**CECS Academic Affairs Committee Meeting Agenda**



#### Meeting: Academic Affairs Committee

#### Date: March 25, 2015

**Time: 9 am to 11am**

**Location: JD 4440**

**Agenda**

1. Discussion of curriculum:

**Manufacturing Systems Engineering and Management Department**

**Course Modification Proposals**

**MSE 227 –** *Engineering Materials:* Change requisites.

**MSE 227L –** *Engineering Materials Lab:* Change requisites.

**MSE 362 –** *Engineering Statistical Applications:* Change requisites.

**MSE 406 –** *Engineering Cost Analysis:* Change requisites.

**MSE 407 –** *Manufacturing Systems:* Change requisites.

**MSE 410 –** *Production Systems Modeling and Lab:* Change requisites.

**MSE 488A –** *MSEM Senior Design:* Change requisites.

**MSE 504 -** *Engineering Management:* Change requisites.

**MSE 508/L –** *CAD/CAM Systems and Lab:* Change Requisites

**MSE 509 –** *Computer-Aided Manufacturing Systems:* Change Requisites

**MSE 511 –** *Robotics with Applications and Lab:* Change Requisites

**MSE 512 –** *Fundamentals of MEMS Fabrication:* Change Requisites

**MSE 513 –** *NDE Methods and Analysis:* Change Requisites

**MSE 516/L –** *CAD/CAM Advanced Tools and Lab:* Change Requisites

**MSE 517/L –** *CAD/CAM Advanced Applications and Lab:* Change Requisites

**MSE 527/L –** *Mechanical Behavior of Materials and Lab:* Change Requisites

**MSE 528/L –** *Principles of Materials Engineering and Lab:* Change Requisites

**MSE 531 –** *Corrosion:* Change Requisites

**MSE 536 –** *Introduction to Advanced Biomaterial:* Change Requisites

**MSE 550 –** *Thin Film Technology:* Change requisites

**MSE 556 –** *Nanomaterials and Nanotechnology:* Change Requisites

**MSE 623 –** *Composite Materials*: Change catalog description, subject abbreviation, requisites.

**Mechanical Engineering Department**

**Course Modification Proposals**

**ME 375** *– Heat Transfer:* Change requisites

**ME 335/L –** *Mechanical Measurements and Lab:* Change Requisites

**ME 486A –** *Senior Design in Mechanical Engineering:* Change requisites

**ME 531** – *Mechanical Design with Composites:* Change course level

**ME 532** - *Mechanical Design with Polymers:* Change course title, course abbreviation, course level

**ME 560** – *Automotive Engineering:* Change course abbreviation, requisites, course level.

**ME 562** – *Internal Combustion Engines:* Change course abbreviation, requisites, course level

**ME 590** - *Advanced Fluid Dynamics***:** Change catalog description, requisites, course level

**ME 675A** - *Convective and Radiative Heat Transfer*: Change requisites.

**ME 675B** - *Convective Heat and Mass Transfer*: Change requisites.

**New Course Proposals**

**ME 376** - *Heat Transfer in Electrical and Electronic Systems (3 units @ C-4)*

Prerequisites: Math 280, Phys 220A/L. Basic principles of thermodynamics and heat transfer applicable to electrical and electronic systems. Introduction of conductive, convective, and radiative modes of heat transfer. Analysis of a finned heat sink. Not available for credit for mechanical Engineering majors.

**ME 436** - *Mechanics and Design of Composites Materials (2 units @C-4)*

Prerequisite: ME 330, ME 386/L. Introduction to composite materials. Analysis, design and applications of laminated fiber reinforced composites. Macro-mechanical analysis of engineering constants and failure. Design Project.

**ME 475** – *Heat Transfer II (3 units @ C-4)*

Prerequisites: ME 375; ME 390; ME 280, Math 280, or ECE 280. Intermediate topics on conduction, convection, radiation heat transfer. Introductions to heat exchangers, simultaneous heat and mass transfer and phase change. Applications to design.

**ME 592** - *Compressible Flow (3 units @ C-5)*

Prerequisite: ME 490. Corequisite: ME 501A, ME 501B or equivalent. Fundamental treatment of compressible flows including generalized one-dimensional flows, normal and oblique shock waves, Prandtl-Meyer expansion waves, unsteady waves, linearized potential flow. Method of characteristics. Hypersonic flow, high temperature and low density effects.

**Program Modification Proposal**

*M.S., Mechanical Engineering*

Change minimum GPA.  Change departmental admission requirements.