

UCF Graduate Council

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CURRICULUM COMMITTEE MINUTES

Minutes of October 28, 2015 meeting

Members Present

Diane Andrews, Deborah Breiter, Steven Ebert, Charles Kelliher, Claire Knox, Elsie Olan, Andrea Pulido, Jennifer Sandoval, Terrie Sypolt, Art Weeks, John Weishampel

Recorder

Rhonda Nelson

Guests Present

Derek Green, Yingru Li, Jonathan Beever, Stephen Holmes, Jay Corzine, Sabrina Gordon, Jackie Chini, Ahmad Elshennawy

Staff Members

Michele Pozdoll

Files

[2015-10-28 Meeting Course minutes](#) 

Welcome and call to order. Dr. Deborah Breiter, chair, welcomed the committee and guests. A quorum was established. The minutes from the last meeting were reviewed and approved.

Name change to the Adv Reg NP Post-Master's track, CON. Diane Andrews summarized the change to this track. They are requesting a name change as the current name of the track is misleading and excludes applicants who are licensed as Clinical Nurse Specialists, Midwifery, Nurse Anesthetists and so forth. These changes received unanimous approval.

Program suspension to the Mod/Sim PSM track, CGS. Sabrina Gordon gave an overview for the suspension of this track for 2 years beginning fall 2016. She indicated that no courses would be affected by the suspension as there were no courses specific to this program. There are currently 3 students in the program who will have the option to complete the program with their existing catalog year or switch to the regular M&S MS degree and still use their existing courses and internships towards the elective requirements for that degree. No teach out plan required. This is not a terminal degree. Finding internships has not been a problem. This request received unanimous approval.

Split level class request for PHY 5XXX Teaching Introductory Physics, COS. Dr. Jackie Chini gave an overview of this split class. The split level class received unanimous approval from the committee; however, the committee did request that an approval letter be received from CEHP before final approval was granted.

Courses and special topics. To review a list of approved courses, please see the attached course minutes. The Medical Image Computing course was tabled. The committee requested that approval from COM was needed. Dr. Weishampel gave an update regarding the Optimization and Data Mining Special Topics course that has been tabled for some time. He is working on an MOU with Statistics, Computer Science, and IEMS. He has met with all departments. Dr. Leavens had no objection. Dr. Elshennawy shared information regarding this course. He stated that Dr. Petros Xanthopoulos has the credentials to teach this course and would like to teach it only as a special topics at this time. Dr. Weeks suggested that a new title of Engineering Applications in Optimization and Data Mining be considered. If no MOU can be arranged, the committee will decide to make a decision regarding the course outcome.

Adjournment. The meeting adjourned at 4:00 pm. The next meeting is scheduled for November 18.

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Course Minutes

October 28, 2015

All courses have been approved unless otherwise noted below. Any notations listed refer to the course below the notation.

1. Course Additions

College of Arts and Humanities Course Additions

Includes Special Topic

PHI 6XXX **CAH-CAH** **3(3,0)**

Digital Ethics: PR: Graduate Standing or C.I. Critical examination of the nature and scope of the digital and its ethical implications for social structures and institutions, and human and nonhuman nature. *Even Spring.*

Abbrev: (14 of 30 chars) Digital Ethics

Discussion with others: Course is unique to UCF's current graduate offerings. We've discussed this course with the Philosophy Department and they support it.

Rationale: New faculty member's expertise enables the offering of this topic which is relevant and timely to the content of the Texts and Technology doctoral program.

Majors taking course: Texts and Technology doctoral students but not a required course.

College of Engineering and Computer Science Course Additions

CAP 6XXX **ECS-EECS** **3(3,0)**

Interactive Data Visualization: PR: COP 5711. Principles and techniques for interactive data visualization that are useful for analyzing, presenting and exploring information are covered. The emphasis will be on algorithmic aspects of developing interactive visualization. The students will receive practical experience of building interactive visualization systems. *Spring.*

Abbrev: (30 of 30 chars) Interactive Data Visualization

Discussion with others: We discussed this course with Statistics, M&S, IEMS, and Mathematics. Communications are detailed in attached emails.

Majors taking course: MS in Data Analytics

CAP 6XXX **ECS-EECS**

3(3,0) Project in Data Analytics:

PR: COP 5711, CAP 5610, CNT 5805 and STA 6704. A project-focused course that demonstrates mastery of data analytics through development of novel algorithms or innovative application of existing techniques for data mining applications. *Spring, Summer.*

Abbrev: (25 of 30 chars) Project in Data Analytics

Discussion with others: This is a project-focused course on computational methods for data analytics. The emphasis on computational methods is different from the focus on applying existing data mining tools in Statistic courses and business intelligence tools in the Business Administration courses.

Modeling and Simulation (Peter Kincaid) said that the course "looks fine" and had no objections. IEMS (Waldemar Karwowski) protests the way that course objections are handled at UCF, but has no objections to the course content. We did not hear back from the ECE division of EECS. Rationale: This is a new course developed for the proposed MS in Data Analytics program. Students may take this required, project-focused course, after competing at least six courses in this program, to demonstrate proficiency in computational methods for data analysis and knowledge discovery.

Majors taking course: MS in Data Analytics

COP 6XXX

ECS-EECS

3(3,0) Parallel and Cloud Computation:

PR: COP 5711. The course introduces students to parallel computing across the hardware-software stack. Special emphasis is placed on parallel programming using emerging architectures and technologies. *Fall*.

Abbrev: (30 of 30 chars) Parallel and Cloud Computation

Discussion with others: No duplication expected. We discussed this course with IEMS, ECE, Statistics and Modeling and Simulation and they had no objections. Emails attached to syllabus. Rationale: Computation is increasingly moving away from desktops and workstations to parallel computing clusters and elastic third-party clouds that can scale up in response to user demands. This fundamental shift in computer architecture has forced the programmer to be exposed to the parallel programming model and to systems design of storage, computation and security on third-party elastic clouds. This course will enable the students to program large, complex and possibly heterogeneous data systems for addressing big-data problems. The course will focus on fundamental principles that enable the students to adapt to a rapidly changing technological revolution in the design of parallel architectures, compilers, and programming languages.

Majors taking course: MS in Data Analytics

EEL 5XXX

ECS-EECS 3(3,0) Big Data Computer

Architecture and Systems: PR: EEL 4768 or CGS 3763. Computer hardware architecture and operating systems design, implementation and administrative techniques for big data computing platforms which run applications to analyze datasets of massive size and dimensionality. *Odd Spring, Even Fall*.

Abbrev: (30 of 30 chars) Big Data Computer Architecture

Discussion with others: This course is created within the Department of EECS by two divisions. Rationale: The course is added into a new curriculum which is needed to start a new Master of Science in Data Analytics program in the Department of EECS.

Majors taking course: MS in Data Analytics

College of Health and Public Affairs Course Additions

CCJ 6XXX

HPA-CJ

3(3,0)

Criminal Justice Perspectives on Human Trafficking: PR: None. This course introduces students to the problem, causes and suggested solutions for human trafficking both in the United States and abroad. *Spring*.

Abbrev: (26 of 30 chars) CJ Persp Human Trafficking

Discussion with others: Course sent to the department of sociology and told to move forward. There are no conflicts.

Rationale: This elective will introduce students to a major problem in the world and even the United States. Too often people assume that this could not be happening in the country but it is. Majors taking course: None

Includes Special Topic

PAD 6XXX

HPA-PUB

3(3,0)

Public Sector Communications: PR: Admission to Public Administration or Nonprofit Management master's programs. Recognizing stakeholders and their needs; focusing on communications specific to reputation management, branding and marketing strategies in keeping with regulatory standards. *Spring.*

Abbrev: (28 of 30 chars) Public Sector Communications

Discussion with others: There is no overlap or conflict with other courses or departments. School of Communication indicated they have no objections to the class (e-mail provided).

Rationale: This course is designed to respond, in part, to the National Association of Schools of Public Affairs Administration (NASPAA) common curriculum components: Budgeting and financial processes; Policy and program formulation, implementation and evaluation; Political and legal institutions and processes; Organization and management concepts and ethical behavior; Communication and interact productively with a diverse and changing workforce and citizenry. Majors taking course: None. Course will be an elective in the School of Public Administration.

Includes Special Topic

PAD 6XXX

HPA-PUB

3(3,0)

Leadership in Public Service: PR: Admission to School of Public Administration graduate degree programs. Importance of sound public leadership and development of analytical skills to recognize and resolve critical public management issues. *Fall.*

Abbrev: (28 of 30 chars) Leadership in Public Service

Discussion with others: No overlap or conflicts with other courses.

Rationale: This course is designed to respond, in part, to the Network of Schools of Public Policy, Affairs and Administration (NASPAA) common curriculum components: Budgeting and financial processes; Policy and program formulation, implementation, and evaluation; Decision-making and problem solving; Political and legal processes; and Organization and management concepts and ethical behavior.

Majors taking course: None - elective in the School of Public Administration.

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.

SYA 6XXX **COS-SOC** **3(3,0)**

GIS Applications: PR: SYA 6455 or CI. The concepts and implementations of the geographic information analysis and integrate GIS with real-world applications. *Spring*.

Abbrev: (8 of 30 chars) GIS Apps

Discussion with others: EM approval from Civil Engineering, Biology, Chemistry, Political Science, Criminal Justice, History, Anthropology, Philosophy & Public Admin. Economics contacted but no response. Emails available upon request.

Rationale: New faculty expertise in GIS within the Sociology Department and the new College of Sciences GIS cluster allows for the new courses to be offered. Student interest in Sociology and related fields has increased in recent years as they see the value of GIS skills in their job prospects. These courses will provide students with a competitive advantage on the job market (both undergraduate and graduate). The high-growth industry of geospatial technologies, including GIS, is in demand and is one of the above average career growth sectors in the U.S. as cited by the U.S. Department of Labor. These courses focus on interdisciplinary approaches to GIS across the social and environmental science making it appealing to both undergraduate and graduate students who are now expected to be prepared for careers with expertise from their own disciplines while also having an appreciation for the theories, methods, and approaches of other disciplines.

Includes Special Topic

SYA 6XXX **COS-SOC**

3(3,0)

Geographic Information Systems in Society: PR: Graduate standing or C.I. The art and science of GIS and related geospatial technologies across the social and environmental sciences. *Spring*.

Abbrev: (14 of 30 chars) GIS in Society

Discussion with others: EM approval from Civil Engineering, Biology, Chemistry, Political Science, Criminal Justice, History, Anthropology, Philosophy & Public Admin. Economics contacted but no response. Emails available upon request.

Rationale: New faculty expertise in GIS within the Sociology Department and the new College of Sciences GIS cluster allows for the new courses to be offered. Student interest in Sociology and related fields has increased in recent years as they see the value of GIS skills in their job prospects. These courses will provide students with a competitive advantage on the job market (both undergraduate and graduate). The high-growth industry of geospatial technologies, including GIS, is in demand and is one of the above average career growth sectors in the U.S. as cited by the U.S. Department of Labor. These courses focus on interdisciplinary approaches to GIS across the social and environmental science making it appealing to both undergraduate and graduate students who are now expected to be prepared for careers with expertise from their own disciplines while also having an appreciation for the theories, methods, and approaches of other disciplines.

2. Special Topics Additions

College of Arts and Humanities Special Topics Additions

PHI 6938 **CAH-CAH** **3(3,0)**

ST: Digital Ethics: PR: Graduate Standing or C.I. Critical examination of the nature and scope of the digital and its ethical implications for social structures and institutions, and human and nonhuman nature. *Occasional*.

Abbrev: (18 of 30 chars) ST: Digital Ethics

Discussion with others: Course is unique to UCF's current graduate offerings. We've discussed this course with the Philosophy Department and they support it.

Rationale: New faculty member's expertise enables the offering of this topic which is relevant and timely to the content of the Texts and Technology doctoral program.

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

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 Health and Public Affairs Special Topics Additions

PAD 6938 **HPA-PUB** **3(3,0)**

Public Sector Communications: PR: Admission to School of Public Administration graduate degree programs. Recognizing stakeholders and their needs; focusing on communications specific to reputation management, branding and marketing strategies in keeping with regulatory standards. *Occasional.*

Abbrev: (28 of 30 chars) Public Sector Communications

Discussion with others: No overlap or conflicts. E-mail confirmation received from School of Communication.

Rationale: This course is designed to respond, in part, to the National Association of Schools of Public Affairs Administration (NASPAA) common curriculum components: Budgeting and financial processes; Policy and program formulation, implementation and evaluation; Political and legal institutions processes; Organization and management concepts and ethical behavior; Communicate and interact productively with a diverse and changing workforce and citizenry.

PAD 6938 **HPA-PUB**

3(3,0) Leadership in Public Service: PR: Admission

to School of Public Administration degree programs. Importance of sound public service leadership and development of analytical skills to recognize and resolve critical public management issues. *Occasional.*

Abbrev: (28 of 30 chars) Leadership in Public Service

Discussion with others: This course does not overlap or conflict with other courses.

Rationale: This course is designed to respond, in part, to the Network of Schools of Public Policy, Affairs and Administration (NASPAA) common curriculum components: Budgeting and financial processes; Policy and program formulation, implementation, and

Rationale: There are new methods developed in data mining data preparation and there are new software packages as well.

Majors taking course: Statistical Computing/Business Analytics

4. Course Deletions

College of Graduate Studies Course Deletions

IDS 6669 **GRDST-INTERDIS** **3(3,0)**

Interdisciplinary Approaches to Research PR: IDS 6308. Interdisciplinary survey of methodologies used in academic disciplines. Basic concepts, research paradigms, and contemporary issues explored.

Rationale: We are deleting this course and changing the requirement to completion of a methods course in one of the two degree concentrations. Course has not been taught in 8 years.

College of Sciences Course Deletions

PCB 6415 **COS-BIOL**
1(1,0) Advanced Topics in Behavioral Ecology

PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, and C.I. Discussion of the most recent literature (research) in behavioral ecology. Graded S/U. May be repeated for credit. Discussion with others: n/a

Rationale: Not offered in 5-years

5. Course Continuations

College of Medicine Course Continuations

PCB 6124 **COM-BSBS**
3(3,0) Structure Bioinformatics PR: PCB 5596 or equivalent. Focus on tools and resources in RNA and protein structure analyses.

Rationale: Program is developing new MS tracks in Neuroscience, Cancer, Infectious Disease, and Cardiovascular/Metabolism. As such, we are considering re-activation of one or more of our existing but currently inactive courses for this, and thus request that they remain valid courses for now.

College of Sciences Course Continuations

ANG 5620 **COS-ANTHRO** **3(3,0)**

Language and Culture PR: Admission to Anthropology MA, Maya Studies GC, or C.I. Language as an integral part of human culture and behavior, focusing on cross cultural issues that affect cultural competency.

Rationale: Continue - Possible use in development of future PhD program

ANG 5738 **COS-ANTHRO**

3(3,0) Advanced Medical Anthropology PR:

Admission to Anthropology MA, Maya Studies GC, or C.I. Advanced topics in ethnography of medical traditions and anthropological approaches to the study of health and disease.

Rationale: Continue - Possible use in development of future PhD program

BSC 5258L

COS-BIOL

3(0,3) Tropical Biology Research and

Conservation PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Research and conservation in New World tropics, including a field trip to Belize. Tropical biodiversity and forest ecology, integrating conservation strategies in research and communication.

Rationale: Continue; will offer with recent new faculty hires. There is 1 program that lists BSC 5258L: Biology (B.S.)

PCB 5435C

COS-BIOL

4(2,6)

Marine Ecology of Florida PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Survey of experimental methods used in the study

of marine communities in central and southern Florida, combining field manipulation and readings from primary literature.

Rationale: Continue; will offer with recent new faculty hires. There is 1 program that lists PCB 5435C: Biology (B.S.)

PCB 6035C

COS-BIOL

4(3,3) Wetland Ecology PR: Admission to the M.S. in

Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Advanced study of ecological structure, function, and diversity of wetlands. Lectures, discussions, and field-based labs, including management, laws, and restoration.

Rationale: Continue; will offer with recent new faculty hires.

PCB 6040

COS-BIOL

1(1,0)

Methods of Data Collection and Analysis in Behavioral Ecology PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Discussion of methodology and data analysis in behavioral ecology. The methods and analyses discussed each semester vary depending on thesis topics and literature reviewed. Graded S/U. May be used in the degree program a maximum of 4 times. Rationale: Continue; will offer with recent new faculty hires.

PCB 6328C

COS-BIOL

4(3,2) Landscape Ecology PR: Admission to the

M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Influence of spatial heterogeneity on ecological processes.

Emphasizes quantitative methods (e.g., GIS, remote sensing and modeling) to characterize landscape patterns and dynamics.

Rationale: Continue; will offer with recent new faculty hires.

PCB 6585C

COS-BIOL

4(3,2)

Advanced Genetics PR: Admission to the M.S. in Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I. Recent advances in genetics, stressing molecular and developmental trends.

Rationale: Continue; will offer with recent new faculty hires.

STA 6246

COS-STAT

3(3,0) Linear Models

PR: STA 6329, STA 4164, and STA 4322. Theoretical development of full rank linear statistical models, least squares and maximum likelihood estimation, interval estimation, hypothesis testing, and introduction to less than full rank models.

Rationale: Continue - Plans to incorporate into future PhD program curriculum.

STA 6329

COS-STAT

3(3,0)

Statistical Applications of Matrix Algebra PR: MAC 2313 and STA 4164 or STA 5206. Basic theory of determinants, inverses, generalized inverses, eigenvalues and eigenvectors, partitioned matrices. Diagonalization and decomposition theorems, least squares and statistical applications. Rationale: Continue - Plans to incorporate into future PhD program curriculum.