Graduate Council Agenda
Meeting Wednesday, March 14, 2018
EHFA, room 164 @ 11:45 am

Old Business
1. Approve minutes from February 7, 2018
2. ACAD-SENA 111

New Business
1. Course changes:
   a. Current course description:
      EDLL 621 - Developing Literacy Teacher-Leaders Within School Communities
      (3 credits) (Prereq: EDLL 620, Teacher certification PK-12) Course participants explore how literacy leaders integrate essential elements of curriculum, instruction, assessment, and on-going staff development to develop research-based literacy programs. Major topics include theoretical principles and practices for staff development, mentoring/coaching, and evolving roles/responsibilities for literacy teacher-leaders. F, SU, On Demand

      Proposed catalog description:
      EDLL 621 - Developing Literacy Teacher-Leaders Within School Communities
      (3 credits) (Teacher certification PK-12) Course participants explore how literacy leaders integrate essential elements of curriculum, instruction, assessment, and on-going staff development to develop research-based literacy programs. Major topics include theoretical principles and practices for staff development, mentoring/coaching, and evolving roles/responsibilities for literacy teacher-leaders. F, SU, On Demand

2. Proposal for new graduate courses:
   a. CMSS 550 Introduction to renewable energy (3) (Prereq: MATH 161, PHYS 211) The course introduces the concept of renewable energy. It covers fundamental aspects of thermodynamics and physics. Topics include hydro-kinetic, aero- and hydro-propulsion and solar with emphasis on the principles of operation, efficiency, environmental impact and performance. S Justification: Renewable energy systems are one of the growing technologies as resources are limited. The course will introduce basic principles in energy systems and enhance the CMSS curriculum by providing a course that covers all topics of science from a system approach. The course has been taught during Spring 2016. A total of 18 students participated.

   b. EDSP 645 Literacy Instruction for English Learners and Students with High Incidence Disabilities (3).
      This course prepares candidates in the area of reading development and effective instructional methodologies specific to students with disabilities and students who are English learners with an emphasis on reading practices as they relate to individual learners, readiness activities, phonemic awareness and decoding skills, phonics, fluency, vocabulary development, and comprehension. Su Justification: This course was successfully taught in Summer 2017. This proposal will make it a required course in the M.Ed program for Special Education. The state of South Carolina added one additional course requirement to the add-on licensure areas of Specific Learning Disabilities, Emotional Disabilities, and Intellectual Disabilities. The required course content from the state is Teaching Reading in General and Special Education. This course was approved to cover this requirement.

   c. CMWS 500 Essential quantitative skills for coastal and marine sciences (3) The course enhances the graduate students' capabilities and skills of applying the basic mathematics and quantitative knowledge they learned in the undergraduate courses to the graduate study and research in coastal and marine sciences, in the following areas: algebra equations, logarithms and exponential functions, basic statistics methods, trigonometry, vectors, differentiation, integration and complex numbers. Real-world application examples and hands-on exercises will be the primary methods of teaching in this course. F Justification: The Master and PhD programs in the department of coastal and marine systems science emphasis on the studies of complex coastal processes which requires that the students have substantial quantitative analysis skills. It is
observed that for some students in the programs, although they have learned some basic mathematical knowledge in undergraduate course, their lack of the above mentioned quantitative skills to apply that knowledge to actual research has adverse impacts on their study. Therefore, it is important to develop such a course to help these student enhance their mathematical skills to apply mathematical knowledge to real-world research activities.

d. CMWS 621 Interpreting Science for Non-Scientists: Strategies, Tools and Careers (3) Scientists often need to interpret what they do for a largely non-science literate public. This course provides tools and best practices. Students meet regional scientists who are successful at this, gain practical experience, and explore careers. On demand. Justification: It is vitally important that modern scientists be able to interpret the significance of what they do to a largely non-science literate public, including citizens, school groups, government officials, etc. In some cases, citizen science (i.e., the engagement of the public in scientific research) is helpful for increasing their understanding of and interest in science. Scientists also need to be able to determine whether their communication is successful. This course provides the tools and research on best practices for interpreting science and assessing your efforts. Students will meet regional scientists who are successful at this and explore career options. They will also get practical experience interpreting science for the public.

One of the findings of the NSF GK-12 program nationally was that giving science graduate students experience talking to lay people and younger students about their research significantly improved their confidence in doing this, and both they and their advisors noted this as perhaps the most important thing they gained from participating in the program. In addition, there are numerous entry-level job opportunities related to informal science communication around the nation. Having our students observe and experience various types of informal science education campaigns and citizen science programs, and providing them the skills and practice to build these themselves, will broaden their employment options and confidence in communication.

In addition to our own expertise with formal and informal science education, regionally we have many programs designed to interpret science for the public, and we plan to introduce our students to those programs and people. We’ve listed a number of these in our proposed course schedule.

e. CMWS 616 Water Quality Testing for Coastal Marine Scientists(3) (Prereq: Consent of Instructor) a practical introduction to the principles of water quality testing as applied to coastal marine and wetland environments. Students will learn how and why water testing is done. They will learn four test methods and document their proficiency through an initial demonstration of capability suitable for inclusion on a resume. Test methods will be selected to match students’ interests. The theory of instrumental analysis will be covered along with quantitative analysis techniques. Other related subjects include how to estimate the uncertainty of measurements and how to perform statistics on censored data. F.S. Justification: Provides additional upper-level electives for CMWS masters students, especially for the non-thesis track. Students who successfully complete this course would be eligible for a paid internship in the EQL. Funding for the internships provided by external grants and contracts.

3. Proposal for minor changes/removal of multiple graduate courses within same program:
   a. CMSS 609 Issues and Applications Seminar: Change grading from A-F to S-U
   b. CMSS 609 Issues and Applications Seminar: Remove prerequisite of CMSS 608

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