CE 440 Statically Indeterminate Structures  
Fall Semester 2016

Instructor: Jale Tezcan, Ph.D., P.E.
Office: EGR-B32
Office Hours: MWF 12:00 pm – 12:50 pm and 2:00 pm-2:50 pm (or by appointment)
Phone: (618) 453-6125
E-mail: jale@siu.edu
Course Webpage: http://engr.siu.edu/tezcan/
Class Schedule: MWF 3:00 pm – 3:50 pm at Agriculture 0168

Catalog Description:

Course Objectives:
  1) Review of basic principles of structural theory
  2) Detailed study of the methods for analysis of statically indeterminate trusses, beams and frames subjected to static loads
  3) Approximate analysis of building structures

Attendance Policy:
Students are expected to attend all classes. Although not explicitly graded, attendance and class participation are essential to your success in this course.
Tentative Schedule:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to statically indeterminate structures (Chapter 11)</td>
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<tr>
<td>2</td>
<td>Static determinacy and stability of beams, trusses and frames (Sections 3.4, 4.4 and 5.5)</td>
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<tr>
<td>3</td>
<td>Method of consistent deformations - force method (Chapter 13)</td>
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<td>Method of consistent deformations - force method (Chapter 13)</td>
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<tr>
<td>5</td>
<td>Review of influence lines for statically determinate structures (Chapter 8)</td>
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<tr>
<td>6</td>
<td>Influence lines for statically indeterminate structures (Chapter 15), <strong>Test 1 (Sept 28)</strong></td>
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<tr>
<td>7</td>
<td>Influence lines for statically indeterminate structures (Chapter 15)</td>
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<tr>
<td>8</td>
<td>Analysis of symmetric structures (Chapter 10)</td>
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<td>9</td>
<td>Analysis of symmetric structures (Chapter 10)</td>
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<tr>
<td>10</td>
<td>Slope-Deflection Method (Chapter 16)</td>
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<tr>
<td>11</td>
<td>Slope-Deflection Method (Chapter 16)</td>
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<tr>
<td>12</td>
<td>Moment Distribution Method (Chapter 17), <strong>Test 2 (Nov 9)</strong></td>
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<td>13</td>
<td>Moment Distribution Method (Chapter 17)</td>
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<tr>
<td>14</td>
<td>Moment Distribution Method (Chapter 17)</td>
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<tr>
<td>15</td>
<td>Approximate Analysis of Rectangular Building Frames (Chapter 12)</td>
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<tr>
<td>16</td>
<td>Approximate Analysis of Rectangular Building Frames (Chapter 12)</td>
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<tr>
<td>17</td>
<td><strong>Final Exam (Dec 16, 2:45 pm - 4:45 pm)</strong></td>
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**Grading:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score</th>
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<tbody>
<tr>
<td>A</td>
<td>90% – 100%</td>
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<tr>
<td>B</td>
<td>80% – 89%</td>
</tr>
<tr>
<td>C</td>
<td>70% – 79%</td>
</tr>
<tr>
<td>D</td>
<td>60% – 69%</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 60%</td>
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</table>

**Homework:** Homework is due one week after being assigned. It should be turned in at the beginning of class. Homework must be neat and completed on 8.5” by 11” paper. At the top of the first page, list your name, the course number, and assignment number. Solutions will be posted on the course website on the due date. No late homework will be accepted. Your lowest homework grade will be ignored in the average. Homework should be your individual work.

**Exams:** There will be two midterm exams and the final exam. Each exam will be cumulative and may require information covered earlier in the course. There will be no make-up exams.
IMPORTANT DATES *
Semester Class Begins: 08/22/2016
Last day to add full-term course (without Dean’s signature): 08/28/2016
Last day to withdraw from the University with a full refund: 09/02/2016
Last day to drop a full-term course for a credit/refund: 09/04/2016
Deadline to apply to graduate at the end of this term: 09/16/2016
Last day to drop a full-term course (W grade, no refund): 10/30/2016
Final examinations: 12/12–12/16/2016
Commencement: 12/17/2016

Note: For more detailed information on the above deadlines, please visit http://registrar.siu.edu/calendars. For add/drop dates that apply to shorter-than-full-term courses, please look at the Schedule of Classes search results at http://registrar.siu.edu/schedule/class/index.php

FALL SEMESTER HOLIDAYS
Labor Day Holiday 09/05/2016
Fall Break 10/08–10/11/2016
Veterans Day Holiday 11/11/2016

WITHDRAWAL POLICY ~ Undergraduate only
Students who officially register for a session must officially withdraw from that registration in a timely manner to avoid being charged as well as receiving a failing grade for those classes. An official withdrawal must be initiated by the student, or on behalf of the student through the academic unit, and be processed by the Registrar’s office. For the proper procedures to follow when dropping courses and when withdrawing from SIU visit: http://registrar.siu.edu/students/withdrawal.php

INCOMPLETE POLICY~ Undergraduate only
An INC grade may be assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments for the course. An INC must be changed to a completed grade within one full semester (undergraduates), and one full year (graduate students), from the close of the term in which the course was taken or graduation, whichever occurs first. Should the student fail to complete the remaining course requirements within the time period designated, the incomplete will be converted to a grade of F and such grade will be computed in the student's grade point average. For more information visit: http://registrar.siu.edu/grades/incomplete.php

REPEAT POLICY
An undergraduate student may, for the purpose of raising a grade, enroll in a course for credit more than once. For students receiving a letter grade of A, B, C, D, or F, the course repetition must occur at Southern Illinois University Carbondale. Effective for courses taken Summer 2013 or later, only the most recent (last) grade will be calculated in the overall GPA and count toward hours earned. This policy will be applied to all transferrable credit in that only the last grade will be used to calculate grade point average. Only those courses taken at the same institution are considered repeats under this policy. See full policy at http://registrar.siu.edu/students/repeatcheases.php

GRADUATE POLICIES
Graduate policies often vary from Undergraduate policies. To view the applicable policies for graduate students, please refer to the graduate catalog at http://gradschool.siu.edu/about-us/grad-catalog/

DISABILITY POLICY
Disability Support Services provides the required academic and programmatic support services to students with permanent and temporary disabilities. DSS provides centralized coordination and referral services. To utilize DSS services, students must contact DSS to open cases. The process involves interviews, reviews of student-supplied documentation, and completion of Disability Accommodation Agreements. http://disabilityservices.siu.edu/

PLAGIARISM
Student Conduct Code http://srr.siu.edu/student-conduct-code/

AFIRMATIVE ACTION & EQUAL OPPORTUNITY
Our office's main focus is to ensure that the university complies with federal and state equity policies and handles reporting and investigating of discrimination cases. For more information visit: http://diversity.siu.edu/

MILITARY COMMUNITY
There are complexities of being a member of the military community and also a student. Drill schedules, calls to active duty, complications with GI Bill disbursement, and other unforeseen military and veteran related developments can complicate academic life. If you are a member of the military community and in need of accommodations please visit Veterans Services at http://veterans.siu.edu/

ADVISEMENT: http://advisement.siu.edu/
SIU ONLINE: https://online.siu.edu/
SIU SOLUTION FINDER: http://solutionfinder.siu.edu/
MORRIS LIBRARY HOURS: http://libguides.lib.siu.edu/hours

SAFETY AWARENESS FACTS AND EDUCATION
Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: http://safe.siu.edu

MILITARY COMMUNITY
The purpose of Saluki Care is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial, or personal. By working closely with faculty, staff, students and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. For Information on Saluki Care: call(618) 453-1492, email siukicares@siu.edu, or http://salukicares.siu.edu/

SIU’S EARLY WARNING INTERVENTION PROGRAM (EWIP)
Students enrolled in courses participating in SIU’s Early Warning Intervention Program might be contacted by University staff during a semester. More information can be found at the Core Curriculum’s Overview webpage: http://corecurriculum.siu.edu/program-overview/

EMERGENCY PROCEDURES
We ask that you become familiar with Emergency Preparedness @ SIU. Emergency response information is available on posters in buildings on campus, on the Emergency Preparedness @ SIU website, and though text and email alerts. To register for alerts visit: http://emergency.siu.edu/

STUDENT MULTICULTURAL RESOURCE CENTER
The Student Multicultural Resource Center serves as a catalyst for inclusion, diversity and innovation. As the Center continues its work, we are here to ensure that you think, grow and succeed. We encourage you to stop by the Center, located in Grinnell Commons, to see the resources available and discover ways you can get involved on the campus. Visit us at http://inclusiveexcellence.siu.edu/

LEARNING AND SUPPORT SERVICES
Help is within reach. Learning support services offers free tutoring on campus and math labs. To find more information please visit the Center for Learning and Support Services website:
Tutoring : http://tutoring.siu.edu/
Math Labs http://math.siu.edu/courses/course-help.php

WRITING CENTER
The Writing Center offers free tutoring services to all SIU students and faculty. To find a Center or Schedule an appointment please visit: http://write.siu.edu/

Fall 2016 R. O'Rourke