Graduate Council Curriculum Committee
November 18, 2015
3:00 p.m., 146 Colbourn Hall

Agenda

1. Welcome and call to order
2. Approval of the minutes from the last meeting
3. ST CAP 5937 Medical Image Computing course, CECS – tabled at last meeting
4. Reactivation of the MS in Early Childhood Development and Education, CEHP
5. No equipment fees to review
6. Materials and Supplies Fee Requests
7. Courses and special topics
8. Adjournment

Members of the Graduate Council Curriculum Committee

Deborah Breiter, Chair, RCHM
Charles Kelliher, CBA
Claire Knox, COHPA
Elsie Olan, CEHP
Wanda Raimundi-Ortiz, CAH
Jennifer Sandoval, COS
Art Weeks, CECS
Diane Andrews, CON
Steven Ebert, COM
Shuo "Sean" Pang, COP
Terrie Sypolt, LIB
Andrea Pulido, GSA
John Weishampel, CGS Liaison

ST: CAP 5XXX: Special Topics in Biomedical Image Analysis

1. Course Goal

The course is designed to provide the students with the foundation necessary for understanding, visualizing, and quantifying medical images. This course covers the most important imaging modalities in radiology: radiography, x-ray computed tomography, nuclear medicine, ultrasound imaging, and magnetic resonance imaging. This course aims to provide core image analysis methods necessary for quantification of normal and abnormal anatomical structures, automatic detection of several diseases, tumor volume, shape, and texture pattern change analysis, characterization of the diseases, computer aided early diagnosis, tumor volume assessment, disease characterization, anatomy modeling, surgery planning, patient outcome prediction based on imaging data. By the end of this course, students will have gained:

- A basic understanding of the medical image reconstruction systems
- Exposure to a number of image analysis techniques including medical image segmentation, medical image registration, and image understanding
- Practical experience in building and evaluating medical image analysis software

2. Instructor

Ulas Bagci, PhD.
Assistant Prof. of Computer Science and
Faculty Member at CRCV, UCF.
bagci@crcv.ucf.edu

3. Meeting Times and Places

TBD

4. Prerequisites

COP 3330 (OO Programming)
MAS 3105 (Matrix and Linear Algebra) or MAS 3106 (Linear Algebra)
COP 3502 (Computer Science I)

5. Required Text Books

There will be no required text book but optional ones.

- Image Processing, Analysis, and Machine Vision (Fourth Edition) by Milan Sonka, Vaclav Hlavac, and Roger Boyle

6. Topics

Given below is a tentative list of topics to be covered during the course. The list is not final and will be adjusted as necessary.

- Introduction to Medical Imaging Systems
- Image Representation and Its Properties
- Image Pre-Processing (smoothing, edge detection, geometric transformation, restoration, etc)
- Medical Image Segmentation
- Medical Image Registration
- Shape Representation and Analysis of Anatomical Structures
- Medical Image Understanding
- Machine Learning for Medical Imaging
- Motion Analysis and Dynamic Imaging Systems

7. Resources for the Class

- ITK: Insight Image Segmentation and Registration Toolkit
- VTK: Visualization Toolkit
- Slicer: A multi-platform free and open source software package for visualization and medical image computing

8. General Policies

a. UCF's Golden Rule

As reflected in the UCF creed, integrity and scholarship are core values that should guide our conduct and decisions as members of the UCF community. Plagiarism and cheating contradict these values, and so are very serious academic offenses. Penalties can include a failing grade in an assignment or in the course, or suspension or expulsion from the university. Students are expected to familiarize themselves with and follow the University's Rules of Conduct (see http://www.goldenrule.sdes.ucf.edu/).

b. Student's academic activity verification policy

UCF requires to document students' academic activity at the beginning of each course. In order to document that you began this course, make sure to complete the first assignment by the by the deadline. Failure to do so will result in a delay in the disbursement of your financial aid.

c. Course evaluation policy

The progress of the student will be evaluated in the following manner:

Programming Assignment [30%]: Each assignment will be 10%, there will be 3 assignments. Matlab, Python, or C/C++ can be used with ITK/VTK libraries.

Challenge Assignment [30%]: Students will compete with each other to have the best method who will give the best sensitivity, specificity, and accuracy results for a given challenge problem.

Final Project [40%]: 1, 2 or at most 3 people can work in the same project. There will be different projects assigned to each group. Projects will be in the following topics: Image Segmentation, Image Registration, Machine Learning for Medical Imaging, Medical Computer Vision, and/or Medical Visualization.

A rough guide for points to grade conversion is the following:
A : 90 and above
A- : 88-89
B+ : 85-87
B : 80-84
B- : 78-79
C+ : 75-77
C : 70-74

9. Assignment Policies

- Programming and challenge assignments may be discussed with others, and with the instructor, but must be completed and submitted individually.
- The final project must be completed and demoed on or before our last class day. The project will be discussed in the class and the students will be required to submit a regular biweekly update about the progress in the project.
- Multiple students may work in the project. The complexity of the project will increase with the number of project members. The project members of a group are expected to share the project load equally among themselves.
- Assignment and project submission is through WebCourses.
- Students who use ITK/VTK libraries can either use C++ or Python as a programming languages. Matlab and R will be useful for statistical computation and data visualization.

REVISED SYLLABUS

Special Topics Course: Medical Image Computing-Syllabus

Instructor: Dr. Ulas Bagci
HEC 221, CRCV, Computer Science
UCF, Orlando, FL 32816

Tentative Schedule of Lectures

- Basics of Radiological Image Modalities and their clinical use
  - X-ray and CT
  - MRI, fMRI, DTI, DWI
  - PET, dynamic PET, SPECT
  - Hybrid imaging modalities (PET/CT, SPECT/CT, and MRI/PET)
- Introduction to Medical Image Computing and Toolkits
  - ITK/VTK Libraries,
  - DICOM standards,
  - 3DSlicer, and other visualization/processing software
- Medical Image Analysis (Filtering in Spatial and Frequency Domain, Anisotropic Diffusion)
  - Gaussian, Poisson, Diffusion, and Median Filtering,
  - Global and Local Image enhancement,
  - Modality Specific Image Filtering Techniques
- Medical Image Registration (Point-based and Intensity-based Registration)
  - Landmark-based image registration
  - Intensity-based image registration
  - Shape-based image registration (surface)
  - Optimization methods and similarity functions in in registration
  - Population based registration and atlas creation
- Medical Image Segmentation
  - Thresholding and intensity based medical image segmentation
  - Clustering-based segmentation of medical images
  - Region-based methods for segmentation of medical images
  - Model-based methods for segmentation of medical images
  - Graph-based methods for segmentation of medical images
  - Shape-based methods for segmentation of medical images

- Medical Image Visualization (Multi-Planar Rendering, Volume Rendering, Surface and Mesh Rendering)
    - Multi-planar rendering of surfaces
    - Volume rendering
    - Surface and mesh rendering
    - Hybrid visualization
- Machine Learning in Medical Image Analysis (Dimensionality Reduction, Supervised and Unsupervised Classification/Regression)
    - Dimensionality reduction
    - Supervised classification/regression
    - Unsupervised classification/regression
    - Deep learning method for medical image analysis

GRADES

3 Programming Assignments

- Each 10 Points (ITK/VTK based)

1 Mid-Term Exam

- 20 points

1 Individual Project (50 Points):

- Presentation: 15 points,
- Methods/Software Coding/Results: 25 points.

READING LIST

Required: Dr. Bagci's handouts and powerpoint presentations.

Papers from the following journals, IEEE TMI, MedIA, PAMI, IJCV, JMIV, and IEEE TIP;

Optional Books to follow:

- Image Processing, Analysis, and Machine Vision. M. Sonka, V. Hlavac, R. Boyle. Nelson Engineering, 2014.
- Level-set Methods, by J. A. Sethian, Cambridge University Press.
- Visual Computing for Medicine: Theory, Algorithms, and Applications. B. Preim, C. Botha. Morgan Kaufmann, 2013.
- Medical Image Registration. J. Hajnal, D. Hill, D. Hawkes (eds). CRC Press, 2001.

- Pattern Recognition and Machine Learning. C. Bishop. Springer, 2007.
- Insight into Images: Principles and Practice for Segmentation, Registration and Image Analysis, Terry S. Yoo (Editor)
- Handbook of Medical Imaging: Processing and Analysis, Isaac Bankman (Editor)
- Computer Vision, Linda Shapiro
- Algorithms for Image Processing and Computer Vision, J. R. Parker
- Machine Vision: Theory, Algorithms, Practicalities, E. R. Davies
- Medical Imaging Signals and Systems, by Jerry Prince & Jonathan Links, Publisher: Prentice Hall

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

NEW FORM – BEGINNING FALL 2015

Program Recommendation Form - REVISIONS ONLY

This form is to be used to **REVISE** degree programs, tracks, or certificate programs. If there are changes to a program and the changes will also affect the program tracks, one form may be used for both the program and the track(s).

Please refer to the Graduate Council Curriculum Meeting Schedule for submission deadlines.

Checklist of items to be attached with completed form:

☑ Complete and current Graduate Catalog copy (www.graduatecatalog.ucf.edu), including description, curriculum, contact information, application requirements, and application deadlines. Use Track Changes in Word to show revisions.

☑ A list of faculty who will participate in the program, track or certificate and their credentials.

☑ All course action requests that will be needed to implement the curriculum changes.

☐ If applicable, a written agreement from all involved units that they are in support of the revisions.

College/Unit(s) Submitting Proposal: College of Education and Human Performance

Proposed Effective Term/Year: Fall 2016

Unit(s) Housing Program: School of Teaching, Learning, and Leadership

Name of program, track and/or certificate: Master of Science in Early Childhood Development and Education

Please check all that apply: This action affects a: ☑ Program ☐ Track ☐ Certificate

If the revision applies to multiple tracks, please list them here:

Brief description of **program and rationale** of the revision: **Do not add complete catalog copy here.**

Our Master of Science in Early Childhood Development and Education (MS in ECDE) program has been suspended from the Fall 2013 semester. In the past two years, the program faculty members reevaluated the program, conducted student interest surveys, linked the program with graduate certificates that students may earn as their specialization, and ensured that most of the early childhood courses were offered online. We also eliminated the GRE requirement so our program is now in alignment with other master's programs in the College. Our program provides Thesis and Non-Thesis options based on students' career and professional development goals. Our most recent student surveys indicate that we currently have 46 students interested in our program. Out of these students, 24 are interested in starting in Fall 2016; 12 students in Fall 2017, and an additional 10 candidates who are also considering the program for one of these semesters. In addition, since the degree program was suspended, two of our program faculty members have earned their doctoral degrees. This results in a total of 7 faculty members eligible to teach graduate level courses. We believe that our creative, innovative courses; our committed and highly respected faculty members; as well as our growing student interest will enable our MS in ECDE program to continue to be successful and attract high quality and committed future students.
At the doctoral level, the Early Childhood Development and Education program graduated its first Ph.D. student in Summer 2015 and intends to graduate its second Ph.D. student in Fall 2015. Both of these students are graduates of our original MS in ECDE program. In Summer 2015, we accepted 3 other students into our Education Ph.D. Early Childhood Track. It is our goal to continue to recruit future Ph.D. candidates from our reinstated MS in ECDE program.

Briefly list curriculum changes in bullet format. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. **Remember to attach the catalog copy showing changes, using Track Changes in Word.**

The curriculum has not changed.

Name Change

Are you changing the name of an existing program, track, or certificate? ☐ Yes ☑ No

If yes, provide the new name of the program, track, or certificate: _____

A proposed name change will apply to the record of all students who are currently enrolled, readmitted or newly admitted into this program as of the effective date of this change.

Impact on Current Students

Will students be moved from an existing program, track, or certificate into this new program, track, or certificate? ☐ Yes ☑ No

If yes, state the name of the program or track where students are currently enrolled and attach a list of students if possible:

Will students have the option to stay in their existing program, track, or certificate? ☐ Yes ☐ No

If yes, how will current students be impacted by this change?

N/A

If there are substantial revisions, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	Number of assistantship students	Source of funds	Number of fellowship students (specify fellowship)	Number of tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Signature Page

Recommend Approval (all approval levels must be signed)

Department Chair /Director (Print) Michael Haynes (Signature) [signature] Date 10/28/15

College Academic Standards (Print) Elsie L. Olan (Signature) [signature] Date 11/9/15

College Dean (Print) Rosemarye Taylor (Signature) [signature] Date 11-5-15

Graduate Council (Print) _____ (Signature) _____ Date _____

Graduate Dean (Print) _____ (Signature) _____ Date _____

Approval

Provost and Executive Vice President: _____ Date _____

Distribution: After approval is received from the Provost, distribution will be to:

Department(s); College; Registrar; Associate Registrar; Institutional Knowledge Management; Academic Services; College of Graduate Studies

EARLY CHILDHOOD DEVELOPMENT AND EDUCATION MS

College : Education and Human Performance
Department : School of Teaching, Learning, and Leadership ~~Child, Family and Community Sciences~~
Program Websites : http://education.ucf.edu/ecde/

Degree :MS
Option : Thesis, Nonthesis

PROGRAM DESCRIPTION

~~**This program has been temporarily suspended effective Fall 2013.**~~

The Master of Science program in Early Childhood Development and Education (ECDE) is designed to meet the needs of professionals who want to work with young children and their families. The ECDE program delivers relevant, rigorous course work and related academic experiences. The program is designed for candidates with undergraduate degrees in a wide range of areas either related to early childhood development and education, such as child development, psychology, communication disorders, sociology, nursing, theatre, music or other degrees. The program of study includes advanced professional development in early child development ~~care~~ and education for careers with direct and indirect services for young children and families. Direct early education services to young children and families can include homes, schools, and other community settings, such as child care and Head Start. Indirect services can include: child assessment, program evaluation, child care resource and referral, early learning coalitions, community college instruction, and child advocacy. Graduates of this program are encouraged to serve as a bridge among schools and community agencies and to nurture leadership skills in these areas. ~~Please note that this program does not lead to initial teacher preparation.~~

In addition to fostering the professional development of previously certified early childhood teachers, this program will also serve as a bridge among schools and community agencies and will provide the educational experiences to nurture educational leaders who will work within and across these areas.

Read More ▾▴

CURRICULUM

The Early Childhood Development and Education MS program requires a minimum of 36 credit hours beyond the bachelor's degree, including 6 credit hours of core courses, 18 credit hours of

specialization courses, 6 credit hours of electives, and 6 credit hours of a capstone experience in the form of a thesis or nonthesis/practicum option.

Total Credit Hours Required:

36 Credit Hours Minimum beyond the Bachelor's Degree

Students should initially and periodically meet with an academic adviser to plan their program of electives in relation to their desired career goals, develop a program of study and timeline for their course work completion, and plan for the capstone culminating experience.

The MS does not lead to initial teacher preparation through the state-approved program route. Students interested in certification may contact the Florida Bureau of Teacher Certification Florida Department of Education directly at www.fldoe.org/edcert/.

Required Courses—24 Credit Hours

Core—6 Credit Hours

- EDF 6481 Fundamentals of Graduate Research in Education (3 credit hours; prerequisite for EDF 6401)
- EDF 6401 Statistics for Educational Data (3 credit hours)

Specialization—18 Credit Hours

- EEC 5205 Programs and Trends in Early Childhood Education (3 credit hours)
- EEC 6269 Play Development, Intervention, and Assessment (3 credit hours)
- EEC 6405 Home-School-Community Interaction in Early Childhood Education (3 credit hours)
- EEC 6406 Guiding and Facilitating Social Competence (3 credit hours)
- EEC 6606 Global Issues in Early Childhood (3 credit hours)
- EEX 6222 Observation and Assessment of Young Children (3 credit hours)

Elective Courses—6 Credit Hours

- EEC 6216 Communicative Arts in Early Childhood Education (3 credit hours)
- EEX 6017 Typical and Atypical Applied Child Development (3 credit hours) (Required if no undergraduate course in child development)
- EEX 5702 Planning Curriculum for Pre-Kindergarten Children with Disabilities (3 credit hours)
- EEX 5750 Communication with Parents and Agencies (3 credit hours)
- MHS 6403 Techniques of Play Therapy and Expressive Arts (3 credit hours)
- MHS 6421 Foundations of Play Therapy and Play Process (3 credit hours)
- SOW 6726 Social Work Practice with Children from Birth to Age Five and Their Families (3 credit hours)
- ~~SPS 6125 Infant Development Assessment (3 credit hours)~~
- ~~SPS 6700 Advanced Educational Psychology (3 credit hours)~~

- Other courses of interest with consent of faculty

Thesis Option—6 Credit Hours

- EEC 6971 Thesis (6 credit hours)

Nonthesis Option—6 Credit Hours

- EEC 6947 Practicum (6 credit hours) OR 6 credit hours of approved electives with a written comprehensive examination

Independent Learning

A thesis, practicum, or a written comprehensive examination is required as the culminating experience for the program.

Application Requirements

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the Admissions section of the Graduate Catalog. Applicants must apply online. All requested materials must be submitted by the established deadline. NOTE: This program considers applicants for admission in FALL TERM ONLY.

In addition to the general UCF graduate application requirements, applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- ~~GRE optional.~~
- Three letters of recommendation from academic sources.
- Professional resumé.
- Essay detailing career goals.
- An interview (in person, by internet, or by phone) scheduled by the Early Childhood Graduate faculty.
- A guided 1-page written essay during the interview.
- Applicants applying to this program who have attended a college/university outside the United States must provide a course-by-course credential evaluation with GPA calculation. Credential evaluations are accepted from World Education Services (WES) or Josef Silny and Associates, Inc. only.

Admission materials will be scored on a rubric to quantify decision criteria.

Students who do not meet published admission requirements may be admitted provisionally and will be interviewed by a faculty program committee whose recommendations will be forwarded to the master's admission and retention committee in accordance with College of Education and Human Performance code for final admission action. Other admission factors that may be used

or work (i.e., social service agencies) with infants and young children, pre-kindergarten or primary age children and their families.

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see the College of Graduate Studies Funding website, which describes the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The Financial Information section of the Graduate Catalog is another key resource.

Fellowships

Fellowships are awarded based on academic merit to highly qualified students. They are paid to students through the Office of Student Financial Assistance, based on instructions provided by the College of Graduate Studies. Fellowships are given to support a student's graduate study and do not have a work obligation. For more information, see UCF Graduate Fellowships, which includes descriptions of university fellowships and what you should do to be considered for a fellowship.

MS in ECDE Program Faculty and their Credentials

Judit Szente, Ph.D.
Tenured Associate Professor
Graduate Program Coordinator
Education Ph.D. Early Childhood Track Coordinator

Anne Culp, Ph.D.
Tenured Professor

Rex Culp, Ph.D.
Tenured Professor

Judith Levin, Ed.D.
Associate Lecturer
Undergraduate Program Coordinator

Deirdre Englehart, Ed.D.
Associate Lecturer

Kelly Jennings-Towle, Ed.D.
Associate Lecturer

Junie Albers-Biddle, Ed.D.
Associate Lecturer

Andrea Withington

From: Judit Szente
Sent: Wednesday, November 04, 2015 1:35 PM
To: Andrea Withington; Elsie Olan; Vassiliki Zygouris-Coe; W. Bryce Hagedorn; Richard Hartshorne; Rosemarye Taylor
Subject: FW: Supporting Early Childhood M.S. program.

Dear GCSC Committee Members,

I have received the following e-mail from Dr. Everett regarding our MS in ECDE program.

Please let me know if you need any other information.
Thank you for your time,
Judit

From: Robert Everett
Sent: Wednesday, November 04, 2015 1:25 PM
To: Judit Szente
Subject: Supporting Early Childhood M.S. program.

Dr. Szente,

The elementary education faculty and I support the reinstatement of the Early Childhood M.S. degree. There are no conflicts between the M.S. in Early Childhood program and the M.Ed. in Elementary Education degree. Having the Early Childhood program reinstated would actually help the M.Ed. Elementary Education program. Our students select from a list of various specialization areas. Early Childhood is one of these. In the past, enrollment in these courses were low, causing their cancellation. Now, with a population of early childhood majors taking them, low enrollment shouldn't be a problem. These two programs will complement each other.

Robert M. Everett, Ph.D.
Associate Professor
Program Coordinator, M.A. & M.Ed. in Elementary Education
STLL, College of Education and Human Performance
ED 122R
P.O. Box 161250
University of Central Florida
Orlando, FL 32816-1250

Ph: 407.823.5788
Fax: 407.823-2815

Fall 2015 Office Hours:
M 4-5:30, W 11:30-1, & TH 3-5
(Thursday Office Hours by appointment only)

M&S Fees Agenda

College	Course	Title	Current Fee	Requested Fee	Approved Fee
COM	MCB 5654C	Applied Industrial Microb...	$ 0.00	$ 65.33	
COS	BOT 6623C	Plant Ecology	$ 15.00	$ 50.00	
ECS	BME 5587C	Mechanics of Biostructure...	$ 0.00	$ 70.00	
ECS	BME 5588C	Mechanics of Biostructure...	$ 0.00	$ 70.00	
ECS	BME 6XXXC	Bioinstrumentation	$ 0.00	$ 50.00	
HPA	SPA 6236	Motor Speech Disorders in...	$ 17.00	$ 17.26	
HPA	SPA 6401	Language Disorders in Inf...	$ 43.00	$ 11.59	
HPA	SPA 6553L	Clinical Practice in Diff...	$ 45.00	$ 43.64	
HPA	SPA 6559	Augmentative and Alternat...	$ 0.00	$ 55.35	
COS	PCB 5326C	Ecosystems of Florida	$15.00	$70.00	
COS	ZOO 5456C	Ichthyology	$25.00	$00.00	
COS	ZOO 5475L	Field Ornithology	$30.00	$67.00	
COM	ZOO 5745C	Essentials of Neuroanatomy	$15.00	$15.00	
CEHP	MHS 6403	Group and Family Play Therapy	$ 0.00	$10.00	
CEHP	MHS 6421	Foundations of Play Therapy …	$ 0.00	$10.00	
CEHP	MHS 6422	Advanced Theories and Techniques …	$ 0.00	$10.00	
CEHP	MHS 6424	Filial Therapy	$ 0.00	$10.00	

MCB 5654C **COM-BSBS** **3(1,6)**

Applied Industrial Microbiology: MCB 3020C, BSC 3403C or C.I. Combination of molecular and biochemical analyses with applied industrial microbiology projects. .

Materials & Supply Fee proposed revision: from $0.00 to $65.33

Brief description of fee use:

Each item below is per **12** students

	# units/12 students	Description	cost/12 students	Denied Committee	Denied Provost
1.	60	Disposable plastics	$ 360.00	☐	☐
2.	1	yeast extract (for bacterial growth media)	$ 110.00	☐	☐
3.	1	tryptone (for bacterial growth media)	$ 120.00	☐	☐
4.	1	Taq polymerase (for PCR)	$ 60.00	☐	☐
5.	1	cases of rubber gloves	$ 100.00	☐	☐
6.	1	White Flour	$ 5.00	☐	☐
7.	3	Cabbage	$ 3.00	☐	☐
8.	1	Salt	$ 1.00	☐	☐
9.	1	Malt extract for yeast growth media	$ 25.00	☐	☐
		Total:	**$784.00**		
		per 1 student	**$ 65.33**		

BOT 6623C **COS-BIOL** **4(3,3)**

Plant Ecology: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. The study of the abiotic and biotic processes that control the distribution of terrestrial flora at local, landscape, and global scales. *Occasional.*

Materials & Supply Fee proposed revision: from $15.00 to $50.00

Brief description of fee use:

Plant Ecology has a field based laboratory component. All expenses are related to exercises in the field . Plant pots are not reusable.

Each item below is per **1** students

	# units/1 students	Description	cost/1 students	Denied Committee	Denied Provost
1.	1	paper	$ 1.00	☐	☐
2.	1	plastic bags	$ 1.00	☐	☐

3.	3	Plant Pots		$ 20.00	☐	☐
4.	1	Bagged Soil		$ 3.00	☐	☐
5.	1	Vermiculite		$ 25.00	☐	☐
			Total:	**$ 50.00**		
			per 1 student	**$ 50.00**		

BME 5587C **ECS-MECH/AERO** **3(2,3)**

Mechanics of Biostructures I: Graduate standing or C.I. Part I of a two semester course. Mechanical analysis of hard and soft tissues and prosection lab on human anatomy and physiology. *Occasional.*

Materials & Supply Fee proposed revision: from $0.00 to $70.00

Brief description of fee use:

Laboratory fees will be used to offset cost for prosection that will be held at College of Medicine and for general lab materials.

Each item below is per **1** students

	# units/1 students	Description	cost/1 students	Denied Committee	Provost
1.	1	Lab Coat	$ 20.00	☐	☐
2.	1	Lab Glasses	$ 10.00	☐	☐
3.	1	Prosection Offset Costs (dissection tools)	$ 40.00	☐	☐
		Total:	**$ 70.00**		
		per 1 student	**$ 70.00**		

BME 5588C **ECS-MECH/AERO** **3(2,2)**

Mechanics of Biostructures II: BME 5587C or C.I. Part II of a two semester course. Cell physiology and engineering principles applied to analysis of cellular processes and prosection anatomy lab on human anatomy and physiology. *Occasional.*

Materials & Supply Fee proposed revision: from $0.00 to $70.00

Brief description of fee use:

Laboratory fees will be used to offset cost for prosection that will be held at College of Medicine and for general lab materials.

Each item below is per **1** students

Denied

	# units/1 students	Description	cost/1 students	Committee	Provost
1.	1	Lab Coat	$ 20.00	☐	☐
2.	1	Lab Glasses	$ 10.00	☐	☐
3.	1	Prosection Offset Costs (dissection tools)	$ 40.00	☐	☐
		Total:	**$ 70.00**		
		per 1 student	**$ 70.00**		

BME 6XXXC **ECS-MECH/AERO** **3(2,2)**

Bioinstrumentation: BME 5587C or C.I. An introduction to the fundamental theory and experimental techniques needed for performing bioengineering measurements, designing related experiments, aad analyzing experimental results.

Materials & Supply Fee proposed revision: from $0.00 to $50.00

Brief description of fee use:

The lab component of this class involves 4 core experiments where disposable sensors and electrodes are used. In addition, a semester project that involves designing and carrying out experiments will carried out. The requested fee is to cover the cost of the consumable supplies to be used.

Each item below is per **1** students

	# units/1 students	Description	cost/1 students	Denied Committee	Provost
1.	5	Consumable sensors/electrodes	$ 25.00	☐	☐
2.	1	Miscellaneous supplies for semester project (varies with project for each student)	$ 25.00	☐	☐
		Total:	**$ 50.00**		
		per 1 student	**$ 50.00**		

SPA 6236 **HPA-COM SC&DIS** **3(3,0)**

Motor Speech Disorders in Adults and Children: PR: Admission to M.A. in Communication Sciences and Disorders and SPA 6204 or C.I. Evaluation and treatment of dysarthrias, apraxias, and other motor speech disorders in adults and children associated with neurological problems, brain injury and systemic disease. *Fall, Spring, Summer.*

Materials & Supply Fee proposed revision: from $17.00 to $17.26

Brief description of fee use:

Course currently has an approved M&S Fee of $17.00; however the itemized list was missing from the official record. The list below is being provided to confirm existing fee. Students learn to conduct clinical assessments, recommend treatment and execute treatment in adults and children wth neurological problems. The Materials and Supplies listed below are necessary for students in the learning process.

Each item below is per **35** students

	# units/35 students	Description	cost/35 students	Denied Committee	Denied Provost
1.	4	Tounge Blades	$ 60.00	☐	☐
2.	3	Gauze	$ 18.00	☐	☐
3.	5	Gloves	$ 30.00	☐	☐
4.	1	Hand soap	$ 8.00	☐	☐
5.	2	Alcohol preps	$ 18.00	☐	☐
6.	2	Cotton balls	$ 6.00	☐	☐
7.	1	Visible Human Body/Neuroanatomy	$ 39.00	☐	☐
8.	1	Cranial Nerves	$ 40.00	☐	☐
9.	35	Peak flow meter	$ 385.00	☐	☐
		Total:	**$604.00**		
		per 1 student	**$ 17.26**		

SPA 6401 **HPA-COM SC&DIS** **3(3,0)**

Language Disorders in Infants and Toddlers: PR: SPA 6496. Assessment and intervention of communication disorders in infants and toddlers incorporating transdisciplinary and family-centered models. *Fall.*

Materials & Supply Fee proposed revision: from $43.00 to $11.59

Brief description of fee use:

Students in SPA 6401 Language Disorders in Infants and Toddlers perform assessments using forms and diagnostic guides. The use of these materials is necessary and critical in students' learning appropriate procedures with this vulnerable population.

Each item below is per **35** students

	# units/35 students	Description	cost/35 students	Denied Committee	Denied Provost
1.	2	CSBS Record Form and Caregiver Questionnairs	$ 120.00	☐	☐

2.	2	Communication Development Inventories-Words and Gestures Forms	$ 50.00	☐	☐
3.	2	Communication Development Inventories-Words and Sentences Forms	$ 50.00	☐	☐
4.	1	Communication Development Inventories User Guide, 2nd Ed	$ 59.95	☐	☐
5.	3	Rossetti Infant-Toddler Language Scale Forms	$ 125.85	☐	☐
		Total:	**$405.80**		
		per 1 student	**$ 11.59**		

SPA 6553L **HPA-COM SC&DIS** **1(1,1)**

Clinical Practice in Differential Diagnosis in Speech and Language Pathology: PR: SPA 6503, SPA 6503L or C.I. Clinical application of diagnostic process and assessment procedures for a variety of communication disorders across the life span. May be repeated for credit. *Fall,Spring,Summer.*

Materials & Supply Fee proposed revision: from $45.00 to $43.64

Brief description of fee use:

SPA 6553L currently has a Material and Supply Fee of $45.00, but details of the supply list were missing from official university records. Therefore, the list below is being provided. The M&S Fee amount based on this list is $44.00. Students in the Clinical Practice in Differential Diagnosis in Speech Language Pathology perform diagnostic and assessment procedures on clients in the clinic. The materials and supplies listed below are necessary for their clinical education.

Each item below is per **105** students

	# units/105 students	Description	cost/105 students	Denied Committee	Denied Provost
1.	1	Behavior Assessment Battery-BCL	$ 29.95	☐	☐
2.	1	Behavior Assessment Battery SSC-ER	$ 31.95	☐	☐
3.	1	Behavior Assessment Battery -SSC-SD	$ 31.95	☐	☐
4.	2	CELF-Preschool-2 Record Forms??	$ 94.20	☐	☐
5.	1	CELF-4 Record Forms-Age 5-8	$ 46.20	☐	☐
6.	1	CELF-4 Record Forms-Age 9-21	$ 46.20	☐	☐
7.	4	GFTA-2 Record Forms	$ 96.00	☐	☐
8.	1	TOWL-4 Response Forms A	$ 60.00	☐	☐

9.	1	TOWL-4 Response Form B	$ 60.00	☐	☐
10.	2	Test of Word Knowledge Record Book	$ 88.50	☐	☐
11.	2	FDA-2 Rating Forms	$ 94.00	☐	☐
12.	1	Childhood Rating Scale	$ 175.00	☐	☐
13.	1	ROWPVT-4 Complete Test	$ 175.00	☐	☐
14.	1	EOWPVT-4 Complete Test	$ 175.00	☐	☐
15.	2	OWLS-II LC/OE Record Forms	$ 108.00	☐	☐
16.	3	OWLS-II RC/WE Record Forms	$ 162.00	☐	☐
17.	2	OWLS-II WE Response Booklet A	$ 56.00	☐	☐
18.	1	OWLS-II WE Response Booklet B	$ 28.00	☐	☐
19.	1	TOAL-4 Examiner Booklets	$ 40.20	☐	☐
20.	2	CASL Record Forms	$ 80.00	☐	☐
21.	1	Fluharty-2 Record Forms	$ 43.00	☐	☐
22.	1	GORT-5 Record Form B	$ 59.00	☐	☐
23.	3	GORT-R Record Form A	$ 177.00	☐	☐
24.	1	TACL-3 Record Forms	$ 56.00	☐	☐
25.	1	TAPS-3 Test Booklet	$ 75.00	☐	☐
26.	1	TOLD-I:4 Examiner Record Forms	$ 61.00	☐	☐
27.	1	TOPL-2 Examiner Forms	$ 62.00	☐	☐
28.	1	CELF-5 Complete Kit	$ 437.40	☐	☐
29.	1	Early Childhood Rating Forms	$ 28.00	☐	☐
30.	1	School-Ag Stuttering Therapy	$ 52.00	☐	☐
31.	1	TOWL-4 Profile.Score Forms	$ 56.00	☐	☐
32.	1	PLS-5 Screening Age 2	$ 21.90	☐	☐
33.	4	PLS-5 Screening Age 3	$ 87.60	☐	☐
34.	4	PLS-5 Screening Age 4	$ 87.60	☐	☐
35.	4	PLS-5 Screening Age 5 ?? ?? ?? ?? ?? ?? ????	$ 87.60	☐	☐
36.	1	PLS-5 Screening Age 6	$ 21.90	☐	☐
37.	1	KLPA-2 Analysis Forms	$ 30.30	☐	☐
38.	1	KLPA-2 Progress Report	$ 9.60	☐	☐
39.	1	PPVT-4 Record Forms	$ 28.67	☐	☐
40.	1	OWLS LC/OE Form B	$ 52.50	☐	☐
41.	2	OWLS RC/WE Form B	$ 105.00	☐	☐

42.	1	RCBA-2 Profile/Summary Forms	$ 33.60	☐	☐
43.	1	TOPS-2 Adolescent Test Forms	$ 25.17	☐	☐
44.	1	TOPS-3 Elementary Test Forms	$ 25.17	☐	☐
45.	2	PLS-5 Record Form	$ 124.00	☐	☐
46.	1	CELF-5 Record Form Age 5-8	$ 75.00	☐	☐
47.	1	CELF-5 Record Form Age 9-21	$ 75.00	☐	☐
48.	1	GORT-5 Complete Kit	$ 275.00	☐	☐
49.	1	DTLA-4 Examiner Record Booklet	$ 62.00	☐	☐
50.	1	PAT-3 Record Forms	$ 56.00	☐	☐
51.	1	TOAL-4 Written Language Forms	$ 91.00	☐	☐
52.	1	REEL-3 Record Forms	$ 56.00	☐	☐
53.	1	Copier/Printer Paper	$ 251.18	☐	☐
54.	1	Misc.supplies (laminating punches, toner,batteries)	$ 115.94	☐	☐
		Total:	**$4582.28**		
		per 1 student	**$ 43.64**		

SPA 6559 **HPA-COM SC&DIS** **3(3,0)**

Augmentative and Alternative Communication: PR: Admission to M.A. in Communication Sciences and Disorders or C.I. The total integrated network of techniques, aids, strategies, and skills individuals use to supplement or replace inadequate natural speaking ability. *Fall, Spring, Summer.*

Materials & Supply Fee proposed revision: from $0.00 to $55.35

Brief description of fee use:

Students learn to conduct clinical assessments, recommend treatment and execute treatment plans for a population of pediatric and adult clients who have complex communications needs. The items indicated on the Materials and Supply Fee worksheet are necessary to carry out the examinations and provide appropriate intervention for the language and literacy needs of individuals with significant disabilities in the context of service learning activities. Service learning activities require specialized testing and intervention materials suitable for individuals with significant disabilities as well as individulaize storage of encrypted augmentative and alternative communication (AAC) uswer software files. Due to the nature of the class and use of the items, normal wear and tear over the course of a year requires that the items be replaced.

Each item below is per **90** students

	# units/90 students	Description	cost/90 students	Denied Committee	Denied Provost
1.	2	Test for Auditory Comprehension of Language - 4th Edition	$ 710.00	☐	☐

2.	2	TACL-4 Record Books	$ 114.00	☐	☐
3.	1	Mullen Scales of Early Learning	$ 870.90	☐	☐
4.	1	Mullen Record Forms	$ 140.85	☐	☐
5.	1	Peabody Picture Vocabulary Test -4th Ed (PPVT-4)	$ 870.90	☐	☐
6.	1	PPVT-4 Record Books	$ 49.35	☐	☐
7.	1	MacArthur-Bates Words and Gestures & Words and Sentences	$ 121.95	☐	☐
8.	1	MacArthur-Bates Words and Gestures Record Forms	$ 25.00	☐	☐
9.	1	MacArthure-Bates Words and Sentences Record Forms	$ 25.00	☐	☐
10.	1	Social Networks Inventory Package	$ 89.00	☐	☐
11.	1	Wechesler Nonverbal Scale of Ability Complete Kit (WNV)	$ 840.05	☐	☐
12.	1	WNV Record Forms	$ 51.75	☐	☐
13.	1	Webber Communication Books (Large)	$ 49.95	☐	☐
14.	1	Webber Communication Books (Small)	$ 44.95	☐	☐
15.	1	Communication Book Pages (Large)	$ 29.95	☐	☐
16.	1	Communication Book Pages (Small)	$ 27.95	☐	☐
17.	1	Communication Book Sentence Strips (large)	$ 6.95	☐	☐
18.	1	Communication Book Sentence Strips (Small)	$ 6.95	☐	☐
19.	2	Copier Toner for AAC display materials for class assignment (color)	$ 401.94	☐	☐
20.	1	5 mil Laminating Pouches for AAC display materials for class assignments	$ 54.99	☐	☐
21.	90	SanDisk Cruzer Glide Flash Drive 8GB encrypted storage for AAC displays	$ 449.10	☐	☐
		Total:	**$4981.48**		
		per 1 student	**$ 55.35**		

University of Central Florida

Materials and Supplies Fee Request Form

☐ Course Addition ☑ Course Revision

Forward to your college office

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Request Routing: 1) Department Chair to College Dean's Office; 2) Dean's Office approved and enters data in online Course Action data base; 3) Graduate or Undergraduate committees review and Graduate or Undergraduate Dean submits to Provost; 4) A list of approved requests will be forwarded to the Provost for final approval.

Materials and supplies fees must be used for expendable or consumable items that are above and beyond the normal materials and supplies used in classroom instruction (lab, clinical, studio supplies) and cannot be used for personnel services or equipment purchase/rental. Maximum amount is $70.00.

- Materials and supplies that are specialized and not readily available or materials and supplies that would save students money by bulk purchasing are legitimate uses of these fees.
- All materials and supplies fees must be spent on only the items listed on the table below. All materials and supplies fees for graduate courses must be approved by the Graduate Council; any previous materials and supplies fees being levied but not approved by the Graduate Council should be brought forward to document how the fees are being used.
- All materials and supplies fees should be reviewed periodically.

Date Submitted: 10/21/15 **College:** Sciences

Department: Biology

Course Prefix & Number: PCB 5326C **Course Title:** Ecosystems of Florida

Fees:
One course per form. Round fee to the nearest dollar.

Current Fee Per Student: $15 **Requested Fee Per Student:** $70

Estimated Annual Enrollment: 10 **Revenue from Enrollment:** $700

Provide Justification for the Request:

The laboratory component of this course uses department vans to bring students to and from state parks. In our view it is reasonable for the department to recover costs for the use of these vans when use is strictly related to classroom purposes. There are seven trips in total covering 1,750 miles. We are requesting mileage reimbursement for the use of the vans at the current rate of 0.445 cents/mile. At current enrollment of 10 the maximum fee does not fully reimburse the department for its costs ($780). The instructor currently gains entry to the parks using his personal 'family' pass at no cost to the students.

If this request is rejected the fee should be reduced to $0.

UCF College of Graduate Studies – P.O. Box 160112, Orlando, FL 32816-0112

Provide detailed cost information (per student) about the expenses for which the fee is to be assessed.

No. of Units	Description	Estimated Cost
1	Mileage for the use of departmental vehicles to bring students to state parks.	$70
	Total Cost of Items Per Student:	$70

Payment Details

Account Number to Deposit Fees: 24030803

Item Type: 734101

Contact Person: Sheri Pearson

Phone Number: 407 823 1461

Approval Signatures

Department Chair R Worthy **Date** 10-21-15

College Academic Standards _____ **Date** _____

College Dean _____ **Date** _____

Graduate Council _____ **Date** _____

Graduate Dean _____ **Date** _____

University of Central Florida

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- All materials and supplies fees should be reviewed periodically.

Date Submitted: 10/21/15 **College:** Sciences

Department: Biology

Course Prefix & Number: ZOO 5456C **Course Title:** Ichthyology

Fees:

One course per form. Round fee to the nearest dollar.

Current Fee Per Student: $25 **Requested Fee Per Student:** $0

Estimated Annual Enrollment: 10 **Revenue from Enrollment:** $0

Provide Justification for the Request:

Ichthyology will no longer be taught as a stand alone graduate course. We plan to create a 4XXX/5XXX split level elective class in which enrollment will be primarily undergraduate. The laboratory component and associated costs have not be determined at this time.

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Provide detailed cost information (per student) about the expenses for which the fee is to be assessed.

No. of Units	Description	Estimated Cost
	Total Cost of Items Per Student:	

Payment Details

Account Number to Deposit Fees: 24030803

Item Type: 734101

Contact Person: Sheri Pearson

Phone Number: 407 823 1461

Approval Signatures

Department Chair R Worthy Date 10-21-15

College Academic Standards _____ Date _____

College Dean _____ Date _____

Graduate Council _____ Date _____

Graduate Dean _____ Date _____

University of Central Florida

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- All materials and supplies fees should be reviewed periodically.

Date Submitted: 10/21/15 **College:** Sciences

Department: Biology

Course Prefix & Number: ZOO 5475L **Course Title:** Field Ornithology

Fees:
One course per form. Round fee to the nearest dollar.

Current Fee Per Student: $30 **Requested Fee Per Student:** $67

Estimated Annual Enrollment: 15 **Revenue from Enrollment:** $1005

Provide Justification for the Request:

The laboratory exercises in this course involve using department vans to bring students to and from state parks. In our view it is reasonable for the department to recover costs for the use of these vans when use is strictly related to classroom purposes. There are 15 trips in total covering 2,250 miles. We are requesting mileage reimbursement for the use of the vans at the current rate of 0.445 cents/mile. The instructor currently gains entry to the parks using his personal 'family' pass at no cost to the students.

If this request is rejected the fee should be reduced to $0.

UCF College of Graduate Studies – P.O. Box 160112, Orlando, FL 32816-0112

Provide detailed cost information (per student) about the expenses for which the fee is to be assessed.

No. of Units	Description	Estimated Cost
1	Mileage for the use of departmental vehicles to bring students to state parks.	$67
	Total Cost of Items Per Student:	$67

Payment Details

Account Number to Deposit Fees: 24030803

Item Type: 734101

Contact Person: Sheri Pearson

Phone Number: 407 823 1461

Approval Signatures

Department Chair R Westby **Date** 10-21-15

College Academic Standards _____ **Date** _____

College Dean _____ **Date** _____

Graduate Council _____ **Date** _____

Graduate Dean _____ **Date** _____

Welcome Rhonda NelsonLogout

Course Management

Find Catalog Course
Find Course Action

New Course
New Special Topic
Revise Course
Continue Course
Delete Course

Department Course Report
Generate Agenda

Search Results | Course Info | Syllabus | M&S Fee | Notes

College:
College of Medicine
PS ID:
010635
Department:
Department of Molecular and Microbiology
State ID:
72028
AcadGroup:
COM
AcadOrg:
MICRO

ZOO 5745C Essentials of Neuroanatomy 4(3,3)

30-char Abbrev:
Essentials of Neuroanatomy
Prerequisites:
Human/Comparative Anatomy, or Human/Animal Physiology or C.I.
Description:
Fundamental concepts of both morphological and functional organization of t
Notes:
-----1/25/08: Record closed out proceeduraly because of department/college
MS Fee:
$15.00
Component:
LEC
GEP Use:
GR Use:
None
Added/Revised:
2014-05-01
Valid Through:
2199-12-31
Catalog:

The University Courses and Undergraduate Curriculum Database is developed and maintained by the Office of Und

Rhonda Nelson

From: Roseann White
Sent: Thursday, October 29, 2015 9:40 AM
To: Saleh Naser; Cynthia Contreras; Rhonda Nelson
Cc: Steven Ebert
Subject: RE: Courses and Lab Fees needing 5 year review

Rhonda: Please see Dr. Naser justification. We can have a new M & S fee request next year?
Roseann

Roseann S. White
Professor/Associate Director
Burnett School of Biomedical Sciences
HPA II 335J
UCF College of Medicine
LN 101C
407-823-5932 (Main Campus)
407-266-7001 (Lake Nona)

-----Original Message-----
From: Saleh Naser
Sent: Thursday, October 29, 2015 8:50 AM
To: Cynthia Contreras; Roseann White
Cc: Steven Ebert
Subject: RE: Courses and Lab Fees needing 5 year review

Thanks Cynthia, here it is:

"Despite that ZOO 5745C Essentials of Neuroanatomy course has not been taught since 1999, there will be a need for the course and it will be offered in the near future. BSBS has been recently restructured and 4 divisions have been established including the Division of Neuroscience. We also recently created and has received approval for MS Biomedical Sciences track in Neuroscience and students will be recruited for Fall 2016. Essentials of Neuroanatomy course is part of the curriculum of the new Master program"

Hope this help

Saleh A. Naser, Ph.D.
Associate Director for Graduate Affairs
Professor of Medicine
Burnett School of Biomedical Sciences
University of Central Florida | College of Medicine Building 20, BMS 136
4110 Libra Drive. Orlando, FL 32816
Office 407.823.0955 | Fax 407.823.0956 | Lab 407.823.0950 http://med.ucf.edu/biomed/academics/graduate-programs/phd-biomedical-sciences/

Rhonda Nelson

From: Roseann White
Sent: Thursday, October 29, 2015 9:39 AM
To: Cynthia Contreras; Saleh Naser; Rhonda Nelson
Cc: Steven Ebert
Subject: RE: Courses and Lab Fees needing 5 year review

We have hired a new adjunct for spring who may be hired on a permanent teaching position this next year who indicated that she wants to teach this class for us the following year. However, she is employed elsewhere teaching full time this semester with limited time to send us the detailed list of materials and supplies she needs. This course was formerly taught by Dr. Fernandez-Valle whose teaching schedule was saturated with the high enrollment Neurobiology course. I would request a delay of one year to submit a materials and supply fee request and we will not teach if the committee would give a one year delay in cancelation; thus, no lab fees would be collected. Dr. Naser: Are you in agreement?
Roseann

Roseann S. White
Professor/Associate Director
Burnett School of Biomedical Sciences
HPA II 335J
UCF College of Medicine
LN 101C
407-823-5932 (Main Campus)
407-266-7001 (Lake Nona)

University of Central Florida

Materials and Supplies Fee Request Form

☑ Course Addition ☐ Course Revision

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- All materials and supplies fees should be reviewed periodically.

Date Submitted: 10/22/2015 **College:** College of Education and Human Performance

Department: Child, Family, and Community Sciences

Course Prefix & Number: MHS 6403 **Course Title:** Group and Family Play Therapy

Fees:
One course per form. Round fee to the nearest dollar.

Current Fee Per Student: $0 **Requested Fee Per Student:** $10

Estimated Annual Enrollment: 30 **Revenue from Enrollment:** $300

Provide Justification for the Request:

This practical course provides an overview of using different mediums of play therapy, including expressive arts, groups of children, and families for a systemic approach. Therefore, this course is designed to be highly experiential in nature. The instructor in the past has asked the students to provide materials and supplies for in-class activities. However, the materials are cheaper in bought in bulk; therefore, the students would save money.

UCF College of Graduate Studies – P.O. Box 160112, Orlando, FL 32816-0112

Provide detailed cost information (per student) about the expenses for which the fee is to be assessed.

No. of Units	Description	Estimated Cost
2	Play-doh (24-count package)	29.98
1	Sand tray miniatures (start up kit)	269.95
1	Sand (25lb container)	69.95
3	Finger paints (set of 4 @8.75)	26.25
2	Art paper (50 sheets)	13.98
1	Construction paper (@ 6.88)	6.88
2	Butcher paper (@ 24.63)	49.26
15	Watercolor paints (@6.49)	97.35
	Total Cost of Items Per Student:	$18.79

Payment Details

Account Number to Deposit Fees: 1427080 3 - we just requested this new acct.

Item Type:

Contact Person: Dalena Dillman Taylor

Phone Number: 3-2401

Approval Signatures

Department Chair / Director [signature] **Date** 11/4/2015

College Academic Standards [signature] **Date** 11/9/2015

College Dean [signature] **Date** 11-5-15

Graduate Council **Date**

Graduate Dean **Date**

University of Central Florida

Materials and Supplies Fee Request Form

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- All materials and supplies fees should be reviewed periodically.

Date Submitted: 10/22/2015 **College:** College of Education and Human Performance

Department: Child, Family, and Community Sciences

Course Prefix & Number: MHS 6421 **Course Title:** Foundations of Play Therapy and Expressive Arts

Fees:
One course per form. Round fee to the nearest dollar.

Current Fee Per Student: $0 **Requested Fee Per Student:** $10

Estimated Annual Enrollment: 30 **Revenue from Enrollment:** $300

Provide Justification for the Request:

This course addresses the theories and application of principles of play and expressive arts in the counseling process with children. Therefore, this course is designed to be highly experiential in nature. The instructor in the past has asked the students to provide materials and supplies for in-class activities. However, the materials are cheaper in bought in bulk; therefore, the students would save money.

Provide detailed cost information (per student) about the expenses for which the fee is to be assessed.

No. of Units	Description	Estimated Cost
30	Model Magic (2oz per participant)	16.99
1	Sand tray miniatures (start up kit)	269.95
1	Sand (25lb container)	69.95
1	Tempera paint (1 gallon plastic bottle; set of 4)	44.95
2	Art paper (50 sheets)	13.98
5	Board games (@8.99 each)	44.95
5	Puzzles (@ 10.54 each)	52.70
	Total Cost of Items Per Student:	$17.12

Payment Details

Account Number to Deposit Fees: 14270803 - we just requested this new acct.

Item Type:

Contact Person: Dalena Dillman Taylor

Phone Number: 3-2401

Approval Signatures

Department Chair / Director _____ **Date** 11/4/2015

College Academic Standards _____ **Date** 11/9/2015

College Dean _____ **Date** 11-5-15

Graduate Council _____ **Date** _____

Graduate Dean _____ **Date** _____

University of Central Florida

Materials and Supplies Fee Request Form

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Forward to your college office

This form is to be used for requests to add, increase, or delete materials and supplies fees. All requests for the next catalog must be submitted by November 2 for the November agenda deadlines of the Graduate Council Curriculum Committee.

Request Routing: 1) Department Chair to College Dean's Office; 2) Dean's Office approved and enters data in online Course Action data base; 3) Graduate or Undergraduate committees review and Graduate or Undergraduate Dean submits to Provost; 4) A list of approved requests will be forwarded to the Provost for final approval.

Materials and supplies fees must be used for expendable or consumable items that are above and beyond the normal materials and supplies used in classroom instruction (lab, clinical, studio supplies) and cannot be used for personnel services or equipment purchase/rental. Maximum amount is $70.00.

- Materials and supplies that are specialized and not readily available or materials and supplies that would save students money by bulk purchasing are legitimate uses of these fees.
- All materials and supplies fees must be spent on only the items listed on the table below. All materials and supplies fees for graduate courses must be approved by the Graduate Council; any previous materials and supplies fees being levied but not approved by the Graduate Council should be brought forward to document how the fees are being used.
- All materials and supplies fees should be reviewed periodically.

Date Submitted: 10/22/2015 **College:** College of Education and Human Performance

Department: Child, Family, and Community Sciences

Course Prefix & Number: MHS 6422 **Course Title:** Advanced Theories and Techniques of Play Therapy

Fees:
One course per form. Round fee to the nearest dollar.

Current Fee Per Student: $0 **Requested Fee Per Student:** $10

Estimated Annual Enrollment: 30 **Revenue from Enrollment:** $300

Provide Justification for the Request:

This course provides an in-depth study of play therapy counseling theories, utilizing didactic and experiential mediums to enhance the students' development of play therapy skills. Therefore, this course is designed to be highly experiential in nature. The instructor in the past has asked the students to provide materials and supplies for in-class activities. However, the materials are cheaper in bought in bulk; therefore, the students would save money.

UCF College of Graduate Studies – P.O. Box 160112, Orlando, FL 32816-0112

Provide detailed cost information (per student) about the expenses for which the fee is to be assessed.

No. of Units	Description	Estimated Cost
2	Play-doh (24-count package)	29.98
1	Sand tray miniatures (start up kit)	269.95
1	Sand (25lb container)	69.95
3	Finger paints (set of 4 @8.75)	26.25
2	Art paper (50 sheets)	13.98
1	Construction paper (@ 6.88 each)	6.88
2	Butcher paper (@ 24.63 each)	49.26
	Total Cost of Items Per Student:	$15.54

Payment Details

Account Number to Deposit Fees: 14270803 - we just requested this new acct.

Item Type: _____

Contact Person: Dalena Dillman Taylor

Phone Number: 3-2401

Approval Signatures

Department Chair / Director _____ Date 11/4/2015

College Academic Standards _____ Date 11/9/2015

College Dean _____ Date 11-5-15

Graduate Council _____ Date _____

Graduate Dean _____ Date _____

University of Central Florida

Materials and Supplies Fee Request Form

☑ Course Addition ☐ Course Revision

Forward to your college office

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Request Routing: 1) Department Chair to College Dean's Office; 2) Dean's Office approved and enters data in online Course Action data base; 3) Graduate or Undergraduate committees review and Graduate or Undergraduate Dean submits to Provost; 4) A list of approved requests will be forwarded to the Provost for final approval.

Materials and supplies fees must be used for expendable or consumable items that are above and beyond the normal materials and supplies used in classroom instruction (lab, clinical, studio supplies) and cannot be used for personnel services or equipment purchase/rental. Maximum amount is $70.00.

- Materials and supplies that are specialized and not readily available or materials and supplies that would save students money by bulk purchasing are legitimate uses of these fees.
- All materials and supplies fees must be spent on only the items listed on the table below. All materials and supplies fees for graduate courses must be approved by the Graduate Council; any previous materials and supplies fees being levied but not approved by the Graduate Council should be brought forward to document how the fees are being used.
- All materials and supplies fees should be reviewed periodically.

Date Submitted: 10/22/2015 **College:** College of Education and Human Performance

Department: Child, Family, and Community Sciences

Course Prefix & Number: MHS 6424 **Course Title:** Filial Therapy

Fees:
One course per form. Round fee to the nearest dollar.

Current Fee Per Student: $0 **Requested Fee Per Student:** $10

Estimated Annual Enrollment: 30 **Revenue from Enrollment:** $300

Provide Justification for the Request:

This course teaches students how to include parents in the play therapy process through learning a specific model of filial in a 10-week group experience. Therefore, this course is designed to be highly experiential in nature. The instructor in the past has asked the students to provide materials and supplies for in-class activities. However, the materials are cheaper in bought in bulk; therefore, the students would save money.

Provide detailed cost information (per student) about the expenses for which the fee is to be assessed.

No. of Units	Description	Estimated Cost
30	Model Magic (2oz per participant)	16.99
1	Tempera paint (1 gallon plastic bottle; set of 4)	44.95
1	Sand (25lb container)	69.95
3	Finger paints (set of 4 @8.75)	26.25
8	Toy bags (@ 40.00 each)	320.00
1	Construction paper (@ 6.88 each)	6.88
2	Butcher paper (@ 24.63 each)	49.26
	Total Cost of Items Per Student:	$17.81

Payment Details

Account Number to Deposit Fees: 14270803 - We just requested this new acct.

Item Type: _____

Contact Person: Dalena Dillman Taylor

Phone Number: 3-2401

Approval Signatures

Department Chair / Director _____ Date 11/4/2015

College Academic Standards _____ Date 11/4/2015

College Dean _____ Date 11-5-2015

Graduate Council _____ Date _____

Graduate Dean _____ Date _____

UCF Department of Electrical and Computer Engineering Course Description

EEL 6xxx: Neuromorphic Computing Architecture, Circuit and Device

Lectures:

- Time: TBD
- Room: Live classroom and FEEDS Sections.

Instructor:
Dr. Deliang Fan, Assistant Professor
Harris Engineering Center (HEC) Building room 343
Tel: 407-823-4476
E- mail: dfan@ucf.edu

Office Hours:

- TBD

Designation:
Graduate coursework as elective for MS/PhD CpE/EE/CS programs.

Catalog Description:
EEL 6xxx ECE-Electrical & Computer Engineering 3(3,0)

- Neuromorphic Computing Architecture, Circuit and Device: PR: EEL5825 or EEE5390 or C.I.

Advanced concepts in neuromorphic computing architectures and its hardware implementations using emerging spin-transfer torque and memristor devices.

Textbooks: (optional)

1. Lecture notes: primary references
2. Research papers identified by instructor. Most papers will be available for download and/or posted on webcourses free of charge via UCF library subscription to IEEE/ACM/other journals/conference proceedings.

Prerequisites:

- EEL5825 or EEE5390 or C.I.

Lecture Topics:

1. Artificial neural network introduction (Artificial Neural Network, Cellular Neural Network, Oscillatory Neural Network, Spiking Neural Network, Convolutional Neural Network, Hierarchical Temporal Memory, HMAX)
2. Spin-transfer torque devices (vertical spin valve with metal/ tunneling barrier, lateral spin valve, magnetic domain wall strip, spin-orbit torque devices, topological insulators)
3. Boolean Computing using STT devices (spin-based true random number generators, all-metallic logic, all spin logic)
4. Spin based neurons (bipolar lateral spin valve neuron, unipolar domain wall neuron, unipolar spin hall neuron, STT soft-limiting non-linear neuron)
5. Memristors and Spintronics for synapses
6. Neuromorphic computing hardware design using CMOS, STT devices or memristors
7. Spin torque oscillators (2-terminal GMR/TMR STOs, Spin hall induced oscillators)
8. Non-Boolean/ Neuromorphic Computing with coupled STOs

Grading:

Weight	Component	Requirements
15%	Homework	Uploaded to webcourses as announced
20%	Participation	Class presentation on topic decided by the student and instructor
40%	Research Projects a) Project Presentation: 20% b) Technical Report: 20% c) Discussion: Extra credit	a) Project of your choice but discuss with the instructor to get approval. Powerpoint presentation live in-person on date selected b) Project report should be of publishable quality (IEEE conference format, 6 pages, double column, etc) c) Quality and frequency of contribution to technical discussions in class or office hours
25%	Final Exam	Completed live in-class on the specified date

Course Letter Grades with Plus and Minus scoring will be assigned as appropriate.

UCF policy prohibits instructors from emailing or telephone discussion of grades on any homeworks, exams, or projects, as well as overall course grades. Thus, please login regularly to webccourses for grades on each item.

Submission / Late Submission / Make-up Policies:

- All submissions must be uploaded to webcourses **prior** to the specified due date and time – no other form of submittal can be accepted: please do not email your submissions.
- Late Work: useful to study, but cannot be utilized for credit to be fair to all students.

Exam Policies:

- All students are required to take the final exam.
- The final exam is comprehensive: it will include material covered throughout the course.
- Exams are closed book, closed notes (no user-prepared crib sheets) unless otherwise specified.
- Only non-programmable calculators are allowed. No cellphones/tablets/laptops can be used during exams, and they cannot be used as calculators during exams. No headphones allowed.
- No "Make-up Assignments" nor "Make-up Exams" are available: any exceptions must be approved in advance of the exam, or if unexpected events arise it is OK just please provide evidence of a doctor's note. Weighting of remaining components to carry weight of approved absences.

Projects:

Projects will be conducted as individual work by each student. Students are welcome to propose their own topic, but have to discuss with the instructor to get approval. If the student has difficulty to find a topic, the instructor will provide a list of topics based on a first-come-first-served basis.

Webcourses and Knights email:

Each student is expected login regularly to webcourses.ucf.edu to view *Announcements*, obtain *Lecture Slides*, *Assignments*, and view *Feedback on Performance*, as well upload their completed work before the due dates which are specified there. Use of knights.ucf.edu email is required by UCF.

SYLLABUS

Advanced Biomechanics

Course No: BME 6XXX **Total Credit Hours: 3**
Instructors: Dr. Sang Song, Dr. Sudeshna Pal, Dr. Helen J. Huang **Semester Offered: Fall 2016**

Course Description

The objectives of this course are to understand the basic concepts and biomedical applications of medical robotics, human motion mechanics and neuro-mechanics. The course will be structured into a three module course focusing on the above topics. Specifically, the course will cover engineering principles of medical robotics, mechanics (dynamics and modeling) of human motion, structure and function of the human motor system, neuromuscular control, and applications of the above topics. Course format will include lectures, seminars, assignments and projects.

Course Goals

The learning objectives of this course are:

1. Develop a comprehensive understanding of medical robotics and its applications.
2. Develop the ability to identify requirements and design medical robot/device
3. Develop the ability to understand medical imaging and clinical coordinate system
4. Develop the ability to model and quantitatively analyze the mechanics of human motion.
5. Develop the ability to model the mechanical properties of the muscle-tendon unit.
6. Develop an understanding of neuromuscular control during movement
7. Perform a literature search on current biomechanics research topics.
8. Implement knowledge gained in solving design based biomechanics problems.

Course Prerequisites

BME 5587C

Recommended Reading

Books

1. Jacob Rosen, Blake Hannaford, Richard M. Satava (Editors), Surgical Robotics, Systems, Applications, and Visions, Springer; 1st Edition. (2011), ISBN-13: 978-1441911254.
2. T. Peters and K. Cleary: Image-Guided Interventions: Technology and Applications, Springer 2008.
3. David A. Winter: Biomechanics and Motor Control of Human Movement, Wiley & Sons; 3rd Edition, 2005
4. Jay D. Humphrey and Sherry L. Delange, An Introduction to Biomechanics, Springer, 2004.
5. Roger M Enoka: Neuromechanics of Human Movement, Human Kinetics, 4th Edition, 2008

Papers

- R. H. Taylor and D. Stoianovici. Medical Robotics in Computer-Integrated Surgery. IEEE Transactions on Robotics, 19(5):765-781, 2003
- M. Okamura. Haptic feedback in robot-assisted minimally invasive surgery. Current Opinion in Urology, 19(1):102-107, 2009
- J. Marescaux, J. Leroy, M. Gagner, F. Rubino, D. Mutter, M. Vix, S. E. Butner, M. K. Smith. Transatlantic Robot-Assisted Telesurgery. Nature, 413:379-380, 2001

- S. M. Farritor, A. C. Lehman, and D. Oleynikov. Miniature In Vivo Robots for Notes. In J. Rosen, B. Hannaford, and R. Satava, Eds., Surgical Robotics - Systems, Applications, and Visions, pp. 123-138. Springer, 2011
- H. Choset, M. Zenati, T. Ota, A. Degani, D. Schwartzman. Enabling Medical Robotics for the Next Generation of Minimally Invasive Procedures: Minimally Invasive Cardiac Surgery with Single Port Access. In J. Rosen, B. Hannaford, and R. Satava, Eds., Surgical Robotics - Systems, Applications, and Visions, pp. 257-270. Springer, 2011
- G. Fichtinger, P. Kazanzides, A. M. Okamura, G. D. Hager, L. L. Whitcomb, and R. H. Taylor. Surgical and Interventional Robotics Part II: Surgical CAD-CAM Systems. IEEE Robotics and Automation Magazine, 15(3):94-102, 2008
- Z. Yaniv, and K. Cleary. Image-Guided Procedures: A Review. CAIMR Technical report TR-2006-3, 2006

Examination and Grading Criterion (Tentative)

Homework assignments, project reports and final exam will contribute to the final grades.

Homework	30%
Class Project	40%
Final Exam	30%

Week by Week Course Schedule

Modules	Week	Topics	Materials	Assignments
Medical Robotics	1	Tu: Introduction to medical robot R: Mechatronics in medicine		HW1: Applications Survey
	2	Tu: Research seminar by other university lab or industry R: Image guided intervention		
	3	Tu: Medical imaging R: Virtual and augmented reality		HW2: Medical image process (3D Slicer)
	4	Tu: Research seminar by other university lab or industry R: Robotic surgery in orthopedics		HW3: Workspace of medical robots
	5	Tu: Cancer diagnosis and therapy R: Soft robotics in medicine		Project1: Sterilizable robot design
	6	Tu: Robotics in surgical training and rehabilitation R: Wrap-up and discussion		
Motion Mechanics	7	Tu: Introduction and anthropometry R: Link segment modeling		HW5: Literature survey /Gait disorders
	8	Tu: Joint torques and forces: Inverse dynamics approach R: Inverse dynamics approach (cont.)		Project2: Gait assistive device design
	9	Tu: Mechanical work and energy in human motion R: Mechanical work and energy (cont.)		
	10	Tu: Motion analysis and Gait models R: Motion analysis lab demo		HW6: Gait analysis
	11	Tu: Human motion modeling: MATLAB R: Human motion modeling (cont.)		

Neuro-Mechanics	12	Tu: Introduction to the nervous system and musculoskeletal system R: Mechanical properties of the muscle tendon unit		HW7: Research survey
	13	Tu: Action potentials and motor units R: Electromyography and demo		
	14	Tu: Sensory feedback and spinal control R: Muscle synergies		Project3: Myoelectric controlled exoskeleton or prosthetic design
	15	Tu: Neuromuscular control of locomotion: steady state R: Neuromuscular control of locomotion: adaptability		HW8:Neuromuscular control
	16	Tu: Rehabilitation applications R: Rehabilitation applications		

- **As of Fall 2014, all faculty members are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please complete the posted assignment/quiz by the end of the first week of classes, or as soon as possible after adding the course. Failure to do so will result in a delay in the disbursement of your financial aid.**

SYLLABUS

Topics in BME

Course No: BME 6XXX **Total Credit Hours: 3**
Instructors: BME program faculty **Semester Offered: Fall**

Course Description

Biomedical engineering involves the application of engineering principals to medicine and biology with the overall goal to improve human health. Study of the body at the molecular, cellular, and tissue level has yielded significant advances in healthcare, specifically in the diagnostics, monitoring, and therapeutic fields. In this course students will explore research topics in biomedical engineering (BME) guided by BME faculty. This team-taught course will involve seminars and presentations of research and case studies by faculty engaged in BME research as well as regional medical professionals. Specific topics covered will include: musculoskeletal diseases, cancer, neurological diseases, cardiovascular diseases, infectious diseases, and orthopedic disorders. In addition, a course module on biomedical research ethics and federal regulations and policies in biomedical research will also be covered. Students will review literature, make presentations, and prepare a research review proposal and report in this course.

Course Goals

The course will meet the following learning objectives:

1. Provide an in-depth look at diseases that impact human health along with current engineering and scientific research aimed at addressing these problems.
2. Gain knowledge on research ethics and federal regulations related to BME research.
3. Perform a literature search on current biomechanics research topics.
4. Prepare a review based research article.
5. Write a brief research proposal on any current BME topic.

Course Prerequisites

Students with graduate standing with prior training in life sciences, physical sciences, or engineering. Undergraduates must have taken the following classes: Fluid Mechanics (EML 3701) and Solid Mechanics (EGM3601) or CI.

Required Reading

The reading materials for this course will consist of research articles and select book chapters. All required readings will be posted online on the class website.

Examination and Grading Criterion (Tentative)

Review report	30%
Class presentation	30%
Research proposal	40%

Course Schedule (Tentative)

Week	Lecturer	Topics	Assignments
1	TBD, UCF COM	Stem cell research and 3-D printing	Reading materials
2	TBD, UCF CECS	Heart diseases: multiscale modeling and treatment planning.	Reading materials
3	TBD, Orlando Health	Orthopedic research: biomechanics and modeling of orthosis treatment	Reading materials
4	TBD, UCF CECS/Orlando Health	Pulmonary diseases: Lung models	Reading materials
5	TBD, UCF CECS/COM	Infectious diseases: biosensors as rapid screening tools	Reading materials
6	TBD, UCF CECS	Cell Biomechanics: mechanical stimulation and cell behavior	Reading materials
7	TBD, UCF CECS	Vibrations and acoustics in disease detection	Research review report
8	TBD, UCF CECS	Surgical robotics	Reading materials
9	TBD, UCF CECS/COM	Neurorehabilitation/assistive and rehabilitative devices	Reading materials
10	TBD, UCF CECS	Prosthetics research	Reading materials
11	TBD, UCF COHPA/COM/Orlando VA	Sports medicine and geriatrics	Reading materials
12	TBD, UCF CECS/Orlando VA	Prosthetics research	Reading materials
13	TBD, UCF ORC	Medical ethics, IRB, IACUC, responsible conduct of research	Reading materials
14	TBD, UCF CECS/COHPA/ Orlando Health	Federal regulations and policies, business development	Reading materials
15		Class presentations	Research proposal
16		Class presentations	Research proposal

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BME 6xxx- Independent Study

Syllabus

Instructor

BME faculty

Course Description

This is a self-directed course under the supervision of a faculty member for biomedical engineering majors who wish to investigate a specific area of biomedical engineering. The area of study must be approved by a thesis advisor or program coordinator. A syllabus must be provided.

Course Objectives

The primary goal of the course is to provide students with research exploration of a specific topic of interest within the realm of bioengineering to the individual student under the advisement of an instructor who will monitor and critique the student's progress

Prerequisites

Graduate standing and consent of faculty advisor.

Grading

Satisfactory or Unsatisfactory

Evaluation

Since this is self-directed course, each method of evaluation will be unique to each student and will be mutally agreed upon by the student and instructor. The study must be substantially completed in the semester taken.

Notes:

- *Students who need special accommodations due to disabilities should contact the instructor at the very beginning of the semester.*
- The instructor may feel the need to modify the syllabus during the semester. If this is the case students will be notified beforehand of any changes.

- **As of Fall 2014, all faculty members are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please complete the posted assignment/quiz by the end of the first week of classes, or as soon as possible after adding the course. Failure to do so will result in a delay in the disbursement of your financial aid.**

BME 6xxx- Directed Research

Syllabus

Instructor

BME faculty

Course Description

Students will work independently along with a BME faculty advisor perform to research and write a critical review of the research area within biomedical engineering that the student is currently pursuing research in. Students are expected to have general knowledge in their selected research area before they delve into solving a specific research problem within that field. This course will place emphasis on the student's role as a researcher and is intended to prepare the student for his/her dissertation.

Course Objectives

Upon completion of this course students will be able to: (1) Identify a topic an area of research and define its issues, (2) Identify and survey appropriate resources such as scholarly articles, book chapters, dissertations conference proceedings, etc, (3) Prepare an annotated bibliography, (4) Analyze, synthesize, and evaluate the literature to determine which literature makes a significant contribution to the field, and (5) Discuss the findings and conclusions of the relevant literature.

Prerequisites

Graduate standing and consent of faculty advisor.

Course Topics

Course topics will be tailored to the specific research focus of the student.

Required Readings

Textbook No text is required however reading materials will be derived from a range of sources including the school library, books, periodicals, peer-reviewed journal articles, and published thesis.

Grading scale

Pass or fail

Grading
Final Report 100%

Final Report

The final report will be a research paper on a subject mutually agreed upon by the student and faculty advisor. Specifications for the final report will be at the discretion of the faculty member and will be given to the student at the beginning of the course.

Notes:

- *Students who need special accommodations due to disabilities should contact the instructor at the very beginning of the semester.*
- The instructor may feel the need to modify the syllabus during the semester. If this is the case students will be notified beforehand of any changes.

- **As of Fall 2014, all faculty members are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please complete the posted assignment/quiz by the end of the first week of classes, or as soon as possible after adding the course. Failure to do so will result in a delay in the disbursement of your financial aid.**

BME 6xxx- Biomedical Engineering Thesis

Syllabus

Instructor

BME faculty

Course Description

Biomedical engineering thesis fulfills the thesis requirement for biomedical engineering graduate students who have chosen the thesis option. Students should begin thinking about the process that leads to successful completion of this project, prior to enrollment in this course. Possible Thesis topics should be formulated by the student and discussed with an advisor or potential thesis advisor as well.

Prerequisites

Graduate standing and consent of faculty advisor.

Grading scale

Pass or fail

Thesis Process

The thesis process has been broken down into the following steps:

1) The student, in consultation with a thesis advisor will select a thesis topic. Prior to and during this time the student is expected to do an initial literature review to identify a specific research hypothesis to pursue.

2) After an appropriate hypothesis has been identified a formal thesis proposal will be written by the student.

3) Once a thesis proposal has been developed a thesis committee will be formed. The thesis committee must consist of the thesis advisor and at least 2 graduate faculty members, with at least 1 member required to be a BME faculty member.

4) The student will schedule a meeting with the thesis committee and present the thesis proposal for approval. During this time committee members will have the opportunity to ask questions and make comments regarding the project.

5) Once the thesis has been approved by the thesis committee the student may proceed with the proposed project under the guidance of the thesis advisor. While the student will mainly interact with the thesis advisor during this time the student is also encouraged to interact with other committee members during this process.

6) Once the student and thesis advisor feel that the proposed project has reached its maturity a final written thesis must be generated by the student.

7) The final thesis must be submitted to the thesis committee and will be accepted by the program, pending acceptance of any changes and recommendations made by the thesis committee.

Notes:

- *Students who need special accommodations due to disabilities should contact the instructor at the very beginning of the semester.*
- The instructor may feel the need to modify the syllabus during the semester. If this is the case students will be notified beforehand of any changes.

- **As of Fall 2014, all faculty members are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please complete the posted assignment/quiz by the end of the first week of classes, or as soon as possible after adding the course. Failure to do so will result in a delay in the disbursement of your financial aid.**

University of Central Florida
Department of Mechanical and Aerospace Engineering
Bioengineering Instrumentation
(BME 6xxxC)

Instructor: Prof. Hansen A Mansy
Office: Engineering 1, Rm 308
Phone: (407) 823-1655
E-mail: Use Webcourses for all communications
Office hours: TBA + by appointment

Optional text books: Medical Instrumentation: Applications and theory, 4th edition, John G Webster
John Wiley & Sons, 2010; ISBN 978-0-471-67600-3

Catalog Description: An introduction to the fundamental theory and experimental techniques needed for performing bioengineering measurements, designing related experiments, and analyzing experimental results.

Description: This course provides an introduction to the fundamental theory and experimental techniques needed for performing bioengineering measurements and designing related experiments. The relevant techniques will be discussed in the lecture and practiced in the lab and a semester project and a few core experiments. The topics covered in the course include: uncertainty analysis, digital data acquisition, spectral analysis of dynamic signals, basic electronic instruments and measurement techniques (fluid flow, pressure, vibration, and stress/strain), non-invasive patient monitoring (EKG, EMG, blood pressure, auscultation of body sounds, oximetry, ultrasound), therapeutic devices (pacemakers, ventilators, hemodialysis, incubators, and drug delivery), and topics in biostatistics. Emphasis is also placed on report writing, team work, and attention to details.

Course Goals:

- Understand different aspects of measurement theory and techniques, including calibration and dynamic responses of measurement devices
- Gain understaing of frequency domain representation of data, data sampling and sampling errors, basic statistics, uncertainty analysis,
- Be familiar with methods of measuring engineering quantities as well as non-invasive patient monitoring and theraputic devices.
- Be conversant with electronic data acquisition/processing
- Gain the ability to design and conduct an efficient experiments and practice team work.
- Be competent in technical report writing

Credit hours: 3 (2,2)
Prerequisite: BME 5587C or consent of instructor (CI).

Lecture Time: TBA
Lecture Location: TBA

Lab location: ENG2-0182

Grading:

Homework	10 %
Lecture/unannounced quizzes	5 %
Lecture midterm Exam	15 %
Final exam	20 %
Lab group reports	15 %
Semester project	25 %
Lab quizzes	5 %
Lab midterm	5 %

Grading scale:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
<60%	F

Homework: The homework will be posted on Webcourses and is due **one week** from assignment date, unless otherwise stated.

Quizzes: Quizzes are closed book & notes. An equation sheet and statistics tables will be provided on Webcourses. Students should bring a hard copy of the equation sheet + statistics tables, and a calculator to the exams.

Classroom policies: I-clickers will be used in many lectures (after the first lecture). Make sure to register your I-clicker using your NID. Class participation is strongly encouraged (points may be awarded). Talking to other students is not allowed during the lecture (points are deducted). Students who talk to others during the lecture will be asked to take a 5 minute break outside the classroom.

Laboratory: Preparing for the lab by reading your lab handout is required. It is also mandatory to read the lab policy document and print and sign the last page and submit it to your TA in the first lab meeting. Note that no food or drink, of any sort, is allowed in the laboratory.

Attendance: All students must attend laboratories and conduct experiments unless there is a medical emergency (documented by submitting a doctor's note to the lab instructor) or other extenuating circumstances approved by Dr. Mansy. Otherwise, there will be no make-up labs. If your lab falls on a holiday, a make-up session will be held a week from that holiday.

Reports: All labs require a written report. A hard copy of the report is due on the date listed in the table below. A softcopy is due (in Webcourses) on the Friday of the week when the hard copy is due. For report format and grade distribution, please refer to the report rubric and the Report Writing Guidelines posted on Webcourses. It is required to indicate the role of each group member and his/her percentage of the work done for the group report. Roles of group members should rotate. Use the last page of the Report Writing Guidelines for that purpose. Significant variations in work percentage will result in different grades within the same group.

Sample calculation: After each experiment and before leaving the laboratory, students should perform a sample calculation for a selected set of data. This calculation should be done neatly and a hard copy should be submitted to the Teaching Assistant for a grade. Computer software or a manual method can be used to complete the sample calculation. A sample calculation sheet will be posted (on Webcourses) for each experiment.

Lab rules, behavior, and participation: Part of the lab grade depends on lab behavior and participation. You are expected to follow lab rules and regulations, which will be provided by Teaching Assistants and will be strictly enforced. Disruptive activities, careless handling of equipment, loosing equipment, or leaving the lab station in a messy condition will result in a grade penalty. All members of the lab group should actively participate in the experiment. Write the names of all your group members on the sample calculation sheet. The grades for adequate behavior and participation will be documented by the lab TA on that sheet for each lab.

Rubrics: The rubric for each assignment (e.g., homework, lab report, etc.) shows the grade distribution and takes precedence over any other document for grading purposes. Make sure to check the rubric when working on all assignments.

Grading issues: Any grading issues (for homework, exam, lab report, etc.) must be raised and resolved **within one week** after receiving the grade. Late requests will not be entertained.

Tentative Lab and Exam Schedule:

Week [start date]	Lab/exam	Report type and due date
1 [ ]	No lab this week	
2 [ ]	Core Experiment 1 (Data acquisition and analysis of dynamic signals)	Group report, Due after 1 week
3 [ ]	Experiment 2 (EMG, EKG, EEG)	Group report, Due after 1 week
4 [ ]	No lab this week	
5 [ ]	Experiment 3 (Circulatory and respiratory system measurements: flow rate, pressure and sound)	Group report, Due after 1 week
6 [ ]	Experiment 4 (Medical imaging , ultrasound, image processing)	Group report, Due after 1 week
7 [ ]	Semester project	Proposal due
8 [ ]	Semester project	
9 [ ]	**Midterm**	
10 [ ]	Semester project	Progress report due
11 [ ]	Semester project	
12 [ ]	Semester project	Progress report due
13 [ ]	Semester project	
14 [ ]	Semester project	Progress report due
15 [ ]	Semester project presentations and final report due	
16[ ]	**Final Lecture Exam (2 hr long)**	

TA Contact Information, Office Hours, and Lab sections: A separate document called "TA contact information" will be posted on Webecourses.

Academic Honesty: Ethical behavior is expected from all students. Clear evidence of cheating during an exam will result in failure in the class. Discussions of lab procedures and data sharing are expected within a lab group. Group reports are also a collaborative effort of the group. Solo reports, however, must be the work of the individual student. Turnitin is used to authenticate lab reports.
Notes:

- *Students who need special accommodations due to disabilities should contact the instructor at the very beginning of the semester.*
- Dr. Mansy reserves the right to modify this syllabus and lab schedule. Students will be notified of any changes via UCF Webcourses.

- **As of Fall 2014, all faculty members are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please complete the posted assignment/quiz by the end of the first week of classes, or as soon as possible after adding the course. Failure to do so will result in a delay in the disbursement of your financial aid.**

IDS6XXX: Fundamentals of Nano Biophysics

NanoScience Technology Center
College of Graduate Studies, University of Central Florida

COURSE SYLLABUS

Instructor:	Dr. Hyeran Kang	Term:	Spring 2016
Office:	NanoScience Technology Center Suite 400	Class Meeting Days:	TBD
Phone:	407-882-2845	Class Meeting Hours:	TBD
E-Mail:	Hyeran.Kang@ucf.edu	Class Location:	Rm 475
Website:	Nano.ucf.edu	Lab Location:	N/A
Office Hours:	TBD		

I. Welcome!

II. University Course Catalog Description

This course will focus on how the biophysics of living systems and molecular nano-machinery work in biology.

III. Course Overview

This course will introduce the field of biological physics by examining living systems using multidisciplinary approaches. The course is intended to train students in understanding biological systems using experimental and theoretical tools in physics and nanoscience. Emphasis will be given to understanding the techniques and instrumentation used to investigate biological systems at the nanoscale.

IV. Course Objectives

The main goal of this course is to ensure that students will learn the fundamental principles and practical applications of biophysics and engineering. After successfully completing the course, students should have sufficient knowledge and skills to choose and use experimental and theoretical tools to address research problems in biology and biomedical sciences.

V. Course Prerequisites

Upon approval by the instructor

VI. Course Credits

3 credit hours

VII. Required Texts and Materials

There is no required textbook for the course, however. A bibliography of recommended resources will be provided as well as photocopies and handouts throughout the course.

VIII. Supplementary (Optional) Texts and Materials

IX. Basis for Final Grade

The listing of assessments and their weighting in the semester will be as follows.

Assessment	Points
Midterm exam	100
Final exam	100
Oral Presentation	100
Total points	300

The following grading scale will apply:

Grading Scale (%)	
255-300	A
225-254	B
195-224	C
180-194	D
Below 180	F

X. Grade Dissemination

Graded tests and materials in this course will be returned individually only by request. You can access your scores at any time using "myUCF Grades" in the portal. Please note that scores returned mid-semester are unofficial grades. If you need help accessing myUCF Grades, see the online tutorial: https://myucfgrades.ucf.edu/help/.

XI. Course Policies: Grades

Late Work Policy: There are no make-ups for in-class presentations, quizzes, the midterm, or the final exam.

Grades of "Incomplete: The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

XII. Course Policies: Technology and Media

Email: For general inquiries, students should contact Dr. Kang by email (Hyeran.Kang@ucf.edu) or during office hours. For questions specific to the content of the class, students should direct their question to the appropriate instructor: Dr. Kang by email (Hyeran.Kang@ucf.edu). Students should expect a response within 24hours throughout the week.

XIII. Course Policies: Student Expectations

Disability Access: The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who

need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Student Resource Center Room 132, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.

Attendance Policy: Class attendance is required in this course.

Professionalism Policy: Per university policy and classroom etiquette; mobile phones, iPods, *etc.* **must be silenced** during all classroom and lab lectures. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, *etc.*, and have been warned may suffer a reduction in their final class grade.

Academic Conduct Policy: Academic dishonesty in any form will not be tolerated. If you are uncertain as to what constitutes academic dishonesty, please consult The Golden Rule, the University of Central Florida's Student Handbook (http://www.goldenrule.sdes.ucf.edu/) for further details. As in all University courses, The Golden Rule Rules of Conduct will be applied. Violations of these rules will result in a record of the infraction being placed in your file and receiving a zero on the work in question AT A MINIMUM. At the instructor's discretion, you may also receive a failing grade for the course. Confirmation of such incidents can also result in expulsion from the University.

Turinitin.com In this course we will utilize turnitin.com, an automated system which instructors can use to quickly and easily compare each student's assignment with billions of web sites, as well as an enormous database of student papers that grows with each submission. Accordingly, you will be expected to submit all assignments in both hard copy and electronic format. After the assignment is processed, as instructor I receive a report from turnitin.com that states if and how another author's work was used in the assignment. For a more detailed look at this process visit http://www.turnitin.com.

University Writing Center: The University Writing Center (UWC) is a free resource for UCF undergraduates and graduates. At the UWC, a trained writing consultant will work individually with you on anything you're writing (in or out of class), at any point in the writing process from brainstorming to editing. Appointments are recommended, but not required. For more information or to make an appointment, visit the UWC website at http://www.uwc.ucf.edu, stop by MOD 608, or call 407.823.2197.

Basics of Low Dimensional Semiconductor Devices

NanoScience Technology Center
College of Graduate Studies, University of Central Florida

COURSE SYLLABUS

Instructor:	Dr. Arkadiy Lyakh	Term:	Spring 2016
Office:	NanoScience Technology Center Suite 400	Class Meeting Days:	Tuesday
Phone:	407-882-2845	Class Meeting Hours:	5:30 – 8:00 pm
E-Mail:	arkadiy.lyakh@ucf.edu	Class Location:	Rm 475
Website:	Nano.ucf.edu	Lab Location:	N/A
Office Hours:	TBD		

I. Welcome!

II. University Course Catalog Description

Introduction to low dimensional semiconductor devices based on quantum wells, dots and wires; approximate and numerical device modeling

III. Course Overview

Low dimensional semiconductor devices are a hot topic in fundamental research with numerous applications. The course starts with relevant fundamental concepts and then transitions to device modeling using either approximate methods or numerical simulations. Numerous practical examples are given throughout the course.

IV. Course Objectives

From this course, students will learn the fundamental principles and modeling techniques for low dimensional semiconductor devices. At the end of the course, they will understand how size quantization changes low dimensional devices properties and they will be able to quantitatively predict their characteristics.

V. Course Prerequisites

Upon approval by the instructor

VI. Course Credits

3 credit hours

VII. Required Texts and Materials

There is no required textbook for the course, however. A bibliography of recommended resources will be provided as well as photocopies and handouts throughout the course.

VIII. Supplementary (Optional) Texts and Materials

Quantum Wells, Wired and Dots, third edition by Paul Harrison (ISBN 978-0-470-77097-9)

IX. Basis for Final Grade

The listing of assessments and their weighting in the semester will be as follows.

Assessment	Points
Midterm exam 1	75
Midterm exam 2	75
Final exam (take-home)	100
Homework	50
Total points	300

The following grading scale will apply:

Grading Scale (%)	
250-300	A
200-250	B
170-200	C
150-170	D
Below 150	F

X. Grade Dissemination

Graded tests and materials in this course will be returned individually only by request. You can access your scores at any time using "myUCF Grades" in the portal. Please note that scores returned mid-semester are unofficial grades. If you need help accessing myUCF Grades, see the online tutorial: https://myucfgrades.ucf.edu/help/.

XI. Course Policies: Grades

Late Work Policy: There are no make-ups for in-class presentations, quizzes, the midterm, or the final exam.

Grades of "Incomplete: The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

XII. Course Policies: Technology and Media

Email: For all inquiries, students should contact Dr. Lyakh by email (arkadiy.lyakh@ucf.edu) or during office hours. Students should expect a response within 24hours throughout the week.

XIII. Course Policies: Student Expectations

Disability Access: The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the professor to

request accommodations. Students who need accommodations must be registered with Student Disability Services, Student Resource Center Room 132, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.

Attendance Policy: Class attendance is required in this course.

Professionalism Policy: Per university policy and classroom etiquette; mobile phones, iPods, *etc.* **must be silenced** during all classroom and lab lectures. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, *etc.*, and have been warned may suffer a reduction in their final class grade.

Academic Conduct Policy: Academic dishonesty in any form will not be tolerated. If you are uncertain as to what constitutes academic dishonesty, please consult The Golden Rule, the University of Central Florida's Student Handbook (http://www.goldenrule.sdes.ucf.edu/) for further details. As in all University courses, The Golden Rule Rules of Conduct will be applied. Violations of these rules will result in a record of the infraction being placed in your file and receiving a zero on the work in question AT A MINIMUM. At the instructor's discretion, you may also receive a failing grade for the course. Confirmation of such incidents can also result in expulsion from the University.

Turinitin.com In this course we will utilize turnitin.com, an automated system which instructors can use to quickly and easily compare each student's assignment with billions of web sites, as well as an enormous database of student papers that grows with each submission. Accordingly, you will be expected to submit all assignments in both hard copy and electronic format. After the assignment is processed, as instructor I receive a report from turnitin.com that states if and how another author's work was used in the assignment. For a more detailed look at this process visit http://www.turnitin.com.

University Writing Center: The University Writing Center (UWC) is a free resource for UCF undergraduates and graduates. At the UWC, a trained writing consultant will work individually with you on anything you're writing (in or out of class), at any point in the writing process from brainstorming to editing. Appointments are recommended, but not required. For more information or to make an appointment, visit the UWC website at http://www.uwc.ucf.edu, stop by MOD 608, or call 407.823.2197.

Tentative Course Schedule (total 15 weeks)

1. Introduction, history
2. Fundamental postulates of QM
3. Schrödinger equation; infinite well
4. Finite quantum well, graphical solution
5. Simple Harmonic Oscillator
6. Midterm 1
7. Wave mechanics - 1D barrier, 1D well
8. Periodic lattice
9. Heterostructures
10. Density of states; Fermi Dirac distribution
11. Quantum dots and quantum wires
12. Midterm 2
13. Numerical solutions: shooting method, boundary conditions
14. Numerical solutions: inclusion of electrical field, doping, etc.
15. Final exam discussion (take-home)

Advanced Materials for Rechargeable Batteries
NanoScience Technology Center
University of Central Florida

COURSE SYLLABUS

Instructor:	Instructors: Yang Yang	Term: Spring 2016
Office:	Office Number: 423	Class Meeting Days: Wednesday
Phone:	Phone for Office: 407-823-2845	Class Meeting Hours: 5:30-8:00 pm
E-Mail:	Instructors' Email: Yang.Yang@ucf.edu;	Class Location: 475 Lab Location:
Office Hours:	Date and time	

Welcome

Welcome to course: Advanced Materials for Rechargeable Batteries

University Course Catalog Description:

Course Overview

Rechargeable batteries is the dominant solution to energy and environmental crisis. This course deals with various topics in nanotechnology, material science and electrochemistry in relation with renewable energy storage. Different rechargeable batteries and their different charge storage mechanisms will be covered. Future directions to enhance the performance of the devices through nanoengineering will also be discussed.

Course Objectives

Upon completion of the course, students will be able to demonstrate an in-depth knowledge and understanding of how nanotechnology and materials engineering can contribute to sustainable energy future. The students will also learn the device fabrication and electrochemical performance characterization of different rechargeable batteries.

Topics Covered

- Category and charge storage mechanism of rechargeable batteries (basic principles)
- Advances in anode materials for rechargeable batteries (design, fabrication and characterization)

- Advances in cathode materials for rechargeable batteries (design, fabrication and characterization)
- Develop novel rechargeable batteries through nanoengineering (design, fabrication and characterization)

Course Prerequisites

Consent of instructor

Course Credits

3 (3, 0)

Required Texts and Materials

No prescribed text book

Supplementary (Optional) Texts and Materials

Will be provided during the course

Basis for Final Grade

Provide a listing of assessments and their weighting in the semester total. In addition to (or even in lieu of) tests, consider exploring "authentic" assessments, which are based as closely as possible to real world experiences.

Assessment	Percent of Final Grade
Assignments	30%
Seminar presentations	40%
Midterm Exam	30%

X. Grading scale:

Grading Scale (%)	
90-100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

Course Policies: Grades

Late Work Policy:
There are no make-ups for the assignments or the final exam.

Extra Credit Policy: No extra credit and curving will be offered.

Grades of "Incomplete":

The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

Course Policies: Technology and Media

Email: Please use email for all important correspondence.

Classroom Devices: No electronic devices except calculators are allowed to use in the class room. No recording of the lecture is permitted.

Course Policies: Student Expectations

Disability Access: The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Student Resource Center Room 132, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.

Attendance Policy:

- Regular class attendance is strongly advised and is necessary for students to understand many of the topics covered.
- Students must be on time to class.
- If missed a class, it is the responsibility of the student to find out the materials covered.

Professionalism Policy:

Per university policy and classroom etiquette; mobile phones, iPods, *etc.* **must be silenced** during all classroom lectures. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, *etc.*, and have been warned may suffer a reduction in their final class grade.

Academic Conduct Policy:

Academic dishonesty in any form will not be tolerated. As in all University courses, The Golden Rule Rules of Conduct will be applied. Violations of these rules will result in a record of the infraction being placed in your file and receiving a zero on the work in question AT A MINIMUM. At the instructor's discretion, you may also receive a failing grade for the course. Confirmation of such incidents can also result in expulsion from the University

Schedule

1/11-4/26

* Note: The Schedule is subject to revision

Essay: A comprehensive (minimum of 4000 words) overview of rechargeable batteries related nanotechnology topic of interest involving a basic foundation of nanoscience and materials engineering with commercial potential.

Presentation: Individual presentation of a peer-reviewed scientific research article of interest. Total presentation time: 15 minutes

Week	
1/13	Introduction of the course, category of rechargeable batteries and an overview of nanotechnology and advanced materials in rechargeable batteries
1/20	Fundamental of Li-ion batteries
1/27	Advances in Li-ion battery electrodes
2/3	Group presentation
2/10	Fundamental of Li-S batteries and their recent advances
2/17	Advances in Li-S battery electrodes
2/24	Group presentation
3/2	Mid-term exam
3/9	Spring break
3/16	Na or other metal ion based rechargeable battery
3/23	Advances in other metal ion based rechargeable battery
3/30	Group presentation
4/6	Fundamental of metal-air battery
4/13	Advances in metal-air battery
4/20	Group presentation

University of Central Florida
College *of* Medicine

SELECTIVE/ELECTIVE/ACTING-INTERNSHIP PROPOSAL FORM

Proposal Date: 4/5/15
Course Title: MDE8941 - Clinical Science Review I & II
Department/Specialty: Internal Medicine/Family Practice/Clinical Sciences
Brief Description (25 words maximum): Variable contact hour, multi-disciplinary course for medical students. This comprehensive course will consist of an in-depth review and application in the clinical science areas focused on the improvement of clinical skills such as communication, history taking, physical examination, clinical reasoning and professionalism. It will include basic science review if deemed appropriate. This course is for remedial work only and must be approved for each individual student by the student's SEPC.

Primary Preceptor Supervising Students: Analia Castiglioni, MD **Office Location:** COM 317H
Email: analia.castiglioni@ucf.edu **Office Phone:** 407 266 1179

Please indicate course type (select one):

☐ M3 Clerkship Selective (2 wks)
☐ M4 Clerkship Acting-Internship (4 wks)
☐ M4 Clerkship Elective (4 wks)
X Other (explain) Required course for students who did not pass the end-of-year M3 OSCE

Location: _____

- **Location to Report on first day:** _____ **Reporting Time:** _____
- **Contact Person** (for information/ scheduling): _____
- **Contact Phone and e-mail:** _____

Which blocks will this rotation be offered during the academic year? 1 and, if necessary, 2
What is the number of students per rotation block? Maximum of 4
Prerequisites (check all that apply)
☐ Completion of M2 ☐ Completion of M3 ☐ UCF COM Students Only X Consent of Instructor
☐ Completion of Core Clerkship in _____ ☐ Other: _____
Length of program (weeks): 2 or 4 weeks **Estimated total contact hours/week:** _____
Estimated % of time - Inpatient: _____ **Estimated % of time - Outpatient:** _____
Estimated % of time – Indirect contact time (independent study or online course work: _____
Estimated patient volume: What is the estimated number of patients/week for whom the student will have some responsibility, e.g., intakes/week _____ **follow-ups/week** _____
On-call schedule: N/A **Weekend duties:** N/A
For non-patient care rotations, describe the typical learning activities and responsibilities of the student: _____
Describe the expected level of supervision of students by faculty and residents The student will receive intensive individual supervision from the preceptor in an individualized program of study and clinical exercises designed according to the student's learning needs.

Goals of the Rotation: Specify the anticipated clinical conditions the student will encounter, and the clinical knowledge, and examination and procedural skills the student will be expected to learn:
Student's knowledge and skills deficits will be identified by COM's Clinical Skills Assessment Committee (CSAC) after review of student's end-of-year M3 OSCE (and clerkship) performance. An individualized remediation plan will be developed to meet the learner's needs. The remediation plan will be implemented with the collaboration of multiple COM faculty; including COM core faculty, UCF Health, clerkship and COP faculty. This course will require the student to actively engage in their own remediation plan by reviewing and self-reflecting on their performance across the four domains of competence assessed by the end-of-year M3 OSCE (communication and interpersonal skills (information gathering, rapport building and information sharing skills), clinical history gathering, physical examination skills and clinical reasoning).
Through self-reflection, mentoring and deliberate practice the student will have the opportunity to practice skills and receive feedback on their performance, with a goal of improving those deficient skills by the end of the course. Activities will depend on individual students' needs and may include a combination of supervised practice in a clinical

setting (inpatient or outpatient), standardized patient practice in CSSC, directed reading, completion of self-learning modules (i.e.,UMed modules), self-reflection activities, etc.
Students' skills will be re-assessed at the end of the course and required to pass a multi-station OSCE to enable their transition to the M4 year.

Learning Objectives: Please group these under the following headings:

By the end of the course a student will demonstrate:

1. Ability to satisfactorily participate in an individualized learning plan.
2. Development of reflection and self-assessment skills.
3. Successful engagement in deliberate practice.
4. Achievement of competence in deficient areas.

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects:
These will be individualized according to the student's needs in clinical knowledge and skills. Activities are expected to include diagnostic interviewing and physical examinations of patients in a clinical setting (inpatient or outpatient), to include formulation of differential diagnoses and treatment planning. Independent study of the relevant literature to strengthen specific areas of clinical knowledge will also be included. In the final week of the rotation the student will complete a focused reassessment and certification of competence.

Additional Information (textbooks required, additional teaching faculty, etc.): The instructor may consult as needed with individual Directors of the core M3 Clerkships as well as UCF COM Clinical Skills and Simulation Center in the design and implementation of the individualized learning plan for each student.

How will the student's performance be assessed?
How/when will formative feedback be given: weekly formative feedback from the preceptor.
Summative evaluation: The student must successfully pass a focused, customized OSCE at the UCF COM designed to demonstrate successful student remediation of the failed components of the end-of-year M3 OCSE.

Signature of Sponsoring Preceptor _____ Date 4/29/15

Signature of Clerkship Director _____ Date _____

Signature of Assistant Dean of Medical Education _____ Date 4-24-15

Curriculum Committee Chair _____ Date 4-27-15

COM Dean _____ Date 5.7.15

University of Central Florida
College *of* Medicine 7-14-14

Proposal Date: 03/24/15
Course Title: Narrative Medicine **Department/Specialty:** Narrative Medicine/Medical Education
Brief Description (25 words maximum): This elective introduces fourth year medical students to the nationally recognized field of Narrative Medicine (NM) and teaches them to apply concepts of attention, representation and affiliation to patient and self care.

Primary Preceptor Supervising Students: Olivia DiLeonardo **Office Location:** Nemours Children's Hospital
Email: olivia.dileonardo@nemours.org **Office Phone:** 407-567-4404

Please indicate course type (select one):

- ☐ M3 Clerkship Selective (2 wks)
- x M4 Clerkship Elective (2 wks)
- ☐ M4 Clerkship Acting-Internship (4 wks)
- ☐ Other (explain)

Location: Nemours Children's Hospital, Medical Library and other available conference rooms

- ☐ **Location to Report on first day:** Nemours Children' Hospital Lobby **Reporting Time:** 0830
- ☐ **Contact Person** (for information/ scheduling): Tiffany Oreste
- ☐ **Contact Phone and e-mail:** 407-567-3876

Which blocks will this rotation be offered during the academic year? All blocks
What is the number of students per rotation block? Maximum 2
Prerequisites (check all that apply):

- X Completion of M2
- x Completion of M3
- ☐ UCF COM Students Only
- x Consent of Instructor
- ☐ Completion of Core Clerkship in
- ☐ Other:

Length of program (weeks): 2 **Estimated total contact hours/week:** 40
Estimated % of time - Inpatient: n/a **Estimated % of time - Outpatient:** n/a
Estimated % of time – Indirect contact time (independent study or online course work: 50%
Estimated patient volume: What is the estimated number of patients/week for whom the student will have some responsibility, e.g., intakes/week n/a **follow-ups/week** n/a
On-call schedule: None **Weekend duties:** Self study as required
For non-patient care rotations, describe the typical learning activities and responsibilities of the student: Student will be expected to participate in patient rounds; read/view and be prepared to discuss assigned readings (including short stories, essays, or poetry) and short films; actively participate in close reading exercises; write parallel chart entries (a parallel chart entry is a written, reflective account written by the student reflecting upon a patient encounter); elicit and transcribe patient illness narratives; respond to writing prompts developed by the preceptor; and lead a Narrative Medicine workshop for the M3 and M4 students assigned to NCH.
Describe the expected level of supervision of students by faculty and residents: The student will be directly supervised by Olivia DiLeonardo, MLS, Instructor of Medical Education (Volunteer Faculty), UCF COM

Goals of the Rotation: Specify the anticipated clinical conditions the student will encouuter, and the clinical knowledge, and examination and procedural skills the student will be expected to learu:

- Student will learn about the history and development of Narrative Medicine and medical humanities. Student will be able to identify how humanities-related disciplines can "…enhance empathy, perspective-taking, openness to different viewpoints, and to prompt reflection on self, others, and the world." (Kumagai, 2014).
- Student will recognize the ability of the arts to "make strange": "…to trouble one's assumptions, perspectives, and ways of being in order to view anew the self, others, and the world, (which) may serve a critical educational function in the development of reflective, humanistic clinicians." (Kumagai, 2014).

- Student will be able to identify and describe the tenets of Narrative Medicine: attention, representation, affiliation (Charon, 2006)
- Student will learn to conduct close reading exercises using prose, poetry, essays, short films, photography, and works of art assigned by preceptor
- Student will participate in Pediatric Intensive Care (PICU), Neonatal Intensive Care (NICU), and Pediatric Hospitalist rounds with direct faculty preceptor supervision, and -write parallel chart entries based upon patient encounters.
- Student will elicit a narrative from a patient, listen while the patient tells his/her story, and then transcribe the story, concentrating on capturing its essence. The student will then read his/her written version of the patient's story back to the patient. This experience will be conducted under the direct supervision of the faculty preceptor. This exercise has been shown to develop the skills of narrative competence and attentive listening, and ultimately result in enhanced affiliation with the patient and the patient care experience from the patient perspective. (Chretien et al, 2015; Das Gupta, 2007; Kumagai, 2008)
- Student will respond to writing prompts and actively participate in discussion of these written entries with preceptor
- Student will choose a piece of short fiction (poetry or prose), short film, photographs, or work of art and lead a Narrative Medicine exercise for M3 and M4 students assigned to NCH, including a close reading, in-depth discussion, and response to a writing prompt under the direct supervision of the faculty preceptor

Learning Objectives:

- Patient care: Students are expected to provide patient care that is compassionate, respectful, appropriate and effective for the promotion of health, prevention of illness and the treatment of disease. Students will demonstrate the ability to gather essential and accurate information about their patients; communicate effectively with patients and families; and demonstrate caring and respectful behaviors when interacting with patients and families. In order to accomplish these objectives, students will develop and utilize attentive listening and narrative competence, "...the competence human beings use to absorb, interpret, and respond to stories...it enables the physician to practice with empathy, reflection, professionalism, and trustworthiness." (Charon, 2001)

- Medical Knowledge: Students are expected to demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences and the application of this knowledge to patient care. Students will apply an open-minded analytical approach to the acquisition of new knowledge; critical evaluation of current medical information and scientific evidence; and the application of this knowledge to clinical problem solving, clinical decision-making, and critical thinking. In order to accomplish these objectives, students will listen attentively to the stories relayed by patients during rounds and medical interviews; compose parallel chart entries reflecting upon patient encounters; elicit an illness narrative from a patient, write down the patient's story, and then read the story back to the patient. Attentive listening, paying close attention to words, gestures, form, and moments of stillness or silence (Das Gupta, 2007) will hone students' observational skills and attention to detail, thereby contributing to the generation of differential diagnosis and unique treatment plan for each patient encounter. "The doctor who has narrative competence uses the time of a clinical interaction efficiently, wringing all possible medical knowledge from what a patient conveys about the experience of illness and how he or she conveys it...Narrative competence gives the doctor not only the means to understand the patient, but fresh means to understand the disease itself." (Charon, 2004).

- Practice Based Improvement: Students must demonstrate the ability to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. In order to accomplish this, students will engage with, discuss, and reflect upon prose, poetry, works of art, and film in order to gain awareness of his/her own perspectives, biases, and cultural lenses. Student will learn to use the humanities to "make strange" and trouble his/her own assumptions (Kumagai, 2014) as part of the continuous process of self-evaluation of his/her patient care.

- Interprofessional and Communication Skills: Students are expected to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates. Students must demonstrate the ability to cultivate and use effective listening skills, including nonverbal facilitation and encouragement; elicit and provide information using effective explanatory, questioning and writing skills; and work effectively with others as a member of leader of a health care

team. In order to accomplish these objectives, students will actively participate in close reading exercises; compose parallel chart entries and actively participate in a discussion and close reading of these entries; elicit and transcribe a narrative from a patient; and learn to conduct a narrative medicine workshop, including a close reading and writing prompt, for the preceptor and M3 and M4 students assigned to NCH. Narrative Medicine instruction has been shown to improve the interpersonal and communication skills of medical students and contribute toward the acquisition of the residency competencies of communication, collaboration, and professional development. (Arntfield et al, 2013).

- Professionalism: Students are expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, and understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society. The various exercises included in this elective will facilitate the attainment of the objectives listed above: the practice of Narrative Medicine encourages self-evaluation, and narrative medicine instruction has been shown to contribute to the professional development of medical students. (Arntfield et al, 2013). According to both survey and focus group data presented in Arntfield's 2013 study of the impact of narrative medicine training on clinical skill development of fourth-year medical students, students reported "...strongly valuing the opportunities presented throughout the elective to "establish a pattern" of reflecting on themselves and the practice of medicine. Many reported that the training provided skills of reflection, which they felt would enable them to become better physicians and avoid burnout." The training students will receive during this elective will enable them to lead narrative medicine workshops such as the Narrative Oncology writing group at Columbia University Medical Center, a bi-monthly seminar for designed to decrease burnout and build collegial support among interdisciplinary health care team members. (Charon, 2006).

- Systems Based Practice: Students are expected to demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to apply this knowledge to improve and optimize health care and collaborate with other members of the health care team to assist patients in dealing effectively with complex systems and to improve systematic processes of care. Among the dividends of Narrative Medicine are critical thinking, reflection, heightened self-awareness and greater cultural sensitivity, all of which will contribute to students' ability to achieve these competencies. The practice of Narrative Medicine can assist the student in his/her ongoing consideration and assessment of non-biological determinants of health. (Charon, 2006). Further, Pearson et al demonstrate that the use of narrative reflection during a third-year surgical clerkship contributes to the value attributed to health care teams. (Pearson, 2008).

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: ____Student will participate in close reading and writing exercises daily, both scheduled with the preceptor as well as independently as directed by the preceptor. Student will participate in NICU, PICU, and Hospitalist rounds, elicit and transcribe patient illness narratives, and write reflectively about patient encounters. Student will actively participate in discussion of readings and his/her reflective writing. At the end of the course, student will lead a 1 and ½ hour Narrative Medicine workshop consisting of a close reading exercise, discussion, and writing prompt. These workshops already occur as part of the UCF COM pediatric clerkship at Nemours Children's Hospital and are currently led by the preceptor, Olivia DiLeonardo.

Additional Information (textbooks required, additional teaching faculty, etc.): Preceptor will provide copies of short stories, poems, essays, and journal articles (appropriate copyright permissions obtained). Short films, photographs, and/or works of art may be accessed online. Additional resources include: Rebecca Gill, MD; and James DeGrado, MDiv, BCCC. Both Rebecca Gill, MD and Olivia DiLeonardo, MLS have UCF COM Volunteer Faculty status. Olivia DiLeonardo also serves as advisor to the UCF COM Narrative Medicine Student Interest Group and leads weekly Narrative Medicine sessions for M3 students assigned to NCH for pediatric and psychiatric clerkship experiences, as well as M4 students.

How will the student's performance be assessed?

How/when will formative feedback be given:___Feedback for continuous improvement will be provided throughout the course.

Summative evaluation:____Student's Narrative Medicine workshop presentation will be evaluated using the existing rubric, Case Study Evaluation Form (attached- preceptor will edit as needed). Student's overall performance will be evaluated using the existing Medical Electives Student Performance Evaluation Form (attached- preceptor will edit as needed). These completed evaluations will be provided upon completion of the course.

References

- Arntfield, Shannon L. & Kristen Slesar, Jennifer Dickson, & Rita Charon. (2013). Narrative Medicine as a Means of Training Medical Students Toward Residency Competencies. *Patient Education and Counseling* 91, 280-6.
- Charon, Rita. (2001). Narrative Medicine: A Model for Empathy, Reflection, Profession, and Trust. *Journal of the American Medical Association* 286, 1897-902.
- Charon, Rita. (2004). Narrative and Medicine. *New England Journal of Medicine* 350, 862-4.
- Charon, Rita. *Narrative Medicine: Honoring the Stories of Illness*. New York : Oxford University Press, 2006. Print.
- Chretien, Katherine C., Rebecca Swenson, Bona Yoon, Ricklie Julian, Jonathan Keenan, James Croffoot, & Raya Kheirbek. (2015). Tell Me Your Story: A Pilot Narrative Medicine Curriculum During the Medicine Clerkship. *Journal of General Internal Medicine* Feb 11 Epub ahead of print.
- Das Gupta, Sayantani. (2007). Between stillness and story: lessons of children's illness narratives. *Pediatrics* 119, e1384-91.
- Kumagai, Arno & Delese Wear. (2014). "Making Strange": A Role for the Humanities in Medical Education. *Academic Medicine* 89, 973-77.
- Kumagai, Arno. (2008). A conceptual framework for the use of illness narratives in medical education. *Academic Medicine* 83, 653-8.
- Pearson, A. Scott, Michael McTigue, & John Tarpley. (2008). Narrative Medicine in Surgical Education. *Journal of Surgical Education* 65, 99-100.

Signature of Sponsoring Preceptor Olivia E DiTondo Date 3/24/15

Signature of Clerkship Director _____ Date _____

Signature of Assistant Dean of Medical Education _____ Date 3-30-15

Curriculum Committee Chair _____ Date 4-27-15

COM Dean _____ Date 5.1.15

University of Central Florida
College *of* Medicine 7-14-14

SELECTIVE/ELECTIVE/ACTING-INTERNSHIP PROPOSAL FORM

Proposal Date: From 03/2015 on

Course Title: Acting Internship in Allergy / Asthma / Immunology **Department/Specialty:** Same

Brief Description (25 words maximum):

The student will see patients with allergy disorders in the out patient setting.

Primary Preceptor Supervising Students: Michael Anderson MD **Office Location:** 63 W. Underwood St. Orlando, FL

Email: andersonallergy@gmail.com **Office Phone:** 407-872-1110

Please indicate course type (select one):

☐ M3 Clerkship Selective (2 wks) ☐ M4 Clerkship Elective (4 wks)

☑ M4 Clerkship Acting-Internship (4 wks) ☐ Other (explain)

Location: 63 W. Underwood Street, Orlando, FL 32806

- **Location to Report on first day:** 63 W. Underwood Street, Orlando, FL 32806 **Reporting Time:** 9:00 AM
- **Contact Person** (for information/ scheduling): Nicole Anderson
- **Contact Phone and e-mail:** 407-729-8617

Which blocks will this rotation be offered during the academic year? All

What is the number of students per rotation block? 1

Prerequisites (check all that apply):

☐ Completion of M2 ☑ Completion of M3 ☐ UCF COM Students Only ☐ Consent of Instructor

☐ Completion of Core Clerkship in ☐ Other:

Length of program (weeks): 4 **Estimated total contact hours/week:** 40

Estimated % of time - Inpatient: 5% **Estimated % of time - Outpatient:** 95%

Estimated % of time – Indirect contact time (independent study or online course work: 20%

Estimated patient volume: What is the estimated number of patients/week for whom the student will have some responsibility, e.g., intakes/week 10 per week **follow-ups/week** 20 per week

On-call schedule: None **Weekend duties:** None

For non-patient care rotations, describe the typical learning activities and responsibilities of the student: N/A

Describe the expected level of supervision of students by faculty and residents:

MD & Nurse Practitioner

Goals of the Rotation: Specify the anticipated clinical conditions the student will encounter, and the clinical knowledge, and examination and procedural skills the student will be expected to learn:

This rotation will expose the student to commonly encountered problems in allergy such as sinus illness, skin disorders, asthma & immune deficiencies. The student will do initial work ups including history and physical to present patients to myself and nurse practitioner. They will then learn how to manage these problems.

Learning Objectives: Please group these under the following headings:

Patient care:

Recognize clinical patterns of common allergic disease such as allergic rhinitis & asthma. Learn the proper methods of work ups & evaluations.

Medical Knowledge:

Learn fundamental concepts of allergy testing, pulmonary function testing, allergic challenges.

Practice Based Improvement:

Understanding allergy testing, learn common allergens, concepts of immunotherapy, common medicines and their uses.

Interprofessional and Communication Skills:

Learn to interview patients and present cases to MD.

Professionalism:

Maintain accountability.

Systems Based Practice:

All work will be done under the supervision of MD.

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects:

The student will each day interview new patients then present their history and physical, suggest testing options, then therapeutic options. He will then discuss these options with the MD and help explain these options to the patient. Follow up appointment with this patient will be arranged for continuing care.

Additional Information (textbooks required, additional teaching faculty, etc.):

A printed folder will be provided to each student outlining and detailing areas of further research of literature.

How will the student's performance be assessed?

How/when will formative feedback be given:

Written formal evaluations as well as oral evaluations based on problems they have encountered during rotation.

Summative evaluation:

A final evaluation will be provided at end of rotation.

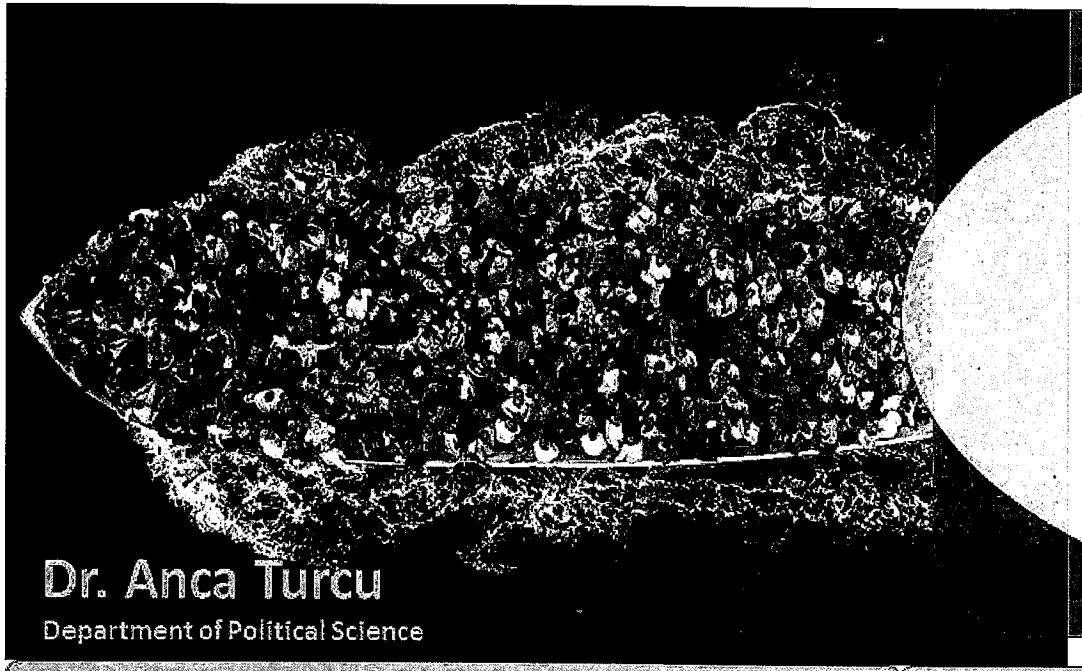
Signature of Sponsoring Preceptor _____ Date 02/24/15

Signature of Clerkship Director _____ Date _____

Signature of Assistant Dean of Medical Education _____ MD Date 3-30-15

Curriculum Committee Chair _____ Date 4-27-15

COM Dean _____ Date 5.1.15



Dr. Anca Turcu
Department of Political Science

CPO6XXX GLOBAL SECURITY IN THE AGE OF MIGRATION

Fall 20xx

Class and Office Hours & Location

Class Meets:
Mo-Wed 3:00-4.15 PM in 330, Class Room Building 1
Office Hours:
Tuesdays 3.30-5.30 PM or by appointment
I encourage students to contact me if they have questions, problems, or concerns. You can contact me by official university e-mail. You can also call my office or contact me in person during office hours. If office hours are in conflict with your schedule, I am available for appointments during the week.

Professor Contact Information

Office: 302 Howard Phillips Hall (Orlando Main)
227 Building 11 (UCF Valencia West Campus)

Phone: 407-823- 2068 (Orlando Main)
407-582-5642 (UCF Valencia West)
E-mail: anca.turcu@ucf.edu or Canvas e-mail

Course Overview

"The human face of globalization" (Kuhn, 2010), migration has recently gained increasing visibility and relevance at the international level. Inextricably linked to socioeconomic, political and demographic realities, migration is now also increasingly tied to security concerns and unprecedented, massive population displacements rooted in civil, social or international conflicts. Security concerns are not only the root of new and expansive migration patterns, but can, at the same time, cause and spread conflict and instability.

This graduate seminar explores migration as both outcome and cause of security concerns in sending and receiving states, while introducing students to theories of migration, conflict and security, as well as to national and supranational border control policies, comparative asylum and refugee policies, migration and sending/ receiving state security concerns and policies, and human trafficking among other topics.

While internationalizing the migration studies curriculum, this new class contextualizes US immigration policies and facilitates a comparative analysis with regions or countries facing similar migration and security challenges (European Union member states, Australia and Canada). This contextualization will increase student awareness of immigration challenges and policies beyond US realities, encouraging students to recognize and examine migration as a global phenomenon.

Beyond gaining fluency in the theories, concepts and topics introduced in class, students will learn how to develop and hone academic and professional skills: writing a grant proposal, writing an academic article while respecting the cannons of a peer reviewed submission and presenting their work in a formal setting (mock conference presentation).

Class Goals and Objectives

Upon completing this class, students will:

- Master key concepts, terminology and data pertaining to migration and security
- Become familiar with major migration systems
- Understand theories of migration, conflict and security
- Analyze the connections between migration, threat perceptions, economic and social tensions, conflict and security concerns in receiving and sending states
- Assess the impact of migrant selectivity upon security concerns and realities in receiving states
- Explore the connection between transnationalism, diasporas and conflict (civil wars and other) in sending states
- Evaluate the connection between civil wars, human trafficking, refugee policies and migration patterns in the Middle East, North Africa and Euro
- Examine migration, asylum and border control policies in a comparative, transnational framework

ASSIGNMENTS AND GRADING

Weekly Précis (25%) A précis (short response paper) will be due every week at the beginning of class and will help every student prepare for the week's in class discussion of assigned readings.
A sample précis as well as specific guidelines will be provided by the professor during the first class of the semester.

Research Project (thee components, listed below, totaling 75% of the final grade)
Each student will choose a research topic informed by weekly readings and own personal interest, by the end of week 4. The research project is made up of three components, as outlined below. Further instructions and research guidelines will be provided by the professor during the first weeks of class.

- Grant Proposal (25%) The ability to secure funding for research or other professional projects is an integral part of a successful academic or professional career. However, such funding opportunities are oftentimes hard to find and extremely competitive. You will utilize Dr. Turcu's International Grant Resource Guide in order to identify funding sources and then will develop your own proposal, based on the final paper, described below.

- Final Paper (40%) The final paper will have to respect the format and canons of academic articles submitted for peered reviewed publication. Further details and guidance will be provided by the professor on an individual basis.

- In Class Presentation (10%) Students will present their final pa in a formal, in class, conference- style presentation. Further details and guidance will be provided by the professor on an individual basis. Presentation grades will in part draw on peer evaluations of each student's work.

1. Concepts and Trends in Global Migration and Security

Castles, Stephen, Mark J. Miller, and Giuseppe Ammendola. "The Age of Migration: International Population Movements in the Modern World: New York: The Guilford Press,(2003). Ch.1

Krebs, Ronald, and Jack Levy. 2001. "Demographic Change and the Sources of International Conflict." In Demography and National Security, eds. by Myron Weiner and Sharon Russell. New York and Oxford: Berghahn Ch. 3

Massey, Douglas S., et al. *Worlds in Motion: Understanding International Migration at the End of the Millennium: Understanding International Migration at the End of the Millennium*. Oxford University Press, 1999. Ch.2

Bigo, Didier. 2001. "Migration and Security." In Controlling a New Migration World, ed. Virginie Guiraudon, and Christian

Joppke. London: Routledge. Bok chapter.
Huysmans, Jef, and Vicki Squire. "Migration and security." (2009). Ch.1

2. Theories of Security and Migration (I)

Adamson, Fiona B. "Crossing borders: international migration and national security." *International security* 31.1 (2006): 165-199.

d'Appollonia, Ariane Chebel, and Simon Reich, eds. *Immigration, integration, and security: America and Europe in comparative perspective*. University of Pittsburgh Press, 2008. Ch.1-4

Neumayer, Eric. "Unequal access to foreign spaces: how states use visa restrictions to regulate mobility in a globalized world." *Transactions of the Institute of British Geographers* 31.1 (2006): 72-84.

Walters W. 2010 Migration and Security in J. Peter Burgess ed. The Hand of New Security Studies London Routledge. Ch.3

Weiner, Myron. 1993. International Migration and Security. Boulder, CO: Westview Press. Ch.2-7

3. Theories of Security and Migration (II)

Abiri, Elisabeth. 2000. "Migration and Security from a North-South Perspective: Sweden and Malawi." In Migration, Globalization and Human Security, eds. David Graham and Nana Poku. London: Routledge, 70-92.

Curley, Melissa, and Sui-lun Wong. *Security and migration in Asia: the dynamics of securitisation*. Routledge, 2008.

Faist, Thomas. 2006. "International Migration and Security Before and After 11 September 2001." In The Immigration Reader, eds. Anthony Messina and Gallya Lahav. Boulder, CO: Lynne Rienner Publishers, 609-617.

Alexseev, Mikhail. 2005. Immigration Phobia and the Security Dilemma. Cambridge: Cambridge University Press. Ch.4

Kirshner, Jonathan, ed. 2006. Globalization and National Security. London: Routledge. Ch.2,3

Koser, Khalid.2011. "When is Migration a Security Issue?" Brookings Institution. Available at: http://www.brookings.edu/opinions/2011/0331_libya_migration_koser.aspx

4. Theories of Security and Migration (III)

Pupcenoks, Juris, Michael C. Grillo, and T. X. Kerrville. "Global Immigrants and Threat Perception."

Lahav, Gallya, and Marie Courtemanche. "The ideological effects of framing threat on immigration and civil liberties." *Political Behavior* 34.3 (2012): 477-505.

Watson, Brendan R., and Daniel Riffe. "Perceived threat, immigration policy support, and media coverage: Hostile media and presumed influence." *International Journal of Public Opinion Research* 25.4 (2013): 459-479.

Croucher, Stephen M. "Integrated threat theory and acceptance of immigrant assimilation: An analysis of Muslim immigration in Western Europe." *Communication Monographs* 80.1 (2013): 46-62.

Scuzzarello, Sarah. "National security versus moral responsibility: an analysis of integration programs in Malmö, Sweden." *Social Politics: International Studies in Gender, State & Society* 15.1 (2008): 5-31.

Hopkins, Daniel J. 2010. "Politicized Places: Explaining Where and When Immigrants Provoke Local Opposition." American Political Science Review 104(1): 40-60.

5. Immigration, Integration and Security- education, employment, social services

Wallace, Michael, and Fodrigo Figueroa. 2012. "Determinants of Perceived Immigrant Job Threat in the American States." Sociological Perspectives 55(4): 538-612.

Fix, Michael, et al. "Migration and the global recession." *Migration Policy Institute* 2 (2009). Ch.4-6

Dustmann, Christian, and Ian P. Preston. "Racial and Economic Factors in Attitudes to Immigration." The BE Journal of Economic Analysis & Policy 7(1).

Ben-Nun Bloom, Pazit, Gizem Arikan, and Gallya Lahav. "The effect of perceived cultural and material threats on ethnic preferences in immigration attitudes." *Ethnic and Racial Studies* ahead-of-print (2015): 1-19.

6. Immigration, Integration and Security --Race, culture, Identity, Public opinion

Devereux, Eoin, and Michael Breen. 2004. "No racists here? Public Opinion, Immigrants and the Media." Political Issues in Ireland Today, 168.

Newman, Benjamin J., Todd K. Hartman, and Charles S. Taber. "Foreign language exposure, cultural threat, and opposition to immigration." *Political Psychology* 33.5 (2012): 635-657.

Huntington, Samuel. 2004. "The Hispanic Challenge." Foreign Policy 141: 30–45

Elder, Catriona, Cath Ellis, and Angela Pratt. 2004. "Whiteness in Constructions of Australian Nationhood: Indigenes, Immigrants and Governmentality" In Aileen Moreton-Robinson (ed) Whitening Race: Essays in Social and Cultural Criticism. No. 1. Aboriginal Studies Press

Citrin, Jack, Amy Lerman, Michael Murakami, and Kathryn Pearson. 2007. "Testing Huntington: Is Hispanic Immigration a Threat to American Identity?" Perspectives on Politics 5(1): 31-48.

Lucassen, Leo. 2005. The Immigrant Threat. Chicago: University of Illinois Press — Ch.3

Wæver, Ole, Bary Buzan, Morten Kelstrup, and Pierre Lemaitre. 1993. Identity, Migration and the New Security Agenda in Europe. New York: St. Martin's Press.

7. Conflict, security and Asylum- Refugee Policies

Kaunert, Christian, and Sarah Léonard. *Refugees, security and the European Union*. Routledge, 2012.Ch.2, 4

Hartmann, Betsy. "Rethinking climate refugees and climate conflict: rhetoric, reality and the politics of policy discourse." *Journal of International Development* 22.2 (2010): 233-246.

Newman, Edward, and Joanne Van Selm. *Refugees and forced displacement: International security, human vulnerability, and the state*. New York: United Nations University Press, 2003. Ch.1

Loescher, Gil, and James Milner. *Protracted Refugee Situations: Domestic& international security implications*. Routledge, 2013. Ch.6

Saul, Ben. "Dark justice: Australia's indefinite detention of refugees on security grounds under international human rights law." *Melbourne Journal of International Law* 13.2 (2012): 685-731.

Steputat, Finn. *Refugees, security and development: Current experience and strategies of protection and assistance in the'region of origin'*. No. 2004: 11. DIIS Working paper, 2004.

Lindstrøm, Channe. "European Union policy on asylum and immigration. Addressing the root causes of forced migration: A justice and home affairs policy of freedom, security and justice?." *Social Policy & Administration* 39.6 (2005): 587-605.

8. Border Controls in Comparative Perspective

Salter, Mark B. "Passports, Mobility, and Security: How smart can the border be?." *International studies perspectives* 5.1 (2004): 71-91.

Leonard, Sarah. "The creation of FRONTEX and the politics of institutionalisation in the EU external borders policy." *Journal of contemporary European research* 5.3 (2009): 371-388.

Koslowski, Rey. "The Evolution of Border Controls as a Mechanism to Prevent Illegal Immigration." *Migration Policy Institute, Washington, DC* (2011). Ch.4

Weber, Leanne, and Sharon Pickering. *Globalization and borders: death at the global frontier.*

Basingstoke, UK: Palgrave Macmillan, 2011. Ch.1-3

Zaiotti, Ruben. *Cultures of border control: Schengen and the evolution of European frontiers.* University of Chicago Press, 2011. Ch.2, 5

9. HUMAN TRAFFICKING

Crépeau, François, Delphine Nakache, and Idil Atak. "International migration: Security concerns and human rights standards." *Transcultural psychiatry* 44.3 (2007): 311-337

Jonsson, Anna, ed. *Human trafficking and human security.* Routledge, 2012. Ch.2,5

Okubo, Shiro, and Louise Shelley, eds. *Human security, transnational crime and human trafficking: Asian and Western perspectives.* Routledge, 2011. Ch.1

Chibba, Michael. "Understanding human trafficking: perspectives from social science, security matters, business and human rights." *Contemporary Social Science* 9.3 (2014): 311-321.

Avdan, Nazli. "Human trafficking and migration control policy: vicious or virtuous cycle?." *Journal of Public Policy* 32.03 (2012): 171-205.

10. Migration and State security

Nassar, Jamal R. *Globalization and terrorism: The migration of dreams and nightmares.* Rowman & Littlefield Publishers, 2009. Ch.1-4

Leonard, Sarah. "The use and effectiveness of migration controls as a counter-terrorism instrument in the European Union." *Central European journal of international and security studies* 4.1 (2010): 32-50.

Ferris, Elizabeth G. *Security, displacement and Iraq: A deadly combination.* Brookings Institution, 2007.Ch.1,2

Goldman, Ogen. "The globalization of terror attacks." *Terrorism and Political Violence* 23.1 (2010): 31-59.

11. Migration, Brain Drain and Economic Security

Carrington, William J., and Enrica Detragiache. "How extensive is the brain drain?." *Finance and Development* 36 (1999): 46-49.

Skeldon, Ronald. "Of Skilled Migration, Brain Drains and Policy Responses*." *International Migration* 47.4 (2009): 3-29.

Faini, Riccardo. "The brain drain: an unmitigated blessing?." *Centro Studi Luca d'Agliano Development Studies Working Paper* 173 (2003).

Horvat, Vedran. "Brain drain. Threat to successful transition in South East Europe." *Southeast european politics* 5.1 (2004): 76-93.

Portes, Alejandro, and Adrienne Celaya. "Modernization for Emigration: Determinants & Consequences of the Brain Drain." *Daedalus* 142.3 (2013): 170-184.

12. Migration and Environmental Security

Reuveny, Rafael. "Ecomigration and violent conflict: Case studies and public policy implications." *Human Ecology* 36.1 (2008): 1-13.

Black, Richard, et al. "Demographics and climate change: Future trends and their policy implications for migration." *Development Research Centre on Migration, Globalisation and Poverty. Brighton: University of Sussex* (2008).

Adamo, Susana B. "Environmental migration and cities in the context of global environmental change." *Current Opinion in Environmental Sustainability* 2.3 (2010): 161-165.

Jakobeit, Cord, and Chris Methmann. "'Climate refugees' as dawning catastrophe? A critique of the dominant quest for numbers." *Climate Change, Human Security and Violent Conflict*. Springer Berlin Heidelberg, 2012. 301-314.

WEEKS 13, 14, 15: RESEARCH AND STUDENT PRESENTATIONS

During the final three weeks of the semester, students will complete their research work and present their final paper to the class in formal, conference-style presentations. Students will also fulfill conference specific roles: discussants and chairs, giving their colleagues feedback on their papers and presentations.
This will familiarize students with the procedures and rigors of conference panels and will prepare them for future participation to such conferences.

CLASS POLICIES

Make-up Work	Late submission of written assignments will only be allowed under the following circumstances: First, for personal emergencies (a death in the family, medical problems), students should obtain a note from the dean of students or their physician. Second, for students with extra-curricular activities that conflict with deadlines, arrangements for an alternate deadline must be made at least a week in advance of the scheduled deadline. Students must provide verification of the activity in order to be eligible for an alternate deadline. I do not accept notification after the fact ("I did not take submit my work last week because I had a match/concert").
Grade Release	Please note that grades will not be shared through phone, e-mail or mail. You will have to log on to Canvas in order to find out your grades. Students who have concerns about grades should put them in writing and contact the professor 24 hours after they find out their grade.
Extra Credit	For now, there are no extra credit opportunities offered in this class. The instructor may modify this policy during the semester and will announce the change in a timely manner.

CLASS POLICIES	
Media Resources	In order to do well in this and any Political Science class, students should have a good awareness and a good understanding of current events. I encourage students to keep informed through accessing visual, print and web media. Some credible and reliable news outlets include, among others: BBC World, the New York Times, The Washington Post, CNN, The National Public Radio, Financial Times, The Economist, The Atlantic Monthly, Time Magazine, Newsweek, Haaretz, Jerusalem Post. I will provide links to current events through the Webcourses Web Link folder. I will prompt you each time I add material to that folder.
Class Attendance	Attendance is required. Lectures cover material that you will not be able to find in the readings. I will not provide notes for students missing class.
Classroom Citizenship	Besides interactive participation, I expect discipline in the class room. Be courteous to others, be on time and do not leave early, unless there is a pertinent reason and you have notified me. Do not eat, text or talk to your colleagues during lecture. Part of being a college student is having manners and respecting those around you. Turn off your cell phones and store them away in your book bag, for the duration of the class. Set your laptop's volume on mute. Laptop users: make sure you are using your laptop exclusively for taking notes while in class. Laptop usage is a privilege and I reserve the right to revoke it at any time during the semester if you do not follow these rules.

CLASS POLICIES

Academic Integrity	Students must demonstrate a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. If you are not sure what constitutes plagiarism and how to avoid it, take this UCF library tutorial: http://infolit.ucf.edu/students/modules/#article116 I will make sure that students suspected of academic dishonesty will be subject to disciplinary proceedings. http://regulations.ucf.edu/~regs/pdf/notices/5.015StuAcademicBehaviorStandards_newJul09_001.pdf
Class Withdrawal	Procedures regarding withdrawal policies can be found here: http://www.catalog.sdes.ucf.edu/UCFUGRDCatalog1011.pdf
Student Grievance Procedures	Procedures regarding student grievances can be found here: http://regulations.ucf.edu/~regs/pdf/notices/5.016StuAcademicAppeals_newJul09_001.pdf
Incomplete Grades	Procedures regarding withdrawal policies can be found here: http://www.catalog.sdes.ucf.edu/UCFUGRDCatalog1011.pdf
Disability Resources	If you have a disability and require accommodations, please contact the instructor early in the semester so that your learning needs may be appropriately met. You will also need to contact the Student Disability Services http://www.sds.sdes.ucf.edu/

HAVE A GREAT SEMESTER!

The above schedule, policies, procedures and assignments in this course are subject to change at the discretion of the professor. I will provide notification of such changes in a timely manner.

Kerstin Hamann

From: Catherine Kaukinen
Sent: Thursday, October 08, 2015 1:02 PM
To: Kerstin Hamann
Subject: RE: new graduate course proposal on Global Immigration & Security

My faculty were quick to respond to me request and are supportive of the course for Political Science.

Good Luck, Katie

Dr. Catherine "Katie" Kaukinen
Professor and Chair of Criminal Justice
University of Central Florida

Department of Criminal Justice, HPA 1
College of Health and Public Affairs
University of Central Florida
P.O. Box 162200
Orlando, Florida
32816 – 2200

Email: catherine.kaukinen@ucf.edu
Phone: 407-823-2356
Fax: 407-823-5360

From: Catherine Kaukinen
Sent: Thursday, October 08, 2015 11:56 AM
To: Kerstin Hamann
Subject: RE: new graduate course proposal on Global Immigration & Security

I have asked for comments from my subject experts. I will let you know.

Katie

-----Original Message-----
From: Kerstin Hamann
Sent: Thursday, October 08, 2015 10:56 AM
To: Roberto Potter; Catherine Kaukinen
Subject: RE: new graduate course proposal on Global Immigration & Security

Thank you,
Kerstin

-----Original Message-----
From: Roberto Potter
Sent: Thursday, October 08, 2015 10:51 AM

To: Catherine Kaukinen <Catherine.Kaukinen@ucf.edu>; Kerstin Hamann <Kerstin.Hamann@ucf.edu>
Subject: FW: new graduate course proposal on Global Immigration & Security

Thanks, Kerstin. I am no longer chair, so am copying Dr. Katie Kaukinen so she can learn the process. We'll be back as soon as possible.

Hugh

From: Kerstin Hamann
Sent: Thursday, October 08, 2015 10:36 AM
To: Roberto Potter
Subject: new graduate course proposal on Global Immigration & Security

Hugh,

I'm attaching the syllabus for a new graduate course on Global Immigration and Security. Please let me know if you have any concerns or objections.

Many thanks,
Kerstin

Kerstin Hamann
Pegasus Professor & Chair
Department of Political Science
Phone: 3-2608

Kerstin Hamann

From: John Schultz
Sent: Friday, October 09, 2015 12:01 PM
To: Kerstin Hamann
Subject: RE: new graduate course proposal on Global Immigration & Security

HI Kerstin,

We are pleased to support the new course "Global Security in the Age of Migration" as it adds a much needed perspective on this increasingly relevant topic. As the anthropology department moves forward with developing our new Ph.D program, we hope that we could ask for similar support from Political Science if and when we develop an advance anthropology graduate course on refugees and global migration.

Best,
John

From: Kerstin Hamann
Sent: Thursday, October 08, 2015 10:35 AM
To: John Schultz <John.Schultz@ucf.edu>
Cc: Tosha Dupras <Tosha.Dupras@ucf.edu>
Subject: new graduate course proposal on Global Immigration & Security

Hi John,

I'm attaching the syllabus for a new graduate course on Global Immigration and Security. Please let me know if you have any concerns or objections.

Many thanks,
Kerstin

Kerstin Hamann
Pegasus Professor & Chair
Department of Political Science
Phone: 3-2608

Sociology

Tonya Walker

From: Kerstin Hamann
Sent: Friday, October 23, 2015 4:26 PM
To: Tonya Walker
Cc: Camille Kelly
Subject: FW: Course Proposals from Political Science

Tonya,

Here is some additional approval from Sociology for the new courses we recently submitted.

Many thanks,
Kerstin

From: Elizabeth Mustaine
Sent: Friday, October 23, 2015 4:06 PM
To: Kerstin Hamann
Subject: Fwd: Course Proposals from Political Science

We are fine with those courses!

Sent from my iPhone

Begin forwarded message:

> **From:** Harold Corzine <Jay.Corzine@ucf.edu>
> **Date:** October 23, 2015 at 4:04:22 PM EDT
> **To:** Elizabeth Mustaine <libby@ucf.edu>
> **Cc:** Harold Corzine <Jay.Corzine@ucf.edu>
> **Subject: Course Proposals from Political Science**
>
> Libby,
>
> At yesterday's meeting, the Graduate Committee reviewed three proposals for new courses from Political Science; Global Immigration and Security, National Security Law, and Global Security in the Age of Migration. We do not see any significant overlaps or conflicts with existing courses in our department.
>
> Jay
>
> Jay Corzine
> Professor and Graduate Director
> Department of Sociology
> University of Central Florida
> Orlando, Florida 32816-1360

POS 6___: National Security Law

Dept of Political Science
College of Sciences, University of Central Florida

COURSE SYLLABUS

Instructor:	Eric Merriam	Term:	Spring 2017
Office:	HPH 311A	Class Meeting Days:	W
	HPA1, 340	Class Meeting Hours:	6-9pm
Phone:	407-823-3074	Class Location:	
E-Mail:	eric.merriam@ucf.edu	Credits:	3
Office Hours:	TBD		

Course Description

This course offers an examination of the domestic and international legal authority affecting US national security and the command and control of the key instruments of the national security, focusing on the US military and intelligence apparatuses. Primary emphasis is on national security law as a source of, and constraint on, national security power. Topics include: Presidential and Congressional treaty and war powers under the Constitution; use of the military under the modern national security system; legal authority for the use of force; intelligence law; counterterrorism; and domestic use of the military.

Course Objectives

In each of the following areas, students will:

1. **Shared National Security Powers:** Improve understanding of the Constitutional framework of shared national security powers between the President, Congress, and the Judiciary, and the Judiciary's role in shaping that authority.
2. **National Security vs. Individual Liberties:** Increase understanding of the complex balance between security and liberty.
3. **National Security Law as a Policy Tool:** Understand the ways in which political actors use national security law as a tool to achieve policy goals and the tension between law as a tool for power versus law as a constraint on power.
4. **Use of Force:** Improve understanding of domestic and international legal authorities for the use of force.

5. **Critical Thinking and Application to Modern Challenges:** Develop critical thinking skills and be able to utilize those skills to comprehend and analyze complex contemporary national security challenges.
6. **Communication Skills:** Improve written and oral communication skills.

Course Schedule

Class, Date	Topic	Preparation for Class (page #s are for Dycus casebook unless otherwise noted)	Deliverable
	Block I: National Security and the Separation of Powers		
1	Course Introduction; Liberty vs Security; Original Understanding?; Reading Cases	Read Handout: 8 Fallacies About Liberty & Security; 7-23; 1313-1319 (highlight passages related to national security); FIRAC handout	
2	Separation of Powers: *Youngstown* President's Foreign Relations Power*	24-51; Presidential Power Stories (PPS) 233-285 52-67; PPS 195-232	
3	President's Commander-in-Chief and Emergency Powers* Congress' National Security Powers*	67-89; PPS 53-92; PPS 133-64 90-122; *INS v. Chadha*	
4	The Judiciary's National Security Role: Political Questions The Judiciary: State Secrets*	123-141; *Goldwater v. Carter;* *Totten v. United States; United States v. Reynolds;* 142-59; *al-Aulaqi v. Panetta*	War Powers Legal Advice Memo Assigned
	Block II: Lawful Use of Force		
5	Domestic Effect of International Law *Jus Ad Bellum*	163-209 210-233	
6	Vietnam* The War Powers Resolution	269-306 307-322	
7	Korean "Police Action"; Iraq I and Iraq II*; Afghanistan	323-328; 328-334; 354-67 334-342	**War Powers Legal Advice Memo Due**
	Block III: Combatting Terrorism		
8	Detention: Preventive and Material Witness Detention* Challenging Detention: Habeas Before 9/11* Challenging Detention: Habeas After 9/11*	733-63 764-81; 782-808	
9	Military Detention Before 9/11* Military Detention of Battlefield Captives After 9/11* Military Commissions	811-29; 830-55 TBD	
10	Intelligence Collection: The Federal Authorities and Apparatus Intelligence Collection: The Fourth Amendment Framework*	443-71; 532-49; Supp. 79-80 553-65; 568-77; Supp. 80-81	
11	Intelligence Collection: Third Party Records and Data Mining*	633-649; Supp. 112; 649-77; Supp. 112-116	
12	Wholesale/Programmatic Surveillance (The Terrorist Surveillance Program) PRISM USA Freedom Act	608-32; Supp. 82-89 Supp. 89-112 TBD	Final Project Assigned

13	Targeted Killing	376-441; Supp. 56-75	
	Block IV: Homeland Security		
14	Homeland Security: Law Affecting Military Role	1146-1159; 1169-1175; Supp. TBD; add'l reading TBD	
15	Homeland Security: Law Affecting Department of Homeland Security Role; Course Conclusion	TBD (possible guest)	**Final Project Due**

* Subject eligible for student discussion leader (see below)

Course Policies and Expectations

Academic Conduct: Academic dishonesty in any form will not be tolerated. If you are uncertain as to what constitutes academic dishonesty, please consult The Golden Rule, the University of Central Florida's Student Handbook (http://www.goldenrule.sdes.ucf.edu/) for further details. As in all University courses, The Golden Rule Rules of Conduct will be applied. Violations of these rules will result in a record of the infraction being placed in your file and, at a minimum, receiving a zero on the work in question. At the instructor's discretion, you may also receive a failing grade for the course. Confirmation of such incidents can also result in expulsion from the University.

Attendance: On time attendance at each class is expected. Because the course is highly based on preparation and participation in class discussion, excessive lateness or absences may result in a lowered grade, including a failing grade. Notify me as soon as possible if you miss a class.

Collaboration: All assignments and graded events are individual effort only, unless otherwise directed. You are welcome (encouraged, if you need it) to use the University Writing Center (UWC) to improve your written work product. The UWC is a free resource for UCF undergraduate and graduate students. You are always permitted to use the UWC, no matter what other restrictions are placed on collaboration for a particular assignment. At the UWC, a trained writing consultant will work individually with you on anything you're writing (in or out of class), at any point in the writing process from brainstorming to editing. Appointments are recommended, but not required. For more information or to make an appointment, visit the UWC website at http://www.uwc.ucf.edu, stop by MOD 608, or call 407.823.2197.

Communication with Professor: You are welcome to communicate with me by email or by phone, but significant substantive discussion should be in person.

Computers: You may use your computers during class for class-related purposes only. You are not authorized to use your computer for personal activities (such as email, Facebook, catching up on the Red Sox, or downloading the latest Dave Matthews Band album from iTunes) during class. If this becomes a distraction, I reserve the right to amend this policy. Recording devices (video or audio) are not allowed without prior approval from me.

Disability Access: The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students who need accommodations must be registered with Student Disability Services, Ferrell Commons Room 185, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.

Grading: Your grade will be determined by the number of points you accumulate during the course. I do not offer extra credit or rewrite opportunities. I will provide detailed guidance regarding specific assignments throughout the course, but if you have questions, please ask.

Assessment	Points	Percentage of Final Grade
Discussion Leader	100	20%
War Powers Memorandum	100	20%
Class Preparation and Participation	100	20%
Final Project	200	40%
TOTAL	500	100%

Assessment Descriptions/Summaries (more information for each to be provided separately):

Discussion Leader: One of the graded events in this course will be your performance as a "Discussion Leader" for a particular subject. Responsibilities will include providing a discussion guide to fellow students and the professor in advance of class and taking the lead in discussing the topic during class. Students may be discussion leaders for topics indicated by an asterisk on the Course Schedule (above). More details to be provided separately.

War Powers Legal Advice Memorandum: Students are assigned to represent Congress or the President in writing a legal memorandum that supports their assigned client's perspective on a hypothetical situation implicating the War Powers Resolution.

Class Preparation and Participation: See description of expectations below. Professor will assess preparation and participation based on observation in class, with input from student regarding their preparation and participation.

Final Project: There is a required written final project in this course. The project will present students with a hypothetical fact pattern and complex legal question for which the student must advance a legal argument or opinion. The project will be an opportunity for the student to demonstrate a sophisticated understanding of a significant portion of the course and will require considerable thought and writing (est. minimum 3,000 words). The final project is closer to a substantial take home essay exam than a typical research paper, as it will involve a closed universe of authorized resources (including course readings and notes). A complete set of good class notes will be crucial. Professor will provide further details regarding the report in class.

Grading Scale (%)	
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-

Grading Scale (%)	
67-69	D+
63-66	D
60-62	D-
0 - 59	F

Graded tests and materials in this course will be returned individually only by request. You can access your scores at any time using "myUCF Grades" in the portal. Please note that scores returned mid-semester are unofficial grades. If you need help accessing myUCF Grades, see the online tutorial: https://myucfgrades.ucf.edu/help/.

Late Work: Assignments are due at the beginning of class on the due date. If you are absent on a day when an assignment is due, you must submit the assignment before the class. When your absence is due to truly unforeseeable circumstances such that you cannot submit the assignment on time, you should notify me and submit your assignment as soon as you can. If an assignment is submitted late (without excused unforeseeable circumstances), the grade penalties are as follows: within 24 hours of the deadline, 20% of the total possible value for the assignment will be deducted from your actual score; 24-48 hours late, 40% deduction; 48-72 hours late, 60% deduction; zero points for anything more than 72 hours late.

Office Hours: I will be available during stated office hours, but I recommend you make an appointment in advance. If because of your other responsibilities you are not able to visit during office hours, please contact me to make alternate arrangements.

Preparation and Participation: Like most graduate seminars, this course is highly interactive; your regular preparation and participation are very important. To participate effectively, you must be prepared for each class. Assigned readings are intentionally manageable in size; you are expected to complete them all. Especially in a small seminar, failure to be prepared for class not only hurts you, but your fellow students. Preparation and Participation points will be based on my assessment of your consistent preparation, meaningful participation, initiative, leadership, maturity, professionalism, and contribution to the class that benefits others. If you are called on regarding the reading and are not prepared, preparation and participation points may be reduced. If you are not prepared for a particular class, let me know prior to class, in which case you may be docked minimal or no participation points, depending on the circumstances. Quality participation takes several forms, including asking an informed question, answering a question posed by another student or me, responding to another student's comment, raising a relevant legal issue that is in the news, or otherwise participating in the discussion in a relevant way. I expect most of you to participate in the discussion on most days. Questions or comments that are particularly insightful or that demonstrate a superior understanding or thought process particularly benefit the class. Talk to me if you are concerned about your participation points. For purposes of graded assessments, including the final report, you are responsible for all assigned material (readings, video, etc.), whether or not it is covered in class.

Reading Material: Though a few additional readings will be posted on the course website, most of the required readings for this course are in: the selected course casebook, National Security Law, Fifth Edition, 2011, by Stephen Dycus, et al.; the most recent Supplement to the casebook; and the book Presidential Power Stories, Schroeder and Bradley eds. Students should have the correct edition of the textbook; class time will not be spent coordinating page numbers among various editions. Please read the material for each class in the order indicated in the course schedule (above).

Respect: Respect for others is a key element of your academic education. Because of the contentious nature of some of the subject matter addressed in this course, respect will be especially important, including respect for others (by respecting the right to have different opinions and by courteous behavior) and respect for yourself (through professional presentation and effort).

Submission of Written Assignments: Please pay careful attention to the detailed submission requirements for written assignments. Assignments will be submitted through Webcourses with the turnitin.com plagiarism checker enabled.

Syllabus: This syllabus is meant to provide you with an overview of the course, but I may need to make changes. If so, I'll provide you with notice, and if the changes are significant, a revised syllabus.

Title IX. Federal statute prohibits violence and harassment based on sex that interferes with educational opportunities. If you or someone you know has been harassed or assaulted, you can find resources available to support the victim, including confidential resources, and information concerning reporting options at shield.ucf.edu. Perpetrators are subject to expulsion or termination and may also be subject to criminal penalties.

Sociology

Tonya Walker

From: Kerstin Hamann
Sent: Friday, October 23, 2015 4:26 PM
To: Tonya Walker
Cc: Camille Kelly
Subject: FW: Course Proposals from Political Science

Tonya,

Here is some additional approval from Sociology for the new courses we recently submitted.

Many thanks,
Kerstin

From: Elizabeth Mustaine
Sent: Friday, October 23, 2015 4:06 PM
To: Kerstin Hamann
Subject: Fwd: Course Proposals from Political Science

We are fine with those courses!

Sent from my iPhone

Begin forwarded message:

> **From:** Harold Corzine <Jay.Corzine@ucf.edu>
> **Date:** October 23, 2015 at 4:04:22 PM EDT
> **To:** Elizabeth Mustaine <libby@ucf.edu>
> **Cc:** Harold Corzine <Jay.Corzine@ucf.edu>
> **Subject: Course Proposals from Political Science**
>
> Libby,
>
> At yesterday's meeting, the Graduate Committee reviewed three proposals for new courses from Political Science; Global Immigration and Security, National Security Law, and Global Security in the Age of Migration. We do not see any significant overlaps or conflicts with existing courses in our department.
>
> Jay
>
> Jay Corzine
> Professor and Graduate Director
> Department of Sociology
> University of Central Florida
> Orlando, Florida 32816-1360

Course Agenda
November 18, 2015

1. Course Additions

College of Engineering and Computer Science Course Additions

EEL 6XXX **ECS-EECS** **3(3,0)**
Neuromorphic Computing Architecture, Circuit and Device: PR: EEL 5825 or EEE 5390 or C.I. Advanced concepts in neuromorphic computing architectures and its hardware implementations using nano-scale emerging spin-transfer torque and memristor devices. *Fall.*
Abbrev: (26 of 30 chars) Neuromorphic Comp Circuits
Rationale: Human brains are vastly more energy efficient at interpreting the world visually or understanding speech than any CMOS based computer system of the same size. Industry and academia show great interests in employing nano-scale emerging devices to build neuromorphic computing system that can scale to biological levels. Students seeking jobs in industry or conducting neuromorphic research need foundation courses in this area.

BME 6XXX **ECS-MECH/AERO** **3(3,0)**
Advanced Biomechanics: PR: BME 5587C or C.I. The objectives of this course are to understand the basic concepts and biomedical applications of medical robotics, human motion mechanics and neuro-mechanics. *Spring.*
Abbrev: (21 of 30 chars) Advanced Biomechanics
Rationale: This course is being offered to meet the requirements for the proposed Bioengineering program.
Majors taking course: MS in Biomedical Engineering

BME 6XXX **ECS-MECH/AERO** **3(3,0) Topics**
in Biomedical Engineering: PR: EML 3701 and EGM 3601 and Graduate Standing or C.I. In this course students will explore research topics in biomedical engineering (BME) guided by BME faculty. This team-taught course will involve seminars and presentations of research and case studies by faculty engaged in BME research as well as regional medical professionals. *Fall.*
Abbrev: (32 of 30 chars) Topics in Biomedical Engineering
Rationale: This course is being offered to meet the requirements for the proposed Bioengineering program.
Majors taking course: MS in Biomedical Engineering

BME 6XXX **ECS-MECH/AERO** **1-99(1-99,0)**
Independent Study: PR: Graduate standing. Independent study on a topic taken to supplement current coursework. *Occasional.*
Abbrev: (17 of 30 chars) Independent Study

BME 6XXX **ECS-MECH/AERO** **1-99(1-99,0)**

Directed Research: PR: Graduate standing. Student research under the direction of a BME faculty member. *Occasional.*
Abbrev: (17 of 30 chars) Directed Research

BME 6XXX **ECS-MECH/AERO** **1-99(1-99,0)**
Thesis: PR: Graduate standing. Thesis course for students in Biomedical Engineering program. *Occasional.*
Abbrev: (6 of 30 chars) Thesis

BME 6XXXC **ECS-MECH/AERO** **3(2,2)**
Bioinstrumentation: PR: BME 5587C or C.I. An introduction to the fundamental theory and experimental techniques needed for performing bioengineering measurements, designing related experiments, aad analyzing experimental results. *Fall.*
Abbrev: (18 of 30 chars) Bioinstrumentation
Majors taking course: Bioengineering MS

College of Graduate Studies Course Additions

IDS 6XXX **GRDST-INTERDIS** **3(3,0)**
Fundamentals of Nano Biophysics: PR: Graduate standing or C.I. This course will focus on how the biophysics of living systems and molecular nano-machinery work in biology. *Spring.*
Abbrev: (15 of 30 chars) Nano Biophysics
Rationale: This course is a new elective course for the recently established Professional Science Master's (PSM) degree and Master of Science degree program in Nanotechnology.
Majors taking course: PSM and MS Nanotechnology program

IDS 6XXX **GRDST-INTERDIS** **3(3,0)**
Basics of low Dimensional Semiconductor Devices: PR: Admission to the PSM or MS in Nanotechnology and Intro Nanosci Nanotech, or C.I. Introduction to low dimensional semiconductor devices based on quantum wells, dots and wires; approximate and numerical device modeling. *Spring.*
Abbrev: (32 of 30 chars) Basics low dimens. semicon. dev.
Rationale: This course is a new elective course for the recently established Professional Science Master's (PSM) degree and MS degree program in Nanotechnology.
Majors taking course: PSM and MS program in Nanotechnology

IDS 6XXX **GRDST-INTERDIS** **3(3,0)**
Advanced Materials for Rechargeable Batteries: PR: Admission to the PSM in Nanotechnology and Intro Nanosci Nanotech, or C.I. Build a bridge between nanomaterials and electrochemical energy storage performance and demonstrate renewable energy storage on the nanoscale. *Spring.*
Abbrev: (29 of 30 chars) Adv Mat Nanotech Recharg Batt
Rationale: Provide multidisciplinary knowledge of nanostructured electrodes for electrochemical energy storage. It will be a supplementary course for students who are interested in rechargeable batteries.
Majors taking course: PSM and MS program in Nanotechnology

College of Medicine Course Additions

MDE 8XXX **COM-MED** **6(6,0)**
Clinical Science Review I & II: PR: Required course for students who did not pass the end-of-year M3 OSCE. This comprehensive course will consist of an in-depth review and application in the clinical science areas focused on the improvement of clinical skills. *Spring, Summer, Fall.*
Abbrev: (30 of 30 chars) Clinical Science Review I & II

MDE 8XXX **COM-MED** **3(3,0)**
Narrative Medicine: PR: Completion of the M3 year. This elective introduces fourth year medical students to the nationally recognized field of Narrative Medicine and teaches them to apply concepts of attention, representation and affiliation to patient and self care. *Spring, Summer, Fall.*
Abbrev: (18 of 30 chars) Narrative Medicine

MDI 8XXX **COM-MED** **6(6,0)**
Acting Internship in Allergy/Asthma/Immunology: PR: Completion of the M3 year. The student will see patients with allergy disorders in the outpatient setting. *Spring, Summer, Fall.*
Abbrev: (46 of 30 chars) Acting Internship in Allergy/Asthma/Immunology

College of Sciences Course Additions

This is a SPLIT CLASS. The split level course was approved. The committee requested an approval email from CEHP before granting final approval.
Includes Special Topic
PHY 5XXX **COS-PHYS** **3(3,0)**
Teaching Introductory Physics: PR: PHY 3101 or CI. Students build specialized subject matter required for teaching introductory physics by reviewing introductory mechanics topics integrated with coherent teaching methods. *Spring.*
Abbrev: (22 of 30 chars) Teaching Intro Physics
Discussion with others: We have discussed the offerings in the College of Education and Human Performance with colleagues there. They do not offer a course specifically for developing the skills to teach physics.
Rationale: Graduate students in physics and science education as well as in-service teachers requested access to the existing undergraduate level course. This course prepares students to teach introductory physics, both at the high school and introductory college level. The course focused on Modeling Instruction, which is well aligned with recent science standards, and used at both the high school and university level.

TABLED. The committee requested more information on 0 credit courses.
PHY 5XXX **COS-PHYS** **0(0,0) Physics**
Graduate Pedagogy Seminar: PR: C.I. Designed to help graduate students become more effective and knowledgeable educators. Topics include both theoretical and practical issues related to teaching. *Fall.*
Abbrev: (25 of 30 chars) Physics Graduate Pedagogy

Discussion with others: We are not aware of any similar courses offered at UCF.

Rationale: National calls have been made for enhanced pedagogical training of graduate students. The Physics Department has offered an unofficial pedagogy seminar that graduate students have benefited from and enjoyed. The graduate students have requested that the course be made official so it will appear in their transcripts.

CPO 6XXX **COS-POLS** **3(3,0) Global**
Security in the Age of Migration: PR: Graduate student standing, or CI. Explore migration as the outcome and cause of security concerns, while introducing students to theories of migration, conflict, security, and border control policies. *Occasional.*
Abbrev: (25 of 30 chars) Global Security Migration
Discussion with others: We have contacted the Criminal Justice, Anthropology, and Sociology departments and they have no objections. Emails attached.
Rationale: To add an elective options in an area of core interest to the PhD in Security Studies, MA in Political Science, and Certificate in Intelligence and National Security.

POS 6XXX **COS-POLS** **3(3,0) National**
Security Law: PR: Admission to graduate program or C. I. Domestic and international law affecting national security, with emphasis on branches' competing legal claims of authority and law affecting modern security challenges *Occasional.*
Abbrev: (21 of 30 chars) National Security Law
Discussion with others: We have support from Legal Studies and Sociology. We have reached out to Criminal Justice and have not yet received a response. See attached email correspondence.
Rationale: To add an elective option in an area of core interest to the PhD in Security Studies, MA in Political Science, and Certificate in Intelligence and National Security.
Majors taking course: PhD in Security Studies. MA in Political Science. and Certificate in Intelligence and National Security.

2. Special Topics Additions

College of Engineering and Computer Science Special Topics Additions

TABLED. The committee requested approval from the College of Medicine.
CAP 5937 **ECS-EECS** **3(3,0)**
Medical Image Computing: PR: MAC 2312 and (COP 4020 or COT 4210) and (MAS 3105 or MAS 3106). The course is designed to provide the students with the foundation necessary for understanding, visualizing, and quantifying medical images. This course covers the most important imaging modalities in radiology: radiography, x-ray computed tomography, nuclear medicine, ultrasound imaging, and magnetic resonance imaging. *Occasional.*
Abbrev: (23 of 30 chars) Medical Image Computing

Discussion with others: Email Discussion with Dr. Sugaya (COM) Hi Dr. Bagci, That is a great idea and we do need processing and analysis of medical imaging. One thing I want to see added is that image format, which is quite different among the instruments though DICOM is quite standard. Also, if cellular imaging is included, image-J (NIH) and writing its plugins, and WND-CHARM image classifiers (NIH) could be interesting topics to talk. Best, Kimi

EEL 6938 **ECS-EECS** **3(3,0)**
Neuromorphic Computing Architecture, Circuit and Device: PR: EEL 5825 or EEE 5390 or C.I. Advanced concepts in neuromorphic computing architectures and its hardware implementations using emerging spin-transfer torque and memristor devices. *Occasional.*
Abbrev: (26 of 30 chars) Neuromorphic Comp Circuits
Rationale: Observation: It would seem that CS should be consulted to confirm no overlap in content.

Tabled at April 20, 2015 meeting. Further discussion needed with Statistics Department.
ESI 6938 **ECS-IEMS** **3(3,0)**
Optimization and Data Mining: PR: ESI 5306 or ESI 6418. Optimization modeling is widely used in operations research for a variety of applications such as scheduling, resource allocation, planning of facilities etc. In this course we will demonstrate another use of optimization, that of analyzing data. Basic optimization theory and popular data analysis algorithms from an optimization point of view. *Occasional.*
Abbrev: (23 of 30 chars) DM Apps of Optimization
Discussion with others: Comments were requested from Computer Science ("CS has no objections to this course" email from Dr. Gary Leavens, 3/30/2015 8:47 am) and Statistics.

College of Sciences Special Topics Additions

CHS 5937 **COS-CHEM** **3(3,0)**
Chemometric Applications in Forensic Science: PR: CHS 5504 or CI. Modern methods of evaluating the evidential value of forensic data from physical evidence, including fibers, glass, ignitable liquids and others. *Occasional.*
Abbrev: (30 of 30 chars) Chemometric App. Forensic Sci.
Discussion with others: n/a
Rationale: Forensic Science in the United States is in a state of flux following a report from the National Academies of Science in 2009. The NAS report recommended that forensic science implement more objective means of data analysis. This course will teach students in the Forensic Science M.S. program, and Chemistry PhD with Forensic Science emphasis, state-of-the-art methods of objectively evaluating data from physical evidence and how to interpret the results and communicate findings in a verbal scale. A similar course is not currently offered at UCF.

This is a SPLIT CLASS. The split level course was approved. The committee requested an approval email from CEHP before granting final approval.
PHY 5937 **COS-PHYS** **3(3,0)**
ST: Teaching Introductory Physics: PR: PHY 3101 or C.I. Students build specialized subject matter required for teaching introductory physics by reviewing introductory mechanics topics integrated with coherent teaching methods. *Occasional.*
Abbrev: (22 of 30 chars) Teaching Intro Physics
Discussion with others: We have discussed the offerings in the College of Education and Human Performance with colleagues there. They do not offer a course specifically for developing the skills to teach physics.
Rationale: Graduate students in physics and science education as well as in-service teachers requested access to the existing undergraduate level course. This course prepares students to

teach introductory physics, both at the high school and introductory college level. The course focused on Modeling Instruction, which is well aligned with recent science standards, and used at both the high school and university level.

PHY 5937 **COS-PHYS** **3(0,3)**
Device Prototyping: PR: Graduate standing or CI. Fabrication and characterization of micro-scale devices, including micro-electrical-mechanical systems, sensors, optical devices and micro-fluidic devices. *Occasional.*
Abbrev: (18 of 30 chars) Device prototyping
Discussion with others: CREOL, Nanoscience, Electrical Engineering, Materials Science and Engineering contacted. See attached.
Rationale: Physics experimental research frequently requires fabrication of micro-scale devices. This class will teach the techniques of fabrication and characterization through hands on experience to prepare graduate students for experimental research.

3. Course Revisions

College of Arts and Humanities Course Revisions

MUN 5368L **~~Graduate Madrigal Singers~~ Graduate Chamber Singers** **1(0,3)**
PR: Graduate standing in Music Education and C.I.
~~Study of varied literature for small vocal ensembles.~~ A select, mixed choir that explores music appropriate to a small, advanced ensemble, and performs in the Orlando area each semester.
May be used in the degree program a maximum of 5 times.
Abbrev (24 of 30): ~~Graduate Madrigal Singers~~ Graduate Chamber Singers
Term Offered: Fall, Spring
Discussion with others: No conflicts anticipated.
Rationale: The ensemble is no longer focused on singing works in madrigal style, so the more general title is appropriate.
There are no programs that list MUN 5368L.

College of Education and Human Performance Course Revisions

MHS 6403 **Group and Family Play Therapy** **3(3,0)**
PR: MHS 6421.
This practical course provides an overview of using different mediums of play therapy, including expressive arts, groups of children, and families for a systemic approach.

MHS 6421 **Foundations of Play Therapy and Expressive Arts** **3(3,0)**
PR: Graduate standing or C.I.
This course addresses the theories and application of principles of play and expressive arts in the counseling process with children.

MHS 6422
PR: MHS 6421.
Advanced Theories and Techniques of PlayTherapy **3(3,0)**
This course provides an in-depth study of play therapy counseling theories, utilizing didactic and experiential mediums to enhance the students' development of play therapy skills.

MHS 6424 **Filial Therapy** **3(3,0)**
PR: MHS 6421.
This course teaches students how to include parents in the play therapy process through learning a specific model of filial in a 10-week group experience.

SCE 7942 **Internship/Practicum in Science Education** ~~**6(6,0)**~~ **3(3,0)**
PR: Admission to the PhD in Education or C.I.
The focus of this course is students' participation in current research projects in science/science education.
Term Offered: Fall, Spring, Summer
Repeat For Credit: ~~No~~ Yes Max Times: 1

College of Engineering and Computer Science Course Revisions

EEL 6537 **Detection and Estimation** **3(3,0)**
PR: EEE ~~6543.~~ 5542.
Use of hypothesis testing (Bayes, Minimax, Neyman-Pearson) and estimation theory (Bayes, Maximum-likelihood) for detecting or estimating signals in noise. Application in communications and radar.
Rationale: Changing prerequisite from EEE 6543 to 5542: The pre-requisite for Detection and Estimation should be Random Processes I since the registered students need to know about Random Variables, Random Vectors, CDFs, pdfs, multivariate distributions etc. All this material is taught in EEE5542. Random Processes II covers more advanced topics that are not needed to introduce the fundamentals of Detection and Estimation Theory.

~~**EML 5587C**~~ **Mechanics of Biostructures I**
3(2,3) BME 5587C
PR: Graduate standing or C.I.
Part I of a two semester course. Mechanical analysis of hard ~~(bone)~~ and soft ~~(organs, connective tissues, etc.) biostructures~~ tissues and ~~the analysis includes preparation~~ prosection lab on human anatomy and ~~experimental testing for constitutive equations for predictive modeling.~~ physiology. Term Offered: ~~Occasional~~ Fall
Rationale: This course is Part I of a two semester course that is a core requirement for all students in biomedical engineering and will serve as the educational foundation for all future bme classes.
Majors taking course: MS in Biomedical Engineering

~~**EML 5588C**~~ **Mechanics of Biostructures II** ~~**3(2,3)**~~

BME 5588C **3(2,2)**

PR: ~~EML 5587C.~~ BME 5587C or C.I.

Part II of a two semester course. ~~Mechanical~~ Cell physiology and engineering principles applied to analysis of ~~hard (bone)~~ cellular processes and ~~soft (organs, connective tissues, etc) biostructures~~ prosection anatomy lab on human anatomy and ~~the analysis includes preparation and experimental testing for constitutive equations for predictive modeling.~~ physiology.

Term Offered: ~~Occasional~~ Spring

Rationale: This course is Part II of a two semester course that is a core requirement for all students in biomedical engineering and will serve as the educational foundation for all future bme classes.

~~EML 5760~~ **Biofluid Mechanics**
3(3,0) BME 5760

PR: ~~MAP 2302,~~ EML ~~3701, EML 4703.~~ 3701 and EGM 3601 or C.I.

~~Analysis of biomedical~~ This course will cover the physical and ~~bioengineering systems using principles of transport phenomena. Governing equations~~ mathematical principals of fluid ~~flow, circulatory systems blood flow, macro~~ mechanics and ~~microcirculation,~~ its application and relevance to human physiology and ~~blood rheology.~~ pathology.

Term Offered: ~~Occasional~~ Fall

Rationale: This course is being offered to meet the requirements for the proposed BME program. Prerequisites at the 3000 level are appropriate due to more advanced topics being limited to specific topics. These topics will be incorporated into the course to provide consistent background knowledge as needed. This is consistent with expectations in similar courses at other institutions.

Majors taking course: Biomedical Engineering

~~EML 5761C~~ **Applied and Computational Biofluids** **~~3(3,2)~~**
BME 5761C **3(2,2)**

PR: EML ~~4304C, EML 4703.~~ 3701 and EGM 3601 or C.I.

Principles and foundations of applied fluid mechanics and computational methods to the human circulation. ~~In addition to case studies, the course provides laboratory experiences in bioengineering with application to biofluid mechanics.~~

Abbrev (30 of 30): ~~Applied & Comp Biofluids~~ Appl. and Comp. Bio-flu. Mech.

Term Offered: ~~Even~~ Spring

Rationale: This course is being offered to meet the requirements for the proposed BME program. Prerequisites at the 3000 level are appropriate due to more advanced topics being limited to specific topics. These topics will be incorporated into the course to provide consistent background knowledge as needed. This is consistent with expectations in similar courses at other institutions.

Majors taking course: Bioengineering MS

College of Health and Public Affairs Course Revisions

HIM 5118C
Health Care Informatics and Information Technology **4(3,1)**

PR: Admission to M.S. in Health Care Informatics or C.I.

An overview of ~~information systems in healthcare~~ the current state of health care informatics including existing and ~~information technology in healthcare~~ future technologies. Areas of emphasis include EHR, HIE, Standards, and clinical decision making. ~~Ethical, planning and legal issues of informatics will be explored.~~

Abbrev (25 of 30): ~~Health Care & Info Technology~~ Hlth Care & Info Technlgy

Rationale: Existing course description was created when HCI program was proposed in 2008. Course description is being updated to more clearly reflect course content which has evolved to accommodate changes in technology, health care and the profession since 2008.

HIM 6119C Biostatistics and Decision Analysis 4(3,1)

PR: Admission to M.S in Health Care Informatics or C.I.

~~This course provides students a solid foundation on descriptive~~ Selected decision structure and ~~inferential analyses, including both parametric~~ solution techniques. Selection, implementation, and ~~nonparametric methods.~~ results analysis of key statistical methods to support decision making and policy analysis in health care organizations.

Abbrev (26 of 30): ~~Biostatistics & Decis Analysis~~ Biostats & Decisn Analysis

Rationale: Existing course description was created when HCI program was proposed in 2008. Course description is being updated to more clearly reflect course content which has evolved to accommodate changes in technology, health care and the profession since 2008.

HIM 6122C System Analysis and Design 4(3,1)

PR: Admission to M.S. in Health Care Informatics or C.I.

~~System Analysis~~ Analyzing workflow in health care organizations to identify data needs and ~~Design focuses on electronic health record applications~~ system elements to ~~provide the tools for successful~~ support work. Modeling system ~~implementation.~~ elements with a variety of traditional and object oriented tools.

Rationale: Existing course description was created when HCI program was proposed in 2008. Course description is being updated to more clearly reflect course content which has evolved to accommodate changes in technology, health care and the profession since 2008.

HIM 6125 Health Care Informatics Capstone 3(3,0)

PR: All courses in the M.S. in Health Care Informatics program.

~~The practicum~~ This course ~~addresses~~ serves as a culminating experience for the ~~process of transforming data~~ HCI program. Students will apply knowledge gained in all courses to ~~information, knowledge and practice in~~ a health care ~~setting. An operations management challenge that is amenable to Internet interventions in a health care organization shall be identified.~~ informatics related area of study.

Rationale: Existing course description was created when HCI program was proposed in 2008. Course description is being updated to more clearly reflect course content which has evolved to accommodate changes in technology, health care and the profession since 2008.

HIM 6217C Health Care Database Management 4(3,1)

PR: HIM 5118C.

~~To develop advanced skills necessary~~ Design and implementation of relational database structures for ~~the design and management of~~ health care ~~organization databases~~ operations. Use

of structured query language and ~~their use in computer-based information systems.~~ reporting tools to manage data.
Rationale: Existing course description was created when HCI program was proposed in 2008. Course description is being updated to more clearly reflect course content which has evolved to accommodate changes in technology, health care and the profession since 2008.

HIM 6464C
Epidemiology, Analytics and Quality Management **4(3,1)**
PR: Admission to M.S. in Health Care Informatics or C.I.
This course ~~introduces epidemiological principles~~ focuses on quality measures reporting for health care providers. Special focus includes the role of informatics professionals in identifying, parsing, understanding and ~~analytics for enhancing utilization management, quality improvement~~ utilizing data and ~~outcome assessment in the service delivery system.~~ data reporting systems.
Abbrev (26 of 30): ~~Epidem Analytics & Qual Mgmt~~ Epidem Analytic & Qual Mgm
Rationale: Existing course description was created when HCI program was proposed in 2008. Course description is being updated to better reflect current course content which has evolved to accommodate changes in technology, health care and the profession since 2008.
Majors taking course: Health Care Informatics MS

HIM 6947 **Health Care Informatics Internship** **3(3,0)**
PR: HIM 5118C, HIM 6122C and HIM 6123C.
~~A supervised placement~~ Experiential learning course where students apply skills and competencies to solve real-world health care informatics projects of ~~students in approved settings.~~ substantive value. Students must complete required ~~number of~~ hours ~~and a project~~ under the supervision of an ~~organization~~ internship site preceptor.
Rationale: Existing course description was created when HCI program was proposed in 2008. Course description is being updated to more clearly reflect course content which has evolved to accommodate changes in technology, health care and the profession since 2008.

College of Sciences Course Revisions

PCB 6365 **Environmental Physiology** **3(3,0)**
PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, PSM in Conservation Biology, or Certificate in Conservation Biology, or C.I.
The effects of major environmental factors on the physiology of plants and animals.
Rationale: Updating prerequisite allows Conservation Biology student to enroll in coursework.

PCB 6727 **Comparative Animal Physiology** **3(3,0)**
PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, PSM in Conservation Biology, or Certificate in Conservation Biology, or C.I.
Comparison of structural and functional adaptations of animal organ systems. Emphasis upon maximization of fitness under given environmental conditions.
Rationale: Addition of PSM in Conservation Biology will allow all Biology graduate students to register for the course.

ZOO 5463C **Herpetology** **4(2,4)**
PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, ~~or~~ Certificate in Conservation Biology, PSM in Conservation Biology, or C.I.
Introduction to the biology of the amphibians and reptiles, their classification, evolution, and life histories.
Discussion with others: No conflicts- existing course.
Rationale: Changing the prerequisites to include admission to the PSM in Conservation Biology. This will allow students in the program to be able to enroll in the courses required for their degree. This is a SPLIT CLASS with ZOO 4932C.

ZOO 5486 **Mammalogy** **4(4,0)**
PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, PSM in Conservation Biology, or Certificate in Conservation Biology, or C.I.
Study of the diversity and biology of mammals from an evolutionary perspective. Rationale: Addition of PSM program will allow all Biology graduate students to register for coursework within the department.

4. Course Deletions

College of Health and Public Affairs Course Deletions

RED 6148 **HPA-COM SC&DIS** **3(3,0)**
Severe Language-Based Reading and Writing Disabilities PR: Graduate status. Development, assessment, and instruction of reading, writing, and spelling, with emphasis on phonemic awareness, decoding, text comprehension, spelling, and written expression.
Discussion with others: No other graduate programs use the course so it does not impact any other departments.
Rationale: This course was never offered. The department of Communication Sciences and Disorders offers the course with a different prefix and number.

SPA 6132 **HPA-COM SC&DIS** **3(3,0)**
Advanced Speech Science PR: Graduate status. Advanced study of the anatomy and physiology for speech production, the acoustic and physiological measurement of speech, application of speech science to clinical practice.
Discussion with others: No other graduate programs use the course so it does not impact any other departments.
Rationale: This course has not been offered in 10 years. The department does not anticipate offering this as a core course or an elective in the master's program.

SPA 6309 **HPA-COM SC&DIS** **3(3,0)**
Auditory Processing of Language PR: Graduate status. Diagnosis, intervention and management of auditory-specific language and information processing deficits in children.
Discussion with others: No other graduate programs use the course so it does not impact any other departments.
Rationale: This course has not been offered in 10 years. The department does not anticipate offering this as a core course or elective in the program. Much of this content is offered in SPA

6327 Aural Rehabilitaiton.

SPA 6402 HPA-COM SC&DIS 3(3,0)
Preschool Language Disorders PR: SPA 4400 or equivalent. Application of the normal process of early language acquisition to the evaluation and management of preschool children with spoken and written language disorders.
Discussion with others: No other graduate programs use the course so it does not impact any other departments.
Rationale: The content from this course is delivered in another course, SPA 6496, due to previous curriculum changes.

SPA 6403 HPA-COM SC&DIS 3(3,0)
School-Aged Language Disorders PR: SPA 4400 or equivalent. Application of the normal process of later language acquisition to the evaluation and management of school-aged children with spoken and written language disorders.
Discussion with others: No other graduate programs use the course so it does not impact any other departments.
Rationale: The content from this course is delivered in another course, SPA 6496, due to previous curriculum changes.

5. Course Continuations

College of Arts and Humanities Course Continuations

TPP 5246C CAH-THEA 2(2,2)
Circus Arts PR: Admission to Theatre graduate program or C.I. Circus skills and history.
Rationale: Recent faculty changes have resulted in altered plans for course offerings. For this time, the department would like to keep this course as an option going forward.

TPP 6344 CAH-THEA 3(3,0)
Musical Theatre Directing PR: Admission to MFA Musical Theatre program. A comprehensive study and practical application of the unique problems of directing for the musical stage.
Rationale: Since the track has been on hold, this course has not been offered recently. The department would like to keep this course until further plans are made regarding this track.

College of Health and Public Affairs Course Continuations

SPA 6236 HPA-COM SC&DIS 3(3,0) Motor Speech Disorders in Adults and Children PR: Admission to M.A. in Communication Sciences and Disorders and SPA 6204 or C.I. Evaluation and treatment of dysarthrias, apraxias, and other motor speech disorders in adults and children associated with neurological problems, brain injury and systemic disease.
Rationale: N/A. Course Continuation submitted in order to provide itemized list for Material and

Supply Fee list.

SPA 6401 HPA-COM SC&DIS 3(3,0)
Language Disorders in Infants and Toddlers PR: SPA 6496. Assessment and intervention of communication disorders in infants and toddlers incorporating transdisciplinary and family-centered models.
Rationale: N/A. Continuation submitted to provide details of Material and Supply fees.

SPA 6553L HPA-COM SC&DIS 1(1,1)
Clinical Practice in Differential Diagnosis in Speech and Language Pathology PR: SPA 6503, SPA 6503L or C.I. Clinical application of diagnostic process and assessment procedures for a variety of communication disorders across the life span. May be repeated for credit.
Rationale: NA - Course Continuation subbmited in order to provide itemized list for Material and Supply fees.

SPA 6559 HPA-COM SC&DIS 3(3,0)
Augmentative and Alternative Communication PR: Admission to M.A. in Communication Sciences and Disorders or C.I. The total integrated network of techniques, aids, strategies, and skills individuals use to supplement or replace inadequate natural speaking ability.
Rationale: N/A. Course taught every semester. Continuation submitted to add M&S fees.