Minutes of the CSM Senate Meeting
Held on March 11, 2013, Monday
2.30 – 4.00 P.M. at Dean’s Conference room

Members in attendance:
Catalin Zara, Mathematics, Chair
Chandra Yelleswarapu, Physics, Secretary
Bob Wilson, Computer Science
Juanita Urban-Rich, EEOS
Robert Stevenson, Biology
Marietta Schwartz, Associate Dean, CSM – representing the Chemistry Department

Members absent:
Michelle Foster, Chemistry
Manickam Sugumaran, Biology

Others in attendance:
Andrew Grosovsky, Dean, CSM
Crystal Schaaf, EEOS, for part of the meeting, to discuss about EEOS matters.
Martin Hellwig, CS, for part of the meeting, to discuss about IT matters.

Meeting was called to order at 2:40 pm.

Approval of the minutes of February 11th 2013 meeting: The CSM Senate members approved the minutes unanimously.

Updates on previous actions:
• MATH 380 has been approved by the Provost office.
• EEOS 611 has been approved by the Provost office.
• CHEM Capstone change has been approved by MHSP.
• CHEM AP Policy change has been approved by MHSP.
• PreMed Program changes have been approved by MHSP with minor corrections.

A proposal to modify the order of items on the agenda has been approved.

3.f Degree name changes: EEOS BS, BA, and minor degrees
Motion: To pre-approve the following degree name changes:
   A. Change BS degree name from Environmental, Earth and Ocean Sciences to Environmental Science
   B. Change BA degree name from Environmental, Earth and Oceans Sciences (in WISER listed as Earth and Geographic Science despite 2009 name change request) to Environmental Science
   C. Change minor name from Environmental, Earth and Ocean Sciences to Environmental Science
Rationale - Aligning degree names across the undergraduate and graduate programs offered through the new School for the Environment requires renaming of undergraduate degree programs effective Fall 2013. This change reflects the goals and mission of the School for the Environment and supports the alignment of programs offered through the School from undergraduate to graduate.

The proposed changes of degree names have been pre-approved unanimously by the CSM Senate. They will be sent to the MHSP Committee.

3.g Changes in degree requirements: EEOS, Changes in BS and BA major
Motion: To pre-approve the following degree changes:

A. BA degree: The proposed change is the addition of BIOL 290 as an option for a 200-level natural science elective and the addition of one more 300+ level elective.
B. BS degree: The proposed change is the addition of BIOL 290 as an option for a 200-level natural science elective, the addition of one more 300+ level elective, and the addition of Physics Laboratory I & II (PHYSIC 181, PHYSIC 182).
C. Changes with respect to Pass/Fail: "Courses taken Pass/Fail may not be used to satisfy requirements toward either BA, BS, or Minor in Environmental Science, except in cases when they were taken prior to the time the student declared the minor/major."

Rationale: To ensure that all EEOS/Environmental Science BS or BA students achieve competency in their field, the School for the Environment requests the addition of one more 300-level elective from courses offered within or outside of the major, the latter approved by their advisor and by the head of the School for the Environment. To ensure students can take courses in Biology, BIOL 290 has been added as a 200-level natural science requirement selection.

The proposed changes in degree requirements have been pre-approved unanimously by the CSM Senate. They will be sent to the MHSP Committee.

3.h New degree tracks: EEOS, new tracks in BS and BA degrees
Motion: To pre-approve the following degree tracks for EEOS BS and BA degrees.

A. Environmental Policy and Management (EPM)
B. Geospatial Analysis and Modeling for the Environment (GAME)
C. Earth and Hydrologic Sciences (EHS)
D. Marine Science (MS)

Rationale: Informal tracks within the EEOS BS and BA programs have been in place since 2010. With the renaming of the degree programs and the restructuration of the EEOS department into the School for the Environment, the formalization of the degree tracks within the BA and BS degrees is requested. These tracks are elective tracks for majors. Majors are not required to declare a track but strongly encouraged to do so.
The CSM Senate acknowledges that the tracks will enable faculty members in advising students more effectively. However the members recommended the addition of a default general track, to accommodate students who do not wish to pick either track. The proposed tracks have been conditionally pre-approved, pending the implementation of the requested change.

3.i Degree addition: EEOS Department and Environmental Studies Program
Motion: To pre-approve the new Environmental Geospatial Analysis and Modeling Minor

Rationale: In order to provide students with an Environmental Geospatial Analysis and Modeling perspective and to acknowledge the cross disciplinary emphasis on geospatial data, analysis and modeling, the School for the Environment, in partnership with the Environmental Studies Program, proposes an “Environmental Geospatial Analysis and Modeling” Minor.

The proposed new minor degree has been approved unanimously by the CSM Senate. It will be sent to the MHSP Committee.

3.d Course change: IT 110: Information Technology Problem Solving
Motion: To pre-approve changes in pre-requisites and in the course description for IT 110: Information Technology Problem Solving

Rationale: The current pre-requisite is Precalculus (Math 129 or Math 130). This course does not cover any topics for which previous knowledge of precalculus is necessary. At the same time, sequencing requirements have proven to have a rather negative influence on students’ careers. The adverse effect paired with lack of sufficient benefit makes waiving the requirement necessary. Basic Math Skills (MTHSKL 097) is considered to be the appropriate level of required math.

The CSM Senate considered that a non-credit-bearing course should not be used as a pre-requisite for a degree course and recommended changing the pre-requisite to “Placement into Math 115 or higher.” When the CSM Senate recommendation is implemented, the pre-requisite change will be pre-approved and sent to AAC.

3.e New Degree Tracks: CS – Information Technology degree
Motion: To pre-approve the Business Intelligence and the Computer Forensics new tracks in the IT – BS degree.

Rationale: The College of Management (CM) proposed the addition of two new track choices – “Business Intelligence” and “Computer Forensics” – in the Information Technology degree. Both tracks have been approved and implemented by CM. The Department of Computer Science has studied and approved these proposals and requests that the CSM officially recognize the two new tracks and permit any CSM student enrolled in the B.S. in Information Technology degree to select any of the tracks offered by CM.
The proposed new degree tracks in the IT BS program have been approved unanimously by the CSM Senate. Since these tracks have already been approved by the College of Management, the proposal to approve them in the College of Science and Mathematics will be sent to the Provost’s Office.

3.a Course addition: CS 449: Introduction to Computer Security
Motion: To pre-approve the new course CS 449: Introduction to Computer Security

Rationale: The course addresses the pressing need for a computer security course in the CS department. Currently, there are no existing security courses offered, although cybersecurity is an essential aspect of computing today, widely recognized as a topmost priority by industry actors, as well as federal and state governments. CS449 will be an important addition to the CS curriculum, which currently does not include any undergraduate course focused on security. This course will be listed as a Computer Science elective course.

The proposed new course has been pre-approved unanimously by the Senate. It will be sent to the Academic Affairs Committee.

3.b Course change: EEOS 260: Global Environmental Change
Motion: To pre-approve changes in course description and pre-requisites for EEOS 260 Global Environmental Change

Rationale: EEOS 260 satisfies a 200-level requirement for the EEOS BA and BS degrees. To provide the rigor in this course necessary for the EEOS majors, students must enter with at least some background in the natural sciences, which may be fulfilled by introductory EEOS or BIOL courses. All other EEOS 200-level courses that meet the same requirement have EEOS120 as a prerequisite. A minor change was also made to the course description to acknowledge the addition of material related to Earth’s History.

The proposed change of pre-requisite for EEOS 260 has been pre-approved unanimously by the Senate. It will be sent to the AAC.

3.c Course addition: EEOS/CHEM 662: Applied Chemometrics
Motion: To approve new course EEOS/CHEM 662: Applied Chemometrics, cross-listed.

Rationale: The course is designed for students with a need for exploratory data analysis, development of predictive models such as analytical instrument calibrations, models, multivariate statistical hypothesis testing, error/fault detection and sample classification. Graduate students and advanced undergraduate students, in analytical sciences such as chemistry and environmental science, need to be able to analyze their own laboratory or process data, develop their own data models or design methods or instruments that produce analytical data.
Senate comments: i) Since it is a cross-listed course, it should be labeled as EEOS/CHEM 662L. ii) Both Gen Chem and Analytical Chem are listed as pre-requisites for this course. But Gen Chem is already a pre-requisite for Analytical Chem. The Senate suggests dropping Gen. Chem as pre-requisite.

The proposed new course has been approved unanimously pending the implementation of the CSM Senate recommendations. Once the revised proposal is received, it will be sent to the Graduate Affairs Committee of the Faculty Council.

3.j Course addition: BIOL 629: Host-Microbe Interactions
Motion: To approve new course BIOL 629: Host-Microbe Interactions

Rationale: This proposed course covers an area of biology not offered by the current curriculum, complements the existing molecular and genetics offerings in the graduate curriculum, and will also be of interest to graduate students studying evolution and ecology. This is a course within the Biology Department curriculum for graduate students that examine the genetic and molecular processes that underlie symbiotic microbe-host associations from the perspective of both partners. It is becoming apparent that these interactions have a significant impact on human health and the environment. Therefore, it has become important for students to develop an understanding of how these interactions are established and maintained, as well as how they can be studied in the laboratory. Because this is an area of active research, the course will be updated each year and will remain relevant for many years to come. Students read primary literature and current review articles, and these readings serve as discussion topics during the class period.

Senate comments: In the listed pre-requisite courses, the 200-level courses are pre-requisites for 300-level courses. So listing 200-level courses as pre-requisite appears to be redundant.

The new course has been approved unanimously by the CSM Senate, pending the implementation of the recommended changes in the pre-requisites. Once the revised request is received, it will be sent to the Faculty Council Graduate Affairs Committee.

3.k Course addition: BIOL 631: Microbial Genome Evolution
Motion: To approve new course BIOL 631: Microbial Genome Evolution

Rationale: This proposed course covers an area of biology not offered by the current curriculum, complements the existing molecular and genetics offerings in the graduate curriculum, and will also be of interest to graduate students studying evolution and ecology. This is a course within the Biology Department curriculum for graduate students that examine the genetics of microbial genome evolution, which is a rapidly evolving field that incorporates classical genetics and the new
disciplines of bioinformatics and systems biology. Because this is an area of active research, the course will be updated each year and will remain relevant for many years to come. Students read primary literature and current review articles, and these readings serve as discussion topics during the class period.

Senate comments: In the listed pre-requisite courses, the 200-level courses are pre-requisites for 300-level courses. So listing 200-level courses as pre-requisite appears to be redundant.

The new course has been approved unanimously by the CSM Senate, pending the implementation of the recommended changes in the pre-requisites. When the revised request is received, it will be sent to the Graduate Affairs Committee of the Faculty Council

3.I Course addition: EEOS/BIOL 665: Ecological Risk Assessment

Motion: To approve new course EEOS/BIOL 665: Ecological Risk Assessment cross-listed.

Rationale: This course will be practical in nature providing students with training in conductions ERAs. Because the Environmental Sciences M.S., Ph.D., and PM.S. Programs, and Biology M.S., and Environmental Biology Ph.D. programs specialize in training students for careers in the environmental sciences, it is important to provide a course in ERA. This course will be especially helpful for students wanting to pursue a career in environmental consulting or working for a government agency. Essentially, students should be able to independently conduct an ERA after the completion of the course, which will be impressive to potential employers. In addition, because many environmental policy decisions are based on ERAs, this course will provide our students will the ability to read and interpret the results of these assessments.

Senate comments/recommendations: Since it is a cross-listed course, it should be designated as EEOS/BIOL 665L.

The new course has been approved unanimously, pending the implementation of the recommended changes. When the revised request is received, it will be sent to the Graduate Affairs Committee of the Faculty Council.

4. Dean’s announcements:

The School of Environment is approved. This is the first school within a college that has been proposed and approved university wide.

5. Other business: None.

The meeting was adjourned at 4.00 pm.