Syme's Ankle Disarticulation Prosthesis - Lecture = 4C Biomechanics of the Ankle Disarticulation Prosthesis
Medial opening	Same as above	201	- Lecture = 4B Socket Designs & Prosthetic Feet for the Syme's Ankle Disarticulation Prosthesis - Lecture = 4C Biomechanics of the Ankle Disarticulation Prosthesis
Expandable wall socket	Same as above	201	- Lecture = 4B Socket Designs & Prosthetic Feet for the Syme's Ankle Disarticulation Prosthesis - Lecture = 4C Biomechanics of the Ankle Disarticulation Prosthesis
Foam sleeve suspension in continuous socket			During the self-study process, this has been noted as to be lacking from our current curriculum. It will be addressed and implemented for the next scheduled course.
Transtibial			

Patellar tendon bearing	*PRO 3301C – Transtibial Prosthetics*	201	- Lecture = 2A Biomechanical Principles of Transtibial Prosthetics - Lecture = 2B Transtibial Socket Design, Components and Suspension - Lecture = 3A Bench Alignment - Lecture = 3C Coding for Transtibial & Symes Prostheses - Lecture = 3D Transtibial Prescription Recommendation - Lecture = 3E Static & Dynamic Alignment - Px Proj # 3 = Demonstration & project instructions - Px Proj #4 = Demonstration & project instruction - Possibly Px Proj #7 = Synthesis Project
Total surface bearing	*PRO 3301C – Transtibial Prosthetics*	201	- Lecture = 2A Biomechanical Principles of Transtibial Prosthetics - Lecture = 2B Transtibial Socket Design, Components and Suspension - Lecture = 3A Bench Alignment - Lecture = 3C Coding for Transtibial & Symes Prostheses - Lecture = 3D Transtibial Prescription Recommendation - Lecture = 3E Static & Dynamic Alignment - Lecture = 3F Total Surface Bearing - Px Proj #5 = Demonstration & project instruction - Px Proj #6 = Demonstration & project instruction - Possibly Px Proj #7 = Synthesis project
Liners, gel, etc.	*PRO 3301C – Transtibial Prosthetics*	201	- Lecture = 2A Biomechanical Principles of Transtibial Prosthetics - Lecture = 2B Transtibial Socket Design, Components and Suspension - Lecture = 3D Transtibial Prescription Recommendation - Px Proj #5 = Demonstration & project instruction - Px Proj #6 = Demonstration & project instruction - Possibly Px Proj #7 = Synthesis project
Socks	*PRO 3301C – Transtibial Prosthetics*	201	- Lecture = 1F Early & Temporary Prosthetic Fitting - Lecture = 2C Prosthetic Socks - Px Projs #3 - #7 = Demonstration & project instruction
Suspension -	*PRO 3301C – Transtibial Prosthetics*	201	- Lecture = 2A Biomechanical Principles of Transtibial Prosthetics - Lecture = 2B Transtibial Socket Design, Components and

				Suspension - Px Projs #3 - #7 = Demonstration & project instruction
	Suspension sleeves	Same as above	201	- Px Proj #3 = PTB Prosthesis
	Locking mechanisms	Same as above	201	- Px Proj #5 = Total Surface Bearing with Locking Liner Prosthesis - Possibly Px Proj #7 = Synthesis Project
	Suction with gel liner	Same as above	201	- Px Proj #6 = Total Surface Bearing with Suction Liner Prosthesis - Possibly Px Proj #7 = Synthesis Project
	Vacuum assist suspension	*PRO 3301C – Transtibial Prosthetics* *PRO 40xxC Advanced Topics in O&P)*	201 310	- Lecture = 2B Transtibial Socket Design, Components and Suspension & Lecture = Unit 9 Advances in Suspension Variations
	Suprapatellar cuff	Same as above	201	- Px Proj #3 = PTB Prosthesis
	Supracondylar (SC), supracondylar-suprapatellar (SC-SP)	Same as above	201	- Px Proj #4 = PTB SC/SP Prosthesis
	Joint and thigh lacer	Same as above	201	- Lecture =2B Transtibial Socket Design, Components and Suspension
	Waist belt and fork strap	Same as above	201	- Lecture =2B Transtibial Socket Design, Components and Suspension
Knee Disarticulation				
Polycentric knees		*PRO 4331C – Transfemoral Prosthetics*	268	- Lecture = 4B Knee Disarticulation – Prosthetic Management
Outside knee joints		Same as above	268	- Lecture = 4B Knee Disarticulation – Prosthetic Management
Condylar suspension (foam liner, inner sleeve, medial opening, molded socket)				During the self-study process, this has been noted as to be lacking from our current curriculum. It will be addressed and implemented for the next scheduled course.
Transfemoral				
Prosthetic Knees -		*PRO 4331C – Transfemoral Prosthetics*	268	- Lecture = 2A Biomechanical Principles of Transfemoral Prosthetics - Lecture = 2D K-Levels & Prosthetic Knees - Lecture = 2E Quad Brim Bench Alignment - Lecture = 2F Transfemoral Gait Deviations - Lecture = 3B Transfemoral Prescription Recommendation

				- Lecture = 3C Coding for Transfemoral Prostheses - Lecture = 4B Knee Disarticulation – Prosthetic Management - Lecture = 4D Hip Disarticulation & Transpelvic Biomechanics - Lecture = 4E Hip Disarticulation & Transpelvic Components - Lecture = 4F Bilateral Lower Limb Amputations - Px Projs #4 - #6 - Discussion Board scenarios
	Mechanical knees	Same as above	268	- Px Proj #4 = IC Prosthesis with Suction Suspension - Px Proj #5 = IC Flexible Socket/Rigid Frame Prosthesis - Possibly Px Proj #6 = Synthesis Project
	Microprocessor knees	*PRO 4331C – Transfemoral Prosthetics &* *PRO 40xxC Advanced Topics in O&P*	268 310	- Lecture = 2D K-Levels & Prosthetic Knees & Lecture = Unit 8 Advances in Prosthetic Knee and Hip Design Lab Exercise/Activity 8 = Fit & function of powered knee and hip - students will have opportunity to meet with industry experts and then observe/assist fittings of patient models with various microprocessor knees
	Axis - single, polycentric	Same as above	268	- Px Proj #4 = IC Prosthesis with Suction Suspension - Px Proj #5 = IC Flexible Socket/Rigid Frame Prosthesis - Possibly Px Proj #6 = Synthesis Project
	Cadence control - constant friction, fluid	Same as above	268	- Px Proj #4 = IC Prosthesis with Suction Suspension - Px Proj #5 = IC Flexible Socket/Rigid Frame Prosthesis - Possibly Px Proj #6 = Synthesis Project
	Stance control – geometric lock, manual lock, fluid	Same as above	268	- Px Proj #4 = IC Prosthesis with Suction Suspension - Px Proj #5 = IC Flexible Socket/Rigid Frame Prosthesis - Possibly Px Proj #6 = Synthesis Project
	Stance flexion	Same as above	268	- Px Proj #4 = IC Prosthesis with Suction Suspension - Px Proj #5 = IC Flexible Socket/Rigid Frame Prosthesis - Possibly Px Proj #6 = Synthesis Project
Socket Design -		*PRO 4331C – Transfemoral Prosthetics*		
	Quadrilateral	Same as above	268	- Lecture = 2A Biomechanical Principles of Transfemoral Prosthetics - Lecture = 2B Transfemoral Quadrilateral Socket Design &

				Anatomical Relationship - Lecture = 2D Quad Brim Bench Alignment - Lecture = 3B Transfemoral Prescription Recommendation - Lecture = 3C Coding for Transfemoral Prosthetics - Px Proj #2 = Quad Brim Casting Exercise - Discussion Board scenarios
	Ischial containment design variations	Same as above	268	- Lecture = 2A Biomechanical Principles of Transfemoral Prosthetics - Lecture = 2C Transfemoral Suspension and Components - Lecture = 3A Evolution of Ischial Containment Socket Design - Lecture = 3B Transfemoral Prescription Recommendation - Lecture = 3C Coding for Transfemoral Prosthetics - Px Proj #3 = IC Casting Exercise - Px Proj #4 = IC Prosthesis with Suction Suspension - Px Proj #5 = IC Flexible Socket/Rigid Frame Prosthesis - Possibly Px Proj #6 = Synthesis Project - Discussion Board scenarios
	Flexible inner liner with rigid frame	Same as above	268	- Lecture = 2A Biomechanical Principles of Transfemoral Prosthetics - Lecture = 2C Transfemoral Suspension and Components - Lecture = 3A Evolution of Ischial Containment Socket Design - Lecture = 3B Transfemoral Prescription Recommendation - Lecture = 3C Coding for Transfemoral Prosthetics - Px Proj #5 = IC Flexible Socket/Rigid Frame Prosthesis - Possibly Px Proj #6 = Synthesis Project - Discussion Board scenarios
Suspension -		*PRO 4331C – Transfemoral Prosthetics*		
	Silesian bandage	Same as above	268	- Lecture = 2C Transfemoral Suspension & Components
	Elastic belt	Same as above	268	Same as above
	Hip joint and pelvic belt	Same as above	268	Same as above
	Locking mechanisms	Same as above	268	- Px Proj #5 = IC Flexible Socket/Rigid Frame Prosthesis
	Suction suspension	Same as above	268	- Px Proj #4 = IC Socket with Suction Suspension

	Suction with gel liner	Same as above	268	- Px Proj #5 = IC Flexible Socket/Rigid Frame Prosthesis
	Vacuum assist suspension	*PRO 4331C – Transfemoral Prosthetics &* *PRO 40xxC Advanced Topics in O&P*	268 310	- Lecture = 2C Transfemoral Suspension and Components & Lecture = Unit 9 Advances in Suspension Variations
Liners, gel, etc.		*PRO 4331C – Transfemoral Prosthetics*	268	- Lecture = 2C Transfemoral Suspension & Components
Socks		*PRO 4331C – Transfemoral Prosthetics*	268	- Lecture 1C Postoperative Management of the TF Lower Extremity Amputation - Lecture = 2C Transfemoral Suspension and Components - Px Projs #1b, #4 - #6 = Demonstrations & project instruction - Discussion Board scenarios
Hip Disarticulation / Transpelvic / Translumbar				
One-piece socket design		*PRO 4331C – Transfemoral Prosthetics*	268	- Lecture = 4D Hip Disarticulation & Transpelvic Biomechanics - Lecture = 4E Hip Disarticulation & Transpelvic Components - Discussion Board scenarios
Two-piece socket design		Same as above	268	Same as above
Iliac suspension		Same as above	268	Same as above
Custom gel liner suspension		Same as above	268	Same as above

Spinal Orthoses	**Course(s) Number/Title =**	**Page**	**Lecture/Activity**
Custom fit cervical orthoses (CO) – soft, semi-rigid, rigid	*PRO 4371C – Spinal Orthotics*	358	Lecture = 1C Introduction to Spinal Orthoses Lecture = 1D Design Principles and Biomechanical Basis for Spinal Orthoses Lecture = 2A Orthotic Management of Spinal Disorders Lecture = 2B Orthotic Management of Spinal Trauma Lecture = 2C Coding and Documentation for Spinal Orthoses

			Proj #6 = Off-the-Shelf COs, CTOs & HALOs - Students measure & fit each other with off-the-shelf devices (at a minimum: foam collar, Philly collar, Miami J, SOMI, Minerva and HALO vest fitting with simulated ring and pin placement); assess fit & function; instructor critique - Discussion Board scenarios
Cervical-thoracic orthoses (CTO) - HALO, Minerva	Same as above	358	Same as above
Custom fit thoracic-lumbar-sacral orthoses (**TLSO**) - **soft/flexible**, sagittal control, sagittal-coronal control	Same as above	358	Lecture = 1C Introduction to Spinal Orthoses Lecture = 1D Design Principles and Biomechanical Basis for Spinal Orthoses Lecture = 2A Orthotic Management of Spinal Disorders Lecture = 2B Orthotic Management of Spinal Trauma Lecture = 2C Coding and Documentation for Spinal Orthoses - Proj #4 = Off-the-Shelf TLSOs & LSOs - Students measure & fit each other with off-the-shelf devices (at a minimum: Jewetts, CASH, TLSO corsets, Chairback, Knight-Taylor, and modular LSOs & TLSOs); assess fit & function; instructor critique - Discussion Board scenarios
Custom fit thoracic-lumbar-sacral orthoses (**TLSO**) - **rigid,** sagittal control, sagittal-coronal control	Same as above	358	Same as above
Custom-fabricated thoracic–lumbar-sacral orthoses (**TLSO**) - **rigid**, sagittal control, sagittal-coronal control	Same as above	358	Lecture = 1C Introduction to Spinal Orthoses Lecture = 1D Design Principles and Biomechanical Basis for Spinal Orthoses Lecture = 2A Orthotic Management of Spinal Disorders Lecture = 2B Orthotic Management of Spinal Trauma Lecture = 2C Coding and Documentation for Spinal Orthoses Proj #5 = Custom fabricated bivalved TLSO Body Jacket - Students assess, measure and image capture patient models; a positive model is created and modified; thermoform and finish device; assess fit & function on patient models; instructor critique

			- Discussion Board scenarios
Custom fit lumbar-sacral orthoses (**LSO**) – **soft/flexible**, sagittal control, sagittal-coronal control, posterior-coronal control	Same as above	358	Lecture = 1C Introduction to Spinal Orthoses Lecture = 1D Design Principles and Biomechanical Basis for Spinal Orthoses Lecture = 2A Orthotic Management of Spinal Disorders Lecture = 2B Orthotic Management of Spinal Trauma Lecture = 2C Coding and Documentation for Spinal Orthoses - Proj #4 = Off-the-Shelf TLSOs & LSOs - Students measure & fit each other with off-the-shelf devices (at a minimum: Jewetts, CASH, TLSO corsets, Chairback, Knight-Taylor, and modular LSOs & TLSOs); assess fit & function; instructor critique - Discussion Board scenarios
Custom fit lumbar-sacral orthoses (**LSO**) – **rigid,** sagittal control, sagittal-coronal control, posterior-coronal control	Same as above	358	Same as above
Custom fabricated lumbar-sacral orthoses (**LSO**) - **rigid**, sagittal control, sagittal-coronal control, posterior-coronal control	Same as above	358	Lecture = 1C Introduction to Spinal Orthoses Lecture = 1D Design Principles and Biomechanical Basis for Spinal Orthoses Lecture = 2A Orthotic Management of Spinal Disorders Lecture = 2B Orthotic Management of Spinal Trauma Lecture = 2C Coding and Documentation for Spinal Orthoses Proj #3 = Custom fabricated Anterior Opening LSO - Students assess, measure and image capture patient models; a positive model is created and modified; thermoform and finish device; assess fit & function on patient models; instructor critique - Discussion Board scenarios
Scoliosis Treatments -	*PRO 4371C – Spinal Orthotics*	358	Lecture = 1C Introduction to Spinal Orthoses Lecture = 1D Design Principles and Biomechanical Basis for Spinal Orthoses Lecture = 3A Introduction to Scoliosis and Kyphosis Lecture = 3B X-Ray & Clinical Assessment for Scoliosis and

			Kyphosis Lecture = 3C Orthotic Management for Scoliosis and Kyphosis Lecture = 3D Coding and Documentation for Scoliosis and Kyphosis - AAOP OLC module = "Orthotic Treatment of Idiopathic Scoliosis & Scheuermann's Kyphosis"
Cervical-thoracic-lumbar-sacral orthoses (CTLSO) - Milwaukee	Same as above	358	Same as above
TLSOs for treatment of scoliosis: low profile - custom made and custom fit, nocturnal orthoses	Same as above	358	Same as above
Sacral orthoses	*PRO 4371C – Spinal Orthotics*	358	Lecture = 1C Introduction to Spinal Orthoses Lecture = 1D Design Principles and Biomechanical Basis for Spinal Orthoses Lecture = 2A Orthotic Management of Spinal Disorders Lecture = 2B Orthotic Management of Spinal Trauma Lecture = 2C Coding & Documentation for Spinal Orthoses
Special modifications -	*PRO 4371C – Spinal Orthotics*		
Thigh extensions	Same as above	358	Lecture = 1C Introduction to Spinal Orthoses Lecture = 1D Design Principles and Biomechanical Basis for Spinal Orthoses Lecture = 2A Orthotic Management of Spinal Disorders Lecture = 2B Orthotic Management of Spinal Trauma Lecture = 2C Coding & Documentation for Spinal Orthoses
Rotary control techniques	Same as above	358	Lecture = 1C Introduction to Spinal Orthoses Lecture = 1D Design Principles and Biomechanical Basis for Spinal Orthoses Lecture = 3C Orthotic Management for Scoliosis and Kyphosis Lecture = 3D Coding and Documentation for Scoliosis and Kyphosis

				Proj #7 = Scoliosis Orthosis - Students will practice blue-printing sample radiographs of various types of scoliotic curves; Students will also participate in Boston Brace's demonstration of scoliosis brace fabrication by use of mini-foam modules; Students will work with miniaturized foam modules and will then transfer trimlines from a blueprinted radiograph to the foam module to simulate what would happen clinically for a low-profile scoliosis fitting; final trimmed out device will be presented to the instructor for evaluation and critique.
	Trochanteric extension	Same as above	358	Same as above
	Lumbar pads for scoliosis	Same as above	358	Same as above
	Thoracic pads for scoliosis	Same as above	358	Same as above

Cranial management	**Course(s) Number/Title =**	**Page**	**Lecture/Activity**
Cranial molding helmet	*PRO 4371C – Spinal Orthotics*	358	Lecture = 4B Cranial Deformities Lecture = 4C Skull Assessment Lecture = 4D Orthotic Management of the Skull - AAOP OLC module = "Orthotic Treatment of Deformational Plagiocephaly, Brachycephaly and Scaphocephaly" Proj # 8 = Shaping Helmets - Students are assigned a foamed infant head from the instructor; student has to assess, measure and capture a negative impression of the head; Student then has to write out a recommendation for a treatment plan to include clinical findings, measurements, identification of the type of cranial shape and then a recommendation; paperwork is evaluated and critiqued by the instructor.
Facial orthoses	*PRO 40xxC – Advanced Topics in O & P Orthotics*	310	Lecture = Unit 10 Advances in Cosmetic Covering and Design Lab Exercise/Activity 10 = Face mold

			- Students will work in pairs and capture negative impressions of each other's facial contours

Appendix 8e)
Completed Form B-8c number of contact hours for each subject taught I each of the courses for Section C.8.5

Form B-8c

Directions: This form provides the Program the opportunity for verification of compliance with the Standards and Guidelines. This verification should be supported by information or data which should appear in an appendices section of the Self-Study Report. This form is for Section C.8.5 for Upper Limb Orthoses, Upper Limb Prostheses, Lower Limb Orthoses, Lower Limb Prostheses, and Spinal Orthoses. Provide the course title and name, the page where the information is located in the self-study and the student learning experience for the content listed in Standards C.5. **Each student must fabricate and fit devices specified in all #5's in section C.8. For items that are not custom fabricated, they must be fit. For items that are modifications or components, they are to be included in a device that is being fabricated and fit.**
#5 – Supervised assessment, formulation of treatment plan and implementation of device design, fabrication, fitting and patient education:

Upper Limb Orthoses	**Course(s) Number/Title =**	**Page(s)**	**Student Experience**
Thermoplastic and metal wrist-hand orthoses (WHO)	*PRO 4371C - Upper Extremity Orthotics*	259	- Proj #3 = Thermoplastic WHO - students assess, measure & mold each other OR patient model (if available); modify positive; thermoform; trim, strap & finish device; assess fit & function; instructor critique - Proj #2 = Metal WHO - students assess, measure & mold each other OR patient model (if available); fabricate from kit; assess fit & function; possibly add outriggers (if clinically recommended); re-fit and again assess fit and function; instructor critique - Proj #4 = Prehension Orthosis (Wrist Driven WHO) - students assess, measure and mold each other OR patient model (if available); modify positive impression of fingers; fabricate from kit, assess fit & function; instructor critique
Prehension orthoses	Same as above	259	- Proj #4 = Prehension Orthosis (Wrist Driven WHO) - students assess, measure and mold each other OR patient model (if available); modify positive impression of fingers; fabricate from kit, assess fit & function; instructor critique
Shoulder-elbow-wrist-hand orthoses, custom fit	Same as above	259	- Proj #5 = custom molded SEWHO - students assess, measure & mold each other OR patient model (if available); modify positive; thermoform, trim, strap & finish; instructor critique - Proj #7 = Custom Fitting Lab - students will work in pairs and have an opportunity to fit each other with

			at one or two of each level of device: **SEWHO** = Mobile Arm Support, Airplane Splint, Gunslinger Orthosis and Shoulder Abduction Orthosis; **EO** = Tennis Elbow, ROM Ox (free, limited & locked motion); **Fracture Orthoses** = Humeral & Ulnar; **WHO** = Carpal Tunnel; Thumb Spica;

Upper Limb Prostheses	**Course(s) Number/Title =**	**Page**	**Student Experience**
Terminal Devices -	*PRO 4361 Upper Extremity Prosthetics*		
Voluntary Opening	Same as above	370	Proj #1 – Mock Prosthesis - Students measure and cast another student, modify positive impressions, fabricate mock transradial socket with constant friction wrist unit, assemble figure of 8 harness, triceps cuff, flexible hinges, VO hook, and single cable. Then students will fit the prosthesis and evaluate the function.
Wrists, constant friction	Same as above	370	Proj #1 – same as above
Flexible hinges	Same as above	370	Proj #1 – same as above
Elbow joints, conventional	Same as above	370	Proj #4 – Transhumeral Prosthesis - Students evaluate, measure and cast a transhumeral patient, modify the positive models and pull test sockets, fit suction test sockets and pour model for fabrication, assemble figure of 8 harness, dual control cable, conventional elbow, and fit the completed prosthesis.
Transradial		370	Proj # 1 – same as above
Figure 9 harness	Same as above	370	Proj # 3 – Duplicating self suspending prosthesis - Students will duplicate their self suspending prosthesis, laminate the socket and assemble a Figure of 9 harness.
Figure 8 harness	Same as above	370	Proj #1 – same as above
Anatomical suspension variants	Same as above	370	Proj #2 – Self Suspending Prosthesis - Students will cast a transradial patient model for a Muenster style suspension, modify the positive model, pull and fit test sockets.
Single control cable	Same as above		
Transhumeral	*PRO 4361 Upper Extremity Prosthetics*	370	Proj #4 – Transhumeral Prosthesis - students evaluate, measure & cast TH patient models; modify positive

					impressions; pull & finish suction test socket; re-pull &/or re-fabricate TH suction socket; assemble figure of 8 harness, dual control cable & attach forearm; fit & assess function; instructor critique
		Figure 8 harness	Same as above	370	Same as above
		Dual-control cable	Same as above	370	Same as above

Lower Limb Orthoses	**Course(s) Number/Title =**	**Page**	**Student Experience**
Foot Orthoses -	*PRO 3310C – Lower Limb Ox I*		
Accommodative -	Same as above	223	*PRO 3310C – Lower Limb Ox I* - Proj #3 = Accommodative Foot Ox - students conduct partial weight bearing casting of each other; assess negative impression; critique by instructor - Proj #4 = Custom Shoes & Shoe Modifications (accommodative casting) - students capture bivalved weight bearing impression for custom shoes; critique by instructor
Supportive/Corrective -	Same as above	223	Proj #1 = Supportive FO and Rigid FO – - students cast each other with either Foam art, slipper casting, digital scanner &/or circumferential wrapping; modify positive incorporating Carlson Modification; fabricate devices (supportive of cork & rigid of thermoplastic); assess fit & function; critique by instructor
Rigid -	Same as above	223	Proj #1 = Supportive FO and Rigid FO – - students cast each other with either Foam art, slipper casting, digital scanner &/or circumferential wrapping; modify positive; fabricate devices (supportive of cork & rigid of thermoplastic); assess fit & function; critique by instructor
UCBL	*PRO 3310C – Lower Limb Ox I*	223	Proj #2 = UCBL – - students capture impression of each other's foot OR of patient model utilizing circumferential wrapping technique; modify positive incorporating Carlson Modification; fabricate; assess fit & function; critique by instructor
Thermoplastic ankle-foot orthoses (AFO) -	*PRO 3310C – Lower Limb Ox I*	223	
Solid AFO -	Same as above	223	Proj #6 = Plastic AFOs – - 2 students work with 1 patient model; Students assess and evaluate patient model; Instructor assigns each student a biomechanically different device with specific ankle settings (either solid AFO [to be converted later to PLS] or articulating AFO); students assess and evaluate patient model;

				capture 2 impressions; each student modifies their positive model; students proceed through complete fabrication & fitting process of each device; students will have to then write up a detailed report of how & why their particularly assigned AFO design is or is not clinically appropriate for that patient and present to instructor for critique Possibly Proj #7 = Synthesis Project – - students assess patient models and determine the most appropriate device for patient: solid AFO or Posterior Leaf Spring AFO or Articulate AFO; student then proceeds through complete fabrication & fitting process; instructor critique
	Posterior Leaf Spring AFO -	Same as above	223	Proj #6 = Plastic AFOs – - 2 students work with 1 patient model; Students assess and evaluate patient model; Instructor assigns each student a biomechanically different device with specific ankle settings (either solid AFO [to be converted later to PLS] or articulating AFO); students assess and evaluate patient model; capture 2 impressions; each student modifies their positive model; students proceed through complete fabrication & fitting process of each device; students will have to then write up a detailed report of how & why their particularly assigned AFO design is or is not clinically appropriate for that patient and present to instructor for critique Possibly Proj #7 = Synthesis Project – - students assess patient models and determine the most appropriate device for patient: solid AFO or Posterior Leaf Spring AFO or Articulate AFO; student then proceeds through complete fabrication & fitting process; instructor critique
	Articulated AFO -	Same as above	223	Proj #6 = Plastic AFOs – - 2 students work with 1 patient model; Students assess and evaluate patient model; Instructor assigns each student a biomechanically different device with specific ankle settings (either solid AFO [to be converted later to PLS] or articulating AFO); students assess and evaluate patient model; capture 2 impressions; each student modifies their positive model; students proceed through complete fabrication & fitting process of each device; students will have to then write up a detailed report of how & why their particularly assigned AFO design is or is not clinically appropriate for that patient and present to instructor for critique Possibly Proj #7 = Synthesis Project – - students assess patient models and determine the most appropriate device for patient: solid AFO or Posterior Leaf Spring AFO or Articulate AFO; student then proceeds through complete measuring, casting, fabrication & fitting process; instructor critique

Thermoplastic knee-ankle-foot orthoses (KAFO)	*PRO 3311 – Lower Limb Orthotics II*	290	Proj #3 = Thermoplastic KAFO - students assess, measure and cast patient models; a positive model is created and modified; thermoformed plastic; knee joints attached & uprights contoured; edges finished and straps attached; device fit & assessed for function; instructor critique
Metal Systems -			
AFO -	*PRO 3310C – Lower Limb Ox I*	223	Proj #5 = Metal AFO – - students assess, measure and trace each other; schema prepared & utilized; calf band contoured; stirrup contoured & shoe attached; double action ankle joints attached & set-up to specific settings (i.e. locked, full or partial motion with or without assist/resist); uprights contoured; straps and closures completed; fit and function assessed; instructor critique
KAFO -	*PRO 3311 – Lower Limb Orthotics*	290	Proj #2 = Metal KAFO - students assess, measure and trace each other; schema prepared & utilized; calf & thigh bands contoured; stirrup contoured & shoe attached; double action ankle joints attached & set-up to specific settings (i.e. locked, full or partial motion with or without assist/resist); knee joints attached (either free motion with or without drop locks); uprights contoured; straps and closures completed; fit and function assessed; instructor critique
Ankle, knee and hip stops, assists/resists	**Ankle stops, assists/resists** *PRO 3310C – Lower Limb Ox I* ---------- **Knee and Hip stops, assists/resists** *PRO 3311 – Lower Limb Orthotics II*	223 290	**Ankle stops, assists/resists** Proj #5 = Metal AFO Proj #6 = Plastic AFOs Possibly Proj #7 = Synthesis Project ---------- **Knee stops, assists/resists** - Projs #2 & #3 - Activity, week 16, "Stance Control Knee Fabrication & Fitting Alignment using Immediate Fit PreStride KAFO-SC" - students work in groups to fit each other with the Becker Immediate Fit PreStride Stance Control KAFO with guest speaker Gary Bedard **Hip stops, assists/resists** - Lecture, week 5, "Reciprocating Gait Orthoses (RGOs) - Lectures, week 6, "Orthotic Management of Hip Arthroplasty" and "Orthotic Management of Fractures" - Lecture, week 9, "Orthotic Management of DDH and LCP" - Lecture, week 15, "HKAFOs, Standing Frames & Paraposiums" and "Conversion of KAFOs to HKAFOs"
Carlson modification	- *PRO 3310C – Lower Limb Ox I*	223	Proj #1 = Supportive and Rigid FO

			Proj #2 = UCBL Proj #6 = Plastic AFOs Possibly Proj #7 = Synthesis Project
Mid/hind foot posting	- *PRO 3310C – Lower Limb Ox I*	223	Proj #1 = Supportive and Rigid FO Proj #6 = Plastic AFOs Possibly Proj #7 = Synthesis Project

Lower Limb Prostheses	**Course(s) Number/Title =**	**Page**	**Student Experience**
Dynamic response feet	*PRO 3301C Transtibial Prosthetics* and ---------- - *PRO 4331C Transfemoral Prosthetics*	202 268	Proj #2 = Prosthetic Foot Identification Exercise - 8 to 10 (or more) different stations set up with a variety of prosthetic feet; The students will be required to rotate from station to station and identify, describe, evaluate, etc. various types of prosthetic feet; Each station presents to the student a different task and/or question about prosthetic feet. Proj #5 = TSB Locking Liner Prosthesis Proj #6 = TSB Suction Liner Prosthesis Possibly Proj #7 = Synthesis Prosthesis ---------- Proj #4 = IC with Suction Suspension Proj #5 = IC Flexible Socket/Rigid Frame Possibly #6 = Synthesis Prosthesis
Diagnostic sockets	- *PRO 3301C Transtibial Prosthetics* and ---------- - *PRO 4331C Transfemoral Prosthetics*	202 268	Proj #3 = PTB Prosthesis Proj #4 = PTB SC/SP Prosthesis Proj #5 = TSB Locking Liner Prosthesis Proj #6 = TSB Suction Liner Prosthesis Proj #7 = Synthesis Prosthesis ---------- Proj #2 = Quad Brim - students will work with each other in pairs; each student will evaluate, measure and cast/capture a Quadrilateral (Quad) Transfemoral negative impression utilizing prefabricated brims; pour and modify positive impression; a diagnostic socket of just the upper ½ of the limb will be constructed and therefore open distally to allow the student's intact anatomy to fit; each student will then fit and assess the Quad brim diagnostic/open socket; instructor critique.

			Proj #4 = IC with Suction Suspension Proj #5 = IC Flexible Socket/Rigid Frame Proj #6 = Synthesis Prosthesis
Transtibial	*PRO 3301C Transtibial Prosthetics*		
Patellar tendon bearing	Same as above	201	Proj #3 = PTB Prosthesis - students work in pairs with one patient model; each student will evaluate, assess, measure & cast/capture PTB negative impression; student will modify positive impression; student will fabricate a pelite liner with distal end pad, diagnostic socket and attach and bench align the diagnostic socket to adjustable, endoskeletal components with a SACH foot; within student pairs, instructor will assign student 'A' neoprene sleeve suspension and student 'B' cuff strap suspension; each student will assess fitting & assessing the diagnostic socket set-up for fit & function; THEN the students will choose just 1 of the pair of devices to work together to transfer the diagnostic alignment onto a vertical alignment fixture, laminate the socket; restore & assemble the completed prosthesis for instructor checkout & critique. Proj #4 = PTB SCSP Suspension Possibly Proj #7 = Synthesis Prosthesis
Total surface bearing	Same as above	201	Proj #5 = TSB Locking Liner Prosthesis - 2 students work with 1 patient model; each student will evaluate, assess, measure and capture an image for a Total Surface Bearing negative impression by either hand casting OR scanning over a locking liner fit to the patient model's limb; the negative will be converted to a positive; each student then will modify the positive impression; each student will fabricate a diagnostic socket to be bench aligned & attached onto endoskeletal, alignable components with a K2 or K3 prosthetic foot; each student will fit & assess function of their diagnostic set-up. Then, the pair of students will work together to choose one diagnostic set-up to convert to a completed prosthesis by transferring the alignment onto an alignment jig, laminating the definitive socket & then re-assembling the completed prosthesis; Pair of students submit completed device to instructor for critique. Proj #6 = TSB Suction Liner Prosthesis - 2 students work with 1 patient model; each student will evaluate, assess, measure and capture an image for a Total Surface Bearing negative impression by scanning the patient model's limb; the negative will be converted to a positive; each student then will modify the positive impression; each student will fabricate a diagnostic socket to be bench aligned & attached onto endoskeletal, alignable components with a K2, K3 or K4 prosthetic foot and a Seal-In® or other suction suspension; each student will fit & assess function of their diagnostic set-up. Then, the pair of

				students will work together to choose one diagnostic set-up to convert to a completed prosthesis by transferring the alignment onto an alignment jig, laminating the definitive socket & then re-assembling the completed prosthesis; Pair of students submit completed device to instructor for critique. Possibly Proj #7 = Synthesis Prosthesis
	Liners, gel, etc.	Same as above	201	Proj #5 = TSB Locking Liner Prosthesis Proj #6 = TSB Suction Liner Prosthesis Possibly Proj #7 = Synthesis Prosthesis
	Suspension sleeves	Same as above	201	Proj #3 = PTB Prosthesis Possibly Proj #7 = Synthesis Prosthesis
	Post-op volume management	*- PRO 3301C Transtibial Prosthetics* and --- *- PRO 4331C Transfemoral Prosthetics*	201 268	Proj #1 = **1a.** Elastic Bandage Wrapping, **1b.** Shrinker Measurement & **1c.** Fitting and Post-Operative Prosthetic Fitting - **in 1a.,** student will wrap a TT limb (either patient or mock model) utilizing ACE bandage and figure-of-8 technique; instructor critique; **in 1b.,** student will measure & fit a shrinker to a TT limb (either patient or mock model); instructor critique; **in 1c.,** student will fit a prefabricate postoperative prosthetic system to a TT limb (either patient or mock model); instructor critique --- Proj #1 = **1a.** Elastic Bandage Wrapping & **1b.** Shrinker Measurement & Fitting - **in 1a.,** student will wrap a TF limb (either patient or mock model) utilizing ACE bandage and figure-of-8 technique; instructor critique; **in 1b.,** student will measure & fit a shrinker to a TF limb (either patient or mock model); instructor critique;
	Socks	*PRO 3301C Transtibial Prosthetics*	201	All TT Projects except Projects #1 & #2
	Locking mechanisms	Same as above	201	Proj #5 = TSB Locking Liner Prosthesis Possibly Proj #7 = Synthesis Prosthesis
	Supracondylar, supracondylar-suprapatellar	Same as above	201	Proj #4 = PTB SC/SP Prosthesis - Student will work in pairs with a patient model; student will evaluate, assess, measure and cast/capture PTB SCSP negative impression; student will modify positive impression; student will fabricate a pelite medial wedge to fit inside a PTB designed diagnostic socket; student will evaluate the fit and function of suspension of PTB SCSP diagnostic socket with medial wedge; instructor critique
Transfemoral				
	Mechanical knees	*PRO 4331C Transfemoral*	268	Proj #4 = IC with Suction Suspension

		Prosthetics		Proj #5 = IC Flexible Socket/Rigid Frame Possibly Proj #6 = Synthesis Prosthesis
	Axis – single, polycentric	Same as above	268	Proj #4 = IC with Suction Suspension Proj #5 = IC Flexible Socket/Rigid Frame Possibly Proj #6 = Synthesis Prosthesis
	Cadence control – constant friction, fluid	Same as above	268	Proj #4 = IC with Suction Suspension Proj #5 = IC Flexible Socket/Rigid Frame Possibly Proj #6 = Synthesis Prosthesis
	Ischial containment design variations	Same as above	268	Proj #3 = IC Casting Exercise - students will work in pairs; each student will evaluate, assess, measure and cast each other for Ischial Containment designed negative impression; Student present negative impression to instructor for checkout & critique. Proj #4 = IC with Suction Suspension - students will work in pairs with a TF patient model; each student will evaluate, assess, measure and capture an IC designed negative impression for Suction Suspension; student will modify positive impression to achieve suction suspension; student will fabricate a diagnostic socket; diagnostic socket will be bench aligned onto alignable endoskeletal components utilizing K2 classified prosthetic components; fit and function assessed and adjusted. THEN the pair of students will work together to choose 1 diagnostic set-up to proceed to a definitive prosthesis; students will work together to transfer alignment, laminate a socket, re-assemble the prosthesis and then present the completed definitive prosthesis together to the instructor for checkout and critique. Proj #5 = IC Flexible Socket/Rigid Frame - students will work in pairs with a TF patient model; each student will evaluate, assess, measure and capture an IC designed Flexible Socket-Rigid Frame negative impression with locking liner OR lanyard suspension; student will modify positive impression to achieve suspension; student will fabricate a diagnostic socket; diagnostic socket will be bench aligned onto alignable endoskeletal components utilizing K3 or greater classified prosthetic components; fit and function assessed and adjusted. THEN the pair of students will work together to choose 1 diagnostic set-up to proceed to a definitive prosthesis; students will work together to transfer alignment, laminate a socket, re-assemble the prosthesis and then present the completed definitive prosthesis together to the instructor for checkout and critique. Possibly Proj #6 = Synthesis Prosthesis
	Suction suspension	Same as above	268	Proj #4 = IC with Suction Suspension

				Possibly Proj #6 = Synthesis Prosthesis

Spinal Orthoses	**Course(s) Number/Title =**	**Page**	**Student Experience**
Custom fit *cervical orthoses* ***(CO)***	*PRO 4350 – Spinal Orthoses*		
Soft -	Same as above	359	Proj #6 = Off-the-Shelf COs, CTOs & HALOs - students measure & fit each other with off-the-shelf devices (at a minimum: foam collar, Philly collar, Miami J, SOMI, Minerva and HALO vest fitting with simulated ring and pin placement); assess fit & function; instructor critique
Semi-rigid -	Same as above	359	Same as above
Rigid -	Same as above	359	Same as above
Custom fit *thoracic-lumbar-sacral orthoses* ***(TLSO) – Soft/flexible*** - Sagittal control, Sagittal-coronal control -	Same as above	359	- Proj #4 = Off-the-Shelf TLSOs & LSOs - students measure & fit each other with off-the-shelf devices (at a minimum: Jewetts, CASH, TLSO corsets, Chairback, Knight-Taylor, and modular LSOs & TLSOs); assess fit & function; instructor critique
Custom fit *thoracic-lumbo-sacral orthoses* ***(TLSO) – Rigid*** - Sagittal control, Sagittal-coronal control	Same as above	359	- Proj #4 = Off-the-Shelf TLSOs & LSOs - students measure & fit each other with off-the-shelf devices (at a minimum: Jewetts, CASH, TLSO corsets, Chairback, Knight-Taylor, and modular LSOs & TLSOs); assess fit & function; instructor critique
Custom fabricated *thoracic-lumbar-sacral orthoses* ***(TLSO) – Rigid*** - Sagittal control, Sagittal-coronal control -	Same as above	359	Proj #5 = Custom fabricated bivalved TLSO Body Jacket - students assess, measure and image capture patient models; a positive model is created and modified; thermoform and finish device; assess fit & function on patient models; instructor critique

Appendix 9

J.E. Hanger College of Orthotics and Prosthetics Advisory Board Members

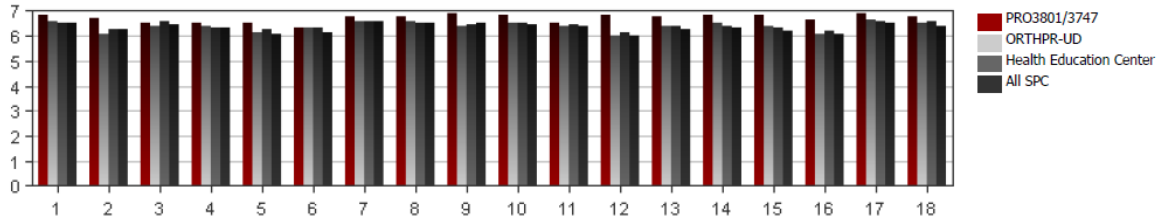
Chairperson	Wallis Farraday
Members	Arlene Gillis
	Addam Griner
	Andrew Belle Isle
	Brett Saunders
	Charles Levy
	Charissa Doerger
	Craig Macenzie
	Caitlyn Collins
	Michelle Odefey
	Paul Prusakowski
	Gina Vittetoe
	Greg Bauer

Appendix 10

Student Survey of Instruction Sample with Results

PRO3801/3747 - O&P Clinical Rotation Practicu (Classroom) 0445 — **Health Education Center (HEC)**

Gillis, Arlene — **Roster: 23 | Opt-outs: 0 | Total Submissions: 14 [61%]**



		SSI Survey Questions	Section	StdDev4	ORTHPR-UD1	HEC2	SPC3
1	CI	The instructor demonstrated a thorough understanding of the course materials.	**6.86**	0.4	6.59	6.54	6.49
2	CI	The course materials were presented effectively.	**6.71**	0.6	6.09	6.30	6.26
3	CI	The instructor explained the grading system.	**6.54**	0.8	6.42	6.59	6.48
4	CI	The instructor made effective use of examples and illustrations.	**6.54**	0.9	6.37	6.32	6.32
5	CI	The instructor provided helpful feedback about my performance.	**6.50**	0.8	6.11	6.28	6.09
6	CI	In this course, I considered ideas different from my own.	**6.31**	1.2	6.34	6.36	6.12
7	PO	The instructor covered the course objectives that were identified in the syllabus.	**6.79**	0.6	6.56	6.57	6.56
8	PO	The instructor graded my assignments based on the course materials.	**6.79**	0.6	6.56	6.52	6.54
9	PO	The instructor was consistently prepared for the course.	**6.93**	0.3	6.41	6.49	6.49
10	PO	The instructor provided activities relevant to course topics.	**6.85**	0.6	6.50	6.50	6.44
11	PO	The instructor was available for individual help if needed.	**6.50**	1.2	6.40	6.48	6.38
12	PO	The instructor used a variety of teaching methods in the course.	**6.83**	0.6	5.99	6.13	6.02
13	FE	The course stimulated me to think in new ways about the subject matter.	**6.77**	0.6	6.40	6.40	6.24
14	FE	The instructor increased my understanding of the subject matter.	**6.86**	0.4	6.54	6.42	6.32
15	FE	The instructor created an atmosphere that encouraged me to learn.	**6.86**	0.4	6.39	6.32	6.22
16	FE	The instructor made this course interesting.	**6.64**	0.8	6.09	6.18	6.08
17	FE	The instructor encouraged mutual respect within my course.	**6.93**	0.3	6.62	6.56	6.50
18	FE	In this course, I was challenged to do my best work.	**6.79**	0.6	6.53	6.56	6.41
		Composite Scores					
	FE	Faculty Engagement	**6.81**	0.5	6.43	6.41	6.30
	PO	Preparation and Organization	**6.78**	0.7	6.41	6.45	6.41
	CI	Course Instruction	**6.58**	0.8	6.32	6.40	6.30

1 Calculates averages for ALL SSI surveys within ORTHPR-UD, regardless of campus.
2 Calculates averages for ALL SSI surveys on Health Education Center, regardless of Program.
3 Calculates averages for ALL SSI surveys collegewide, regardless of Program.
4 Standard deviation shows how the distribution of results are clustered around the mean. Higher numbers mean wider distribution.

Appendix 11

ORTHO-BAS *(Established in 2005 with ORTHO-BAS)* Program Viability Measures Report 2010-11

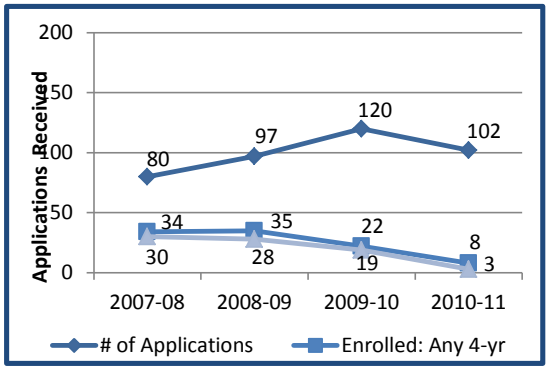


Figure 1: Applications for Admission

Number of applications and enrolled students include those in the PR code. Source: PeopleSoft Student Administration System.

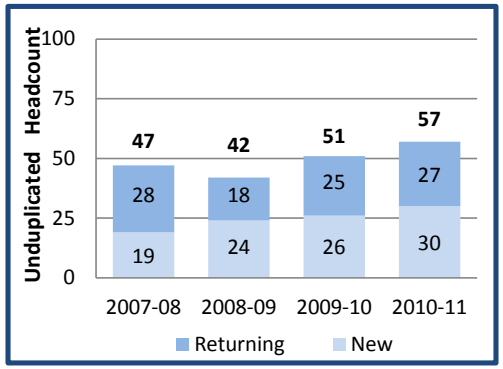


Figure 2: New and Returning Enrollment

New and returning students include those in the PR code. Source: PeopleSoft Student Administration System.

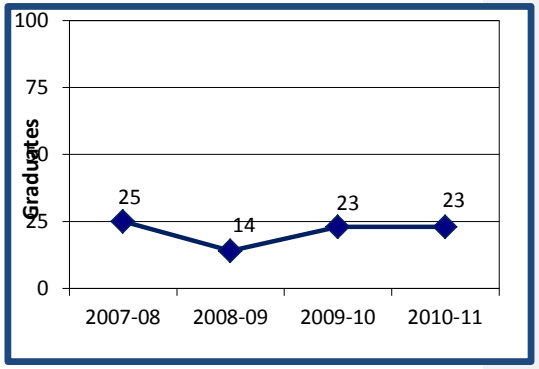


Figure 3: Program Graduates

Average terms to degree by graduating class: 07-08 = 5.48 terms; 08-09 = 5.50 terms; 09-10 = 5.30 terms; 10-11 = 5.13 terms. Source: PeopleSoft Student Administration System.

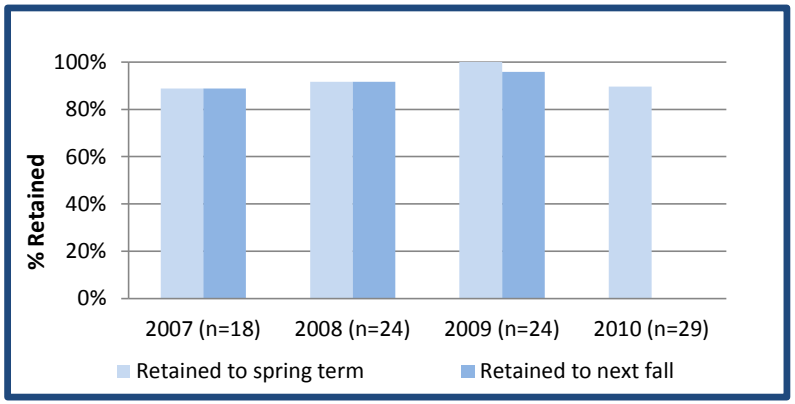


Figure 4: Fall Cohorts - First Year Retention

Source: PeopleSoft Student Administration System.

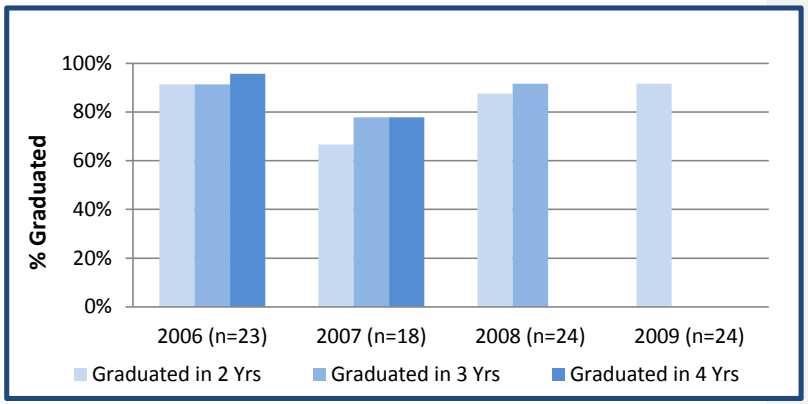


Figure 5: Fall Cohorts - Cumulative Graduation Rates

3-year graduation rates by cohort as of 2010-2011: Fall '06 (91%), Fall '07 (78%), Fall '08 (92%).
Source: PeopleSoft Student Administration System.

Table 1
National and State Trends

United States	**Employment**		**Percent Change**	**Job Openings [1]**
	2008	**2018**		
Orthotists and prosthetists	5,900	6,800	15%	210
Biomedical engineers	16,100	27,600	72%	1,490
Medical appliance technicians	13,900	15,400	11%	420
Florida	**Employment**		**Percent Change**	**Job Openings [1]**
	2008	**2018**		
Orthotists and prosthetists	240	250	7%	N/A
Biomedical engineers	520	840	62%	40
Medical appliance technicians	1,090	1,160	6%	30

[1]Job Openings refers to the average annual job openings due to growth and net replacement.
N/A is displayed in cases where data cannot be published because of federal data privacy standards. A dash (-) is displayed when information is unavailable because it has not been provided by the state collecting it.
Source: Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections; Florida Agency for Workforce Innovation

Program Action Plan

Program: Orthotics and Prosthetics, BAS

Date Completed: March 1, 2012

Prepared By: Arlene Gillis LPO, M.Ed.

I. Action Plan Items

	Action Item	Measure Addressed (Value)	Completion Date	Responsible Party
1	Implement new admissions criteria	Applications for Admissions, New and Returning Enrollment, First Year Retention, Graduation Rates	September 2012	O&P dean (tbd), Arlene Gillis, Instructor in Charge
2	Prepare to implement new curriculum to accommodate the need for courses in areas to meet new standards (Sept 2012). The new courses will be part of the required core courses and will include more in-depth principles, research principles, and clinical experiences (summer 2013).	Applications for Admissions, New and Returning Enrollment, First Year Retention, Program Graduates, Graduation Rates	September 2012	O&P dean (tbd), Arlene Gillis, Instructor in Charge
3	Complete comprehensive program review and self-study report for NCOPE	Applications for Admissions, New and Returning Enrollment, First Year Retention, Graduation Rates	August 2012	Arlene Gillis, Instructor in Charge

II. Special Resources Needed:

For action item #1, we will need Grade Distribution Reports and to work with the Baccalaureate Specialist and Admission Committee to determine effectiveness of new admission criteria. We will also require assistance from Marketing and Institutional Research and Effectiveness staff in order to receive data required to complete analysis of the results.

Action item #2 will require appropriate staff to teach out old curriculum and implement new program of study. Collaboration with consultants for the new curriculum HRSA grant funded development.

Action item #3 will require assistance from consultants, Institutional Research and Effectiveness staff, Marketing, Administration, Director of Curriculum, Baccalaureate Specialist, Adjuncts and staff.

III. Area(s) of Concern/Improvement:

Data collection, staff and process to collect the appropriate information. Staff to analyze the data and create graphs/charts to track the effects that the changes had on the program. Lack of personnel is a concern.

_____ _____

Arlene Gillis, Instructor in Charge Date

_____ _____

Phil Nicotera, Provost Date

_____ _____

Kay Burniston, VP Date

Appendix 12 – Student Handbook

St. Petersburg College

College of Health Sciences

Bachelor of Applied Science in

Orthotics and Prosthetics

Program Handbook

Academic Year 2012-13

This handbook is designed to provide students with easy access to program policies. The policies and guidelines found herein refer to the Orthotics and Prosthetics Program course work taught in the College of Health Sciences at St. Petersburg College. These policies and guidelines are subject to change and this document is updated on a regular basis. Students should refer to syllabus or faculty for specific questions.

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SECTION I:

INTRODUCTION

SECTION I: INTRODUCTION

History of St. Petersburg College:

In September 1927, Florida's first two-year institution of higher learning, St. Petersburg Junior College, opened in an unused wing of the then-new St. Petersburg High School. Enrollment: 102, taught by a faculty of 14.

Full accreditation followed in 1931. In 1948, the private college became public. In 1965, the African-American Gibbs Junior College was merged with this ever-expanding institution. By the 1990s, the college occupied a dozen sites throughout the county.

In December 2009, after more than 43 years of dedicated service to St. Petersburg College, 31 as president, President Carl M. Kuttler Jr. retired from the college. Dr. Kuttler was one of the longest-serving college or university presidents in Florida. During his tenure, the college expanded from two campuses to 10 learning sites, and now has one of the most highly acclaimed distance learning programs in the nation.

In June 2001, SPJC dropped the junior from its name, becoming St. Petersburg College, the first among Florida's 28 public community colleges to transition to a four-year institution. In August 2002, SPC began offering fully accredited baccalaureate programs leading to bachelor's degrees. And, the college's commitment to its two-year curriculum, which has earned it wide recognition and annually wins it high national ranking, remains as strong as ever.

SPC now offers 24 bachelor's degrees, most in areas that have traditionally been underserved by the State University System. These include Banking, Biology, Business Administration, Dental Hygiene, Education, Health Services Administration, International Business, Management and Organizational Leadership, Nursing (RN to BSN), Orthotics and Prosthetics, Paralegal Studies, Public Policy and Administration, Public Safety Administration, Sustainability Management, Technology Management and Veterinary Technology.

SPC, which is accredited by the Southern Association of Colleges and Schools and governed by its local Board of Trustees, has four traditional campuses, located in St. Petersburg, Clearwater, Tarpon Springs and Seminole. In addition, allied health courses are taught at the Caruth Health Education Center in Pinellas Park; SPC's Southeastern Public Safety Institute is at the Allstate Center in St. Petersburg; and Corporate Training is at the EpiCenter in Largo.

Besides the baccalaureate programs mentioned above, all of the following are available through SPC:

- Associate in Arts (A.A.) degree, transferable to virtually any college or university worldwide.
- Associate in Science (A.S.) degrees, designed to prepare students dually--for workforce entry and for transfer to some baccalaureate programs.
- Applied Technology Diplomas in four fields.
- Certificates, with credit programs in 60-plus fields, which provide fast paths to professional credentials.

- SPCs University Partnership Center offers bachelor's through doctorate degrees from 16 universities and colleges to students without having to leave Pinellas County.

St. Petersburg College stands astride an 82-year tradition of excellence wrought by dedicated faculty and visionary leadership. Affordable, accredited, comprehensive in its offerings, responsive to community needs and committed to student success, SPC has been a major player in Pinellas County's pursuit of progress.

Its alumni include a former astronaut, an astronaut who spent four months on the International Space Station in 2009, the first woman aquanaut, war heroes, film stars, Major League Baseball players, judges, CEOs, a rock star, a Merrill Lynch senior vice president, a Davis Cup captain and a co-founder of the Peace Corps. But SPC's proudest legacy is the difference it has made for hundreds of thousands of men and women who, through their studies, have acquired what they needed to better their lives and thereby embellish their communities.

SPC Mission:

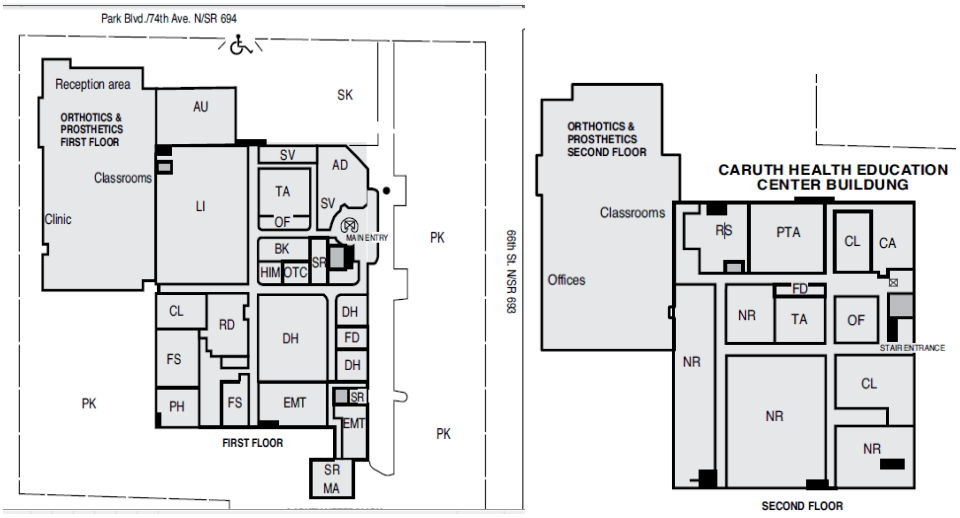
SPC's mission is to provide accessible, learner-centered instruction for students pursuing associate degrees, four-year degrees, and technical and continuing education. As a comprehensive multicampus state college, SPC seeks to be a creative leader and partner with students, communities and other educational institutions to deliver enriched learning experiences and to promote economic development.

The college boasts an outstanding, diverse faculty and staff; advanced technology; distance learning; innovative teaching techniques; outstanding library and information resources; a climate for student success; and an enduring commitment to excellence.

The Caruth Health Education Center:

The Caruth Health Education Center at St. Petersburg College was established to respond to the growing needs for health care workers, and offers opportunities for A.S. degrees, certificate programs, and continuing education to broaden professional horizons. The Health Education Center (HEC) is home to nationally accredited health care programs that provide students with the knowledge and skills needed for competency within the health care industry. The programs expand prior learning by integrating theory and practice into a high quality educational experience. The HEC continuously strives to improve and expand programs through input from students, employers, faculty, and diverse and highly engaged advisory committees. This cooperation with the community creates a learning environment that is unique, challenging, and rewarding.

HEC Map



The J.E. Hanger Program:

The J.E. Hanger Program first began offering classes in 2008. The program is a limited-enrollment program, and only accepts 24 students each year. Students progress through the program in cohorts (a junior and senior class), and complete coursework, lab activities, and clinical rotations under the direction of highly qualified and dedicated faculty and staff.

Program/Campus Location:

The college is housed inside the Bankers Insurance Group Building on the Health Education Center at 7200 66th Street North, Pinellas Park, FL. The building was dedicated in September, 2008. It is a 26,000 square foot structure that cost $10 million to build. It was financed, in part, through a $250,000 donation from the Hanger Orthopedic Group of Bethesda, Md.; a $500,000 donation from Bankers Insurance Group; and a $2 million federal grant. Both the college and the company are named after James Edward Hanger, the Civil War's first amputee, who founded the Hanger Company in 1861.

Program Accreditation:

The Orthotics and Prosthetics program is accredited by the Commission on Accreditation of the Allied Health Education Programs (CAAHEP), in collaboration with the National Commission on Orthotic and Prosthetic Education (NCOPE).

Program Mission:

The mission of the Bachelor of Applied Science in Orthotics and Prosthetics Program is to facilitate the development of professional, ethical, and competent orthotists and prosthetists. The program promotes research, prepares graduates for residency and is committed to lifelong learning.

Program Goals:

The goals of the program are for students to:

1. Develop entry-level knowledge and abilities necessary to perform comprehensive patient assessments.

2. Develop entry-level knowledge and abilities necessary to formulate, implement and follow-up on comprehensive treatment plans.

3. Develop entry-level knowledge pertaining to practice management and promotion of lifelong learning.

4. Develop skills to become professional, ethical and competent entry level practitioners.

Program Faculty and Staff:

Program Director:

Arlene Gillis, MEd, CP, LPO

Full-Time Faculty

Tom Chmielewski, CPO, LPO

Thomas Trudell, CPO

Adjunct Faculty

James Barr BS, CPO, LPO, BS

Ray Burdett PhD, CO, CPed.

Angela Courtade, CPO, LPO

Dr. Kory Thomas

Dr. Chad Maola DC

Dr. Anita Naravane, MBBS, M.S.

Robert Roe, CP

Carol Weideman

DeeDee Watts

Jose Gomez, MD, CO

Joe Shamp, CPO

Lab Manager

Dale Petersen

Program Staff Assistant

Cyndy Donnelly

Baccalaureate Program Specialist

Michele Leonard

Baccalaureate Advisor

Michelle Hampton

Baccalaureate Staff Assistant

Terri Crockett

Program Contact Information

St. Petersburg College - HEC

Orthotics and Prosthetics BAS Program (OP 218)

7200 66th Street N

Pinellas Park, FL 33781

727-341-4151

Advisory Board Appointments (2012):

Mr. Greg Bauer, CPO (2009-2010)

Westcoast Brace and Limb

Mr. Andrew Bellsle (2011-12)

Graduate/Resident

Ms. Caitlyn Collins (2012)

Student

Ms. Chris Doerger (2011-2012)

Evolution Industries, Inc.

Mr. Wallis Farraday, CP (2009-12)

Hanger Prosthetic and Orthotic

Chairperson for Advisory Committee

Mr. Addam Griner, CPO (2009-12)

Hanger Prosthetics and Orthotics

Mr. Charles Levy, MD (2009-12)

Veterans' Health System

Mr. Craig Mackenzie (2011-2012)

Evolution Industries, Inc.

Ms. Michelle Odefey (2011-12)

Graduate/Resident

Mr. Paul Prusakowski, CPO (2009-12)

O and P Technologies

Mr. Brett Saunders (2011-2012)

Saunders Prosthetics & Orthotics

Mrs. Gina Vittetoe, CP, LP (2011-12)

Graduate

Program of Study:

**Program begins every August*

APPROVED REQUIREMENTS FOR STUDENTS WITH CATALOG YEAR 2012/0470 (BEGINNING 1/9/12) OR LATER

PRE-ENTRY REQUIREMENTS FOR ADMISSION TO PROGRAM

The following courses are required and may be used as part of the *General Education Requirements

BSC	2085/L	Human Anatomy & Physiology I and Lab	3, 1
BSC	2086/L	Human Anatomy & Physiology II and Lab	3, 1
PSY	1012	General Psychology **OR** (any transferable college-level psychology)	3
MAC	1114	Trigonometry **OR** (MAC 1147, 2311, or 2233)	3
PHY	1053/1048L	General Physics I and Lab	3, 1
CHM	2045/L	General Chemistry and Qualitative Analysis I and Lab	3, 1
STA	2023	Elementary Statistics **OR** (any transferable college-level statistics)	3

Note: Beginning Fall 2012, The National Commission for Orthotic and Prosthetic Education (NCOPE) will require a master's degree as the minimum entry level education requirement into the profession. Students who intend to apply for NCOPE residency and ABC certification will be required to have a master's degree. St. Petersburg College is partnering with Florida State University (FSU) to offer the master's-level coursework for students who graduate with the BAS. FSU requires one (1) additional course for admission into the master's program (EGN 3443). It has been built into SPC's curriculum effective August 2012, but students must take the prerequisite courses (MAC 2311, MAC 2312) prior to taking this course and may do so prior to starting or while enrolled in the BAS program.

UPPER DIVISION REQUIREMENTS

Admission requires completion of at least **sixty (60) credits** including at least fifteen (15) semester hours of transferable general education coursework and the state-mandated prerequisites listed above.

Students who are admitted without an Associate in Arts or higher degree are required to complete the thirty-six (36) credit hour general education requirement of St. Petersburg College. All students must fulfill the state-mandated prerequisites listed above. Please note that total program hours may vary. Consult the assigned baccalaureate specialist or advisor for any additional questions.

MAJOR REQUIREMENTS (65 credits) - Grade of "C" or better required in all major courses

[a] CPR for healthcare providers

PRO	3000C	Introduction to Orthotics, Prosthetics and Rehabilitation	2
PRO	3100	Biomechanics	2
PRO	3110	Clinical Pathophysiology	3
PRO	3200C	Human Anatomy and Physiology for Orthotics and Prosthetics	4
PRO	3500C	Clinical Methods	3
PRO	3120C	Gait Analysis and Pathomechanics	2
PRO	3301C	Transtibial Prosthetics	5
PRO	3310C	Lower Extremity Orthotics I	4
PRO	3801L	Orthotics and Prosthetics Clinical Rotation Practicum I	2
PRO	3801L	Orthotics and Prosthetics Clinical Rotation Practicum II	2
PRO	4371C	Upper Extremity Orthotics	4
PRO	4331C	Transfemoral Prosthetics	5
PRO	3311C	Lower Extremity Orthotics II	4
PRO	3505	Clinical Problem Solving	2
PRO	4XXXC	Advanced Topics	3
PRO	3801L	Orthotics and Prosthetics Clinical Rotation Practicum III	2
ENG	3443	Stats for Engineering	3
PRO	4850	Senior Capstone	2
PRO	3801L	Orthotics and Prosthetics Clinical Rotation Practicum IV	2
PRO	4350C	Spinal Orthotics	5

PRO	4361C	Upper Extremity Prosthetics	4
TOTAL PROGRAM HOURS			**65**

SECTION II:

STUDENT EXPECTATIONS

SECTION II: STUDENT EXPECTATIONS

Academics:

- Orthotics & Prosthetics students carry a full academic load fall and spring which requires time outside of lecture, lab and clinical rotation to successfully complete their studies. Therefore, we recommend that O&P students not attempt employment in addition to the program of study. Historically it has been difficult for students to carry their course work successfully and remain gainfully employed.

- All courses in the program must be successfully completed with a grade of C or better in order to progress in the curriculum. However, students should be aware that a minimum GPA of 3.0 will be required for admission into FSU master's program. *Beginning Fall 2012, the National Commission for Orthotic and Prosthetic Education (NCOPE) will require a master's degree as the minimum entry-level education requirement into the profession. Students who intend to apply for NCOPE residency and ABC certification will be required to have a master's degree. St. Petersburg College is partnering with Florida State University (FSU) to offer the master's-level coursework for students who graduate with the BAS. Admission into FSU's master's program requires a minimum GPA of 3.0.*

- A grade of D, F , W or a W/F in any course in the program will require the student to withdrawal from the program.

- If a student's GPA falls below a 2.5 at any time in the program, the student will be placed on academic probation for a period of one semester. If the student's GPA does not increase above the required program minimum of 2.5, the student will be academically dismissed from the program. Re-admission into the program is not guaranteed.

- Students are not permitted to attend classes or labs without being registered.

- Exams will be closed book exams; midterms and finals will be given at the appropriate times each semester as outlined by the program exam schedule. A closed book exam means no use of tablets, phone, or any other electronic devices during the exams with exception to laptops in the computer lab only if the instructor is giving an online exam. The only website that student are allow to access during an online exam is Angel for the exam itself. No electronic during exams and quizzes. Final exams will not to be administered early.

- For more information on academics, please see BOT Rule 6Hx23-4.15, Academic Averages and Repeated Courses at: http://www.spcollege.edu/webcentral/catalog/current/acad_average.htm

Grading Scale in O & P Program:

A=100-93%; B = 92-85%; C= 84-78%; D= 77-70%; F below 70%

Academic Honesty

SPC's Academic Honesty Policy may be found at http://www.spcollege.edu/academichonesty. The policy is summarized and the specific procedures the College of Health Sciences follows in the event of a suspected breech of the academic honesty policy is listed below.

Academic Integrity– Expectations and Authority:

The College of Health Sciences at St. Petersburg College promotes a learning environment in which faculty and students exchange academic ideas freely, openly and respectfully to advance the allied health professions. All students—through their coursework, field experiences, and interpersonal communications—are expected to conduct themselves as professionals preparing for leadership positions. *Academic Integrity is* inherent in

professionalism, and is not only an expectation of SPC students, but an obligation, as established in BOT Rule 6Hx23-4.461, which states:

> *St. Petersburg College expects students to be honest in all of their academic work. By enrolling at the College, students agree to adhere to high standards of academic honesty and integrity and understand that failure to comply with this pledge may result in academic and disciplinary action, up to and including expulsion from the College. As members of the College community, students also have an ethical obligation to report violations of the SPC academic honesty policies they may witness.*

***Note: The terms Academic Honesty and Academic Integrity are used interchangeably.**

Examples of Behaviors that Violate SPC's Academic Honesty Policy:

Specific behaviors that violate SPC's Academic Honesty Policy include: Cheating; Plagiarism; Bribery; Conspiracy; Misrepresentation; Fabrication; Collusion; Duplicate Submissions; Academic Misconduct; Improper Computer/ Calculator Use; Improper Online/Blended and Teleweb Course Use; Disruptive Behavior. For a definition and example of these behaviors, please refer to SPC's Academic Honesty Policy.

Dissemination of SPC's Academic Honesty Policy:

Most breeches of academic honesty in the College of Health Sciences are unintentional; students either aren't aware of the policy, or don't understand what constitutes a violation. For this reason, a number of measures are in place to ensure that students fully understand their responsibilities related to academic honesty:

1. Students acknowledge understanding and acceptance of SPC's Academic Honesty policies by signing a pledge each semester on Registration and Drop/Add forms: *"I understand that SPC expects its students to be honest in all of their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action, up to and including expulsion from the College."*
2. Students acknowledge understanding and acceptance of SPC's Academic Honesty policies by signing a statement attached to every course syllabus.
3. Professors review and discuss SPC's Academic Honesty policies with students at the start of each course.
4. Students who violate SPC's Academic Honesty policies are provided with support to prevent future incidences; students who blatantly or knowingly violate the policies are sanctioned according to BOT Rule.

Progressive Discipline Procedures for Student Academic Integrity Issues:

In accordance with SPC's Academic Honesty Policy, the College of Health Sciences has adopted **Progressive Discipline Procedures for Student Academic Integrity Issues**, which include actions faculty must follow if a student is suspected of breaching the Academic Honesty Policy. The procedure is followed, first and foremost, to assist the student in understanding that a problem exists and that improvement is imperative to their continued success in the program. The sanctions defined are minimum requirements; more severe penalties, including probation and/or expulsion, may apply even on the first offense in a course, if deemed appropriate for the circumstance (e.g., prior instances surface through the disciplinary investigation.)

Attire:

As representatives of St. Petersburg College and emerging Orthotics and Prosthetics practitioners, all students in the program are expected to "dress the part" by adhering to the dress code policies. Students spend much of their time in laboratory settings and will be working with materials that can damage or stain street clothes. As such, the following requirements are strictly enforced:

- Students are required to wear clean, pressed SPC uniform scrubs when attending class, laboratory or clinic sessions. **Lab coats must be worn for all patient interactions during patient interactions**. Additional dress code requirements may be included in various course syllabi.

- Students may not smoke in scrubs. In the event that any student presents with a noticeable odor from smoking, he/she will be asked to leave and return with clean attire. Attendance policies will be applied.
- Students are required to wear appropriate footwear. Flip-flops, sliders, sandals and other types of open footwear are not acceptable. Ladies pumps higher than 1 ½" are also considered inappropriate for most classroom and lab activities.
- Students are required to wear a valid SPC photo identification badge at all times while on campus.

Attendance:

- Students are expected to attend all class sessions. When students are not to be present, they must notify the program in advance of the class by calling (727) 341-4151 **and** by advising the instructor via email. There are NO excused absences in this program. Missing more than 25% of a scheduled class session, whether at the beginning or end of that day's session, will be counted as an absence.

- Tardiness is defined as arriving after the official start time of a class. Every **two** times a student arrives late to a class, or leaves a class early, counts as an absence. A student that leaves class prior to the instructor's having given a formal dismissal will be marked tardy and may be subject to additional disciplinary action.

- The third absence from a class/lab session will result in the lowering of the final grade by 4 percentage points; the fourth absence results in a lowering by 8 percentage points. A student who misses five or more classes, clinics or laboratory sessions will be withdrawn from the program. Make

up exams, tests or quizzes will only be allowed for extenuating circumstances such as accidents, hospitalization, family tragedy or uncontrollable natural occurrences. Documentation will be required in these cases.(Students are not to schedule job interviews during a schedule course time)

Background Check:

Admission into the Orthotics and Prosthetics BAS program is contingent upon successful completion of a criminal background and drug screening. Specific requirements of both are detailed in the sections below.

NOTE: Students should be familiar with the **more stringent** background screening requirements for initial licensure as an O&P practitioner. While the program does not currently require the same level of background screening needed for licensure, the program's policy is currently being revised and will likely be elevated to match licensure requirements. Those requirements are detailed under the section titled, "Background Screenings Required for Licensure".

Background Screening for Health Programs

All students entering a health program at St. Petersburg College are required to successfully complete a background screening within 120 days prior to starting the first health program course. The student will pay the background screening fee directly to the appropriate vendor. Applicants for health related programs at St. Petersburg College must be free of offenses that would disqualify one for employment in a health related field or to sit for a state licensing exam.

For progression into the first health program course, prospective students may not have one felony or two misdemeanor charges with a disposition dated within five years from the start of the health program courses with a judgment of guilty, or with a plea of nolo contendere (no contest), or where adjudication was withheld. Further, an applicant may be disqualified for admission based on Florida Statute 456.0635, where such person has been convicted on felony charges relating to medical fraud, neglect or substance abuse, or where terminated for cause from the Florida Medicaid Program or other Medicare program.

Once admitted into the health program courses and continuing through enrollment in a SPC health program, the student is responsible for notifying the dean/program director of any arrests. Failure to notify the dean/program director within five business days shall be grounds for dismissal from the program. Continuing through enrollment in the health program, the student must not be found guilty, regardless of whether adjudication is withheld, of an offense that would disqualify the student under the standard(s) as referenced above.

Pursuant to Section 456.0635, Florida Statutes, effective July 1, 2009, health care boards or the department shall refuse to renew a license, certificate or registration, issue a license, certificate or registration and shall refuse to admit a candidate for examination if the applicant has been:

1. Convicted or plead guilty or nolo contendere, regardless of adjudication, to a felony violation of: chapters 409, 817 or 893, Florida Statutes; or 21 U.S.C. ss. 801-970 or 42 U.S.C. ss1395-1396, unless the sentence and any probation or pleas ended more than 15 years prior to the application.

2. Terminated for cause from Florida Medicaid Program (unless the applicant has been in good standing for the most recent 5 years).

3. Terminated for cause by any other State Medicaid Program or the Medicare Program (unless the termination was at least 20 years prior to the date of the application and the applicant has been in good standing with the program for the most recent 5 years).

Additionally, the following crimes may disqualify applicants from entering into any health education program regardless of date of disposition:

- Murder
- Manslaughter
- Vehicle homicide
- Killing of an unborn child by injury to the mother
- Assault, if the victim of the offense was a minor
- Battery, if the victim of the offense was a minor
- Aggravated assault
- Aggravated battery
- Kidnapping
- False imprisonment
- Sexual battery
- Prohibited acts of persons in familial or custodial authority
- Lewd and lascivious behavior
- Lewdness and indecent exposure
- Arson
- Theft, robbery, and related crimes if the offense is a felony
- Incest
- Abuse or neglect of a disabled adult or elderly person
- Exploitation of disabled adult or elderly person
- Aggravated child abuse
- Negligent treatment of children
- Sexual performance by a child
- Animal cruelty or abuse
- Prostitution
- Drug related offense if a felony or involved a minor

Acceptance into the health program does not guarantee that the student will be eligible for licensure. Clinical facilities may limit or prohibit students with criminal histories from participating in clinical experiences which are part of the curriculum. Other options may not exist for the student to fulfill required clinical hours in order to complete the program; as a result, the student would receive a failing grade and may not be eligible to complete the health program or apply for licensure. All of the above factors should be taken into consideration prior to making a decision about pursuing a career as a healthcare provider.

Once admitted into the health program courses and continuing through enrollment in a SPC health program, the student is responsible for notifying the dean/program director of any arrests. Failure to notify the dean/program director within five business days shall be grounds for dismissal from the program. Continuing through enrollment in the health program, the student must not be found guilty, regardless of whether adjudication is withheld, of an offense that would disqualify the student under the standard(s) as referenced above.

Drug Screening for Health Programs

While enrolled in a SPC health related program, the health care professions are committed to providing excellent patient care and services in a safe, productive, and quality-conscious environment. All students entering a health program at St. Petersburg College are required to successfully complete a drug screening

within ninety (90) days prior to starting the first health program course. The student will pay the drug screening fee directly to the appropriate vendor. The drug screening must satisfactorily demonstrate that the student is free from the use of any illegal drug. Students who do not successfully pass the drug screening on the first attempt will be allowed to reapply for admission to a health program for a following semester. A student who fails the drug screening a second time will not be permitted to reapply for admission to a health program for the period of one year from the date of the most recent application. Students must remain drug-free throughout the tenure in their program at the College.*** Failure to do so shall be grounds for dismissal from the program.*** A Student who has not maintained continuous enrollment in health program courses for a period of one hundred twenty (120) days or more from the last date of attendance, must successfully complete and pass a new drug and background screening upon readmission and/or before resuming enrollment into health program classes.

All students enrolled in a health related program are required to be drug and/or alcohol free when reporting to school and while at "affiliating agencies" (including parking lots, grounds, and campus labs). For all "affiliating agencies" which require students to be subject to the agency's Drug Testing policies, including but not limited to, when there is reasonable suspicion to believe a student may be impaired, or is using or has used illegal drugs and/or alcohol, the student may be tested in accordance with the "affiliating agency's" policies. Prior to being assigned to an affiliating agency, the student shall sign a consent to allow the affiliating agency to release any drug testing results to the College. If tested by an "affiliating agency" the student shall provide his/her dean/program director with a copy of any test results. Failure to promptly do so shall be grounds for dismissal from the program. A positive drug or alcohol test result shall also be grounds for dismissal from the program.****

When there is reasonable suspicion to believe a student may be impaired, or is using or has used illegal drugs and/or alcohol, St. Petersburg College reserves the right to require the student to retest at the student's expense. **Please note that this means that if faculty and program administration deems you unsafe to perform laboratory or orthotics-prosthetics skills, you will be suspended or dismissed from the program.**

Notes:
***The provisions in these sentences shall also apply to students already enrolled in a health related program at the time of the effective date of this Rule.

****This paragraph also applies to students already enrolled in a health related program at the time of the effective date of this Rule.

Background Screening Required for Licensure

According to the Agency for Healthcare Administration information on background screening at http://www.doh.state.fl.us/mqa/background.html certain health care practitioners are subject to criminal background screening at initial licensure. Currently, there are three different groups of criminal background screening: Statewide, National and Level II. For Regulated Provider Type/Licensee Initial Licensure -- Orthotists, Prosthetists, Pedorthists, Orthotic Fitters, Orthotic Fitter Assistants, and O&P Residents, background checks are according to 468.803(2)(a) with a Current Level of Screening of Statewide/National. This includes Statewide and National criminal background screenings and requires fingerprinting performed by the Florida Department of Law Enforcement and the Federal Bureau of Investigations. The results are reviewed by the applicant's respective health care board and used to decide whether to grant a license. For more details, see http://www.doh.state.fl.us/mqa/background.html.

Florida Statute 468.803(2)(a)

An applicant for registration, examination, or licensure must apply to the department on a form prescribed by the board for consideration of board approval. Each initial applicant shall submit a set of fingerprints to the department on a form and under procedures specified by the department, along with payment in an amount equal to the costs incurred by the department for state and national criminal history checks of the applicant. The department shall submit the fingerprints provided by an applicant to the Department of Law Enforcement

for a statewide criminal history check, and the Department of Law Enforcement shall forward the fingerprints to the Federal Bureau of Investigation for a national criminal history check of the applicant. The board shall screen the results to determine if an applicant meets licensure requirements. The board shall consider for examination, registration, or licensure each applicant who the board verifies:

(a) Has submitted the completed application and the fingerprint forms and has paid the applicable application fee, not to exceed $500, and the cost of the state and national criminal history checks. The application fee and cost of the criminal history checks shall be nonrefundable;

(b) Is of good moral character;

(c) Is 18 years of age or older; and

(d) Has completed the appropriate educational preparation.

Classroom/Lab Policies:

Student conduct in the classroom, lab and clinical sites is expected to contribute to a positive leaning and teaching environment. Students are expected to behave in a manner that respects the rights of instructors to teach and students to learn. To promote an optimal teaching and learning environment, students in the Orthotics and Prosthetics BAS program are required to adhere to the classroom and lab policies listed below.

Food/Drink in Classrooms/Labs

- Food or drink may not be consumed in classrooms or labs. Water, however, may be consumed at any time other than when working with patient models.
- A student lounge, complete with refrigerator and microwave, is available in the Orthotics and Prosthetics building. Students may use these facilities to store, cook, and consume food and beverages. Snack and beverage machines are also available.
- No consumption of alcoholic beverages or illegal substances will be tolerated within the 8 hours of class.

Open Lab Sessions

- Students may not work in the laboratory without a faculty or administrator present. Open lab hours are determined and posted each semester. Lab activities during open lab times must be approved by the course ***instructor*** and ***scheduled*** with the Lab Manager. The student should contact the instructor by e-mail to indicate the need for additional lab time. The instructor will confirm the availability of the lab with the Lab Manager, and confirm this with the student.

Tools and Equipment

- Students are issued a program tool box complete with tools at the onset of the program. In addition, students will, from time to time, use program tools and equipment not part of the tool box complement. Students are responsible for the maintenance and security of all tools and equipment utilized, and must replace lost or damaged tools and/or equipment before completion of the program.
- Periodic inspections of tool boxes will be conducted during the semester. It is highly recommended that students label their tools to discourage borrowing. The student is expected to replace missing tools in a timely manner.

Use of Cell Phones and Electronic Devices

- Cell phones may not be used in class or lab time. Any student using a cell phone during class will be asked to leave the class. Attendance policies will be applicable.
- No texting or using the internet on smart phone.
- Laptops are permitted in the classroom ONLY to access material pertaining directly to the class being presented. Any violation of this policy the student may be asked to leave the class room.
- The use of personal computers is not permitted in the lab.
- Students are responsible for safely securing phones, computers, and other valuables in their assigned lockers. Never leave these devices in an unsecure manner.
- Phones and other electronic devices may not be used during exams/quizzes.
- Student may not take phones into the restrooms during an exam.

Communications within ANGEL

- The Orthotics and Prosthetics program faculty frequently supplement classroom lectures with online resources, made available to students through their ANGEL portals. Students are responsible for all information disseminated via ANGEL, in addition to in-class assignments/information.
- Important program information and updates are communicated with students via the ANGEL portal. Students are responsible for keeping up to date of all information pertaining to the O&P program that is posted on ANGEL.
- Communication with your instructors within an ANGEL course (online or blended course) should always be done via ANGEL or SPC email. To communicate with your faculty advisor, use the ANGEL email tool to contact him/her directly in the Commons.

Email Communications Outside of SPC Courses:

- Your **Live@edu** student email is the college's official way to communicate with you. It is important that you use your **SPC student email** account for any electronic correspondence with SPC, as your personal email may get sent to spam and/or be deleted. You will periodically be receiving important updates, notices, or official communication from SPC that will *only* be sent to your school account, thus be sure to regularly check your **Live@edu** email. Your student email account includes features other than just communication that you may find useful in planning and managing your college experience. For more information on the full capabilities of the system, go to MYSPC and click on Technical Support/Support Center.

Personal Security

- Students are responsible for their personal belongings. The college will provide a combination locker for storage. The program is NOT responsible for items left unattended.
- Campus security is available and prevalent on the Health Education Center campus. If at any time a student feels the need to contact campus security, they are encouraged to do so by dialing 341-3654.
- Students must report his/her current address and phone numbers to the Orthotics and Prosthetics Program Office and update them in People Soft.

- All faculty, staff, and students of St. Petersburg College are required to wear an SPC photo identification tag at all times while on campus.

SPC Student Photo Identification Card

Students may obtain an SPC student photo identification card from the business office on the first floor of the Health Education Center main building. In order to obtain an ID students must present a receipt of registration and paid tuition.

Code of Professional Responsibility:

Orthotics and Prosthetics professionals are held to professional and ethical standards as established by the American Board for Certification in Orthotics and Prosthetics (ABC) Code of Professional Responsibility. Students should familiarize themselves with the Code, Rules and Procedures as outlined in the *Code of Professional Responsibility and Rules & Procedures Regarding the Code of Professional Responsibility* handbook (revised March 2010)

> *"The Profession exists for the primary purpose of assisting patients in maintaining functional lives. The ABC Credential Holder shall be responsible for making the greatest possible effort to satisfy the patient's orthotic, prosthetic or pedorthic requirements. The manner in which the patient is served is the essential factor relating to the appropriate ethical professional conduct. Members of the Profession are responsible for maintaining and promoting ethical practice including, without limitation, reporting unethical practices in accordance with this Code. This Code, adopted by ABC, shall be binding upon all ABC Credentials Holders."* (p. 1).

Technical Standards:

Admission into the Orthotics and Prosthetics program at St. Petersburg College is determined, in part, by a student's ability to demonstrate competency in Technical Standards, as defined by the National Commission on Orthotic and Prosthetic Education (NCOPE). The Technical Standards represent nonacademic requirements necessary for a student to be able to satisfactorily participate in the program, and include a wide array of abilities, including cognitive, interpersonal, and physical. Mastery of these skills is demonstrated through pre-admissions preceptor evaluations, personal interviews, and prior experience.

Students should be aware that their proficiencies in each of the following Technical Standards areas are of equal importance to their mastery of the academic content acquired through the coursework. Students' mastery of Technical Standards is continuously assessed throughout the program. If gaps in performance exist, a student may be placed on an improvement plan to ensure progression and success in the program.

Cognition

The student demonstrates the ability to comprehend, memorize, analyze and synthesize basic science and clinical material in a timely manner.

Conduct

The student demonstrates respect for self and others and has personal integrity.

The student is able to remain emotionally stable and intellectually engaged in stressful situations and in an ever changing environment.

Communication

The student communicates accurately and efficiently in English with patients, their families, peers, faculty and staff.

Physical Skills

The student demonstrates sufficient visual acuity, tactile sensation, motor control, and muscular strength to perceive the signs and symptoms of disease.

The student demonstrates sufficient visual acuity, tactile sensation, motor control, and muscular strength to safely transfer and move patients in a clinical setting.

The student demonstrates sufficient visual acuity, tactile sensation, motor control, and muscular strength to safely use chemicals, operate power tools and equipment, maneuver bulky positive-models and materials, and clean-up after themselves.

The student demonstrates the physical capacity to work in a prosthetic laboratory for 4 to 6 hours and is able to lift 50 lbs. unassisted.

Essential Functions:

In addition to mastery of course material, program goals, and laboratory/clinical expectations, students are required to demonstrate competency in each of the Essential Functions areas, as defined by the National Commission of Orthotic and Prosthetic Education (NCOPE). The Essential Functions represent the minimum competencies required for satisfactory completion of the program, and cover similar areas included in the Technical Standards. Proficiency in the Essential Functions is assessed through routine observations and evaluations conducted by program faculty, patient models, the lab manager, and clinical preceptors.

Students should be aware that their proficiencies in each of the following Essential Standards areas are of equal importance to their mastery of the academic content acquired through the coursework. Students' mastery of Essential Functions is continuously assessed throughout the program. If gaps in performance exist, a student may be placed on an improvement plan to ensure progression and success in the program.

Cognition

The student demonstrates the ability to perform a comprehensive patient assessment, collect the results, and record the information appropriately in the medical record.

The student demonstrates the ability to analyze the evidence from the patient assessment and develop a comprehensive treatment plan.

The student demonstrates the ability to direct the implementation of treatment plans including: material and component selection, image capture, preparatory treatment, and patient education.

The student demonstrates the ability to develop and direct follow-up treatment plans, including: adjustment strategies, schedules and patient education.

The student demonstrates the ability to contribute to the economic viability of an orthotic and prosthetic clinical practice.

The student promotes the profession and actively participates in continuing education.

Conduct

The student demonstrates satisfactory professional conduct, including: compassion, sympathy, empathy, altruism, honesty, integrity, responsibility and tolerance necessary to provide appropriate patient centered care.

The student conducts continuous self-assessment and recognizes the importance of personal growth through participation in professional organizations and continuing education.

Communication

The student demonstrates satisfactory communication skills, including: written, verbal and non-verbal communication, and the active listening techniques necessary to provide appropriate patient centered care.

Students must be have a thorough understanding of the English language both verbally and written.

Physical Skills

The student demonstrates the ability to assess the patient, including: patient handling; range-of-motion, manual muscle, sensation, proprioception, and gait testing.

The student demonstrates the ability to implement a treatment plan, including: capturing patient images using negative impression techniques with plaster and synthetic casting materials; CAD/CAM scanning; preparing paper schematics and plaster models; vacuum forming thermoplastics; laminating thermo-sets; contouring metals; assembling components; shaping and smoothing trim lines; fitting and adjusting orthotic and prosthetic devices.

The student demonstrates the ability to implement follow-up care, including re-assessing patients and adjusting and repairing orthotic and prosthetic devices.

SPC Student Code of Conduct:

According to SPC's Student Handbook (2011-12), "Students enrolled at St. Petersburg College are expected to conduct themselves in a manner that will reflect credit to the college, the community and themselves. Each student, by registering, assumes the responsibility to become familiar with and to abide by the general regulations and rules of conduct listed in this rule. If found guilty of violation of any of these rules, a student may be subject to the placing of a hold on their student record, the withholding of grades, credits, transcripts, or diplomas, disciplinary probation, suspension or dismissal, in accordance with prescribed rules for the handling of disciplinary cases."

Below is a listing of applicable rules pertinent to student conduct that all students should be familiar with. Please consult the SPC Student Handbook (2011-12) for more information.

Student and Student Organization Regulations

BOT Rule 6Hx23-4.33

www.spcollege.edu/central/botrules/R4/4_33.doc

General Discipline Rule for Students and Student Organizations

BOT Rule 6Hx23-4.35

www.spcollege.edu/central/botrules/R4/4_35.doc

Violations of Student Traffic and Parking Control

BOT Rule 6Hx23-4.34

www.spcollege.edu/central/botrules/R4/4_34.doc

Hazing Rule

BOT Rule 6Hx23-4.331

www.spcollege.edu/central/botrules/R4/4_331.doc

Policy for Threats, Violence, Stalking, and/or Use or Possession of Explosives, Destructive Devices, Firearms and/or Weapons

BOT Rule 6Hx23-1.232

Sexual Harassment

BOT Rule 6Hx23-2.011

www.spcollege.edu/central/botrules/R2/_011.doc

Sexual Misconduct

BOT Rule 6Hx23-4.332

www.spcollege.edu/central/botrules/R4/4_332.doc

Misuse of College Computers

BOT Rule 6Hx23-6.90

www.spcollege.edu/central/botrules/R6/6_900.doc

Suspension of Students with Mental Disorders Resulting in Unusual or Disruptive Behavior

BOT Rule 6Hx23-4.333

www.spcollege.edu/cenetral/botrules/R4/4_333.doc

SECTION III:

HEALTH AND SAFETY

SECTION III: HEALTH AND SAFETY

Beginning in the first semester of the program, students will be working in laboratory settings that contain potentially hazardous materials and equipment if not used properly. Our ultimate concern is for the health and safety of our students, patient models, faculty and staff. It is imperative that students familiarize themselves and strictly adhere to the rules and procedures that are in place to provide a safe learning environment.

Health and Safety Rules:

I. LIABILITY/ACCIDENT INSURANCE: Students must obtain liability/accident insurance through the college annually. A special fee will be charged for this insurance.

II. FIRST AID: There is a first aid kit located in the Lab (room 205). If it is necessary to remove supplies from the first aid kit, the Lab Manager should be notified so that items may be dispensed, signed out, and the kit re-stocked. The instructor should be notified of even "minor" cuts or injuries to determine

the appropriate action to be taken. Whether it is a bandage or some sort of reporting related to the incident, however minor, the instructor or Lab Manager should be notified.

III. MEDICAL HEALTH REQUIREMENTS: Every student is required to submit official documentation of the following:

1. Immunization Validation - prior to fall, junior year, stating that the student has received proper immunizations and testing as required by the program. Annual updates will be required at the discretion of the program.
2. Valid Cardiopulmonary Resuscitation (CPR) Certificate must be maintained current. See Basic Life Support Policy below.

   It is the responsibility of each student to see that the appropriate documentation is on file with the O & P program. There are no exceptions.

IV. BASIC LIFE SUPPORT CERTIFICATION POLICY: All faculty and students in the O &P program must maintain certification in basic life support procedures, from either the American Heart Association or the American Red Cross, at intervals not to exceed two years. These records must be given to the program's staff assistant and kept up-to-date.

Procedures:

1. Students/faculty will provide program staff assistant with a photo copy of their current CPR card (both front and back.) Prior to recommended expiration, individual must re-certify with the American Heart Association or American Red Cross and submit a copy of the card to program's staff assistant. Validation will be kept in the student's personnel file.
2. The O&P clinical director will verify records prior to each session and other times as deemed necessary.
3. Certification and/or re-certification are the financial responsibility of the individual student.
4. Any individual unable to perform basic life support due to medical or physical reasons will be expected to request an "exemption" from the O&P Program Office. A copy of that exemption will be filed in the O&P Program Office.

V. SAFETY AT CLINICAL SITES: Students will be going and coming from various clinical sites at various times, depending on their schedules. Information on the specific crime statistics for clinical site can be obtained at the following web sites:

www.co.pinellas.fl.us/sheriff/crimeprev.htm

www.fdle state.fl.us/FSAC/UCR

Students should enter and leave the clinical site/agency in pairs or groups, especially during pre-dawn or after dark hours. Students must follow the directions of the agency security personnel as to any recommendations received at clinical orientation. Students should report any concerns or problems to the course instructor and agency security.
Other tips to follow include:

- Do not carry a shoulder bag with your wallet and money into clinicals.
- Keep your car locked.
- Check your car and under your car prior to unlocking you car.

- Be alert to any suspicious behavior and avoid talking to strangers, especially if you are alone.

VI. LABORATORY SAFETY: The safety protocol for the O&P laboratory has been established to keep students from getting injured during laboratory training. Each student must undergo laboratory safety training, including familiarization and safety practices for all the tools, equipment and machinery in the laboratory. In order to have safe and injury-free lab sessions, each student must be an active participant in laboratory safety practices. When one person fails to observe the rules or ignores the safety training, they put not just themselves, but their fellow students at risk.

Be especially careful to follow rules that are designed to prevent some of the most common accidents and injuries:

- **It is the responsibility of the student to obtain** safety glasses, hearing protectors, respirators and protective gloves as they are effective barriers to injury or illness. Always use appropriate personal protective equipment, and make sure it is serviceable and undamaged before utilizing it.
- Students are also responsible to have a clipboard as well as a headset during the program which needs to be available for each class.
- Keep work areas clean and neat. Slips, trips and falls cause many preventable accidents. Keep work surfaces, floors and aisles clear, put things away when you are done with them, and clean up spills immediately.
- Read chemical labels and material safety data sheets before working with any of the many chemicals used in O&P. Always follow precautions and instructions.
- Always use appropriate personal protective equipment. Make sure it is serviceable and undamaged before utilizing it. Safety glasses, protective gloves, hearing protectors and respirators are effective barriers to injury or illness.
- Take special care with tools, machinery and equipment. Students must receive training in the use of each tool, machine or item of equipment, and will be required to follow the rules that are necessary for the safe utilization of each.
- When lifting heavy objects such as large plaster casts, lift correctly with your legs, not your back. Get help from an instructor or fellow student to assist you in lifting any object that is too heavy to handle alone.
- Practice good ergonomics. Organize work area so as to avoid awkward positions and motions.
- **Long hair should be pulled back and secured to prevent serious injury.** Do not wear loose or dangling jewelry in the lab, as this presents a hazard.
- All neckties, badges, necklaces must be secured before entering the machine room.
- Safety glasses must be worn at all time in the machine room and may not be tinted.
- Students must ask permission before using equipment at clinical rotation sites.

*On a personal note…*Accident prevention depends as much on your attitude as your actions. A safe laboratory is everyone's responsibility. Recognize that safety rules are designed to protect you – and follow them. In addition:

- Think about what could go wrong before you start any task and take steps to prevent it.
- Report or correct any hazard or potential hazard immediately.
- Keep your full attention on what you are doing at all times.
- Avoid any horseplay or other foolishness in the laboratory.
- Take near misses seriously. They are accidents waiting to happen, so we have to investigate them as thoroughly as the real thing.
- Always cooperate with accident investigations or accident prevention instructions. They are not designed to place blame or criticism, but to prevent accidents or keep them from happening again.
- ALWAYS ask about any hazard, procedure, tool, equipment, or machinery operation you do not understand.

- In the event of an accident, injury or chemical spill, follow the instructions provided in the St. Petersburg College Emergency Response Guide.

VII. EXPOSURE CONTROL: Students must report immediately to the Lab Manager and/or faculty any time an object penetrates the skin (cuts, punctures, etc.). This includes rotation sites.

Procedures to follow:

1. Report incident to faculty or preceptor.
2. Call security at **2560** if on campus**.**
3. Use soap and water to wash exposed area.
4. Flush mucous membrane with water.
5. Do not apply caustic agents to wounds.
6. Complete incident report and counseling.
7. Contact health care provider for evaluation and subsequent treatment as indicated.

After documentation of exposure incident, the dean or instructor will discuss with the exposed student or staff the follow-up recommended by the Center for Disease Control and Prevention.

VIII. INCIDENT REPORTS: Students and faculty must complete an incident report within 24 hours for any of the following:

1. Physical injury incurred to themselves.
2. Physical injury incurred to a patient.
3. Accidents.
4. Theft and/or suspected thefts.
5. Damage to someone's property.

Incident Report Instructions: Call Security for **all incidents**. (**2560)**

1. The report shall be completed immediately with as much detailed information as possible and submitted to the designated department within twenty-four (24) hours of the occurrence.
2. The Dean must sign the report and be responsible for the completion and distribution of the report.
3. The report form should have attached to it any documentation or supporting information available that will add to the total picture of the incident.
4. The report is not to be given to anyone other than the appropriate college administrative staff.
5. No statements or information concerning any accident or incident should be given to any outside person without prior discussion with the program director.
6. Detailed instructions for completing the incident report are explained on the following pages.

IX. PATIENT MODELS: Students in SPC's O&P Program have the benefit of practicing skills and techniques on live patient models. This is a direct result of the program's reputation of quality, compassion, and professionalism. Patient models volunteer their time so that students can learn under the most optimal, realistic conditions**. Patient models must be treated with respect, professionalism, and courtesy at all times.**

General Procedures regarding Patient Models:

- Patient models participating for the first time are required to report 30 minutes prior to the start of the laboratory activity.
- Demonstrations should be conducted prior to the start of each project. All students must be present for these demonstrations.
- Patient models report to the staff assistant's office to complete paper work and medical history.
- The staff assistant gives patients' completed medical histories to the faculty supervising the lab. Faculty review medical histories with students assigned to patients before beginning treatment.
- Patients are reminded by faculty at the onset of the appointment of the conduct expected of the students during the appointment.
- Bottled water is provided to all models as requested.
- Prosthetic patients that are here for 3 or more hours in a visit are provided with a light snack or meal.
- Patient models regularly complete surveys about the professional conduct of the **students.** Conversely, the student should report any inappropriate behavior by a patient model to the instructor for that lab.
- Professional behavior includes being prepared for the lab involving patient models. The student's appearance is also included under professional behavior; student's must wear lab coats during lab sessions with patient models.
- No confrontational discussions, lab grading or performance will be handled in front of the patient models.
- Any and all incidents will be reported.

Emergency Preparedness:

In the event that a hurricane is approaching the area, please access the College's website or local news to determine college closings. If a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may not have access to your online course for a short or extended period of time. Following the event, please visit the college web site for an announcement of the College's plan to resume normal operations.

AED:

The student should follow the same procedures to call 911 and obtain the AED. In the Banker's Insurance Group building or wing, the nearest AED is on the wall just outside of OP203 Clinical Procedure Room.

Emergency Procedures:

When an emergency signal sounds students should exit the nearest doors and advance, in an orderly manner, to an area 100 feet away from the building, behind the red line. If a student has special needs that would require help in evacuating the building that information should be given to the instructor at the beginning of the semester as well as at the time of the need to evacuate so help can be provided.

Emergency Notification Systems:

SPC has several emergency notification systems available. In the event of an emergency one or all of these systems may be employed. The systems include:

Patient Model Evacuation Strategy

The patient model evacuation strategy is for when patient model labs are in progress on the second floor. This is a "patient first" protocol in which the student assigned to that patient or assigned as the lead must have the prosthesis or ambulatory aid (including wheelchairs) at the ready. Then that student must escort his/her patient to the top of the stairwell, where the faculty will then give direction for the appropriate method of evacuation.

SECTION IV:

STUDENT RESOURCES

SECTION IV: STUDENT RESOURCES

This section contains a variety of resources and references that students will access during the course of their program of study. Much of the information contained in this handbook comes from state and federal sources, and is changed frequently. The student should always consult the specific source (e.g., professional association website) to obtain the most current information.

AAOP MEMBERSHIP

Students must join The American Academy of Orthotists and Prosthotists (AAOP) their first semester in order to access required online learning modules for success in the O&P program. The following directions will be useful throughout the program. Passwords to online modules change each semester. Faculty will provide required password information during each course.

Directions:

- Available on-line @ www.oandp.org
- Click Membership on the left navigation bar
- Click On-Line Applications
- Complete the application form. You will need a credit card. Student membership cost is $36 plus an application fee of $15. This will need to be renewed every year in June. Please register upon entering the fall semester.
- Click Submit

AAOP Learning Modules:

- Go to AAOP website at www.oandp.org
- Click Online Learning Center (found on the homepage)

- Click Log in for a Full Access (found on the left navigation bar)
- Enter Username and Password
- Scroll through the Academy Learning Modules, JPO articles or Case studies for the assigned title.
- Click on the assigned title.
- Click Enter Student Code (code supplied by the instructor)
- Enter the course code
- Click Submit
- Click View Session
- Review the assigned material and when ready…
- Click Take Final Exam
- Click on Get Exam
- Complete the exam, then…
- Click Submit
- Complete the course evaluation, then…
- Click Submit Survey & Exam Results
- If you failed the exam, then…
- Click Try Again
- If you passed, then
- Click Close Window

Baccalaureate Program Specialist

The program shares a Baccalaureate Program Specialist for the College of Health Sciences. Our specialist is **Michele Leonard** at 727-341-3794 or email: leonard.michele@spcollege.edu. Michele can also assist you with reviewing graduation requirements and your advisement report. Her office is at the Health Education Center in room 178B. She has direct access to all your official transcripts and reports.

Computer Assistance

Students who experience computer-related problems or have questions about computer software or hardware, ANGEL, or MySPC, may contact the **"Helpdesk"** at 727-341-4357 or email at onlinehelp@spcollege.edu. The Helpdesk is open seven days a week from 7 a.m. to Midnight Eastern Standard Time. Students may also access the Troubleshooting Guide found on the SPC website at http://www.spcollege.edu/MySPC/get_help.htm.

Primary

- SPC Homepage
- SPC email
- InformaCast, a system which has the capability to quickly broadcast notices, warnings and alerts using IP telephones, desk-top computers and broadcast speakers. Faculty and staff who have college desktop computers and IP telephones are included in the InformaCast system.

- SPC uses a commercial Emergency Notification System (School Messenger) which has the capability of quickly broadcasting notices, warnings, and alerts using email, home telephones, and cell phones. Faculty and staff should have their correct phone numbers in the SPC database by doing the following:
  1. Log in to MySPC
  2. Select My Personal Information and update numbers
  3. Select Emergency Cell/Text Options and update numbers.
  4. In order to participate in receiving text messages, simply text any one of the following words to the number **68453:** subscribe; opt-in; yes.
- SPCAlert on all networked computers (Bulk email)
- SPC Television Channel
- Fire alarms
- Enhanced 911 system

Secondary

- Hand held radios
- Electronic signs
- NOAA Tropical Storm Forecast and Radar Station: Ruskin
- Panic Buttons

Financial Aid

Financial aid in the form of scholarships, grants, loans, and part-time employment may be offered to students in accordance with procedures established by the college. Students must follow all college policies regarding refund dates, withdraw dates, and federal guidelines for reimbursement. The following policy is strictly enforced college wide:

It is very important that you understand the Federal guidelines related to Financial Aid and total withdrawal from the College. The U.S. Department of Education has implemented rules for students who obtain a Federal Pell Grant, Federal Stafford Loan and/or Federal Supplemental Educational Opportunity Grant and subsequently totally withdraw from the College. The rule requires you to refund to the Department of Education a portion of your financial aid if you completely withdraw from St. Petersburg College prior to the 60% point in the session. You may also be required to repay funds to the College. Should you consider totally withdrawing from all classes, it is important that you consult the Scholarships and Student Financial Assistance office on your home campus to understand your options and the consequences of total withdrawal. Students may get assistance with financial aid by contacting the financial aid office on their home campus or by contacting any of the resources listed below:

Financial Aid General Questions

Phone: 727-791-2485
Fax: 727-791-2495
TTY: 727-712-5282
E-mail: askfas@spcollege.edu

Verification

E-mail: verification@spcollege.edu
Fax: 727-791-2495

Satisfactory Academic Progress

E-mail: sapappeals@spcollege.edu
Fax: 727-444-6991

Locations

Financial Assistance Services offices are located in the Administration buildings on the Clearwater, St. Petersburg/Gibbs and Tarpon Springs campuses and in the UP building on the Seminole Campus; and the main buildings on the Downtown and Midtown campuses.

Financial aid hours

Financial Assistance Services offices are open:

Clearwater, St. Petersburg/Gibbs, Tarpon Springs, Seminole

Monday and Thursday, 8:30 a.m. – 7 p.m.

Tuesday and Wednesday, 8:30 a.m. – 4:30 p.m.

Friday, 8:30 a.m. – Noon

Downtown

Monday, 9:00 a.m. – 7:00 p.m.

Tuesday, 8:00 a.m. – 5:00 p.m.

Friday, 8:00 a.m. - Noon

Midtown

Wednesday and Thursday, 8:30 a.m. – 5:00 p.m.

Graduation Information/Requirements

All students are responsible for meeting the pre-requisite and/or co-requisite requirements for all O&P courses. In addition, students are responsible for meeting graduation requirements prior to graduation. The Faculty Advisor and Baccalaureate Program Specialist are available to assist students with progression and graduation requirements.

Program/Graduation Requirements

All students are responsible for meeting the pre-requisite and/or co-requisite requirements for all O&P courses. In addition the student is responsible for meeting graduation requirements prior to graduation.

Transfer Students

Transfer students must ensure that final official transcripts of all previous course work from colleges and high school are sent to SPC by the end of the first semester of enrollment in the program.

Foreign Language

Students may meet the foreign language requirements by completing one of following options:

- Completed two years of the same foreign language while in high school.
- Complete 8-10 semester hours of the same foreign language in college. Almost any language can be used to satisfy this requirement, including sign language.
- Students who earned an AA degree prior to 1989 are exempt.
- If you are a native speaker or have proficiency of a language other than English, you may choose to test out of the foreign language requirement by taking and passing the appropriate CLEP tests.
- Note: If a student attended a foreign High School in a country outside of the US they should contact their faculty advisor or baccalaureate specialist for information regarding foreign language requirement.
- Students who have completed a bachelors degree or higher from a regionally accredited institution are also exempt from the foreign language requirement

CLEP Information

St. Petersburg College participates in the **College Level Examination Program (CLEP).** Credit is awarded based upon guidelines set forth by the Articulation Coordinating Committee (ACC) as required in Section 240.4015 of Florida Statutes. The acceptable examinations, minimum acceptable scores for each examination, the course(s) for which credit will be granted and the number of semester hours given for each examination are listed on SPC's CLEP Information page. (http://www.spcollege.edu/webcentral/admit/place4.htm) Also indicated are courses that count toward the general education program of the AA degree or as electives. These guidelines are subject to change without prior notice. The maximum amount of non-traditional credit which may be granted is 45 semester hours.

Students must arrange for taking the CLEP test(s) of their choice through the **CollegeBoard**. Scores must be sent to SPC to be considered for credit.

How to Apply for Graduation

Students are encouraged to also apply for the **Associate in Arts** degree along with their **Bachelor of Applied Science** degree, UNLESS they already received the AA degree, OR will be earning an AA degree from a college other than SPC. Although students will have to fill out two applications, one for each degree, they will be required to pay only one $30 application for graduation fee.

Log in to **MySPC**

- Under My Planner, click **Apply for Graduation**
- For BASOP students, type **BAS** for **Academic Program**
- Type **ORTHO-BAS** for **Academic Plan**
- Type in name you wish to be printed on the diploma and approve or edit your mailing address.
- Check all the boxes that apply to you at the end of the application
- Click **Save**
- When the graduation application has been submitted, a message at the top right of the application will say "Grad application submitted".
- You have **successfully submitted** your graduation application
    - **Important Note**: Apply for graduation **only during the final semester** in which you will complete **ALL** courses required for your degree, including general education courses.
    - Applying for graduation will activate a **degree audit** to determine that you have met all course requirements for the conferring of your degree.
    - Pay the $30 graduation application fee.

Library Resources

1. Online Library

The library electronic collections can be used at any time from any computer connected to the Internet. The Library Online address is http://www.spcollege.edu/central/libonline, or you may access the library from the main SPC webpage—click on **Online Library** from the menu on the left side of the page.

Login to the library page using your **student number** for the **Username**, and the **last 4 digits of your social security number** for the **PIN**.

More than 5,000 electronic journals and periodicals are online in full text and more than 40,000 electronic books can be accessed online through the NetLibrary collection. Use the Library Online address to connect to **LINCC** (Library Information Network Community Colleges), the community college online catalog which lists the book, audiovisual and journal holdings of the College libraries. **LINCC** also connects to the library collections of other colleges and universities and state licensed databases.

College and state provided databases are accessed through the Library Online and require either a login (your student number) or a password available at all of the libraries.

2. Ask A Librarian

AskALibrarian is a service of the Library Online. It provides email, telephone and chat reference services. The library is part of the statewide virtual library chat reference project that provides extensive hours of online reference service to library users throughout the state. The site for this is http://www.askalibrarian.org/.

3. HEC Library

We are very fortunate to have great librarians who will be most helpful to you in your research for the program. The librarian at the Health Education Center is: Hector (Ricky) Perez-Gilbe - email address: perezgilbe.hector@spcollege.edu. In addition to Ricky, you may contact the Health Education Center's library at 727-341-3604. The library's hours are always posted on the HEC website and in the library's entrance. The online library has multiple links, articles & databases for students use. Anatomy TV is a great resource that is found at http://www.anatomy.tv.db24.linccweb.org/new_home.aspx.

4. NIP

The NIP Learning Support Commons is a federally funded program of academic support for pre-health and health education students. Because graduates of these programs work in such critical occupations, the health education curriculums are quite demanding and require long hours of concentrated study. NIP Learning Support Commons provides a rich assortment of resources and services to help students meet this challenge. http://www.spcollege.edu/hec/nip/

MySPCPortal:

How to Login to MySPC:

- Go to www.spcollege.edu.
- Look to the left menu column and click on **MySPC**.
- Enter your **student ID number** for **User ID** and enter your **Password**.
  - This is the same ID number and password that you use to access ANGEL.
- Click **Sign In**.
- You will now be in the **MySPC** portal.

How to Register for Classes:

- Log in to **MySPC** using your student ID and password
- Under **Register for Classes**, click on **Add a Class**
- Select the radio button next to the select TERM to register for: Example: Fall term 2010-2011 (430) Click the green **Continue button**.
- You may then be prompted to agree to SPC's Academic Honesty policies, as well as verify your contact information and residency information
- If you know the **class number**, type it in the **Class Nbr** field and click **ENTER**
- Repeat the process above to add additional courses

- When ready to finalize your schedule, confirm your shopping cart list and click **Finish Enrolling**.
- You are successfully enrolled in classes with status of a green checkmark

If you **do not know the class number** of a course you wish to take, you can do the following:

- Click **Search for Classes** under **Find Classes** in MySPC.
- Type the course subject prefix and catalog number in the fields. For example, if you'd like to find the offerings for Orthotics and Prosthetics, type **PRO** for Course Subject field and **3000** for Course Number field.
- Click **Search**
- All course offerings will be listed. Find your desired class and click the **Select Class** button to add to the shopping cart.
- Click **Next** if prompted.
- After adding all classes, confirm your shopping cart list and click on **Finish Enrolling**
- You are successfully enrolled in classes with display of a green checkmark.

How to pay for your courses:

After you register, click on the **Print Schedule & Fee's** link at the bottom of the page. Read your schedule carefully for your **TUITION DUE DATE**.

Please always make a note of your payment due date. If you miss your due date, you will be **dropped** from the class, and will have to re-register and pay on the SAME day.

- The most convenient method to pay is **online via a credit card**.
    - Log into MySPC
    - On right side of screen under **Pay for Classes**, click on **Make a Payment** to pay by credit card**.**
    - Follow the prompts to complete the payment transaction.

- If you choose to not make a payment online, you make payments at any campus business office. You can also make a payment by contacting our Business Office at the Health Education Center (727-341-3747), and they will accept your credit card payment over the phone or in person as well as checks and cash. Questions on your tuition/fees should be referred to any campus business office.

How to Check Your Degree Progress Report:

- Log in to **MySPC**
- Under **Advising**, click **Degree Progress Report**
- On the next screen, click the green **Go button**
- Your Degree Progress will now show:
    - This report includes a listing of all courses taken, along with indicating which **general education** and **upper division** courses are still **unmet** toward your BAS degree.
    - Look for **"Requirement Not Satisfied"** in red
    - The report will also include course prefix and catalog numbers of courses that will satisfy that requirement
    - **Important Note:** If you did not enter the program with an Associate in Arts (AA), you will need to satisfy general education course requirements by meeting **SPC's AA requirements**.

It is **YOUR responsibility** to assure that general education courses taken outside of St. Petersburg College and transferred in will satisfy SPC's requirements!

Important Note: Please access and read your **Degree Progress Report** carefully and contact your **faculty advisor** if you have questions, or notice any errors.

- An O&P full time **faculty** member will be assigned to you as your program advisor, and will contact you at some point in your first semester in the program. Your advisor will have access to your degree progress report, can help you interpret the report, and guide you in understanding the general education requirements and courses needed.

How to plan your schedule with My Planner tool:

SPC is proud to introduce the **My Planner** system to personalize your student experience and make academic planning fast and easy. It will take the guesswork out of deciding what courses to take and when to take them.

Important Note: In this program, you do not need to worry about what O and P course to take and in what order, as the program and course plan is already designed for you and your cohort. **My Planner** is particularly helpful for those students needing to complete **general education** courses. You do not need to plan out your O and P core courses, as they are offered only to our students, and you will be advised which particular courses (class number) to register for when registration opens for each semester.

My Planner will help you:

- Build a yearlong schedule
- View courses that you've completed toward your degree
- Verify outstanding graduation requirements including **general education and foreign language requirements**
- Another way to verify or determine general education courses you may need is to view your **Advisement Report**: Click on **My Planner**-->**Advisement**-->**View my Advisement Report**
- Be sure to **contact your Faculty Advisor** if you need help interpreting the **Advisement Report**, determining **general education courses** needed, and or if you notice errors or incorrect information

How to change your last name:

After changing your driver's license to reflect your new name, fax a copy of your driver's license to Maria Drew at 727-341-3231. Be sure to include your former name, along with your SPC Student ID number

Release of information:

The link provides a form that authorizes the college to discuss student records with named individuals. You should complete the form, print and sign it, and then deliver, fax or mail it to the program if you wish us to release any information to others. http://www.spcollege.edu/webcentral/forms/release.htm

Services for Students with Disabilities

St. Petersburg College recognizes the importance of equal access for all students. The Office of Services for Students with Disabilities (OSSD) is the campus office that works with students who have disabilities to provide and/or arrange reasonable accommodations as well as alternate emergency classroom evacuation procedures. Students registered with OSSD, who have a letter requesting accommodations, are encouraged to contact the instructor early in the semester. You must do this each semester with each faculty member. Students who have, or think they may have, a disability (e.g. learning disability, ADD/ADHD, psychiatric, medical/orthopedic, vision, and/or hearing), are invited to contact OSSD for a confidential discussion at 727-341-3721 (V/TTY) or at silvers.stefanie@spcollege.edu. Additional information is available at the college-wide OSSD website: http://www.spjc.edu/central/ossd/services.htm and/or HEC OSSD website: http://www.spcollege.edu/hec/ossd.htm .

Student Commons

The Commons is an electronic learning community. The Commons has hundreds of members, including current students in the program, alumni, and faculty. The Commons provides a communication mechanism for all members and pertinent information and links regarding student services, program announcements, scholarships, and financial aid, discussion boards, etc.

The library is also accessible through the Commons. All students and faculty are required to log into the Commons on a regular basis. Faculty advisors frequently use the Commons to communicate with students. This is an excellent way for students to reach them as well. It is **not** a good idea to email **all** members in the Commons if you have a specific program issue that you are asking questions about. You can email your class members in specific courses so that it goes to just to these class members.

Textbooks

Textbooks for all courses used throughout the program will be available to purchase through HEC's Follett's bookstore. The bookstore has a link on the SPC homepage. Students must have required textbooks in their possession at the beginning of the semester. Textbooks must be brought to classes when requested. When students are purchasing textbooks, make sure to allow ample time for delivery prior to the start date for classes.

Guidelines for the St. Petersburg College

Orthotic and/or Prosthetic Clinical Preceptorship

Student:

1. Student's affiliation period will be scheduled each semester. Exact locations will be announced. You have a different clinical affiliation each semester. Students are expected to maintain a full-time work schedule each assigned day, or a full 4 hour day on half days (grand rounds). Students are required to contact their affiliation site prior to starting their rotation to confirm days and hours of affiliation with preceptor.

2. NCOPE requires a minimum of 250 hours for each discipline.

3. Under supervision of ABC certified orthotists-prosthetists, the students will participate as team members, functioning as student orthotists-prosthetists. Students are expected to acquire knowledge of prescription criteria, take measurements and plaster impressions, modify positive models, fit and evaluate a wide variety of systems.

   Students will have the opportunity to use acquired skills in communication, patient management, and interaction with other team members through actual patient encounters in clinical settings.

   It is expected that students will be involved in practitioner level activities, including patient contact in clinics. Fitting rooms, hospitals, etc. Some fabrication is acceptable; especially in support of their own projects, but the emphasis will be on patient management activities.

4. Students are expected to adhere to the clinical affiliate's policies, including dress and grooming requirements, as appropriate within the practice and patient management procedures. Students are expected to be professional at all times. This includes respecting all information from previous clinical sites. If you engage in any behavior discussing previous clinical site you will be sent home for the week. If it occurs more then once you will have to speak with your clinical instructor about retaking the course at another time.
5. If a student's behavior is inappropriate and clinical site dismisses them they may be suspended or dismissed from the program.

   Students will arrive at the clinical affiliation's normal start time each day and remain the assigned time. Students are to notify the affiliation site in advance if it becomes necessary to take any time off, or call in advance if they are unavoidably delayed that day. Lost time will need to be made up.

6. A log book will be maintained, by the student, of his/her activities. These daily entries will outline their patient encounters, clinical experiences, etc. At the end of each month, St. Petersburg College of Orthotics and Prosthetics requires that the supervising practitioner sign the log, to attest they are in agreement with the recorded patient management encounters and hours.

7. Students are covered by the university insurance while at their clinical rotations.

Guidelines for the St. Petersburg College

Orthotic and/or Prosthetic Clinical Preceptorship

Preceptors:

1. The affiliation period may be scheduled any time throughout the entire year. You have a different student each semester. Students are expected to maintain a full-time work schedule each assigned day, or a full 4 hour day on half days. You can expect a new student on the second week of each new semester fall and spring. Summer is different it will run for a 2-3 week period.

2. NCOPE requires a minimum of 250 hours for each discipline. Preceptors are expected to supervise and verify that students fulfill the practitioner activities and hour requirements that are assigned to them. Preceptors will be asked to provide a simple evaluation of the student's performance at the end of each semester of affiliation. A sample form is provided.

3. Under supervision of ABC certified orthotists-prosthetists, the students will participate as team members, functioning as student orthotists-prosthetists. They are expected to acquire knowledge of prescription criteria, take measurements and plaster impressions, modify positive models, fit and evaluate a wide variety of systems.

4. Students will have the opportunity to use acquired skills in communication, patient management, and interaction with other team members through actual patient encounters in clinical settings.

5. It is expected that students will be involved in practitioner level activities, including patient contact in clinics. Fitting rooms, hospitals, etc. Some fabrication is acceptable; especially in support of their own projects, but the emphasis will be on patient management activities.

6. Students are expected to adhere to your facility's policies, including dress and grooming requirements, as appropriate within your practice and patient management procedures. They are expected to be professional at all times. This includes respecting all information from previous clinicals. If you find a student is willing to engage in unprofessional conduct please send them home for the week.

7. Students will arrive at your normal start time each day and remain the assigned time. They are to notify you in advance is it becomes necessary to take any time off, or call you in advance if they are unavoidably delayed that day. Lost time will need to be made up.

8. A log book will be maintained, by the student, of his/her activities. These daily entries will outline their patient encounters, clinical experiences, etc. At the end of each month, St. Petersburg College of Orthotics and Prosthetics requires that the supervising practitioner sign the log, to attest they are in agreement with the recorded patient management encounters and hours.

9. Students are covered for professional insurance by the university. Insurance carriers typically indicate that if students are listed as an employee, whose compensation is the training they are receiving, they will be covered for liability and workman's compensation coverage. However, you should check with your

insurance company to identify any special requirements for your situation. If you request a waiver of liability from your student, you may obtain a form from our institution.

Tuition

General Tuition and Fee Chart: Orthotics and Prosthetics Program Estimate of Expenses

In-state Resident Estimated Costs per Semester for O&P Courses Only.

Florida Residents 69 hours in state @ $ 101.73			$7,019.37
Out of State Residents 69 hours out of state @ 391.94			$27043.83
Books and Supplements			$1,892.00
Course Lab Fees			$3,425.00
PRO 3301C	Transtibial Prosthetics	$500.00	
PRO 3310C	Lower Extremity Orthotics I	$425.00	
PRO 3311C	Lower Extremity Orthotics II	$500.00	
PRO 4331C	Transfemoral Prosthetics	$500.00	
PRO 4350C	Spinal Orthotics	$500.00	
PRO 4361C	Upper Extremity Prosthetics	$500.00	
PRO 4371C	Upper Extremity Orthotics	$500.00	
Lab Coat and Scrubs			$150.00 each

Total In State Resident	**$12,364.37**
Total Out of State Resident	**$32,388.83**

Please note: all costs/fees are estimated.

Tuition Refunds

Refunds are completed through each student's SPC OneCard. No cash dispersements will be made. For more information on OneCard: http://www.spcollege.edu/webster/news/HigherOneSPCBrochure.pdf

- Credit courses dropped before the end of the drop/add period as published in the catalog: 100 percent refund
- Courses dropped after the end of the drop/add period: no refund
- Dynamically dated courses must be dropped by the end of the first day of class for refund
- Exact drop dates are always clearly stated in each course syllabus

NOTE: All costs/fees are estimated, and may change without notice

Tutoring and Resources for Students:

The New Initiative Program **(NIP)** is a federally funded program designed to provide academic assistance to special population health students. NIP is provided as a service of SPC at the Health Education Center. Students may self-refer or be referred to the program by College staff. There is NO charge for students to participate. Call the NIP Center at 727-341-3724 for further information or to schedule an appointment.

Depending on need, students may receive assistance in such areas as math, English, science, and college survival skills; test taking strategies, time management, stress reduction, and general study skills. Review sessions in specific content areas are offered. NIP learning coordinators are available for individual or small group tutoring sessions.

The Learning Support Center, sponsored by NIP, provides a hands-on learning environment for all students.

Withdrawing from a Course:

Voluntary Withdrawal during "W" Period:
A student who elects to withdraw voluntarily from a course prior to the deadline of a session or term will receive a final grade of "W", unless they have passed the withdraw date posted in the course and on the website. If a student is withdrawn for any reason following the withdraw date the grade of F for the course will appear on the transcript.

Drop with a refund:

Credit courses dropped before the end of the drop/add period as published in the catalog and syllabus for will receive a 100 percent refund. Exact drop dates are always clearly stated in each course syllabus.

Incomplete Grades:

An incomplete ("I") may be extended to a student who for valid reason is unable to complete a course, provided that he/she is in good standing in the course and has completed at least 80% of the coursework. The student must sign a form acknowledging the work to be completed and the date by which the work must be completed. All work must be completed before the subsequent session end date.

SECTION V:

APPENDICES

Orthotics and Prosthetics Course Descriptions

PRO 3000C INTRODUCTION TO ORTHOTICS, PROSTHETICS AND REHABILITATION 3 credits

Prerequisite: Admission to the Orthotics & Prosthetics BAS. This course focuses on the development of knowledge necessary to understand the rehabilitation process as it relates to the delivery of orthotic/prosthetic care. The prosthetic and orthotic profession is presented in terms of the integration of the biological, medical, and engineering sciences as well as the clinical and technical components of the disciplines. Students will develop a solid foundation of the principles and practice of orthotics and prosthetics and the materials and technology associated with the manufacture of custom devices. The Lab component section will develop psychomotor skills in the application of contemporary technology at the introductory level. 62 total contact hours, 2 credits

PRO 3100 BIOMECHANICS 2 credits

Prerequisite: Admission to the Orthotics & Prosthetics BAS. This course examines the application of mechanics on living organisms. It includes the application of engineering principles to and from biological systems producing movement and stabilization. The student will learn the mechanics of orthotic/prosthetic applications as they relates to human movement and stabilization; also the joint pathomechanics that hinder or restrict these movements. The student will be introduced to biomechanical measurement instruments (i.e. force plates, pressure transducers, temporal, spatial, and video analysis) used to quantify the kinetic effects associated with physical activity. 32 contact hours.

PRO 3110 CLINICAL PATHOLOGY 3 credits

Prerequisite: Admission to the Orthotics and Prosthetics Masters program. This course focuses on the pathophysiology, clinical signs and symptoms associated with numerous diseases and traumatic injuries as they relate to the practice of orthotics and prosthetics. Clinical Pathology provides a comprehensive foundation to build the students knowledge of specific clinical disorders. Each problem is presented in terms of the diagnoses, tests, treatment regimes, rehabilitation, prognosis and its morbidity. Students will learn the proper method to review case materials (history, physical exam, laboratory data, etc), to develop differential diagnoses for a specific patient presentation. Relevant case studies are developed weekly to ensure a clinical understanding of the role of the prosthetist and orthotist in the rehabilitation process. 47 contact hours.

PRO 3200C HUMAN ANATOMY AND PHYSIOLOGY FOR ORTHOTICS AND PROSTHETICS 4 credits

Prerequisite: Admission to the Orthotics & Prosthetics BAS. This course focuses on examination of the human body as it is relevant to orthotics and prosthetics. Specific systems focused on will be cardiovascular, skeletal, neurological, and muscular. Particular emphasis will be placed on the extremities, and the spine. A regional approach to human morphology will be taken and the students will be looking at models, websites and some plastinated specimens. 92 contact hours.

PRO 3500 CLINICAL METHODS 3 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS Program or permission of the Dean. This course focuses on utilizing medical evidence and patients' exam to support clinical practical decisions. This course is clinically based on instruction in selection of prescription criteria. The course will help students gather and document appropriate clinical data required for good practical decisions. The laboratory portion will focus on patient assessment skills and documentation. 77 contact hours.

PRO 3120 GAIT ANALYSIS AND PATHOMECHANICS 2 credits

Prerequisite: Admission to the Orthotics & Prosthetics BAS. This course focuses on normal human locomotion and pathological gait. The students will learn the mechanics of human locomotion and the kinematics associated with all phases of gait, identify the events that occur during the gait cycle, and identify gait deviations due to clinical pathologies or compensations. Laboratory portion will augment the learning with temporal, spatial, and video analysis of normal and pathological gait. 62 contact hours.

PRO 3301C TRANSTIBIAL PROSTHETICS 5 credits

Prerequisite: Admission to the Orthotics & Prosthetics BAS. This course will present prosthetics treatment modalities of the lower extremity distal to the knee. Students in this course will receive instruction on the assessment, formulation, implementation follow up of a prosthetic treatment plan for transtibial and symes amputation levels. Concurrent lower extremity lab activities with patient models will allow the student to correlate clinical findings with evidence based practice to synthesize the significance of the appropriate choice of components, principles, material properties, socket design, prosthetic alignment and medical management. Application of technology including CAD/CAM imaging will be incorporated throughout the course projects. Relevant case studies will be discussed to facilitate clinical problem solving skills. 137 contact hours.

POR 3310C LOWER EXTREMITY ORTHOTICS I 4 credits

Prerequisite: Admission to the Orthotics & Prosthetics BAS. This is a combined course focusing on the orthotic treatment of the foot and ankle. Students in this course will receive instruction on the assessment, formulation, and implementation of an orthotic treatment plan for common disorders affecting both adults and children. Students will receive instruction on the use of shoes, shoe modifications, foot orthoses (FO) and ankle-foot orthoses (AFO) in the treatment of these disorders. In the lab, students will have the opportunity to perform patient assessments, and to fabricate a variety of foot and ankle-foot orthoses (accommodative FO, corrective FO, UCBL FO, and metal and leather AFO). 122 contact hours.

PRO 3801L ORTHOTICS AND PROSTHETICS ROTATION TOPIC I: EVIDENCE BASED PRACTICE 2 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS program. This is a blended course with a combination of classroom, on-line, and hands on experience that allows students to observe, assist, and practice clinical patient care and device fabrication in an environment to prepare for an orthotic or prosthetic residency. Each student will be placed at a clinical agency to practice orthotic & prosthetic skills under close supervision of an ABC prosthetist/orthotist. The student will need to document their patient interactions and case analysis of their clinical experiences utilizing the Typhon website. The area of concentration in the clinical rotations will be on clinical assessments, technical skills, practice management; foot orthotics, ankle foot orthotics, and transtibial prosthetics including amputation surgery, post operative prostheses, static and dynamic alignment, fabrication and adjustments; spinal orthotics including, but not limited to scoliosis orthoses, TLSO, LSO, cervical orthoses, and patient evaluation; upper limb and research; lower extremity orthoses and transfemoral prosthetics including, but not limited to amputation surgery, post operative prostheses, and static and dynamic alignment. Students are encouraged to take advantage of hands on clinical exposure in this area of study to develop their clinical skills and confidence during their rotation at the approved affiliate sites. Knowledge of the student's skills in patient evaluation, clinical assessment,

formulating and implementing a comprehensive treatment plan, follow-up assessment, documentation, and interpersonal communication among practitioners, patients, and caregivers encountered in the clinical environment will be demonstrated and evaluated in the student's case study presentations. Students are required to present two case studies as assigned throughout the semester to an audience of peers and advisors. 130 Total Contact Hours are mandatory.

PRO 3801L ORTHOTICS AND PROSTHETICS ROTATION TOPIC II: PSYCHOLOGY OF THE DISABLED 2 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS program. This is a blended course with a combination of classroom, on-line, and hands on experience that allows students to observe, assist, and practice clinical patient care and device fabrication in an environment to prepare for an orthotic or prosthetic residency. Each student will be placed at a clinical agency to practice orthotic & prosthetic skills under close supervision of an ABC prosthetist/orthotist. The student will need to document their patient interactions and case analysis of their clinical experiences utilizing the Typhon website. The area of concentration in the clinical rotations will be on clinical assessments, technical skills, practice management; foot orthotics, ankle foot orthotics, and transtibial prosthetics including amputation surgery, post operative prostheses, static and dynamic alignment, fabrication and adjustments; spinal orthotics including, but not limited to scoliosis orthoses, TLSO, LSO, cervical orthoses, and patient evaluation; upper limb and research; lower extremity orthoses and transfemoral prosthetics including, but not limited to amputation surgery, post operative prostheses, and static and dynamic alignment. Students are encouraged to take advantage of hands on clinical exposure in this area of study to develop their clinical skills and confidence during their rotation at the approved affiliate sites. Knowledge of the student's skills in patient evaluation, clinical assessment, formulating and implementing a comprehensive treatment plan, follow-up assessment, documentation, and interpersonal communication among practitioners, patients, and caregivers encountered in the clinical environment will be demonstrated and evaluated in the student's case study presentations. Students are required to present two case studies as assigned throughout the semester to an audience of peers and advisors. 130 Total Contact Hours are mandatory. This course focuses on the Psychology for the Disabled as an O&P professional. Emphasis is placed on the psychological implications of the patient's disabled status including, but not limited to: physical, emotional, mental, functional, socio-economical, and vocational aspects to provide optimal assistance in patient care and adaptation.

PRO 4371C UPPER EXTREMITY ORTHOTICS 4 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS program or permission of the Dean. This course focuses on the development and implementation of a comprehensive upper limb orthotic treatment plan. Students are required to integrate knowledge of anatomy, kinesiology, biomechanics, pathology, material science, upper limb orthotic components and design principles in order to address clinical problems of the upper limb. Students will fabricate five custom orthoses (thermoplastic WHO, metal WHO, low temperature thermoplastic WHO, low temp wrist Fracture brace, and a Tenodesis WHO) and fit and discuss various prefabricated orthoses. 92 contact hours.

PRO 4331C TRANSFEMORAL PROSTHETICS 5 credits

Prerequisite: PRO 3301 with a grade of "C" or better and Admission to the Orthotics and Prosthetics BAS program. This course focuses on anatomy, biomechanics and prosthetic principles of transfemoral, knee disarticulation, hip disarticulation and hemipelvectomy amputations. Students will learn biomechanics of the socket fit and prosthetic alignment. This course requires comprehensive integration of the students'

knowledge of anatomy, biomechanics and prosthetic principles. Students will learn to take an impression, rectify the model, fabricate a diagnostic and a definitive prosthesis, and perform diagnostic and final fittings. 137 contact hours.

POR 3311C LOWER EXTREMITY ORTHOTICS II 5 credits

Prerequisite: Admission to the Orthotics & Prosthetics BAS. This is a combined course focusing on the orthotic treatment of the lower extremity. Students in this course will receive instruction on the assessment, formulation, and implementation of an orthotic treatment plan for common disorders affecting the lower extremity. Students will receive instruction on the use of ankle-foot orthoses (AFO), knee-ankle-foot orthoses (KAFO), knee orthoses (KO), hip orthoses (HO) and hip-knee-ankle-foot orthoses (HKAFO) in the treatment of these disorders. In the lab, students will have the opportunity to perform patient assessments, castings and measurements and to fabricate a variety of AFOs, KAFOs. 137 contact hours.

PRO 3505 CLINICAL PROBLEM SOLVING 2 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS program or permission of the Dean. This course will focus on the development and presentation of comprehensive orthotic/prosthetic treatment plans through the analysis and synthesis of information gleaned through the clinical evaluation and assessment process. 32 contact hours.

PRO 4XXXC ADVANCED TOPICS 3 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS program.
The course builds on current prosthetic and orthotic design principles by introducing additional available technologies and research trends. Introductions to advances in the following categories will be presented: lower extremity orthotics; prosthetic foot/ankle design; prosthetic knee and hip design; suspension variations; alignment; upper extremity orthotics/prosthetics; and cosmetic coverings. Topics to include: image capture and computer aided design; osseointegration; limb regeneration; direct neural control and limb transplants; recreational and high activity devices; adaptive sports equipment; and sensory feedback. The rationale for this course is based upon the need for the prosthetic-orthotic graduate to have an understanding of current technologies and it is intended to synthesize coursework from previous semesters. 77 contact hours.

PRO 3801L ORTHOTICS AND PROSTHETICS ROTATION TOPIC III: ETHICS AND PROFESSIONALISM 2 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS program. This is a blended course with a combination of classroom, on-line, and hands on experience that allows students to observe, assist, and practice clinical patient care and device fabrication in an environment to prepare for an orthotic or prosthetic residency. Each student will be placed at a clinical agency to practice orthotic & prosthetic skills under close supervision of an ABC prosthetist/orthotist. The student will need to document their patient interactions and case analysis of their clinical experiences utilizing the Typhon website. The area of concentration in the clinical rotations will be on clinical assessments, technical skills, practice management; foot orthotics, ankle foot orthotics, and transtibial prosthetics including amputation surgery, post operative prostheses, static and dynamic alignment, fabrication and adjustments; spinal orthotics including, but not limited to scoliosis orthoses, TLSO, LSO, cervical orthoses, and patient evaluation; upper limb and research; lower extremity orthoses and transfemoral prosthetics including, but not limited to amputation surgery, post operative prostheses, and static and dynamic alignment. Students are encouraged to take advantage of hands on

clinical exposure in this area of study to develop their clinical skills and confidence during their rotation at the approved affiliate sites. Knowledge of the student's skills in patient evaluation, clinical assessment, formulating and implementing a comprehensive treatment plan, follow-up assessment, documentation, and interpersonal communication among practitioners, patients, and caregivers encountered in the clinical environment will be demonstrated and evaluated in the student's case study presentations. Students are required to present two case studies as assigned throughout the semester to an audience of peers and advisors. 130 Total Contact Hours are mandatory.

EGN3443 STATS FOR ENGINEERING: 3 credits

Prerequisite: Admission to the Orthotics and Prosthetics Masters program, MAC4312. This course is an introduction to basic concepts of statistical analysis with special emphasis on engineering applications. The course covers the topics of probability, discrete and continuous random variables and their sampling distributions, joint probability distributions, descriptive statistics, estimation of parameters, hypothesis testing and statistical inference for one and two samples, simple linear regression, and design of experiments. 47 contact hours.

PRO 4850 SENIOR CAPSTONE CLINICAL ROTATION 2 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS program or permission of the Dean. This capstone course will integrate all the information from the orthotics and prosthetics program. The student will be demonstrating competency in the six practice domains of the orthotist prosthetist. Upon completion of this course the student will be prepared to enter a residency in orthotics or prosthetics. 32 contact hours.

PRO 3801L ORTHOTICS AND PROSTHETICS ROTATION TOPIC IV: BUSINESS 2 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS program. This is a blended course with a combination of classroom, on-line, and hands on experience that allows students to observe, assist, and practice clinical patient care and device fabrication in an environment to prepare for an orthotic or prosthetic residency. Each student will be placed at a clinical agency to practice orthotic & prosthetic skills under close supervision of an ABC prosthetist/orthotist. The student will need to document their patient interactions and case analysis of their clinical experiences utilizing the Typhon website. The area of concentration in the clinical rotations will be on clinical assessments, technical skills, practice management; foot orthotics, ankle foot orthotics, and transtibial prosthetics including amputation surgery, post operative prostheses, static and dynamic alignment, fabrication and adjustments; spinal orthotics including, but not limited to scoliosis orthoses, TLSO, LSO, cervical orthoses, and patient evaluation; upper limb and research; lower extremity orthoses and transfemoral prosthetics including, but not limited to amputation surgery, post operative prostheses, and static and dynamic alignment. Students are encouraged to take advantage of hands on clinical exposure in this area of study to develop their clinical skills and confidence during their rotation at the approved affiliate sites. Knowledge of the student's skills in patient evaluation, clinical assessment, formulating and implementing a comprehensive treatment plan, follow-up assessment, documentation, and interpersonal communication among practitioners, patients, and caregivers encountered in the clinical environment will be demonstrated and evaluated in the student's case study presentations. Students are required to present two case studies as assigned throughout the semester to an audience of peers and advisors. 130 Total Contact Hours are mandatory.

PRO 4350C SPINAL ORTHOTICS 5 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS program. This course focuses on how to integrate knowledge of biomechanics, anatomy, pathology, material properties, and orthotic principles to solve clinical problems afflicting the spine. This course offers clinically based instruction in selection, measurement, and manufacture of spinal orthotics. Students will examine, cast, and provide model patients with several devices including various lumbosacral orthoses and thoraco-lumbosacral orthoses. In addition, students will have the opportunity to fit several prefabricated spinal orthoses. The differences between taking an impression by the traditional plaster casting and Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) methods will be examined and discussed. This class will be a combined lecture-lab course. 137 contact hours.

PRO 4361C UPPER EXTREMITY PROSTHETICS 4 credits

Prerequisite: Admission to the Orthotics and Prosthetics BAS program. This course will offer prosthetic treatment options for patients with upper extremity amputations. The course will incorporate knowledge gained from the foundational course work of: Biomechanics; Gait Analysis & Pathomechanics; Human Anatomy & Physiology; and Clinical Methods. The Students in this course will receive instruction on the assessment, formulation, implementation and follow-up care for an upper extremity treatment plan for pediatric and adult populations. Concurrent upper extremity lab activities with patient models will provide the students to associate clinical findings with evidence based practice to synthesize the significance of the appropriate choice of principles, materials properties, components, socket designs and medical management. The student will interact with upper extremity systems specific to transradial and transhumeral levels incorporating Figure of 8&9 harness systems, anatomical suspension variants and single and dual control cable systems. 92 contact hours.

ORTHOTICS AND PROSTHETICS PROGRAM

STUDENT AGREEMENT FORM

I, the undersigned student, having read and reviewed the St. Petersburg College Orthotic and Prosthetic Program Student Handbook, do agree to adhere to and abide by all College as well as Program policies and/or their amendments, during my matriculation as an Orthotics and Prosthetic student at St. Petersburg College. Furthermore, I agree to adhere to the conduct and performance policies of the clinical sites to which I may be assigned. I clearly understand that the failure to adhere to and abide by these policies and regulations of the College, Program or Clinical Facility may result in my suspension or dismissal from the Program, as outlined in the SPC Handbook.

I understand that the clinical agencies to which I am assigned during the course of the program may request a copy of my background check, drug screening, and health form with immunization history. By my signature below I agree to the releasing of that information to those agencies.

Date: _____

Student's Name (Printed): _____

Student's Signature: _____

Witness (Printed): _____

Witness Signature: _____

Please sign and date both copies. One copy will be kept on file at the Orthotics and Prosthetics Program of St. Petersburg College. The other copy is for your records.

ORTHOTICS AND PROSTHETICS PROGRAM

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Student's Signature: _____

Witness (Printed): _____

Witness Signature: _____

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ST. PETERSBURG COLLEGE

ORTHOTICS AND PROSTHETICS PROGRAM

DEGREE AUDIT PROCESS

Each student is responsible for knowing what classes he/she still need to complete before applying for graduation.

By downloading and printing out this degree audit I acknowledge and understand the classes I still need to complete before I can graduate.

If I do not understand what classes I still need to complete to fulfill the requirements for the BAS Degree in Orthotics and Prosthetics, I assume the responsibility to make an appointment with an academic advisor at the Health Education Center for clarification.

Student's Name (Printed): _____

Signature

SPC Student Number

Faculty

Date

Please sign and date both copies. One copy will be kept on file at the Orthotics and Prosthetics Program of St. Petersburg College. The other copy is for your records.

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Date

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ST.PETERSBURG COLLEGE

ORTHOTICS AND PROSTHETICS DEPARTMENT

TOOL BOX INVENTORY

DRAWER 1

ROTARY PUNCH

3 PC FILE SET

SCRATCH AWL

AUTOMATIC CENTER PUNCH

DEBURRING TOOL

4” TAPER BLADE KNIFE

AVIATION SNIPS

3 YATES CLAMPS

WISS 175E SCISSORS

BANDAGE SCISSORS

WISS 20 INDUSTRIAL SHEAR

UTILITY KNIFE

DRAWER 2

DRAWER 3

6 PC SCREWDRIVER SET

24” RULER

12” CARPENTER SQUARE

12” ADJUSTABLE SQUARE

METRIC BALL-END HEX KEY SE

INCH BALL-END HEX KEY SET

HOSMER GONIOMETER

PROTRACTOR

OUTSIDE CALIPER

INSIDE CALIPER

DIVIDER

PLUMB BOB

DRAWER 4

SURFORM SHAPER	5 PC LOCKING PLIER SET
SURFORM FLAT FILE	12 PC PUNCH AND CHISEL SET
SURFORM ROUND FILE	PENCIL COMPASS
SURFORM HALF-ROUND BLADE	5 PC PLIER SET
PR MAGNETIC VISE JAW FACES	3PC ADJUSTABLE WRENCH SET
HACK SAW	BALL PEIN HAMMER
SMALL SCARPAS KNIFE	TUBING CUTTER
LARGE SCARPAS KNIFE	SMALL END NIPPER
SMALL SPATULA	
LARGE SPATULA	

1. American Board of Certification Code of Professional Responsibility
2. O& P Lab and Safety Manual

I acknowledge receipt of custody of the tools listed herewith. I understand that I must replace any lost or damaged tools at my expense before graduation from the SPC O&P program.

PRINT NAME: _____

SIGNATURE: _____

DATE: ___/___/___

ST.PETERSBURG COLLEGE

ORTHOTICS AND PROSTHETICS DEPARTMENT

TOOL BOX INVENTORY

DRAWER 1

ROTARY PUNCH

3 PC FILE SET

SCRATCH AWL

AUTOMATIC CENTER PUNCH

DEBURRING TOOL

4” TAPER BLADE KNIFE

AVIATION SNIPS

3 YATES CLAMPS

WISS 175E SCISSORS

BANDAGE SCISSORS

WISS 20 INDUSTRIAL SHEAR

UTILITY KNIFE

DRAWER 2

DRAWER 3

6 PC SCREWDRIVER SET

24” RULER

12” CARPENTER SQUARE

12” ADJUSTABLE SQUARE

METRIC BALL-END HEX KEY SE

INCH BALL-END HEX KEY SET

HOSMER GONIOMETER

PROTRACTOR

OUTSIDE CALIPER

INSIDE CALIPER

DIVIDER

PLUMB BOB

DRAWER 4

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SURFORM FLAT FILE	12 PC PUNCH AND CHISEL SET
SURFORM ROUND FILE	PENCIL COMPASS
SURFORM HALF-ROUND BLADE	5 PC PLIER SET
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HACK SAW	BALL PEIN HAMMER
SMALL SCARPAS KNIFE	TUBING CUTTER
LARGE SCARPAS KNIFE	SMALL END NIPPER
SMALL SPATULA	
LARGE SPATULA	

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