

**LAMAR UNIVERSITY**  
**DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING**

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CVEN 1101: Introduction to Civil Engineering  
FALL SEMESTER 2017

**Course Description:**

This is a project based introductory course in engineering that focuses specifically on the civil engineering discipline. Students in this course will conduct a variety of team-based projects that will explore some of the physical phenomenon and design concepts in civil engineering systems. Design concepts will also be covered and physically implemented with the use of AutoCad and a 3D printer. In addition, the students will be introduced to technical communication including, reports, presentations, and posters.

**Student Learning Outcomes:**

1. Develop an awareness and understanding of the different civil engineering sub-disciplines: Structural Engineering, Environmental Engineering, Geotechnical Engineering, Transportation Engineering, and Hydraulic Engineering.
2. Understand how to effectively work in teams
3. Understand the engineering problem solving techniques and design process
4. Apply the engineering design process to solve realistic hands-on problem solving.
5. Apply EXCEL and MATLAB to solve engineering problems.
6. Apply engineering skills to contextualized real-world problem

**ABET Outcomes:**

1. An ability to design and conduct experiments, as well as to analyze and interpret data.
2. Ability to function on multi-disciplinary teams.
3. An ability to communicate effectively.
4. The broad education necessary to understand the impact of engineering solutions in a global economic, environmental, and societal context.

**Pre/Co-Requisite:**

1. MATH 2413

**Meeting Time:**

Lecture: Monday 10:20 a.m. – 11:15 a.m., Lucas Engineering #112

Laboratory: Wednesday, 10:20 a.m. – 11:15 a.m., Lucas Engineering #112

**Instructor:**

Nicholas Brake, Ph.D., Cherry #2214, Ph. #: (409) 880-8765. Email: [nicholas.brake@lamar.edu](mailto:nicholas.brake@lamar.edu)

**Office Hours:**

1. MW 3:00 p.m.-5:00 p.m.
2. By appointment

### **Grade Distribution:**

Attendance/Participation: 25%, Homework Assignments: 35%, Essay: 15%, Term Project: 25%.

### **Grading Scale:**

Grades will be assigned on a straight scale, with some adjustment for the level of difficulty and overall class performance. If no adjustments are necessary, grades will be assigned as shown below:

A:  $\geq 90$ , B: 80-89, C: 70-79, D: 60-69, F:  $< 60$

### **Course Policies:**

1. Class Meeting: This class will include a weekly one-hour lecture and one-hour laboratory session. Lecture material will be provided in the form of slides and demonstration material in the one-hour lecture. The laboratory session be self-paced and student-guided. All relevant information will be provided to the student before the day of the lecture or laboratory in the form of step-by-step video tutorials. It is the students' responsibility to download the relevant content from the course website and bring it with you to the lecture and/or the session.
2. Attendance/Participation: Attendance for lectures and laboratory is mandatory and will be recorded. Please arrive on time and attend the full class period. If students need to miss any class for religious observance, or for a pressing personal or family matter, they should contact the instructor prior to the missing lecture and to schedule for making up the lab experiments.
3. Quizzes: There will be one open book and open notes online quiz administered each week. The students may work in groups to complete the quizzes.
4. Homework: Students will be asked to periodically complete homework assignments that must be submitted via Blackboard. The instructions for each assignment will be provided on the assignment sheet.
5. Term Project: At the end of the semester, the students will be required to submit a poster presentation summarizing the results of their group-based term project.
6. Computer Requirements: Each student must bring their personal laptop to the class each period. This is a hands-on class where students will be asked to complete in-class assignments. The laptop must WIFI connectivity.
  - a. Windows: The laptop must have a Windows 10, 8.1, 8 or 7 Service Pack 1 operating system, come equipped with any Intel or AMD x86-64 processor, and contain 6 GB of free disk space and 2 GB of RAM.
  - b. Mac: The laptop must have a macOS Sierra (10.12), macOS El Capitan (10.11), and macOS Yosemite (10.10), any Intel or AMD x86-64 processor, and contain 6 GB of free disk space and 2 GB of RAM.
7. Grade Disputes: All grades are considered final and unamendable on the date in which the final grades are posted on the Lamar University system. A student can file an appeal within 10 working days of this date if the instructor has failed to implement a previously announced grade policy, awarded a grade in what has been determined to be an arbitrary or capricious manner, or violated a University or Texas State University System rule or policy. The student should first meet with the instructor to resolve the issue prior to beginning the appeal process. Please reference the student handbook for further instruction.
8. Academic Honesty Policy: Students are specifically warned against all forms of cheating and plagiarism. The Lamar University Student Handbook states: Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. Punishable offenses include, but are not limited to, cheating on an examination or academic work which is to be submitted,

plagiarism, collusion, and the abuse of resource materials. One aspect of the Handbook's definition of cheating is, "purchasing, or otherwise acquiring and submitting as one's own any research paper or other assignment." Students seeking guidance to avoid plagiarism should consult the course instructor, recent handbooks, or the University Writing Center. Punishments for academic dishonesty range from F in the course, to an F on the assignment, to re-submission of the work. Punishments are at the discretion of the faculty member, and may be appealed to the department chair, dean, and Associate Vice President for Academic Affairs. Flagrant or repeat violations may warrant further discipline by the university including probation and suspension.

9. Disability policy: Lamar University is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center (DRC) is located in the Communications building room 105. Office staff collaborate with students who have disabilities to provide and/or arrange reasonable accommodations.
  - If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact the DRC at **409-880-8347** or **drc@lamar.edu** to arrange a confidential appointment with the Director of the DRC to explore possible options regarding equitable access and reasonable accommodations.
  - If you are registered with DRC and have a current letter requesting reasonable accommodations, we encourage you to contact your instructor early in the semester to review how the accommodations will be applied in the course.
10. Sexual harassment: University policy prohibits sexual harassment as defined in Student Handbook: Responsibilities of the Students. Complaints about sexual harassment should be reported to Human Resources, 880-8375.
11. Academic Continuity/ Campus Closure: In the event of an announced campus closure in excess of four days due to a hurricane or other disaster, students are expected to login to Lamar University's website's homepage ([www.Lamar.edu](http://www.Lamar.edu)) for instructions about continuing courses remotely.

### **Emergency Procedures:**

Many types of emergencies can occur on campus; instructions for severe weather or violence/active shooter, fire, or chemical release can be found at:

<http://www.lamar.edu/about-lu/administration/risk-management/index.html>. Following are procedures for the first two:

#### **1. Severe Weather:**

- Follow the directions of the instructor or emergency personnel.
- Seek shelter in an interior room or hallway on the lowest floor, putting as many walls as possible between you and the outside.
- If you are in a multi-story building, and you cannot get to the lowest floor, pick a hallway in the center of the building.
- Stay in the center of the room, away from exterior walls, windows, and doors.

#### **2. Violence/Active Shooter (CADD):**

- **CALL-** 8-3-1-1 from a campus phone (880-8311 from a cell phone). Note: Calling 9-1-1 from either a campus phone or cell phone will contact Beaumont City Police Dispatch rather than University Police.
- **AVOID-** If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
- **DENY-** Barricade the door with desks, chairs, bookcases or any other items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it is safe.
- **DEFEND-** Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.

