SYLLABUS
MENG 2113 & 2213: Statics and Dynamics

Summer 2017

Instructor: Dr. Jeong Tae Ok

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Office Hours: TBA
Course Schedule: MTWR 8:00 – 10:00 AM, and 3:00 – 5:00 PM

Location: TBA

CATALOG DESCRIPTION
Statics: A study of forces and force systems, resultants and components of force systems, forces due to friction, conditions of equilibrium, and forces acting on frame structures.
Dynamics: Kinematics and kinetics of particles and rigid bodies in plane motion. Work-energy and impulse-momentum principles.

COURSE PRE-REQUISITES
PHYS 1624, MATH 1634

REQUIRED OR RECOMMENDED TEXTBOOK

TOPICS COVERED
- General Principles
- Force Vectors
- Equilibrium of a Particle
- Force System Resultants
- Equilibrium of a Rigid Body
- Structural Analysis
- Internal Forces
- Friction
- Center of Gravity and Centroid
- Moments of Inertia
- Virtual Work
- Kinematics of a Particle
- Kinetics of a Particle: Force and Acceleration
- Kinetics of a Particle: Work and Energy
- Kinetics of a Particle: Impulse and Momentum
- Planar Kinetics of a Rigid Body
- Planar Kinetics of a Rigid Body: Force and Acceleration
- Planar Kinetics of a Rigid Body: Work and Energy
- Planar Kinetics of a Rigid Body: Impulse and Momentum
- Exams (2 Quizzes, 1 Mid-term, and 1 Final for each course)

Additional material may be covered as time permits.
COURSE ORGANIZATION AND ASSESSMENT

- **Course Format**
  This course consists of eight 120 minute sessions each week. Class time will be used to introduce concepts and apply these to relevant problems. Lectures will not be used to communicate the entire course content and thus, you will have to study some of the course materials on your own.

- **Class Attendance**
  You are expected to attend class regularly and are responsible for notes, homework assignments, quizzes, and exams missed while being absent.

- **Student Attitude**
  Once class starts, the use of cell phones, reading newspapers, conducting private discussions, using the computer (unless asked by your instructor), working on anything that is not directly related to the course, and making derogatory remarks about your classmates or instructor will not be accepted and may result in your dismissal from the class.

- **Evaluation Method**
  Your performance will be tested weekly throughout the course via two quizzes, a mid-term and a final exam. As well, several reading assignments will be given in the classes.

- **Course Grade**
  The final grade for the course will be based on the exam scores. The quizzes account for 15% each of the course grade. The mid-term and final exams will be assigned by 30% and 40%, respectively.

GENERAL GUIDELINES

- Read the course material before coming to class.
- Utilize the class hours for any Q&As throughout the course.
- A “mini-break” during the session will allow students to travel through England & Western Europe.

GENERAL EDUCATION STATEMENT

Students in this course must demonstrate their proficiency in oral and written communication. They must also demonstrate their ability to use the English language.

ACADEMIC INTEGRITY POLICY

Scholastic dishonesty will not be tolerated and will be prosecuted to the fullest extent. You are expected to have read and understood the current issue of the student handbook regarding student responsibilities & rights, and the intellectual property policy information about procedures and what constitutes acceptable on-campus behavior.

DISABILITY SUPPORT SERVICES

If you have a documented disability that will impact your work in this class, please contact me to discuss your needs.

DISCLAIMER STATEMENT

Information contained in this syllabus other than grading policies, may be subject to change with advance notice, as deemed appropriate by the instructor.