

# UCF Graduate Council

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## CURRICULUM COMMITTEE MINUTES

### Minutes of December 03, 2009 meeting

**Members Present** Deborah Breiter, Susan Chase, Ram Mohapatra, Joyce Nutta, Max Poole, Tison Pugh, Sergio Tarfur, James Turkson

**Recorder** Rhonda Nelson

**Guests Present** Graham Worthy, Edwidge Creveur-Bryant, Gergana Vitanova, Elizabeth Rash, Kerry Purmensky, Keith Folse, Florin Miha, Maria Cox, Mike Hynes, Julia Listengarten, Richard Crepeau

**Files** [2009-12-03 Course Action Request Minutes](#) 

**Welcome and call to order.** The meeting was called to order at 12:00 p.m. by Ram Mohapatra, chair, who welcomed guests and established a quorum. The minutes of the last meeting held on November 12 were approved with no changes.

**Review of Theatre split classes, CAH.** Julia Listengarten was present to answer questions from the committee regarding these courses. A question was raised as to whether there was a safeguard in place that they would not allow a student to take the 5000 level course if they had already taken the 4000 level course. Dr. Listengarten indicated that students' schedules are checked and approved by their advisor and that this safeguard would not allow a student to retake the class at the 5000 level. She also indicated that a statement could be added to the catalog copy for clarification. There was discussion on the rigor of the content of the 5000 level courses. The committee indicated that the graduate course needs its own objectives, different grading scheme, and needs to show more rigor in the course. A question arose on how many splits that the Theatre program had so far. Dr. Listengarten indicated 3 to 4 right now. She pointed out that these split classes are online courses. The committee asked that week 14 be added to the week schedule. The courses were approved with additional changes to the syllabi.

**Addition of a TESOL track to the Ph.D. in Education – COE.** Dr. Nutta gave an overview of this track. A question was raised regarding financial support and if there were funds to support all 32 students. Dr. Hynes indicated that they could support 24 students for 3 years. Nine out of the group are employed. The committee asked that a sentence be added to the proposal regarding how the tuition support would be handled. The track was approved with the addition of the sentence on tuition support.

**Addition of 3 tracks to the DNP program and revisions to the MS in Nursing, CON.** Susan Chase gave a summary of the new track additions and also the revisions to the MS in Nursing program. She indicated that admissions to the MS was suspended in June. The doctoral program proposes to incorporate 3 tracks. She indicated that if students already have a master's already, they will just need to complete the balance of the program. Some states still require a master's so they need to keep the master's in place for now. The post master's has changed from 48 to 42. She pointed out that there was one additional change to the NGR 5003L. This request was approved.

**Addition of a Conservation Biology track, MS in Biology, COS.** Graham Worthy was present to give a summary of this new PSM track within the MS in Biology. He did share that the department is also planning to bring forward a new M.S. in Conservation Biology program in the future. They have received the approval of the NSF for this track addition. A question was raised regarding internships. Guaranteed unpaid and they want to expand to paid. Federal and state agencies have interest in doing this. The first year stimulus dollars covers three years if we get this. This would be as an added bonus. The degree would take 2 years full-time which would include 2 falls, 2 springs, and 1 summer. Capstone is a research report. There is also an oral composition. Program is all face to face. This track was approved. A question was asked on when courses were offered and Dr. Worthy responded that they were day classes. He did indicate that there may be a possibility of getting some courses online. This request was approved.

**Revisions to the MA in Elementary Ed, COE.** The department has requested to upgrade some of their courses from a 5000 to a 6000 level to meet the minimum requirement of 50% of the courses at the 6000 level. Discussion was held on how many students were currently in the program that are affected by this. This request was approved.

**Revisions to the MA in Instructional Tech/Instr Systems track, COE.** The department wishes to include a course which would change the overall program hours from 36 to 39. This request was approved.

**Review of Music split classes, CAH.** Keith Koons was present to discuss the four Music four courses that were tabled at a previous meeting. A recap of the courses reviewed follows:

Brass Literature and Pedagogy – approved

String Literature and Pedagogy – approved with changes

Analysis of 20<sup>th</sup> Century – tabled. Add clarification regarding the rigor of the graduate syllabus.

Counterpoint – tabled. Add clarification regarding the rigor of the graduate syllabus.

**Courses and special topics.** A number of courses and special topics were also reviewed and approved. For a complete list of courses approved, review the attachment listed at the top of this page.

**Announcements and adjournment.** The meeting was adjourned at 1:30 p.m.

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## Graduate Council Curriculum Committee Course Minutes for 12-03-2009

*All courses were approved unless otherwise noted. Any notation refers to the course directly below the notation.*

### College of Arts & Humanities Special Topics

AMH 5937 Sect 01 CAH-History 3(3,0) **Approved.**

**ST: History of Florida Tourism:** PR: Graduate Standing or C.I. An interdisciplinary historiography of American and Florida tourism.*Occasional.*

30 character abbreviation: **ST: Florida Tourism**

AMH 6938 Sect 01 CAH-History 3(3,0) **Approved.**

**ST: Historical Documentary and New Media:** PR: Graduate Standing or C.I. An introduction to researching and producing public history through new media.*Occasional.*

30 character abbreviation: **ST: Historical Doc & New Media**

**Tabled. The next 4 courses are split classes. All Theatre courses were approved w/changes.**

THE 5937 Sect 01 CAH-Theatre 3(3,0)

**ST: Cultural Diversity in Theatre:** PR: Admission into the MFA/MA Theatre programs or C.I. Commonality of human experience among various groups through the study of dramatic literature.*Occasional.*

30 character abbreviation: **ST: Cult Diversity in Theatre**

*AGENDA NOTES: Course Addition also being proposed.*

THE 5937 Sect 01 CAH-Theatre 3(3,0)

**ST: Global Theatre:** PR: Admission into the MFA/MA Theatre program or C.I. Theatrical arts and traditions of various countries with an emphasis on non-western countries.*Occasional.*

30 character abbreviation: **ST: Global Theatre**

*AGENDA NOTES: Course Addition also being proposed.*

THE 5937 Sect 01 CAH-Theatre 3(3,0)

**ST: Theatre for Social Change:** PR: Admission into the MFA/MA Theatre programs or C.I. Theatre activist's impact on theatrical art forms.*Occasional.*

30 character abbreviation: **ST: Theatre for Social Change**

*AGENDA NOTES: Course Addition also being proposed.*

THE 5937 Sect 01 CAH-Theatre 3(3,0)

**ST: Women in Theatre:** PR: Admission into the MFA/MA Theatre programs or C.I. An overview of women's contributions to theatre.*Occasional.*

30 character abbreviation: **ST: Women in Theatre**

*AGENDA NOTES: Course Addition also being proposed.*

### College of Education Special Topics

EME 6938 Sect 01 ED-Ed Research, Tech & Lead 3(3,0) **Approved.**

**ST:Instructional Development and Evaluation:** PR: EME 6613 Instructional Systems. The course addresses basic instructional development skills and formative and summative evaluation methods for training in business and industry with application to training educational settings.*Spring*.

30 character abbreviation: **ST:Instl Development & Evaluat**

*AGENDA NOTES: Course Addition also being proposed.*

**MAE 6938 Sect 01 ED-Teaching & Learning Princ 3(3,0)**

**ST: Current Methods in Elem School Mathematics:** PR: EDE 6933 (or co-requisite) or C.I. Strategies of instruction of computation and concepts of number, geometry, measurement, and algebra. Standards for teaching mathematics.*Occasional*.

30 character abbreviation: **ST: Curr Meth Elem Schl Math**

**SCE 6938 Sect 01 ED-Teaching & Learning Princ 3(3,0)**

**ST: Methods in Elementary School Science:** PR: EDE 6933 or C.I. Organization of instruction in elementary school science including methods, evaluation, materials, strategies, and current practices.*Occasional*.

30 character abbreviation: **ST: Meth in Ele School Science**

**SSE 6938 Sect 01 ED-Teaching & Learning Princ 3(3,0)**

**ST:Methods in Elementary School Social Science:** Study of instructional programs in social sciences; objectives; materials; techniques; current research; and their application in elementary school setting.*Fall, Spring*.

30 character abbreviation: **ST:Meth in Ele Sch Social Sci**

### **College of Arts & Humanities Course Action Additions**

**TSL 6XXX CAH-Modern Languages 3(3,0)**

**Diachronic Analysis of Second Language Acquisition Processes:** PR: Graduate Standing or C.I. Analysis of current research on second language acquisition (SLA) processes across the life span.*Odd Fall*.

30 character abbreviation: **Diachronic Analysis SLA**

**TSL 6XXX CAH-Modern Languages 3(3,0)**

**Second Language Vocabulary Acquisition:** PR: Graduate Standing or C.I. and one of the following graduate research courses: TSL 6640, EDF 6481, EDF 7475, EDF 7403. Research on how learners acquire new vocabulary in a second language. Course requires extensive reading as well as original field research.*Even Spring*.

30 character abbreviation: **Sec Lang Vocab Acquisition**

**TSL 7XXX CAH-Modern Languages 3(3,0)**

**Doctoral Internship:** PR: Graduate Standing or C.I. Students work with faculty members to develop teaching competency and research focus through a professional teaching experience. May be used in the degree program a maximum of 2 times.*Fall, Spring*.

30 character abbreviation: **Doctoral Internship**

Tabled – more detail needed on the rigor of the graduate syllabus. Split class. **Approved.**

**MUL 5XXX CAH-Music 3(3,0)**

**Brass Literature and Pedagogy:** PR: Graduate Standing in Music or C.I. Significant brass repertoire, study materials and a review of teaching techniques for artistic brass performance.*Even Fall.*  
30 character abbreviation: **Brass Literature and Pedagogy**

Tabled – paragraph needed on the differences in the graduate and UG course, explain grading scheme, and split the description from the objectives. Split class.

**MUL 5XXX** CAH-Music 3(3,0) **Approved w/changes.**

**String Literature and Pedagogy:** PR: Graduate Standing in Music or C.I. Study of string literature from the Baroque period to the 20th century, along with prominent pedagogical principles.*Odd Fall.*  
30 character abbreviation: **String Literature and Pedagogy**

Tabled – syllabus to be redone by new faculty member. Split class.

**MUT 5XXX** CAH-Music 3(3,0) **Tabled. Needs more rigor for grad course.**

**Analysis of Twentieth Century Music:** PR: Graduate Standing in Music or C.I. Analysis of music in a selection of the different styles practiced in the 20th century, with an emphasis on Western art music.*Fall.*  
30 character abbreviation: **Analysis Twentieth C. Music**

Tabled – syllabus to be redone by new faculty member. Split class.

**MUT 5XXX** CAH-Music 3(3,0) **Tabled. Needs more rigor for grad course.**

**Counterpoint:** PR: Graduate standing in Music or C.I. Principles of counterpoint and the study of contrapuntal styles in Western music from the 16th century to the present day.*Even Spring.*  
30 character abbreviation: **Counterpoint**

Tabled - These are split classes.

**All Theatre classes approved w/changes.**

**THE 5XXX** CAH-Theatre 3(3,0)

**Cultural Diversity in Theatre:** PR: Admission into the MFA/MA Theatre programs or C.I. Commonality of human experience among various groups through the study of dramatic literature.*Occasional.*

30 character abbreviation: **Cultural Diversity in Theatre**

*AGENDA NOTES: Special Topic also being proposed.*

**THE 5XXX** CAH-Theatre 3(3,0)

**Global Theatre:** PR: Admission into the MFA/MA Theatre programs or C.I. Theatrical arts and traditions of various countries with an emphasis on non-western countries.*Occasional.*

30 character abbreviation: **Global Theatre**

*AGENDA NOTES: Special Topic also being proposed.*

**THE 5XXX** CAH-Theatre 3(3,0)

**Theatre for Social Change:** PR: Admission into the MFA/MA Theatre programs or C.I. Theatre activists' impact on theatrical art forms.*Occasional.*

30 character abbreviation: **Theatre for Social Change**

*AGENDA NOTES: Special Topic also being proposed.*

**THE 5XXX** CAH-Theatre 3(3,0)

**Women in Theatre:** PR: Admission into the MFA/MA Theatre programs or C.I. An overview of women's contributions to theatre.*Occasional.*

30 character abbreviation: **Women in Theatre**  
*AGENDA NOTES: Special Topic also being proposed.*

### **College of Nursing Course Action Additions**

**NGR 5XXX          CON-Nursing 3(3,0)**

**Advanced Health Assessment and Diagnostic Reasoning Concepts:** PR: Admission to the MSN or DNP Program; NGR 5003L and NGR 5141 or CI. Concepts and skills of advanced health assessment over the lifespan ; Application of the diagnostic reasoning process through differential diagnoses.*Spring.*

30 character abbreviation: **Adv Hlth Assess & Diagnos Reas**

**NGR 5XXX          CON-Nursing 3(3,0)**

**Legal and Professional Behavior in Advanced Practice Nursing:** PR: Graduate Standing and Admission to the Graduate MSN or DNP Program. Examination of legal, ethical, cultural, and political issues related to professional advanced practice nursing.*Fall, Spring.*

30 character abbreviation: **Legal & Prof Behav Adv Pr Nurs**

**NGR 6XXX          CON-Nursing 3(3,0)**

**Adult CNS I:** PR: Admission to the DNP program, Adult CNS track; completion of NGR 5XXX (Advanced Health Assessment and Diagnostic Reasoning Concepts), NGR 5003L, NGR 5141, NGR 5720, or CI. Clinical nurse specialist (CNS foundation. Common problems relevant to adult acute care. CNS competencies of direct care, coaching, and ethical decision making.*Spring.*

30 character abbreviation: **Adult CNS I**

**NGR 6XXX          CON-Nursing 3(3,0)**

**Adult CNS II:** PR: NGR 6XXXC/L Adult CNS Im NGR ^XXX Gerontologic Care for Advanced Practice Nurse, NGR 6XXXL Gerontologic Care Clinical for CNS; C.I. Continuation of Adult CNS I. Management of acute and/or complex patients. CNS competencies of collaboration, consultation, systems leadership, and research.*Fall.*

30 character abbreviation: **Adult CNS II**

**NGR 6XXX          CON-Nursing 2(2,0)**

**Gender Related Primary Care:** PR: Admission to the DNP program, FNP or ANP track; completion of NGR 5XXX (Advanced Health Assessment and Diagnostic Reasoning Concepts); NGR 5003L, NGR 5141 or C.I. Development of theoretical skills for evaluation, diagnosis, and management of the gender related health needs of men and women.*Fall.*

30 character abbreviation: **Gender Related Primary Care**

**NGR 6XXX          CON-Nursing 3(3,0)**

**Gerontologic Care for APNs:** PR: Admission to the DNP program, CNS, FNP or ANP track; completion of NGR 5XXX (Advanced Health Assessment and Diagnostic Reasoning Concepts), NGR 5003L, NGR 5141, C.I. Development of the theoretical skills for evaluation, diagnosis and management of the health needs of older adults and communities.*Occasional.*

30 character abbreviation: **Gerontologic Care for APNs**

**NGR 6XXX          CON-Nursing 3(3,0)**

**Pediatric Primary Care:** PR: Admission to the DNP program, FNP or ANP track; completion of NGR 5XXX (Advanced Health Assessment and Diagnostic Reasoning Concepts), NGR 5003L, NGR 5141 or C.I. Development of theoretical skills for evaluation, diagnosis, and management of the primary care needs of children and their families, including common normal and abnormal variations in physical, cognitive, and psychological development.*Spring.*  
30 character abbreviation: **Pediatric Primary Care**

**NGR 6XXXL CON-Nursing 2(0,2)**

**Adult CNS I Clinical:** PR: NGR 6XXX Adult CNS I. Development of multi-faceted CNS role. Emphasis on clinical expert, coaching, and ethical decision-making competencies of the CNS.*Spring.*  
30 character abbreviation: **Adult CNS I Clinical**

**NGR 6XXXL CON-Nursing 2(0,2)**

**Adult CNS II Clinical:** PR: NGR 6XXX Adult CNS I, NGR 6XXX Adult CNS I Clinical; NGR 6XXX Gerontologic Care for Advanced Practice Nurses; NGR 6XXX Gerontologic Care Clinical for CNS. Continued development of the CNS role. Emphasis on direct care, collaboration, consultation, systems leadership, and research.*Fall.*  
30 character abbreviation: **Adult CNS II Clinical**

**NGR 6XXXL CON-Nursing 2(0,2)**

**Gerontologic Care Clinical for CNS:** PR: NGR 6XXXC/L Adult CNS I. Development of CNS skills in management of an elderly population with acute and chronic conditions.*Occasional.*  
30 character abbreviation: **Gerontologic Care Clin for CNS**

**NGR 6XXXL CON-Nursing 2(0,2)**

**Gerontologic Care Clinical for NPs:** PR: NGR 6XXX Gerontologic Care for APNs. Development of clinical skills for evaluation, diagnosis, and management of the gerontologic health care needs common normal and abnormal variations in physical, cognitive, and psychologic states.*Occasional.*  
30 character abbreviation: **Gerontologic Care Clin for NPs**

**NGR 6XXXL CON-Nursing 2(0,2)**

**Pediatric Primary Care Clinical:** PR: NGR 6XXX Pediatric Primary Care. Development of clinical skills for evaluation, diagnosis, and management of the primary care needs of children and their families, including common normal and abnormal variations in physical, cognitive, and psychological development.*Spring.*  
30 character abbreviation: **Pediatric Primary Care Clin**

**NGR 7XXX CON-Nursing 3(3,0)**

**Concepts, Measurement, and Data Management:** PR: Admission to DNP Program, NGR 6813 or equivalent, CI. Identification, analysis, and measurement of concepts; analysis and management of clinical data.*Spring.*  
30 character abbreviation: **Concepts Measur & Data Mgmt**

### **College of Education Course Action Additions**

**EDF 7XXX ED-Ed Research, Tech & Lead 3(3,0)**

**Quantitative Research Synthesis:** PR: Equivalent to EDF 6481 and EDF 7403. This course addresses the problem of the accumulation of evidence in scientific research through the use of quantitative methods for research synthesis and meta-analysis.*Spring.*

30 character abbreviation: **Quant Research Synthesis**

**EME 6XXX**      **ED-Ed Research, Tech & Lead**      **3(3,0)**

**Instructional Development and Evaluation:** PR: EME 6613 Instructional Systems. The course addresses basic instructional development skills and formative and summative evaluation methods for training in business and industry with application to training educational settings.*Spring.*

30 character abbreviation: **Instl Development & Evaluat**

*AGENDA NOTES: Special Topic also being proposed.*

**RED 5XXX**      **ED-Teaching & Learning Princ**      **3(3,0)**

**Practicum in Reading Assessment and Instruction:** PR: RED 5517. Practicum that requires application of reading assessment and instruction in order to increase reading proficiency of struggling readers. Concurrent K-12 field experiences required.*Fall, Spring.*

30 character abbreviation: **Pract in Reading Assess & Inst**

### **Health & Public Affairs Course Action Additions**

**IDS 7\_\_**      **HPA-Commun Sci & Disorders**      **3(3,0)**

**Professional Collaboration Around Language Issues:** PR: Admission to Education Ph.D. program or C.I. Interdisciplinary approach to exploring issues in language and literacy for struggling children and adolescents and development of collaboration competencies in professionals from different disciplines.*Odd Fall.*

30 character abbreviation: **Prof Collab Language Issue**

### **College of Sciences Course Action Deletions**

**BOT 5485C**      **COS-Biology 3(2,3)**

**Terrestrial Cryptogams:** PR: BOT 4303C, graduate status or senior standing, or C.I. A lecture-laboratory survey course on the biodiversity and classification of terrestrial-cryptogams (bryophytes, ferns, and fern allies) with special emphasis on those found in Florida.*Occasional.*

Materials & Supply Fee: \$15.00

**BSC 5817**      **COS-Biology 3(3,0)**

**Biology for AP Teachers:** PR: Graduate status or senior standing or C.I. Participants will perform and evaluate the 12 required labs, analyze the design and grading of the exam, and develop a representative program.*Occasional.*

### **College of Education Course Action Deletions**

**EME 5057**      **ED-Ed Research, Tech & Lead**      **3(3,0)**



**Communication for Instructional Systems—Application:** Applications of technology, communications theory, platform skills, and instructional design to the effective presentation of training programs and instruction. *Occasional.*

### **College of Sciences Course Action Revisions**

**BOT 6623C Plant Ecology 4(3,3)**

~~PR: PCB 3044, and graduate standing or C.I.~~ PR: Admission to the MS 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.

Materials & Supply Fee: \$15.00

**BSC 5258L Tropical Biology Research and Conservation 3(0,3)**

~~PR: Graduate standing or C.I.~~ PR: Admission to the MS 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.

**BSC 5821 Biogeography 4(4,0)**

~~PR: Graduate standing or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Study of geographic variation in nature, ranging from past to present and from genes to ecosystems.

Materials & Supply Fee: \$15.00

**ENY 5006C Entomology 4(2,6)**

~~PR: BSC 2010C and BSC 2011C and graduate standing or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Morphology, physiology, ontogeny, behavior, ecology and population biology of insects.

Materials & Supply Fee: \$40.00

**PAZ 5235 Zoo and Aquarium Biology Management 3(3,0)**

~~PR: Successful completion of PCB 3044 and PCB 3063 and C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Conservation, propagation and exhibition of wild animals in captivity.

**PCB 5045 Conservation Biology 4(4,0)**

~~PR: PCB 3044 and PCB 3063 or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Scientific basis of conservation; conservation of ecosystems, populations, exploited species, and endangered species.

Materials & Supply Fee: \$15.00

**PCB 5326C Ecosystems of Florida 5(3,2)**

~~PR: PCB 3044, PCB 3044L or equivalent, and graduate status or senior standing or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Ecosystems of Florida will be discussed to include geography, geology, climate, energetics, nutrient cycling, community structure and conservation.

Materials & Supply Fee: \$15.00

**PCB 5435C Marine Ecology of Florida 4(2,6)**

~~PR: BSC 4312C, graduate status or senior standing, or C.I.~~ PR: Admission to the MS 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.

Materials & Supply Fee: \$45.00

**PCB 5665C Human Genetics 4(3,2)**

~~PR: PCB 3063, graduate status or senior standing, or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Human Genetics provides a theoretical framework for understanding the biology of the human species.

Materials & Supply Fee: \$15.00

**PCB 6035C Wetland Ecology 4(3,3)**

~~PR: PCB 3044 or equivalent, graduate standing, or C.I.~~ PR: Admission to the MS 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.

**PCB 6040 Methods of Data Collection and Analysis in Behavioral Ecology 1(1,0)**

~~PR: Graduate standing and STA 5175 or STA 5176.~~ PR: Admission to the MS 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.

**PCB 6046C Advanced Ecology 5(3,4)**

~~PR: Ecology, statistics and two years of biological science.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Population and community ecology with emphasis on growth, regulation, species interactions, succession, and community classification.

Materials & Supply Fee: \$15.00

**PCB 6047 Advances in Plant Ecological Research 1(1,0)**

~~PR: Graduate standing or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Current methodological and conceptual developments in plant ecological research. Examination of newly published and on-going research through presentations and group discussions. Graded S/U. May be used in the degree program a maximum of 2 times.

**PCB 6048C Restoration Ecology 4(2,4)**

~~PR: PCB 3044, BSC 4312C, and graduate standing or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Survey of the general ecological principles that guide restoration ecology: the process of assisting the recovery of degraded, damaged or destroyed ecosystems.

Materials & Supply Fee: \$45.00

**PCB 6095 Professional Development in Biology I 1(1,0)**

~~PR: M.S. Biology student.~~ PR: Admission to the MS Biology or Certificate in Conservation Biology, or C.I.

Methods in experimental design, research, and the ethics of animal research. Graded S/U.

**PCB 6096 Professional Development in Biology II 1(1,0)**

~~PR: PCB 6095.~~ PR: Admission to the MS Biology or Certificate in Conservation Biology, or C.I.

Preparation and presentation of research grants, scientific presentations, and scientific papers. Graded S/U.

**PCB 6107C Advanced Cell Biology 4(3,2)**

~~PR: PCB 3063 and PCB 3023, and graduate standing, or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Review of selected topics in cell biology with emphasis on current research in areas of membrane structure, protein targeting, cytoskeleton, signalling and cell cycle.

Materials & Supply Fee: \$15.00

**PCB 6108 Concepts in Plant Cell Biology 4(4,0)**

~~PR: Graduate standing or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Survey of current topics in plant cell biology, including cytoskeletal dynamics, cell signaling, cell cycle regulation, protein targeting and organelle structure and function.

**PCB 6256C Advanced Developmental Biology 4(3,2)**

~~PR: PCB 3063, and ZOO 4603C or equivalent, and graduate standing, or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Lecture and literature review of emerging areas in plant and animal developmental biology.

Materials & Supply Fee: \$15.00

**PCB 6328C Landscape Ecology 4(3,2)**

~~PR: PCB 3044 and STA 2023, and graduate standing or C.I.~~ PR: Admission to the MS 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.

Materials & Supply Fee: \$15.00

**PCB 6365 Environmental Physiology 3(3,0)**

~~PR: Physiology and Ecology or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

The effects of major environmental factors on the physiology of plants and animals.

Materials & Supply Fee: \$15.00

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

~~PR: Graduate standing and ecology or evolution course.~~ PR: Admission to the MS 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.

**PCB 6466      Methods in Experimental Ecology      3(3,0)**

~~PR: STA 5175 and STA 4173, and graduate standing, or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

An introduction to methods of population ecology. Experimental design, statistics, experimental variables and treatments and measurements of organisms and the environment.

**PCB 6480C    Quantitative Conservation Biology      4(3,2)**

~~PR: MAC 2311, PCB 3044, STA 2014C, and graduate standing, or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Current methods of data analysis and modeling to evaluate biological population dynamics. May be used in the degree program a maximum of 2 times.

**PCB 6556      Conservation Genetics      3(3,0)**

~~PR: PCB 3063 and PCB 4683, and graduate standing or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Applications of genetic models to the understanding and conservation of animal and plant populations.

Materials & Supply Fee: \$15.00

**PCB 6585C    Advanced Genetics      4(3,2)**

~~PR: Graduate standing and PCB 3063 or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Recent advances in genetics, stressing molecular and developmental trends.

Materials & Supply Fee: \$15.00

**PCB 6675C    Evolutionary Biology      4(3,2)**

~~PR: PCB 3044 and PCB 3063 or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Review of modern concepts and theories in evolutionary biology with emphasis on readings in the primary literature.

Materials & Supply Fee: \$15.00

**PCB 6677      Molecular Evolution      3(3,0)**

~~PR: PCB 3063 and PCB 4683, and graduate standing, or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Provides an overview of molecular methods currently used to analyze diversity within and among species.

**PCB 6727      Comparative Animal Physiology      3(3,0)**

~~PR: An undergraduate course in animal physiology or equivalent.~~ PR: Admission to the MS Biology, Ph.D. 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.

Materials & Supply Fee: \$15.00

**PCB 6936 Current Research in Marine Vertebrate Ecology 1(1,0)**

~~PR: Graduate standing.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, and C.I.

Current research in the area of marine vertebrate ecology : readings, presentations and discussions. Graded S/U. May be used in the degree program a maximum of 5 times.

**PCB 7047 Conservation Biology Theory 4(4,0)**

~~PR: One graduate level course in Ecology or closely related field (i.e. environmental science) and C.I.~~ PR: Admission to the Ph.D. in Conservation Biology or C.I.

Review and analysis of the literature of conservation biology.

**PCB 7052 Seminar in Conservation Biology 1(1,0)**

~~PR: Admission to PhD~~ PR: Admission to the Ph.D. in Conservation Biology, Biology or C.I.

Discussions and presentations addressing the history and development of the field of Conservation Biology and its relevance to modern society. Graded S/U. May be used in the degree program a maximum of 3 times.

**PCB 7090 Advanced Research Communication I 1(1,0)**

~~PR: Admission to the PhD program~~ PR: Admission to the Ph.D. in Conservation Biology, Biology or C.I.

Philosophy and history of science, scientific ethics, scientific design, and presentation of scientific findings as related to conservation biology. Graded S/U.

**PCB 7091 Advanced Research Communications II 1(1,0)**

~~PR: PCB 7090.~~ PR: Admission to the Ph.D. in Conservation Biology or C.I.

Advanced skills for critically evaluating science to prepare and present research grants in the biological sciences. Graded S/U.

**ZOO 5456C Ichthyology 4(2,6)**

~~PR: ZOO 4310C, and graduate status or senior standing or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Introduction to the biology of the fishes, their classification, evolution, and life histories.

Materials & Supply Fee: \$25.00

**ZOO 5463C Herpetology 4(2,4)**

~~PR: PCB 3044 or PCB 4683 or equivalent.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.

Introduction to the biology of the amphibians and reptiles, their classification, evolution, and life histories.

Materials & Supply Fee: \$15.00

**ZOO 5475L Field Ornithology 3(0,6)**  
~~PR: PCB 3044 and graduate standing or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.  
Introduction to the identification, taxonomy, natural history, and biology of birds, with emphasis on survey techniques and systematics.  
Materials & Supply Fee: \$30.00

**ZOO 6520 Behavioral Ecology 3(3,0)**  
~~PR: Graduate standing or C.I.~~ PR: Admission to the MS Biology, Ph.D. in Conservation Biology, or Certificate in Conservation Biology, or C.I.  
Introduction to the field of Behavioral Ecology, which studies evolution of animal behavior in the wild.

**College of Education Course Action Revisions**

**EME 6613 Instructional System Design 3(3,0)**  
PR: Graduate standing or C.I.  
~~Systematic design of instruction including task analysis, learner analysis, needs assessment, content analysis, specification of objectives, media selection, evaluation and revision. Analysis of ID models.~~  
This course focuses on the systematic analysis and design of instruction, including task, learner, and context analyses, objectives and learner assessments, media selection, flowcharting and storyboarding.

**MAE 5318 Current Methods in Elementary School Mathematics 3(3,0)**  
**MAE 6XXX**  
~~PR: EDG 4323. PR: EDE 6933 or C.I.~~  
~~Strategies of instruction of computation and concepts of number, geometry, and measurement; instructional materials. (Meets Elementary Education certification requirements.)~~  
Strategies of instruction of computation and concepts of number, geometry, and measurement; and algebra. Standards for teaching mathematics.

**RED 6116 Trends in Reading Education- 3(3,0)**  
**Advanced Study in Foundations of Reading**  
~~PR: Basic Teacher Certificate PR: RED 5147 or C.I.~~  
~~Analysis of historical development and current trends; management systems; instructional strategies and investigation of research.~~  
Historical development and current research-based practice related to language and cognitive foundations of reading components: phonemic awareness, phonics, vocabulary, fluency, comprehension, investigation of research.  
30 character abbreviation: **Adv Study Founds Reading**

**SCE 5315 Methods in Elementary School Science 3(3,0)**  
**SCE 6XXX**  
~~PR: EDG 4323. PR: EDE 6933 or C.I.~~  
Organization of instruction in elementary school science including methods, evaluation, materials, strategies, and current practices.  
Materials & Supply Fee addition proposed: \$0.00

~~SSE 5115~~      **Methods in Elementary School Social Science 3(3,0)**

**SSE 6XXX**

~~PR: EDG 4323.~~

Study of instructional programs in social sciences; objectives; materials; techniques; current research; and their application in elementary school setting.