Minutes of the CSM Senate Meeting
Held on November 19, 2012, Monday
2.30 – 4.00 P.M. at Dean’s Conference room

Members in attendance:
Catalin Zara, Mathematics, Chair
Chandra Yelleswarapu, Physics, Secretary
Robert Stevenson, Biology
Bob Wilson, Computer Science
Juanita Urban-Rich, EEOS
Michelle Foster, Chemistry

Members absent:
Manickam Sugumaran, Biology

Others in attendance:
Andrew Grosovsky, Dean, CSM
William Hagar, Associate Dean, CSM
Marietta Schwartz, Associate Dean, CSM
Eric Grinberg, Math for part of the meeting to discuss about the Math courses.

Meeting was called to order at 2:35 pm.

1. Approval of the minutes of September 17th 2012 meeting: The CSM Senate members approved the minutes unanimously.

2. Updates on previous actions:

The CSM Senate through email voting in October 2012 has unanimously approved the following courses:

1. **Intr-D 480**
   *Course Title:* Special Topics
   *Course Description:* Variable credit Special Topics course intended for one-time-only course trials and similar offerings.

   **Rationale for the Proposal:** There currently is no 400 level Intr-D Special Topics and the CSM Dean is interested in offering a 1-credit seminar course to seniors on a trial basis. Accordingly, we would like to add the 400 level Special Topics to the course listings.

2. **MTT 597**
   *Course Title:* Special Mathematics Topics for Teachers
   *Course Description:* Special Topics in Mathematics of Interest to Teachers.
Rationale for the Proposal: This course is intended to complement the existing MTT courses for teachers, providing a rubric for piloting new courses, and also allowing for special content to be offered, e.g., when a visitor with unique expertise is available. The course number is designed to serve students in certificate and masters programs in education and allied fields.

3. MATH 597
Course Title: Special Topics for Secondary Teachers
Course Description: Special Topics in Mathematics of Interest to Secondary Teachers

Rationale for the Proposal: This course is intended to complement the existing 500-level MATH courses for secondary teachers, providing a rubric for piloting new courses, and also allowing for special content to be offered, e.g., when a visitor with unique expertise is available, or when there is strong student/instructor interest in a particular area.

The Graduate Studies Committee of the Faculty Council has approved the changes to EEOS 601 and EEOS 630 approved by the CSM Senate in September 2012.

The Academic Affairs Committee approved the new courses Intro-D 120 (pre-approved by the CSM Senate in September 2012) and Intr-D 480 (pre-approved by the CSM Senate in October 2012). The CSM Senate approved Intr-D 120 and Intr-D 480 and sent the course approval recommendations to the Provost’s Office.

3. Courses and Programs:

3a. Course Addition: Intro-D 121
Course Title: CSM Freshman Transition Seminar II
Course Description: This is a part II of the CSM Freshman Transition Seminar. It is a one-credit, pass/fail course intended to first-year students with their transition to the UMass Boston community and position them for academic success. This second half of the course will focus on effective group work and communication, creating attainable long term goals, academic citizenship, and preparing students to take ownership of their academic career. Through class activities, assignments, workshops and discussions, students will learn what it means to work effectively as a group, communicate with one another and faculty members in a productive manner, and internalize the meaning of academic citizenship and their roles within CSM, UMass Boston, and the greater science community.

Rationale: The CSM Freshman Interest Group program is a new part of the Freshman Success Community initiative, but without the anchor Gateway Seminar. We feel that the students in the FIG would benefit from a one-credit course each semester to assist them with the transition from high school to college, learn academic skills, etc.
The CSM Senate unanimously pre-approved the new course Intr-D 121. It will be sent to the Academic Affairs Committee.

3b. Course Addition: Math 380
Course Title: Introduction to Computational Algebraic Geometry
Course Description: This course is an introduction to the geometry of affine algebraic varieties, with emphasis on two core themes: the Algebra-Geometry Dictionary and Buchberger’s Algorithm.

Pre-requisites: MATH 260 or an equivalent linear algebra course.

Rationale: Computational Algebraic Geometry is an emerging field made possible by the availability of high-speed computers. It has many applications within and outside of mathematics, including robotics, computer aided design, automatic theorem proving, invariant theory, projective geometry, and computer vision. In addition, students completing this course will be prepared to participate meaningfully in the mathematics department's current research in invariant theory and the geometry of nilpotent orbits.

The CSM Senate unanimously pre-approved the new course Math 380. It will be sent to the Academic Affairs Committee.

3c. Course Addition: MTT 580
Course Title: Mathematics for the K-12 Curriculum
Course Description: This course reviews and provides in-depth experiences with the mathematics commonly taught in schools, including emphasis on the interdependence and unity of algebra and geometry concepts that are currently part of the K-12 curriculum. More advanced than 300-level MTT courses, it is aimed at In-Service teachers.

Rationale: With increased expectations for the subject and content knowledge of science teachers in general and mathematics teachers in particular, it is desirable to offer to teachers intensive instruction on and review of the mathematics taught in K-12, with an emphasis on the unity among different branches of mathematics. It is believed that teachers with stronger content knowledge will perform better in the classroom.

The CSM Senate unanimously approved the new course MTT 580. It will be sent to the Graduate Affairs Committee of the Faculty Council.

3d. Program Changes: Revision of Premedical Studies Program of Study
Program Description: This program offers matriculated students a comprehensive curriculum and advising support as they prepare for careers in medicine and health-related fields. Successful completion of the program is recorded on their official University transcripts when they have met all graduation
requirements. Students in the program are required to take a minimum of ten science courses (excluding labs) chosen from the list below. These courses include the basic courses in math, chemistry, physics, and biology as well as selected advanced science courses and introductory coursework in psychology and/or sociology.

Students must have completed at least three semesters of coursework in math and science with at least a 3.2 average in the premedical courses (excluding labs) before declaring the Program of Study, and must maintain a 3.2 average in the Program of Study.

Students must complete at least ten (not including labs) courses from the pool of courses – Biology 111 and 112, 210/212, and 252/254; Chemistry 115, 116, 117, 118, 251, 252, 255, and 256; Biochem 383; Physics 107, 108 (or 113, 114), 181 and 182; Math 140 or 145; Psych 101 or 101 or Sociology 101. No more than four courses may be transferred from other institutions; it is strongly recommended that no courses be taken at two-year institutions.

Rationale: The Program of Study in Premedical Studies was last revised in 2004 and since then the recommended premedical curriculum has changed fairly dramatically. With the proposed revision, the Program of Study will more closely match current practice. The Post-baccalaureate Certificate in Premedical Studies will no longer be offered as of Fall 2012.

The CSM Senate approved the proposed revision of the Premedical Studies Program of Study unanimously. It will be sent to the Majors, Honors, and Special Programs Committee.

4. Dean’s announcements

Dean Grosovsky announced that the Faculty Council approved the School for the Environment and the Honors College.

5. Other business: None.

6. Meeting was adjourned at 3.30 pm.