The University Curriculum Committee recommends approval of the following:

1. **New Courses**

   **AERO 101. Principles of Aerospace Engineering. (1-0). Credit 1.** Overview of aerospace engineering and the aerospace industry, including requirements and assignments of an aerospace engineer, vehicle configurations and missions, aerodynamics, structures and materials, dynamics and control, simulation and testing, and aerospace engineering in the future. Prerequisites: ENGR 111 or registration therein; MATH 151; PHYS 218.

   **AERO 404. Mechanics of Advanced Aerospace Structures. (3-0). Credit 3.** Advanced analysis techniques for aerospace structures; material anisotropy, plasticity, fatigue and fracture; laminated materials; solution of plane elasticity, plate and multi-component structural configurations; buckling of beams and plates; application of finite element analysis. Prerequisite: AERO 306.

   **BIMS 481. Seminar in Biomedical Science. (1-0). Credit 1.** Recent advances in biomedical sciences. To be taken on a satisfactory/unsatisfactory basis. Prerequisite: Junior or senior classification in life sciences majors.

   **BMEN 405. Virtual Instrumentation Design for Medical Systems. (2-3). Credit 3.** Design of medical systems using graphics programming language of LabVIEW including the designing and programming of three virtual systems as follows: cardiac monitor, electromyogram system for biomechanics, and sleep stage analyses from electroencephalograms. Prerequisites: BMEN 308 and 309.

   **BMEN 440. Design of Medical Devices. (3-0). Credit 3.** Overview of the multiple issues in designing a marketable medical device, including the design process from clinical problem definition through prototype and clinical testing to market readiness; includes FDA regulation, human factors and system safety considerations and medical product liability. Prerequisites: BMEN 422; senior classification in engineering.

   **BMEN 460. Vascular Mechanics. (3-0). Credit 3.** Application of continuum mechanics to the study of the heart arteries; emphasis on the measurement and quantification of material properties, and the calculation of vascular stresses; analysis of several cardiovascular devices to reinforce the need for careful analysis in the device design. Prerequisites: BMEN 302 and 421.
BMEN 461. Cardiac Mechanics. (3-0). Credit 3. Application of continuum mechanics and computational solid mechanics to the study of the mammalian heart; utilization of continuum mechanics and finite element analysis in solving non-linear boundary value problems in biomechanics. Prerequisites: BMEN 302 and 421; approval of instructor.

CLAS 330. Women in Ancient Greece and Rome. (3-0). Credit 3. Survey of women in classical Greece and Rome; emphasis on female occupations and family relationships, legal and political status, traditional values, notorious women, how women were viewed and how they viewed themselves. Prerequisite: Junior or senior classification. Cross-listed with HIST 330 and WMST 330.

DANC 200. Dance in Society. (3-0). Credit 3. Introduction to dance art, entertainment and culture; emphasis on appreciation and understanding of movement as an art form; emphasis on expression of human values; historical, cultural values and traditions; current issues in dance.

DANC 301. Dance History. (3-0). Credit 3. Overview of current dance scene, career fields, education; development of theatrical, social, educational dance from lineage based to contemporary cultures; emphasis on dance in America, genres, roots, heritage, pioneers, crusading artists; impacts, influences, growth, development, trends and continual metamorphosis in the art world. Prerequisites: DANC 200; junior or senior classification.

DANC 302. Dance Production. (3-0). Credit 3. Learn philosophy, major aspects and common elements in producing dance concerts; lighting, sound, stage designs, terminology, costuming, management, production designs, practical experience with on-stage performances. Prerequisite: Junior or senior classification.

DANC 400. Dance Composition. (3-0). Credit 3. Learn choreographic devices related to group work movement studies; learn design principles, methods, movement concept and elements including space, time, energy and force; focus on choreographic tools including cannon, motif and development, theme and variation, rondo, inversion, ABA form, retrograde, repetition, improvisation and creativity in the dance making process. Prerequisites: DANC 302; junior or senior classification or approval of instructor.

ENGR 221. Statics and Particle Dynamics. (2-2). Credit 3. Application of the fundamental principles of Newtonian mechanics to the statics and dynamics of particles and the equilibrium of trusses, frames, beams and other rigid bodies. Prerequisites: Upper-level classification in civil engineering or mechanical engineering; MATH 251 or 253 or registration therein; PHYS 218.

ENGR 401. Interdisciplinary Design. (2-3). Credit 3. Instruction and practice in the following design process applied to an interdisciplinary design project: establish the customer need; determine requirements in terms of function (what) and performance (how well); develop alternative design concepts; perform trade-off studies among performance, cost and schedule; embodiment and detail design; iterate the above
steps; major interdisciplinary design project. Prerequisites: Senior classification and approval of instructor.

**HIST 330. Women in Ancient Greece and Rome. (3-0). Credit 3.** Survey of women in classical Greece and Rome; emphases on female occupations and family relationships, legal and political status, traditional values, notorious women, how women were viewed and how they viewed themselves. Prerequisite: Junior or senior classification. Cross-listed with CLAS 330 and WMST 330.

**MEEN 421. Thermo-Fluids Analysis and Design. (3-0). Credit 3.** Integration of thermodynamics, fluid mechanics and heat transfer through the application of these disciplines to the design of various systems comprised of several components requiring individual analyses; analysis of the entire system; several representative systems will be studied using a design approach. Prerequisites: MEEN 344; ENGR 212; junior or senior classification.

**MEEN 431. Advanced System Dynamics and Controls. (3-0). Credit 3.** Unified framework for modeling, analysis, synthesis, design and simulation of mechanical systems encompassing mechanical, electrical, hydraulic and thermal sub-systems; includes treatment of 3-D dynamics, multiple degrees of freedom vibrations and control system design. Prerequisites: MEEN 357 and 364; junior or senior classification.

**WMST 330. Women in Ancient Greece and Rome. (3-0). Credit 3.** Survey of women in classical Greece and Rome; emphases on female occupations and family relationships, legal and political status, traditional values, notorious women, how women were viewed and how they viewed themselves. Prerequisite: Junior or senior classification. Cross-listed with CLAS 330 and HIST 330.

2. **Courses to be Withdrawn**

   **CVEN 202. Surveying.**

   **CVEN 205. Engineering Mechanics of Materials.**

   **CVEN 206. Field Plane Surveying.**

   **CVEN 321. Materials Engineering.**

   **CVEN 347. Structural Design.**

   **CVEN 366. Soils in Construction.**

   **CVEN 481. Seminar.**

   **MEEN 213. Engineering Mechanics II.**
MEEN 334. Mechanical Systems I.
MEEN 335. Mechanical Systems II.

3. Changes in Courses

CVEN 201. Plane Surveying.

Prerequisite
From: MATH 151.
To: MATH 142.

CVEN 302. Computer Applications in Engineering and Construction.

Prerequisites
From: ENGR 112; MATH 251 or registration therein.
To: ENGR 112; MATH 308 or registration therein.


Prerequisites
From: CVEN 301; CHEM 222.
To: CVEN 301; CHEM 222 or 227.

CVEN 422. Civil Engineering Systems II.

Prerequisite
From: CVEN 421 or registration therein.
To: CVEN 421 or STAT 211 or registration therein.

IDIS 444. Distributor Customer Base Management.

Course title
From: Distributor Customer Base Management.
To: Strategic Issues in Industrial Distribution.
Course description

From: Seminar approach to current and future problems in distribution; topics include systems contracting, quality assurance, negotiations techniques, profitability predictors and branching operations.

To: Managing change in a dynamic environment in industrial distribution including key success factors involved in firm profitability; issues of a strategic nature; negotiation processes; ethical behavior in achieving economic and social performance.

PETE 401. Reservoir Development.

Credit hours

From: (1-3). Credit 2.
To: (2-3). Credit 3.

ZOOL 434. Regulatory and Behavioral Neuroscience.

Credit hours

From: (3-3). Credit 4.
To: (3-0). Credit 3.