

CET 435 - 102, Design of Temporary Structures

Spring 2022

Course Policy

Course Number	CET 435										
Course Description	Design of Temporary Structures										
Course Structure	(3-0-3) (lecture hr/wk - lab hr/wk – course credits)										
Course Description	Analysis of loadings on, and design of, temporary structures required in construction. Formwork, shoring and scaffolding systems, temporary bridges, trenching, and temporary retaining walls are among the subjects covered. Construction safety associated with temporary structures is stressed.										
PREREQUISITE (s)	CET 331, Structural Systems, CET 233, Structural Analysis in Construction, MET 237 Strength of Materials and MET 235 Statics										
Co REQUISITE (s)	None										
COURSE NATURE	Required Course										
Required Materials	<u>Formwork for Construction</u> , SP-4, 2014 (updated to 10/31/19), 8 th Edition, American Concrete Institute, 2014, ISBN 978-0-87031-912-9. <u>Steel Sheet Piling Manual</u> , U.S. Steel (free download at http://mcipin.com/publications/sheetpiles/USSteel_1984-SteelSheetPiles.pdf)										
Computer Usage	Word, Excel, PowerPoint and Project										
Course Learning Outcomes	By the end of the course students should be able to: <ol style="list-style-type: none"> 1. Design and implement a temporary structure in wood, such as a replacement beam for a load bearing wall. 2. Design and implement a temporary structure in steel, such as a sheet pile wall, a braced cut or a cofferdam. 3. Design and implement a temporary structure in concrete, such as formwork for a footing, a slab on grade, a wall or a column. 4. Design and implement a temporary structure in concrete for multi-slab construction. 										
Class Topics	Analysis of loadings on, and design of, temporary structures required in construction. Formwork, shoring and scaffolding systems, temporary bridges, trenching, and temporary retaining walls are among the subjects covered. Construction safety associated with temporary structures is stressed.										
Grading Policy	<table> <tr> <td>Mid Term Exam</td><td>30 %</td></tr> <tr> <td>Final Exam</td><td>30 %</td></tr> <tr> <td>Homework</td><td>20 %</td></tr> <tr> <td>Quizzes</td><td>10 %</td></tr> <tr> <td>Attendance</td><td>10 %</td></tr> </table> <p>Course Minimums: <u>Examinations</u> - A student cannot pass this course if they have not taken the midterm and the final exam. In the event that a student misses a scheduled examination, they will have 1 week from the date of the test to schedule and take the examination. Any student who is absent when a test is returned may see the Instructor in his office to pick up his test. Ebooks (and similar electronic media) are permitted during class time and will be allowed during examinations. <u>Attendance</u> - You must attend at least 60% of this semester's classes.</p>	Mid Term Exam	30 %	Final Exam	30 %	Homework	20 %	Quizzes	10 %	Attendance	10 %
Mid Term Exam	30 %										
Final Exam	30 %										
Homework	20 %										
Quizzes	10 %										
Attendance	10 %										

Homework – All homework assignments will be posted and submitted in Canvas. This posting will include the assignment, the due date and the area to post the student's solutions. Hard copies of the homework will not be accepted and late assignments will not be accepted for credit.

Student Behavior

NJIT has a zero-tolerance policy regarding cheating of any kind and student behavior that is disruptive to a learning environment. Any incidents will be immediately reported to the Dean of Students. In the cases that Honor Code violations are detected, the punishments range from a minimum of failure in the course plus disciplinary probation up to expulsion from NJIT with notations on students' permanent record. Avoid situations where honorable behavior could be misinterpreted. For more information on the honor code, go to <http://www.njit.edu/academics/honorcode.php>

In general, the class shall be run in the format of a business meeting or a business seminar. As such it is expected that the appropriate behavior for that business situation is expected. Specific behaviors are listed below.

Tardiness - If you arrive late for class, please try and enter the room with as little fanfare as possible.

Attendance - Attendance will be taken within the first 15 minutes of class. If you arrive after that time, you will be marked absent for that session. Attendance is taken is a part of your grade. You must attend at least 60% of this semester's classes.

Food - No eating or drinking is allowed during lectures, recitations and workshops. A light beverage, such as bottle of water or a cup of coffee, is acceptable as long as it is not disruptive.

Cell Phones - Cellular phones should be turned off or silenced during the class hours – if you are expecting an emergency call, leave it on vibrate and leave the class room and take your call. This also applies to texting.

Apparel - Hats, caps, headphones or ear buds should not be worn in class.

Learning Disabilities - Students with recognized learning disabilities will be accommodated as best as possible. A student should contact the NJIT Learning Center and speak to the Instructor prior to class. Any information in this regard will be kept as confidential as possible. This also applies to any special needs during exams and tests.

Seat Cleanup – You are responsible for the area in which you sit each week. This includes the removal of any waste (scrap paper, empty coffee cups or water bottles) and pushing in your chair as you leave the room. Class time should be participative. You should try to be part of the discussion.

Health Accommodations – In the event of illness, the student needs to contact the Office of Campus Health (covid.notify@njit.edu) for approval. That Office will notify the instructor. Depending on the situation, the student may be excused from class and any weekly quiz however, as homework is assigned on a weekly basis, the student will not be excused from submitting homework. With respect to examinations, the only accommodation that will be received is that the examination will be deferred to an alternate date (see above note). It will not be offered in an alternate format at the time the examination is being offered.

Modification to Course The Course Outline may be modified at the discretion of the instructor or in the event of extenuating circumstances. Students will be notified in class and in writing of any changes to the Course outline.

Prepared by Prof. John A. Wiggins
Course Coordinated by Prof. John A. Wiggins

Class Hours
 Thursday evenings
 6:00 – 8:50
 Faculty Memorial Hall
 Room 411