SYLLABUS

MAE 415-003, 605
Strength of Mechanical Components
Dr. Eischen
NC State University

TuTh 3:50-5:05PM 2213 EBII
Fall Semester 2015

Moodle Link:
https://moodle1516-
courses.wolfware.ncsu.edu/course/view.php?id=1516#section-0

Instructor: J. W. Eischen

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Office Hours: Tu Th 2-3PM

TA/Grader: Tyler Jenkins
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Office:
Office Hours:

Course Prerequisites/Co-requisites
Preq: MAE 315 and (MAE 316 or MAE 371)
Textbook:

This book will be the reference for the development of component analysis. The second half of the book will be thoroughly covered.

http://highered.mcgraw-hill.com/sites/0073398209/information_center_view0/

Grading:

Homework (partial grading, full solution postings) 15%
Midterm (Date TBA, open book exam) 25%
3 Design Projects (group) 60%

Student Learning Objectives
The students will be asked to demonstrate their knowledge of the material covered in MAE 415 through their mastery of the following course objectives. Through the study of MAE 415 the student will be able to:

1. Design basic mechanical components including but not limited to: bolted joints, weldments, springs, rolling contact bearings, journal bearings, gears, brakes, clutches, flexible drive elements, shafts, and axles. Find essential information for design purposes from WorldWideWeb sites of manufacturers and suppliers.
2. Integrate background developed in the physical sciences, engineering sciences and mathematics to solve real world design problems. Solve open-ended problems that contain superfluous or insufficient information and require development of additional data for analysis.
3. Create technical reports that describe the context and significance of a design problem, and the procedures/methods used to solve the problem.

Instructor's Academic Integrity Statement:

- The University's policy on academic integrity found may be found in the Code of Student Conduct
- Students will be expected to abide by the following NC State Honor Pledge on exams and other assignments as noted by the instructor.

"I have neither given nor received unauthorized aid on this test or assignment."

**Statement for Students with Disabilities:**

"Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation

www.ncsu.edu/policies/academic_affairs/pols_regs/REG205.00.28.php"

**Online Class Evaluations:**

Schedule: Online class evaluations will be available for students to complete during the last 2 weeks of spring term: 8 a.m. April 13 through 8 a.m. April 27. Students will receive an email message directing them to a website where they can login using their Unity ID and complete evaluations. All evaluations are confidential; instructors will never know how any one student responded to any question, and students will never know the ratings for any particular instructors.

Evaluation website: https://classeval.ncsu.edu/
Student help desk: classeval@ncsu.edu
More information about ClassEval: http://www.ncsu.edu/UPA/classeval/

**Captured Lectures: (note for on-campus students)**

This on campus course will be captured and distributed via the Internet and/or electronic media as part of the Engineering Online (EOL) program for the distance students. These video recordings may contain an image of you entering the classroom, asking a questions or being a part of the studio class. Please notify Dr. Linda Krute, Director of EOL, in writing at ldkrute@ncsu.edu if you **DO NOT** want your image to be included in the lecture presentation. If we do not hear from you after the first week of the class, we will assume that you are in agreement with this procedure.