Minutes
Campus Curricula Committee Meeting
April 6, 2010 Meeting
3:15 p.m. Room 117 Fulton Hall

Approval of March 2, 2010 minutes.

Jerry Bayless, Barry Flachsbart, Angie Huffman, Irina Ivliyeva, Ray Luechtefeld, Keith Nisbett, Daniel Tauritz, and Jennifer Thorpe attended the meeting.

Review of submitted DC forms:
DC 0346, Computer Engineering Bachelor of Science, approved effective Fall 2010.
A proposal to modify the current curriculum for the Bachelor of Science by replacing the 3-hour Humanities only elective with a 3-hour Humanities or Social Science elective.

DC 0347, Electrical Engineering Bachelor of Science, approved effective Fall 2010.
A proposal to modify the current curriculum for the Bachelor of Science by replacing the 3-hour Humanities only elective with a 3-hour Humanities or Social Science elective.

DC 0348, Chemical Engineering Bachelor of Science, approved effective Fall 2010.
A proposal to modify the current curriculum for the Bachelor of Science in Chemical Engineering.

DC 0349, Chemical Engineering Bachelor of Science, Biochemical Engineering Emphasis Area, approved effective Fall 2010.
A proposal to modify the current curriculum for the Bachelor of Science in Chemical Engineering with Biochemical Engineering Emphasis.

DC 0350, Mechanical Engineering Bachelor of Science, Mechanical Design and Analysis Emphasis Area, approved effective Fall 2010.
A proposal to modify the current curriculum for the Bachelor of Science in Mechanical Engineering by adding ME 360 to the list for the design electives and adding ME 378 to the list for the analysis electives.

DC 0351, Computer Engineering Bachelor of Science, approved effective Fall 2010.
A proposal to modify the current course listings for the emphasis areas for the Bachelor of Science in Computer Engineering.

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DC 0352, Mechanical Engineering Bachelor of Science, Energy Conversion Emphasis Area, approved effective Fall 2010. A proposal to add the courses required for the Energy Conversion Emphasis area for the Bachelor of Science in Mechanical Engineering so it can be tracked by the degree audit.

DC 0353, Engineering Management Bachelor of Science, General Engineering Emphasis Area, approved effective Fall 2010. A proposal to modify the current curriculum for the General Engineering Emphasis area.

DC 0354, Engineering Management Bachelor of Science, approved effective Fall 2010. A proposal to modify the current curriculum for the Bachelor of Science in Engineering Management.

DC 0355, Engineering Management Bachelor of Science, Industrial Engineering Emphasis Area, approved effective Fall 2010. A proposal to modify the current curriculum for the Industrial Engineering Emphasis Area.

DC 0357, Computer Engineering Bachelor of Science, approved effective Fall 2010. A proposal to modify the current curriculum for the Bachelor of Science in Computer Engineering by no longer requiring the FE examination for graduation.

DC 0358, Electrical Engineering Bachelor of Science, approved effective Fall 2010. A proposal to modify the current curriculum for the Bachelor of Science in Electrical Engineering by no longer requiring the FE examination for graduation.

DC 0359, Electrical Engineering Bachelor of Science, emphasis areas, effective Fall 2010. TABLED

DC 0360, Mechanical Engineering Bachelor of Science, approved effective Fall 2010. A proposal to modify the current curriculum for the Bachelor of Science in Mechanical Engineering.

DC 0361, Mechanical Engineering Bachelor of Science, Manufacturing Processes Emphasis Area, approved effective Fall 2010. A proposal to modify the current curriculum for the Manufacturing Processes emphasis area under the Bachelor of Science in Mechanical Engineering.

DC 0363, Engineering Bachelor of Science Programs, approved effective Fall 2010. A statement will be placed in the catalog requiring all engineering degree programs be consistent with the same minimum requirements.

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Review of submitted CC forms:

CC 7924, Chemistry 363, Metabolism. The following change is approved effective Fall 2010.
Prerequisites – Present: Chem 361 or chem. 225; Chem 227
Proposed: Chem 361

CC 7938, Computer Science 468, Advanced Network Security. The following change is approved effective Fall 2010.
Prerequisites – Present: Cp Eng 349 or CS 385
Proposed: Cp Eng 349 or CS 365

CC 7940, Civil Engineering 242, Fundamentals of Building Systems. The following change is approved effective Fall 2010.
Prerequisites – Present: Physics 24, Math 204 and Junior Standing
Proposed: Physics 24, Math 22, and Junior Standing

CC 7941, Mechanical Engineering 355, Automation in Manufacturing. The following changes are approved effective Fall 2010.
Course Title – Proposed: Manufacturing Equipment Auto
Catalog Description – Proposed: manufacturing automation at the equipment level. Topics include sensors, actuators, and computer interfacing for manufacturing equipment, dynamic modeling and control of manufacturing equipment, interpolation, coordinated motion control, kinematic and geometric error modeling, and runout.
Credit Hours – Present: 3 hour lecture
Proposed: 2 hour lecture, 1 hour lab, Total: 3
Prerequisites – Present: ME 253 and ME 279
Proposed: ME 279

CC 7942, IDE 224, Competitive Team Design. The following change is approved effective Fall 2010.
Course Number – Proposed: Eng Mgt 224

CC 7943, IDE 233, Competitive Team Leadership. The following changes are approved effective Fall 2010.
Course Number – Proposed: Eng Mgt 233
Credit Hours – Present: .5 hour lecture, .5 hour lab, Total: 1
Proposed: 1 hour lecture, Total: 1

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CC 7944, IDE 242, Competitive Team Communication. The following changes are approved effective Fall 2010.
Course Number – Proposed: Eng Mgt 242
Prerequisites – Present: IDE 224 and IDE 233
Proposed: Sophomore (or greater) standing and membership in an experiential learning design team.

CC 7945, Chemical Engineering 120, Chemical Engineering Material & Energy Balances, effective Fall 2010. Returned to department.

CC 7946, Chemical Engineering 141, Chemical Engineering Thermodynamics I, effective Fall 2010. Returned to department.

CC 7947, Chemical Engineering 145, Chemical Process Materials, effective Fall 2010. Returned to department.

CC 7948, Chemical Engineering 211, Professional Practice and Ethics, effective Fall 2010. Returned to department.

CC 7949, Chemical Engineering 231, Chemical Engineering Fluid Flow, effective Fall 2010. Returned to department.

CC 7950, Chemical Engineering 233, Chemical Engineering Heat Transfer. The following change is approved effective Fall 2010.
Prerequisites – Present: Accompanied or preceded by Ch Eng 231
Proposed: Ch Eng 141; preceded or accompanied by Ch Eng 231

CC 7951, Chemical Engineering 234, Chemical Engineering Laboratory I, effective Fall 2010. Returned to department.

CC 7952, Chemical Engineering 235, Staged Mass Transfer. The following change is approved effective Fall 2010.
Catalog Description – Proposed: Principles of equilibrium stage operations applied to distillation, liquid-liquid extraction, absorption, and leaching. Methods for estimating pressure drop and stage efficiencies are also studied. Quantitative solutions to practical problems are stressed.

CC 7953, Chemical Engineering 236, Chemical Engineering Laboratory II, effective Fall 2010. Returned to department.

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CC 7954, Chemical Engineering 237, Continuous Mass Transfer, effective Fall 2010. Returned to department.

CC 7955, Chemical Engineering 245, Chemical Engineering Thermodynamics II, effective Fall 2010. Returned to department.

CC 7956, Chemical Engineering 247, Molecular Chemical Engineering, effective Fall 2010. Returned to department.

CC 7957, Chemical Engineering 251, Chemical Engineering process Dynamics and Control, effective Fall 2010. Returned to department.

CC 7958, Chemical Engineering 252, Process Dynamics and Control Laboratory. The following change is approved effective Fall 2010.
Catalog Description – Proposed: Application of concepts of industrial process dynamics and control using experiments that demonstrate different control and sensing devices and software. Generally offered fall semester only. This is a communications emphasized course.

CC 7959, Chemical Engineering 263, Biochemical Separations, effective Fall 2010. Returned to department.

CC 7960, Chemical Engineering 264, Biochemical Separations Laboratory. The following change is approved effective Fall 2010.
Catalog Description - Proposed: Introduction to the unit operations employed in the separation of chemicals and biochemicals. The experiments illustrate the staged and continuous separation systems that are involved. This is a communications emphasized course.

CC 7961, Chemical Engineering 266, Biochemical Reactor Laboratory. The following change is approved effective Fall 2010.
Catalog Description – Proposed: Introduction to the unit operations involved with the production of biochemicals. The experiments emphasize the isolation of proteins and enzymes from tissue and bacterial cells. This is a communications emphasized course.

CC 7962, Chemical Engineering 281, Chemical Engineering Reactor Design, effective Fall 2010. Returned to department.

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CC 7963, Chemical Engineering 283, Chemical Engineering Economics. The following changes are approved effective Fall 2010.
Catalog Description – Proposed: Economic analysis of a chemical process including capital requirements, operating costs, earnings, and profits. The economic balance is applied to chemical engineering operations and processes. Optimization and scheduling techniques are applied to process evaluation.
Prerequisites – Present: Chem Eng 235
Proposed: Preceded or accompanied by Ch Eng 235.

CC 7964, Chemical Engineering 285, Chemical Process Safety. The following changes are approved effective Fall 2010.
Catalog Description – Proposed: The identification and quantification of risks involved in the processing of hazardous and/or toxic materials are studied.
Prerequisites – Present: Preceded or accompanied by Ch Eng 145 and Ch Eng 281
Proposed: Preceded or accompanied by Ch Eng 281

CC 7965, Chemical Engineering 288, Chemical Process Design, effective Fall 2010.
Returned to department.

CC 7966, Chemical Engineering 365, Biochemical Reactors, effective Fall 2010.
Returned to department.

CC 7969, IDE 325, Introduction to Decision Analysis. The following change is approved effective Fall 2010.
Course Number – Proposed: Mechanical Engineering 364

CC 7970, Civil Engineering 216, Construction Materials, Properties and Testing. The following change is approved effective Fall 2010.
Prerequisites – Present: Preceded by IDE 120 and Civ Eng 215
Proposed: IDE 120 or Min Eng 232; Civ Eng 215 or both GE 50 and Min Eng 241.

CC 7971, Civil Engineering 313, Composition and Properties of Concrete. The following change is approved effective Fall 2011.
Prerequisites – Present: Preceded or accompanied by Civ Eng 216
Proposed: Civ Eng 216 with a grade of “C” or better

CC 7972, Civil Engineering 317, Asphalt Pavement Design. The following change is approved effective Spring 2011.
Prerequisites – Present: Preceded or accompanied by Civ Eng 216
Proposed: Civ Eng 216 with a grade of “C” or better

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CC 7973, Electrical Engineering 456, Signal Integrity, High Speed Digital & RF Design Laboratory. New course approved effective Fall 2010.
Catalog Description: This is an RF and digital electronics design class. Student groups will design, manufacture and test RF and/or digital circuits during the class. Besides this project work the lecture part will emphasis circuit design, layout, parasitic effects and design for testability.
Credit Hours: 3 hour lab
Prerequisites: Elec Eng 271

CC 7974, Geological Engineering 425, Applications in Geological Engineering. New course approved effective Summer 2010.
Catalog Description: Content is focused on practical aspects of geological engineering. Geotechnical, environmental and geo-hydrologic case studies are presented to illustrate concepts and relate theory to applications.
Credit Hours: 3 hour lecture
Prerequisite: None

CC 7975, Computer Science 487, New Trends in Massively Parallel Computing. The following changes are approved effective Spring 2011.
Course Title – Proposed: Topics in Parallel & Distributed Computing
Catalog Description – Proposed: Introduction of parallel and distributed computing fundamentals and advanced research computing paradigms. A term paper and oral presentation are required.
Prerequisites – Present: Cmp Sc 387
Proposed: Cmp Sc 387 or equivalent background

CC 7976, Computer Science 387, Parallel Programming with MPI. The following changes are approved effective Spring 2011.
Course Title – Proposed: Introduction to Parallel Programming and Algorithms
Catalog Description – Proposed: Parallel and pipelined algorithms, architectures, network topologies, message passing, process scheduling and synchronization. Parallel programming on clusters. Cost, speedup and efficiency analysis.

CC 7977, Computer Science 438, Heterogeneous and Mobile Databases. New course approved effective Fall 2010.
Catalog Description: This course extensively discusses multi-database systems (MDBS) and mobile data access systems (MDAS). Moreover, it will study traditional distributed database issues within the framework of MDBSs and MDASs.
Credit Hours: 3 hour lecture
Prerequisites: Cmp Sc 338 or graduate standing

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CC 7978, Chemistry 483, Polymer Synthesis. New course approved effective Fall 2010.
Catalog Description: The methods of organic monomer and polymer syntheses will be explored. Mechanistic and structural components, modern and current industrial methods for polymer syntheses will be discussed. Topics include linear, branched, graft, and dendritic polymers, nano-technology and macromers.
Credit Hours: 3 hour lecture
Prerequisites: Chem 381; Chem 321 or Chem 323

CC 7979, Biological Sciences 231, General Genetics. The following changes are approved effective Fall 2010.
Catalog Description – Proposed: The study of the principles of heredity and reasons for variation in living organisms. Includes Mendelian principles, molecular, population, and evolutionary genetics with examples from a diverse array of species.
Prerequisites – Present: None
Proposed: Bio Sci 110 or 111

CC 7980, Electrical Engineering 154, Circuit Analysis Laboratory II. Course deletion approved effective Fall 2010.

CC 7981, Electrical Engineering 155, Circuit Analysis Laboratory I and II. Course deletion approved effective Fall 2010.

CC 7982, Electrical Engineering 265, Linear Systems I. Course deletion approved effective Fall 2010.

CC 7983, Electrical Engineering 266, Linear Systems I Laboratory. Course deletion approved effective Fall 2010.

CC 7984, Electrical Engineering 267, Linear Systems II. Course deletion approved effective Fall 2010.

CC 7985, Electrical Engineering 268, Linear Systems II Laboratory. Course deletion approved effective Fall 2010.

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CC 7986, Biological Sciences 383, Pharmacology. New course approved effective Spring 2011.
Catalog Description: The basic principles of drug action, pharmacokinetics, pharmacodynamics and toxicity. We will emphasize the actions of drugs used to treat cardiovascular and nervous system disorders. Students will review the primary literature to prepare both written and oral reports on drug actions.
Credit Hours: 3 hour lecture
Prerequisites: Bio Sci 211

CC 7987, Biological Sciences 388, Biomedical Problems. New course approved effective Spring 2011.
Catalog Description: This course will use a problem-based learning approach to examine biological aspects of various medical conditions. Students will work in groups and individually to answer problems related to diagnostic testing and evaluation of diseases and other medical conditions.
Credit Hours: 3 hour lecture
Prerequisites: Bio Sci 211 and 221, Bio Sci 242 recommended

CC 7988, Mechanical Engineering 229, Energy Conversion. The following changes have been approved effective Fall 2010.
Course Number – Proposed: ME 335
Course Title – Proposed: Applied Energy Conversion
Catalog Description – Proposed: The study of the principles of energy conversion. Specific applications include fuel cells and other direct energy conversion devices used in plug-in hybrid electric vehicles.

CC 7989, Mechanical Engineering 211, Modeling and Analysis of Dynamic Systems. The following change is approved effective Fall 2010.
Prerequisites – Present: Math 204, Phys 24, and a grade of "C" or better in Mech Eng 160 (or Aero Eng 160), Math 14 (or 8), 15 (or 21), 22, and Physics 23
Proposed: A grade of "C" or better in each of Cmp Sc 53 or 73 or 74, Mech Eng 160 (or Aero Eng 160), Math 14 (or 8), 15 (or 21), 22, 204, Physics 23, 24.

CC 7990, Mechanical Engineering 160, Dynamics. The following change is approved effective Fall 2010.
Prerequisites – Present: Math 22, grade of "C" or better in IDE 50
Proposed: Grade of "C" or better in each of IDE 50, Math 22

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CC 7991, Aerospace Engineering 160, Dynamics. The following change is approved effective Fall 2010.
Prerequisites – Present: Math 22, grade of "C" or better in IDE 50
Proposed: Grade of "C" or better in each of IDE 50, Math 22

CC 7992, Mechanical Engineering 161, Introduction to Design. The following change is approved effective Fall 2010.
Prerequisites – Present: IDE 20, Math 14 (or 8), Physics 23, Mech Eng 153; preceded or accompanied by IDE 50
Proposed: IDE 20, Mech Eng 153, preceded or accompanied by IDE 50; A grade of "C" or better in each of Math 14 (or 8), Physics 23

CC 7993, Mechanical Engineering 208, Machine Design I. The following change is approved effective Fall 2010.
Prerequisites – Present: Mech Eng 153, Met Eng 121, and accompanied or preceded by Mech Eng 161 and a grade of "C" or better in IDE 110.
Proposed: Mech Eng 153, accompanied or preceded by Mech Eng 161, and a grade of "C" or better in each of IDE 110, Met Eng 121.

CC 7994, Mechanical Engineering 213, Machine Dynamics. The following change is approved effective Fall 2010.
Prerequisites – Present: CS 53, 73, or 74; and a grade of "C" or better in Mech Eng 160 (or Aero Eng 160), Math 14 (or 8), 15 (or 21), 22, and Physics 23
Proposed: A grade of "C" or better in each of Comp Sci 53 or 73 or 74, Mech Eng 160 (or Aero Eng 160), Math 14 (or 8), 15 (or 21), 22, and Physics 23

CC 7995, Mechanical Engineering 219, Thermodynamics. The following change is approved effective Fall 2010.
Prerequisites – Present: Comp Sci 53, 73, or 74; and a grade of "C" or better in each of Math 14 (or 8), 15 (or 21), 22, and Physics 23
Popposed: A grade of "C" or better in each of Comp Sci 53 or 73 or 74, Math 14 (or 8), 15 (or 21), 22, and Physics 23

CC 7996, Mechanical Engineering 225, Heat Transfer. The following change is approved effective Fall 2010.
Prerequisites – Present: Math 204; Comp Sci 53, 73, or 74; A grade of "C" or better in Mech Eng 219
Proposed: A grade of "C" or better each of Comp Sci 53 or 73 or 74, Math 204, Mech Eng 219

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CC 7997, Mechanical Engineering 240, Mechanical Instrumentation. The following change is approved effective Fall 2010.
Prerequisites – Present: Math 204, Mech Eng 219, Physics 24
Proposed: A grade of "C" or better each of Math 204, Mech Eng 219, Physics 24

CC 7998, Mechanical Engineering 261, Engineering Design. The following change is approved effective Fall 2010.
Prerequisites – Present: Mech Eng 208, 225, 231; should be taken in final semester
Proposed: Preceded or accompanied each of Mech Eng 208, 225, 231, 279

CC 7999, Chemical Engineering 358, Intermediate Chemical Process Safety. New course approved effective Fall 2011 pending approval of the graduate certificate in Safety Engineering.
Catalog Description: The identification and quantification of risks involved in the processing of hazardous and/or toxic materials are studied. Methods to design safety systems or alter the chemical process to reduce or eliminate the risks are covered.
Credit Hours: 3 hour lecture
Prerequisites: Graduate Standing

CC 8000, Chemical Engineering 350, Engineering Management 350, Risk Assessment and Reduction. New course approved effective Fall 2011 pending approval of the graduate certificate in Safety Engineering.
Catalog Description: Safe, secure manufacturing facilities protect the health of employees and the public, preserve the environment, and increase profitability. Methods for systematically identifying hazards and estimating risk improve the safety performance and security of manufacturing facilities.
Credit Hours: 3 hour lecture
Prerequisites: Senior or Graduate Standing

CC 8001, Chemistry, 423, Advanced Synthetic Organic Chemistry. The following change is approved effective Fall 2010.
Prerequisites – Present: Chem 321 or equivalent
Proposed: Chem 321 or Chem 323

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Review of submitted EC forms:

EC 2238, Chemistry 401, Nanomaterials – Synthesis, Structure, Properties & Applications, approved effective Fall 2010.

Course Description: Chemistry of nanomaterials. Uncerstanding the fundamentals of nanoscience and technology. Learning about the different synthesis strategies for nanomaterials and about their characterization. Understanding the properties of nanomaterials and their possible applications. Introducing the concept for device fabrication.

Credit Hours: 3 hour lecture

Prerequisites: Consent of instructor

EC 2240, Mining Engineering, 301, Computer Pyrotechnic Firing System Operations, approved effective Fall 2010.

Course Description: This course is the logical extension of 2 pre-existing pyrotechnic classes – Min Eng 309 and Min 313. We have just acquired a digital firing system as an upgrade to our firework shooting capabilities making the course possible (Note: this course is the first of two courses split over 2 semesters).

Credit Hours: 1 hour lecture, 0.5 hour lab, Total: 1.5

Prerequisites: Accompanied by Min Eng 309 or Min Eng 313

EC 2241, Mining Engineering 301, Computer Fired Pyrotechnic Show Design, approved effective Fall 2010.

Course Description: This course is the second of two courses split over 2 semesters, the first being Min Eng 301 “Computer Pyrotechnic Firing System Operations”. The two combined give 3 credit hours. We have just acquired the choreography software which is compatible with the firing system, the use of which will be the basis of this course, making this possible.

Credit Hours: 1 hour lecture, 0.5 hour lab, Total: 1.5

Prerequisites: Min Eng 301 “Computer Pyrotechnic Firing System Operations”

EC 2242, Petroleum Engineering 401, Advanced Natural Gas Engineering, approved effective Fall 2010.

Course Description: Gas Properties. Gas production metering gauging and transmission. Gas reserves estimation. Gas flow in pipe and porous media. Futute production performance prediction. Deliverability, drawdown and buildup testing. Gasfield development. Unconventional Gas development, including coal bed methane, shale gas, tight gas and gas hydrates.

Credit Hours: 3 hour lecture

Prerequisites: PE 240, PE 241

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EC 2243, Computer Science 301, Software Architecture, approved effective Fall 2010.
Course Description: Give an overview of the various aspects of software architecture including fundamental principles, styles/patterns, architecture description languages (ADLs), modeling notations, analysis and testing, domain-specific architectures, and overall role of software architectures, and overall role of software architects in the software engineering process.
Credit Hours: 3 hour lecture
Prerequisites: Cmp Sc 206 or equivalent background

EC 2244, Biological Sciences 301, Microbial Genetics, approved effective Fall 2010.
Course Description: A study of the mechanisms of the control of gene expression; genetic modification and evolution of microorganism. The course will examine applications of the principles of microbial genetics in genetic engineering and synthetic biology through analysis of the classic and current literature in the field.
Credit Hours: 3 hour lecture
Prerequisites: Bio Sci 221

EC 2245, Biological Sciences 101, Principles of Biomedical Sciences, approved effective Fall 2010.
Course Description: Students explore the concepts of human medicine and are introduced to research processes and bioinformatics through the Project Lead the Way program. The course is designed to provide an overview of all the courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in subsequent PLTW courses.
Credit Hours: 2 hour lecture, 1 hour lab, Total 3
Prerequisites: None

EC 2246, Biological Sciences 101, Human Body Systems, approved effective Fall 2010.
Course Description: Students examine the processes, structures, and interactions of the human body systems to learn how they work together to maintain homeostasis (internal balance) and good health. Students work through real world cases and often play the role of biomedical professionals to solve medical mysteries. Students complete the approved Project Lead the Way curriculum.
Credit Hours: 2 hour lecture, 1 hour lab, Total: 3
Prerequisites: Bio Sci 101-Principles of Biomedical Sciences

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EC 2247, Biological Sciences 101, Medical Interventions, approved effective Fall 2010.
Course Description: Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. These interventions are showcased across the generations of the family and provide a look at the past, present and future of biomedical science. Students complete the approved Project Lead the Way curriculum.
Credit Hours: 2 hour lecture, 1 hour lab, Total: 3
Prerequisites: Bio Sci 101-Principles of Biomedical Sciences; Bio Sci 101-Human Body Systems

EC 2248, Biological Sciences 101, Biomedical Innovation, approved effective Fall 2010.
Course Description: In this capstone course for the Project Lead the Way sequence, students apply their knowledge and skills to answer questions or to solve problems related to the biomedical sciences. Students will design innovative solutions for the health challenges of the 21st century.
Credit Hours: 2 hour lecture, 1 hour lab, Total 3
Prerequisites: Bio Sci 101-Principles of Biomedical Sciences; Bio Sci 101-Human Body Systems; Bio 101-Medical Intervention

EC 2249, Petroleum Engineering 401, Drilling Simulation and Geomechanics, approved effective Fall 2010.
Course Description: Advanced drilling engineering optimization and simulation of drilling hydraulics, drill bits, operational parameters and time and cost based on a geomechanical model of the subsurface.
Credit Hours: 3 hour lecture
Prerequisites: Pet Eng 331

EC 2250, Petroleum Engineering 401, Advanced Finite Element Analysis with Co2 Applications, approved effective Fall 2010.
Course Description: This class uses advanced Finite Element Analysis to study the effects of CO^2 injection related geomechanical processes on the reservoir and borehole scale. The focus is on advanced material, rheological and failure behavior associated to CO^2 injection.
Credit Hours: 3 hour lecture
Prerequisites: Pet Eng 338, Pet Eng 366

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EC 2251, Petroleum Engineering 401, Advanced Well Test Analysis, approved effective Fall 2010.
Course Description: Pressure transient analysis equations, well test analysis for fractured wells, horizontal wells, and other special situations, rate transient analysis.
Credit Hours: 3 hour lecture
Prerequisites: Pet Eng 241, Pet Eng 341

EC 2253, Computer Engineering 401, Computer Science 401, Network Performance Analysis, effective Fall 2010.
Course Description: This course provides an introduction to performance modeling and analysis for computer communication networks. Topics covered include stochastic processes; performance measurement and monitoring; quantitative models for network performance, e.g., Markovian models for queues; simulation; and statistical analysis of experiments.
Credit Hours: 3 hour lecture
Prerequisites: Cp Eng 319 or CS 365; Stat 217 or 343

New Business:

The Faculty Senate made a referral to the Curricula Committee to examine a policy to accept transfer credit for military experience and education. Specifically the committee was charged to research the sources of the credits and recommend policies for transferring the credits. A policy recently instituted by the Columbia campus was provided as a reference.

The Curricula committee discussed this issue at its April 6 meeting, though only briefly due to the already long meeting. The committee provides the following assessment.

1. The general concept of awarding credit for military coursework, subject to appropriate quality control measures, is consistent with our current campus practice and policy.
2. Our Registrar's office has already evaluated and is already accepting ACE recommended transfer equivalency for college credit courses. As with all transfer credits, the appropriate department will evaluate courses for specific course equivalency.
3. The policy approved by the Columbia campus is almost entirely consistent with our current practice. Documenting the policy will be a positive step toward clarifying the practice.
4. The Columbia policy needs to generally be customized for our campus. In particular, the following points should be customized:
   (a) For item 1, specific course credit for military experience should be recommended by our Aerospace Studies and Military Science programs.

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(b) For item 3, the grade requirement for credit by completion of a subsequent course should be at the discretion of the appropriate department, rather than fixed at a C- as in the Columbia policy.

The meeting adjourned at 5:25 p.m. The next meeting will be Tuesday May 4, 2010 at 3:15 p.m. in 117 Fulton Hall.

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

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