

ME 466: Fundamentals of Engineering Examination Review

<i>Course description:</i>	Review of engineering fundamentals and mechanical engineering discipline specific topics to prepare for the Fundamentals of Engineering Examination. S, F grading.
<i>Number of credits:</i>	1
<i>Course Coordinator:</i>	J.L. Ding
<i>Prerequisites:</i>	Admitted engineering or computer science major.
<i>Prerequisites by topic:</i>	<ol style="list-style-type: none">1. Mathematics2. Physics3. Probability and statistics4. Computational tools5. Statics6. Dynamics, kinematics, and vibrations7. Mechanics of materials8. Material properties and processing9. Thermodynamics10. Fluid mechanics11. Heat Transfer12. Engineering economics13. Ethics and professional practices14. Measurements, instruments, and controls15. Mechanical design and analyses
<i>Postrequisites:</i>	FE exam
<i>Textbooks/other required materials:</i>	<ol style="list-style-type: none">1. FE Supplied Reference Handbook – free download: http://ncees.org/exams/study-materials/download-fe-supplied-reference-handbook/2. FE Mechanical Review Manual (FEMERM), by Lindeburg. (recommended)3. Publisher: http://ppi2pass.com/fe-mechanical-review-manual-femerm.html4. Mechanical Discipline-Specific Review for the FE/EIT Exam (DSME2), 3rd Ed. (recommended). Publisher: http://ppi2pass.com/mechanical-discipline-specific-review-for-the-fe-eit-exam-dsme2.html
<i>Course objectives:</i>	To prepare students for the FE examination through a review of engineering fundamentals and ME discipline specific subjects.

Topics covered:

1. Probability and statistics
2. Statics
3. Dynamics, kinematics, and vibrations
4. Mechanics of materials
5. Material properties and processing
6. Thermodynamics
7. Fluid mechanics
8. Heat Transfer
9. Engineering economics
10. Ethics and professional practices
11. Measurements, instruments, and controls
12. Mechanical design and analyses

Expected learning outcomes: Reinforce the learning outcomes from previous courses related to engineering fundamentals and mechanical engineering specific subjects.

Class schedule: Two 170-minute lecture sessions per week for 8 weeks.

Laboratory schedule: N/A

Contribution to meeting the professional component: Engineering Topics

Relationship of course to student outcomes: Meets:
1. School of MME ME educational objectives: 1, 2, 3
2. School of MME ME program outcomes: 1, 4, 7
3. ABET EC2019, Criterion 3 program outcomes: 1, 4, 7

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POLICIES

A. Reasonable Accommodation (the nature of the particular course determines which one applies):

- **Pullman Campus.** Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center.
- **WSU Online Course.** Reasonable accommodations are available in online classes for students with a documented disability. All accommodations must be approved through your WSU Disability Services office. If you have a disability and need accommodations, we recommend you begin the process as soon as possible. For more information contact a Disability Specialist on your home campus: Pullman or WSU Online (<http://accesscenter.wsu.edu>), Spokane (<http://spokane.wsu.edu/students/current/studentaffairs/disability/>), Tri-Cities (<http://www.tricity.wsu.edu/disability>), Vancouver (<http://studentaffairs.vancouver.wsu.edu/student-resource-center/disability-services>).

B. Academic Integrity

WSU expects all students to behave in a manner consistent with its high standards of scholarship and conduct. Students are expected to uphold these standards both on and off campus and acknowledge the university's authority to take disciplinary action. The Standards of Conduct for Students can be found at <http://conduct.wsu.edu>.

C. WSU Safety

WSU is committed to maintaining a safe environment for its faculty, staff, and students. Safety is the responsibility of every member of the campus community and individuals should know the appropriate actions to take when an emergency arises. In support of our commitment to the safety of the campus community the University has developed a Campus Safety Plan, <http://safetyplan.wsu.edu>. It is highly recommended that you visit this web site as well as the University emergency management web site at <http://oem.wsu.edu/> to become familiar with the information provided.