MEC 260 ENGINEERING STATICS Spring 2018

Lectures: Prof. Fu-pen Chiang (Office Hours: Fridays 2:00-4:00 pm @ LE105)

Lectures: MWF 11:00-11:53pm (Engineering 143)

Teaching Assts: Mang Zhang (Office Hours: M 2:00pm-4:00pm @ HE135)

Recitation-01: M 4:00-4:53pm (SOCBEHAV SCI S228) **Recitation-03:** W 2:30-3:23pm (EARTH&SPACE 079)

Catalog Data: A review of vector algebra. Concept of force. Equilibrium of particles. Moments about points and lines, couples and equivalent force systems. Free body diagram. Equilibrium of rigid bodies. Analysis of simple structures such as trusses, frames, and beams. Centroids, centers of gravity, and moments of inertia. Dry friction. And applications. Prerequisites: PHY 131/133 or 141 or 125, Co-requisite: MAT 203 or AMS 261

Textbook: *Statics-Learning from Engineering Examples*, by Igor Emri and Arkady Volusion, Springer, ISBN: 978-1-4939-2100-3 ISBN: 978-1-4939-2101-0 (eBook)

Course Objective: Provide the necessary background for further study of MEC 262 Dynamics, MEC 363 Mechanics of Solids, and MEC 364 Fluid Mechanics.

Grading: In-Class Quizzes (20%), Homework (20%), One Midterm Exam (25%), Final Exam (35%). Note: A grade of 'C' or higher is required to take MEC 262 and MEC 363.

Grading Scale: $92 \le A$	$\Lambda \leq 100$	$74 \leq C+ < 78$
$88 \leq A$	A- < 92	$70 \leq C < 74$
$85 \leq E$	3+<88	$67 \leq C - < 70$
$81 \leq E$	3 < 85	$64 \leq D+ < 67$
$78 \leq E$	B- < 81	$60~\leq~D~<~64$

Exams: All exams will be closed book and closed notes. An exam absence will be scored as a zero, unless a valid excuse with appropriate documentation is presented to Professor Chiang within one week following the exam. If you are sick, see your doctor and get a note. You must bring your Stony Brook ID, two or more pencils, and an approved scientific calculator to each exam.

Allowed Calculators: Following the Mechanical Engineering Department's mandatory calculator policy, <u>only</u> the following calculators will be allowed to be used on the midterm and final exams. <u>There will be no exceptions.</u> This list of calculators is identical to that allowed for the *National Council for Examiners for Engineering and Surveying* (NCEES) <u>Fundamentals of Engineering</u> (FE) exam that many of you will take in your senior year, as well as the <u>Professional Engineering</u> (PE) exam that you may take several years from now. The sooner you become comfortable on one of these calculators, the better. The NCEES policy on calculators can be found here: http://ncees.org/exams/calculator-policy

Casio: All **fx-115** models. Any Casio calculator must contain **fx-115** in its model name.

HP: The **HP 33s** and **HP 35s** models, but no others.

TI: All TI-30X and TI-36X models. Any Texas Instruments calculator must contain either TI-30X or TI-36X in its model name.

Homework Assignments: Homework will be assigned by Friday's class and is due no later than the next Friday's class. The report should be in hard copy format only.

Americans with Disabilities Act: If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC(Educational Communications Center) Building, Room 128, (631)632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.http://studentaffairs.stonybrook.edu/dss/index.shtml. Academic Integrity: Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic_integrity/index.html Critical Incident Management: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.