Minutes
Campus Curricula Committee Meeting
November 4, 2008 Meeting
3:00 p.m. Room 117 Fulton Hall

Jerry Bayless, Kate Drowne, Angie Huffman, Irina Ivliyeva, Keith Nisbett, Don Sharpsteen, John Hogan, and Jennifer Thorpe attended the meeting.

Approval of October 7, 2008 minutes.

Review of submitted DC forms:
DC 0302, Architectural Engineering, BS in Architectural Engineering, approved effective Fall 2009. A proposal to modify the current curriculum for the BS in Architectural Engineering by replacing Eng Mgt 207 with Eng Mgt 137.

Review of submitted CC forms:
CC 7480, Geophysics 320, Computational Geophysics. New course approved effective Spring 2009.
Catalog Description: Scientific programming in a UNIX/Linux environment, with emphasis on solving geophysical problems such as linear and nonlinear inversion, spectral analysis, seismicity, seismic wave attenuation, shear-wave splitting, and seismic tomography.
Credit Hours: 1 hour lecture, 2 hour lab, Total: 3
Prerequisites: Geophysics 270

CC 7481, Biological Sciences 151, Introduction to Environmental Sciences. New course approved effective Fall 2009.
Catalog Description: An introduction to environmental science, with an emphasis on biological aspects of current environmental problems. Topics range from chemical toxicity to global climate change. Environmental challenges facing local species and ecosystems will be emphasized.
Credit Hours: 3 hour lecture
Prerequisites: None

Office of the Registrar • 103 Parker Hall • 300 West 13th Street • Rolla, MO 65409-0930
Phone: 573-341-4181 • Fax: 573-341-4362 • Email: registrar@mst.edu • Web: http://registrar.mst.edu

CC 7482, Biological Sciences 150, Biotechnology in Film. New course approved effective Spring 2009.
Catalog Description: Popular films that use biology-based plots influence society by disseminating facts and providing misinformation. Popular movies serve as the basis for discussing the biotechnology behind popular movie plots and examining the relationship between public perceptions and biotechnology.
Credit Hours: 3 hour lecture
Prerequisites: None

CC 7483, Nuclear Engineering, 327, Radiological Engineering. New course approved effective Spring 2009.
Catalog Description: Radiation exposure pathways analysis; modeling of radionuclides transport through atmosphere, surface and ground water. Human health impact. Transportation of nuclear waste. Nuclear Waste characterization. Regulatory structure and requirements. Scenario case studies and computer simulation of transport.
Credit Hours: 3 hour lecture
Prerequisites: NE 205

CC 7484, Engineering Management 418, Psychology 418, Leadership for Engineering. New course approved effective Fall 2009.
Catalog Description: Provides engineers with a background in leadership concepts and principles; enables students to develop practical skills in leading and managing through multiple personal assessments. Topics include leadership styles, managing commitments, conflict resolution, change management, emotional intelligence, team dynamics and business ethics.
Credit Hours: 3 hours lecture
Prerequisites: Emgt 313 or Psych 374

CC 7485, Mining Engineering 407, Theory of High Explosives. The following change is approved effective Spring 2009.
Catalog Description – Proposed: Study of the application of chemical thermodynamics and the hydrodynamic theory to determine the properties of high explosives; application of detonation theory to steady-state detonations in real explosives; application of the above to the blasting action of explosives.

Office of the Registrar • 103 Parker Hall • 300 West 13th Street • Rolla, MO 65409-0930
Phone: 573-341-4181 • Fax: 573-341-4362 • Email: registrar@mst.edu • Web: http://registrar.mst.edu

CC 7486, IDE 20, Engineering Design with Computer Applications. The following changes have been approved effective Fall 2009.
Course Title – Proposed: Introduction to Engineering Design
Catalog Description – Proposed: Introduction to a systematic approach to engineering design (problem clarification, concept generation, concept selection, prototyping methods, engineering ethics) and fundamental design communication techniques. Computer aided design tools are introduced to assist in design analysis.
Credit Hours – Present: 1 hour lecture, 2 hour lab, Total: 3
Proposed: 2 hour lecture, 1 hour lab, Total: 3
Note: The title change to this course will be made in all curriculums that require this course.

CC 7487, Physics 494, Co-op Registration. The following changes are approved effective Spring 2009.
Catalog Description – Proposed: Doctoral candidates participating in a cooperative program with another UM campus must enroll for one hour of credit for their first semester in the program and zero hours of credit for successive registration periods until degree is completed. Failure to do so may invalidate candidacy. Billing is automatic as is registration upon payment.
Credit Hours – Present: Total: 1
Proposed: Total: 0-1

CC 7488, Civil Engineering 412, Numerical Methods in Geotechnical Engineering. The following changes are approved effective Spring 2009.
Course Title – Proposed: Computer Modeling in Geotechnical Engineering
Catalog Description – Proposed: Survey of computer methods of analyzing and modeling complex geotechnical engineering problems. Computer applications, data analysis, and result interpretations. Topics include constitutive modeling, foundation engineering, seepage, unsaturated flow problem, slope stability analysis, consolidation, excavation, tunneling, and dynamic soil-structure interaction.
Prerequisites – Present: Graduate standing
Proposed: CE 215 and graduate standing

Office of the Registrar • 103 Parker Hall • 300 West 13th Street • Rolla, MO 65409-0930
Phone: 573-341-4181 • Fax: 573-341-4362 • Email: registrar@mst.edu • Web: http://registrar.mst.edu

CC 7489, Civil Engineering 342, Architectural Engineering 342, Construction Planning and Scheduling Strategies. New course approved effective Spring 2009.
Catalog Description: The goal of this course is to assist participants in gaining an understanding of schedule control techniques and the application of tools such as Primavera Software. Content areas to be addressed include: development of baseline schedules, progress monitoring and updating, recovery schedules, resource application and leveling.
Credit Hours: 3 hour lecture
Prerequisite: Cv Eng or Arch Eng 248

Review of submitted EC forms:
EC 2116, Physics 301, Transport in Nanostructures: An Introduction, approved effective Spring 2009.
Course Description: The course overviews how wave interference, energy quantization and tunneling phenomena influence the wave (electron and light) transport in modern nanostructured materials and devices such as quantum dogs, quantum wells, quantum wires and photonic crystals.
Credit Hours: 3 hour lecture
Prerequisites: Physics 107 or Physics 207

EC 2117, Biological Sciences 301, Cellular Neurobiology, approved effective Spring 2009.
Course Description: The biology of nerve cells, particularly neurons as the substrate for higher brain functions. Topics include the electrical properties of cells, synaptic Transmission, neural development, neural plasticity, and neuropharmacology.
Credit Hours: 3 hour lecture
Prerequisites: Bio Sci 211

EC 2118, Chemistry 401, Mass Spectrometry of Macromolecules, approved effective Spring 2009.
Course Description: The course will provide an overview of mass spectrometric applications in biomacromolecules and synthetic polymers; particular areas of emphasis are proteomics, genomics, pharmaceutical screening, characterization of biochemical complexes and synthetic polymers.
Credit Hours: 3 hour lecture
Prerequisites: Graduate status; Chem 355 or equivalent

EC 2119, Engineering 101, Seeds of Success II-Assertive Living, effective Fall 2009. **Tabled**

EC 2120, Engineering 101, Natural Construction, effective Summer 2010. **Tabled**

Office of the Registrar • 103 Parker Hall • 300 West 13th Street • Rolla, MO 65409-0930
Phone: 573-341-4181 • Fax: 573-341-4362 • Email: registrar@mst.edu • Web: http://registrar.mst.edu

EC 2121, Engineering 101, Creative Problem Solving, effective Fall 2009. **Tabled**

EC 2122, Spanish 301, Spanish Translation: Theory and Practice, approved effective Spring 2009.
Course Description: This course is an introduction to the theory, and practice of translation. The course will address the fundamentals of translation practices to provide advance learners of Spanish with hands-on manipulation of grammatical, lexical, and cultural detail.
Credit Hours: 2 hour lecture, 1 hour lab, Total: 3
Prerequisite: Spanish 80

EC 2123, Geological Engineering 401, Applications of Geological Engineering, approved effective Spring 2009.
Course Description: The course will focus on geological engineering considerations during military-site characterizations. Fundamental topics such as rock mechanics, engineering hazards, environmental issues and site planning will be covered from the perspective of the practicing military engineer operating in a rapid deployment mode.
Credit Hours: 2 hour lecture, 1 hour lab, Total 3
Prerequisite: Permission of instructor. The course is intended for military officers registered in the UMR FLW Masters of Science in Geological Engineering Degree Program.

EC 2124, Geological Engineering 201, Geology and Engineering of Ancient and Modern Peru, approved effective Spring 2009.
Course Description: A study of the geological engineering of the Cuzco-Machu Picchu corridor, including the inter-relations of geology, climate, archeology, and history. A technical report and a week-long field trip to Peru during Spring Break are required.
Credit Hours: 1 hour lecture
Prerequisites: None

EC 2125, Geological Engineering 201, IDE 201, Statistics and Mechanics of Geologic Materials, approved effective Spring 2009.
Course Description: Fundamental statics of rigid bodies and mechanics of deformable bodies for entering graduate students, focusing on behavior of rock and soil in engineering situations. Not for students intending to register as professional engineers.
Credit Hours: 3 hour lecture
Prerequisites: None

Office of the Registrar • 103 Parker Hall • 300 West 13th Street • Rolla, MO 65409-0930
Phone: 573-341-4181 • Fax: 573-341-4362 • Email: registrar@mst.edu • Web: http://registrar.mst.edu

EC 2126, Geological Engineering 101, Math 101, Mathematical Concepts for Military Engineers, approved effective Spring 2009.
Course Description: Review of fundamental concepts in Algebra, Trigonometry and Calculus for students in Geological Engineering. Designed as a bridging course for Military Reserve officers enrolled in the On-Line Certificate in Military Geological Engineering.
Credit Hours: 2 hour lecture
Prerequisites: None

EC 2127, Mining Engineering 401, Blast Mitigation for Structures, approved effective Spring 2009.
Course Description: Study of the application of energy-absorption, shock impedance mismatch, and hybrid materials to meet the challenge of defense against blast energy; use of current blast mitigation techniques to reinforce new and existing structures against close-in small- to medium- size (up to 200 pounds of TNT equivalent) blasts.
Credit Hours: 3 hour lecture
Prerequisites: Min 307

EC 2128, IDE 301, Systems Engineering 301, Architectural Engineering 301, Renewable Power Systems Design, approved effective Spring 2009.
Course Description: The fundamental equations for modeling renewable power systems capable of producing electric and thermal energy will be covered. Models will be used to design, fabricate and test renewable residential power systems.
Credit Hours: 2 hour lecture, 1 hour lab, Total: 3
Prerequisites: IDE 214 or linear systems (EE 265 or ME 211)

EC 2129, Theatre 201, Entertainment Design, approved effective Spring 2009.
Course Description: Students will learn the fundamentals of design for live theatre, film, theme parks, clubs, concerts, and dance events.
Credit Hours: 1 hour lecture, 2 hour lab, Total: 3
Prerequisites: None

Items Still Tabled:
DC 0300, Mining Engineering, Mineral Process Engineering, approved effective Spring 2009. A proposal to create a new minor in Mineral Process Engineering. **Tabled**

DC 0301, ALP, Theatre, approved effective Fall 2009. A proposal to create a new minor in Theatre. **Tabled**

Office of the Registrar • 103 Parker Hall • 300 West 13th Street • Rolla, MO 65409-0930
Phone: 573-341-4181 • Fax: 573-341-4362 • Email: registrar@mst.edu • Web: http://registrar.mst.edu

CC 5946 – CC 5959 tabled pending approval of the new BS degree in BioEngineering by UM and CBHE.

EC 2086, Mining Engineering 301, Mineral Processing II, effective Fall 2009. **Tabled**

EC 2087, Mining Engineering 301, Mineral processing II, effective Fall 2009. **Tabled**

EC 2103, Mining Engineering 301, Aggregate Materials Sizing and Characterization, approved effective Fall 2009. **Tabled**

EC 2111, Theatre 201, Acting II, approved effective Spring 2009. **Tabled**

EC 2112, Theatre 101, Acting I, approved effective Fall 2009. **Tabled**

New Business

Proposed new process for experimental courses: The EC form will authorize a course to be taught twice anytime during the next 3 years from the effective term. Once approved, departments may include the course on the Schedule of Classes for any semester within the 3 year period by notification to the Registrar. Any changes to the course title, description, or prerequisites will require a new EC form. After the course has been taught twice, a CC form is used to make the course a permanent course. Any form with effective term Spring 2009 or later will fall under this new process.

A proposed process for handling the flow of curricular forms to include the Discipline Specific Curriculum Committees, and to move to a more electronic circulation, was discussed and generally agreed upon. Keith Nisbett will check into some of the details of electronic signatures, and circulate a final version of the process to the committee by email. Once approved by the committee, the process will be reported to the Faculty Senate and the campus.

The meeting adjourned at 4:10 p.m. The next meeting will be Tuesday December 2, 2008 @ 3:00 p.m. in 117 Fulton Hall.

_____

J. Keith Nisbett, Chair
Missouri S&T Campus Curricula Committee

Office of the Registrar • 103 Parker Hall • 300 West 13th Street • Rolla, MO 65409-0930
Phone: 573-341-4181 • Fax: 573-341-4362 • Email: registrar@mst.edu • Web: http://registrar.mst.edu