Memorandum

To: Faculty Senate Executive Committee

From: Lesley Cottrell, Chair-Elect
Senate Curriculum Committee

Date: November 27, 2006

Re: Administrative Changes

The following alterations (minor changes) have received administrative approval:

ALTERATIONS (Minor Changes):

Subject Code	Course Code	CIP	Alteration Request	Reason for Change	Effective Date
ChE	**201**	140701	**Action:** Pre-requisite change. **Old:** 201. Material and Energy Balances 1. 3 hr. PR: MATH 155 and CHEM 116 and PR or Conc: ENGR 102. Introduction to chemical engineering fundamentals and calculation procedures, industrial stoichiometry, real gases and vapor-liquid equilibrium, heat capacities and enthalpies; unsteady material balances and energy balances. (2 hr. lec., 2 hr. calc. lab). **New:** 201. Material and Energy Balances 1. 3 hr. PR: MATH 155 and CHEM 116 and PR or Conc: ENGR 102 or CHE 102. Introduction to chemical engineering fundamentals and calculation procedures, industrial stoichiometry real gases and vapor-liquid equilibrium, heat capacities and enthalpies; unsteady material balances and energy balances. (2 hr. lec., 2 hr. calc. lab).	**Rationale:** The PR for this course of ENGR 102 has been changed to ENGR 102 or CHE 102 making it consistent with the addition of our new freshman course CHE 102, which students meeting CEMR qualification guidelines and who are interested in chemical engineering can take in place of ENGR 102.	200708

FIDP	**201**	430111	**Action:** Offering course to all students. **Old:** FIDP 201. Introduction to Forensic Identification. 3 hr. A survey course of the competencies required to successfully complete the Forensic Identification Program including overview of the history and components of fingerprint classification systems, newest identification technologies and skills, insight into personal/career characteristics. **New:** FIDP201. Introduction to Forensic Science. 3 hr. A survey course of forensic science including overview of the history and components of fingerprint classification systems, crime scene analysis, and death investigation. This course is open to non-majors.	**Rationale:** This change will allow students to learn about the history and current practices in forensic science. To ensure that the broader university community will be able to find seats for the class, two sections will be offered each time the class is offered. One section will be limited to FIDP majors and will be allocated ~ half the seats. The other section will have no restriction.	200705
FIDP	**335**	430111	**Action:** Change subject code from ART to FIDP. **Old: ART 335.** Forensic Photography. 3 hr. Students focus on the fundamentals of photography, how to handle a camera, and expose film correctly. Include unique forensic environments encountered in forensic work includes fingerprints, crime scenes, and disaster scenes. **New: FIDP 335.** Forensic Photography. 3 hr. Students focus on the fundamentals of photography, how to handle a camera, and expose film correctly. Include unique forensic environments encountered in forensic work includes fingerprints, crime scenes, and disaster scenes.	**Rationale:** The course was previously taught using CAC facilities but now is fully supported through the forensic and investigative sciences program. All course content has not changed. The course will be opened to the university on a space-available basis. Students will still be required to obtain permission from the FIS program.	200708
FIDP	**409**	430111	**Action:** Title and Description Change. **Old: 409.** Trace Evidence/Blood Splatter. 3 hr. Violent crimes frequently produce evidence such as bloodstains and related trace evidence. Scientific analyses of trace evidence and blood patterns at crime scene investigations and their applications in solving crimes. **New:** 409. Bloodstain Pattern Analysis. 3 hr. Violent crimes frequently produce evidence such as bloodstains. Scientific analyses of blood patterns at crime scene investigations and their applications in solving crimes.	**Rationale:** Emphasis has shifted to inclusion of more crime scene software and automated trajectory analysis. Blood stain pattern analysis is the correct terminology for the subject as accepted by professional accreditation boards.	200708

ID	**230**	500408	**Action:** PR drop; open to pre-majors. **Old:** 230. History of Interiors and Furniture I. 3 hr. PR Six hours of ID or consent. Interiors, furnishings, and decorative arts from antiquity through neoclassical periods in France, England, and America. **New:** 230. History of Interiors and Furniture I. 3 hr. The course examines the history of western European design from antiquity through the neoclassical periods as situated within the larger context of the contemporary globe.	**Rationale:** Emphasis on Interior Design for pre-majors. Syllabus altered slightly to reflect expected growth of classroom size but < 20% has been modified. Exam schedule and assignments remain the same.	200708
MAE	**242**	3050	**Action:** add Math 156 with $\geq$ C grade as PR **Old:** 242. Dynamics. 3 hr. PR: MAE 241 and MATH 156. Newtonian dynamics of particles and rigid bodies. Engineering applications of equations of motion, work and energy, conservative forces, impulse and momentum, impulsive forces, acceleration in several coordinate systems, relative motion, instantaneous centers, and plane motion. (3hr. lec). **New:** 242. Dynamics. 3 hr. PR: MATH 156 with grade of C or better and MAE 241. Newtonian dynamics of particles and rigid bodies. Engineering applications of equations of motion, work and energy, conservative forces, impulse and momentum, impulsive forces, acceleration in several coordinate systems, relative motion, instantaneous centers, and plane motion. (3hr. lec).	**Rationale:** Math 156 grade of C or better stipulation is made to improve level of mathematical preparation for this course and thus improve success rate of students in the class.	200708

MAE	**243**	3050	**Action:** add Math 156 with ≥ C grade as PR **Old:** 243. Mechanics of Materials. 3 hr. PR: MAE 241 and MATH 156. Stress, deformation, and failure of solid bodies under the action of forces. Internal force resultants, stress, strain, Mohr's circle, and mechanical properties of materials, generalized Hooke's Law. Axial, bending and buckling loads, and combinations. (3 hr. lec.). **New:** 243. Mechanics of Materials. 3 hr. PR: MATH 156 with grade of C or better and MAE 241. Stress, deformation, and failure of solid bodies under the action of forces. Internal force resultants, stress, strain, Mohr's circle, and mechanical properties of materials, generalized Hooke's Law. Axial, bending and buckling loads, and combinations. (3 hr. lec.).	**Rationale:** Math 156 grade of C or better stipulation is made to improve level of mathematical preparation for this course and thus improve success rate of students in the class.	200708
MAE	**316**	3050	**Action:** add Math 261 with ≥ C grade as PR **Old:** 316. Analysis of Engineering Systems. 3 hr. PR: ENGR 102 and MATH 261 and MAE 242. Analytical, numerical, and computational techniques to analyze and solve engineering problems. Mathematical modeling, solution strategies, and analysis of results. Statistical techniques including probability distribution functions, regression analysis, and curve fitting. **New:** 316. Analysis of Engineering Systems. 3 hr. PR: MATH 261 with grade of C or better, ENGR 102, and MAE 242. Analytical, numerical, and computational techniques to analyze and solve engineering problems. Mathematical modeling, solution strategies, and analysis of results. Statistical techniques including probability distribution functions, regression analysis, and curve fitting.	**Rationale:** Math 261 grade of C or better stipulation is made to improve level of mathematical preparation for this course and thus improve success rate of students in the class.	200708

MAE	**331**	3050	**Action:** add Math 251 with ≥ C grade as PR **Old:** 331. Fluid Mechanics. 3 hr. PR: MAE 241. Fluid statics, laminar and turbulent flow of compressible and incompressible fluids, flow measurements, open channel flow, and kinetics of fluids. (3 hr. lec.). **New:** 331. Fluid Mechanics. 3 hr. PR: MATH 251 with grade of C or better and MAE 241. Fluid statics, laminar and turbulent flow of compressible and incompressible fluids, flow measurements, open channel flow, and kinetics of fluids. (3 hr. lec.)	**Rationale:** Math 251 was added to ensure that students enrolled in this course understand the needed course fundamentals. Math grade of C or better stipulation is made to improve level of mathematical preparation for this course and thus improve success rate of students in the class.	200708
MAE	**343**	3050	**Action:** add Math 251 with ≥ C grade as PR **Old:** 343. Intermediate Mechanics of Materials. 3 hr. PR: MAE 243. Introduction to material and science. Introduction to elasticity. Strength under combined stresses. Energy methods. Column theory. Unsymmetric bending. Fundamentals of fatigue and fracture. **New:** 343. Intermediate Mechanics of Materials. 3 hr. PR: MATH 251 with grade of C or better and MAE 243. Introduction to elasticity. Strength under combined stresses. Energy methods. Column theory. Unsymmetric bending. Fundamentals of fatigue and fracture.	**Rationale:** Math 251 was added to ensure that students enrolled in this course understand the needed course fundamentals. Math grade of C or better stipulation is made to improve level of mathematical preparation for this course and thus improve success rate of students in the class.	200708

MAE	**411**	3050	**Action:** add Math 261 with ≥ C grade as PR, EE 221, 222 in place of EE 306 or EE 307 **Old:** Advanced Mechatronics. 3 hr. MATH 261 and MAE 211 and EE306 and PR or CONC: EE 307. Instrumentation and measurements emphasizing systems that combine electronics and mechanical components with modern controls and microprocessors. First and second order behavior, transducers and intermediate devices, measurement of rapidly changing engineering parameters, microcontrollers, and actuators. (2hr. lec., 3 hr. lab). **New:** 411. Advanced Mechatronics. 3 hr. MATH 261 with grade of C or better, MAE 211, and EE 221, 222. Instrumentation and measurements emphasizing systems that combine electronics and mechanical components with modern controls and microprocessors. First and second order behavior, transducers and intermediate devices, measurement of rapidly changing engineering parameters, microcontrollers, and actuators. (2hr. lec., 3 hr. lab).	**Rationale:** EE 306 and 307 are no longer offered. Our students now take the EE 221 and 222 sequence as part of their regular curriculum. Math grade of C or better stipulation is made to improve level of mathematical preparation for this course and thus improve success rate of students in the class.	200708
MAE	**423**	3050	**Action:** add Math 261 with ≥ C grade as PR **Old:** 423. Heat Transfer. 3 hr. PR: MAE 320. Steady state and transient conduction. Thermal radiation. Boundary layer equations for forced and free convection. (3 hr. lec). **New:** 423. Heat Transfer. 3 hr. PR: MATH 261 with grade of C or better and MAE 320. Steady state and transient conduction. Thermal radiation. Boundary layer equations for forced and free convection. (3 hr. lec).	**Rationale:** Math 261 was added to ensure that students enrolled in this course understand the needed course fundamentals. Math grade of C or better stipulation is made to improve level of mathematical preparation for this course and thus improve success rate of students in the class.	200708

MAE	**454**	3050	**Action:** add Math 261 with ≥ C grade as PR **Old:** 454. Machine Design and Manufacturing. 3 hr. PR: MAE 342 and MAE 343. Mechanical design of mechanical elements such as shaft systems, bearings, gears, screws, and fasteners, clutches and brakes, and flexible drive elements. Design for manufactuability considerations. **New:** 454. Machine Design and Manufacturing. 3 hr. PR: math 261 with grade of C or better, MAE 342 and MAE 343. Mechanical design of mechanical elements such as shaft systems, bearings, gears, screws, and fasteners, clutches and brakes, and flexible drive elements. Design for manufactuability considerations.	**Rationale:** Math 261 was added to ensure that students enrolled in this course understand the needed course fundamentals. Math grade of C or better stipulation is made to improve level of mathematical preparation for this course and thus improve success rate of students in the class.	200708
MAE	**456**	3050	**Action:** add Math 261 with ≥ C grade as PR **Old:** CAD and Finite Element Analysis. 3 hr. PR:(MAE 342 or MAE 345) and MAE 343. Computer-aided design fundamentals, finite element concepts and solution techniques. Exposure to CAD and finite element packages. Design case studies. **New:** 456. CAD and Finite Element Analysis. 3 hr. PR: Math 261 with grade of C or better and (MAE 342 or MAE 345) and MAE 343. Computer-aided design fundamentals, finite element concepts and solution techniques. Exposure to CAD and finite element packages. Design case studies.	**Rationale:** Math 261 was added to ensure that students enrolled in this course understand the needed course fundamentals. Math grade of C or better stipulation is made to improve level of mathematical preparation for this course and thus improve success rate of students in the class.	200708

MAE	**460**	3050	**Action:** PR of MAE 316 dropped; Add Math 261 (≥ C grade) as prerequisite to enrollment. **Old:** 460. Automatic Controls. 3 hr. PR: MAE 316. Time and frequency domain modeling of physical systems. Open-loop and closed-loop transfer functions. Time response, stability, and steady-state errors of control systems. Root-locus techniques. Compensator design. Frequency response. **New:** 460 Automatic Controls. 3 hr. PR: MATH 261 with grade of C or better. Time and frequency of domain modeling of physical systems. Open-loop and closed-loop transfer functions. Time response, stability, and steady-state errors of control systems. Root-locus techniques. Compensator design. Frequency response.	**Rationale:** MAE 316 was dropped as a PR because it was determined that the addition of the Math 261 requirement would fulfill the same purpose. Math grade of C or better stipulation is made to improve level of mathematical preparation for this course and thus improve success rate of students in the class.	200708

Action: Course Drops

FIDP 408 430111

Old: FIDP 408: Forensic Journal Club. 1 Hr. Familiarize students with the primary literature including original research papers, legal documentation, and articles for professional publications by conducting a literature search on a topic and preparing and presenting the analysis to the class.

PATH 600 510811

Old: PATH 600. Fundamentals of Pathology. 2 Hr. Student in Pathology Assistant MS Program. Basic Fundamentals of pathology to include necrosis, neoplasia, carcinogenesis, inflammation, and other conditions.

PATH 602 510811

Old: PATH 602. Pathology Assistant Systemic Pathology. 3 Hr. Introduce specific organ system diseases and pathological process to first-year Pathologist's Assistant students.

PATH 615 510811

PATH 615. Pathology Assistant Microbiology. 1 Hr. PR: Student in MS Pathology Assistant Program. Survey of microbial agents and diseases for Pathologist's Assistants. Emphasis on transmission, safety and basic laboratory techniques including specimen collection and transport.