

**Construction Management
California State University, Chico**

**CMGT 335 – Construction Equipment
Course Syllabus - Cochran**

A. Prerequisites

CMGT 330 – Principles of Soil Mechanics and Foundations

B. Meeting Time & Location

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|-------------|-------------|------------|--------------------|----------|
| CMGT 335-01 | Class #3056 | Tues/Thurs | 8:00 AM – 9:15 AM | OCNL 337 |
| CMGT 335-02 | Class #3098 | Tues/Thurs | 9:30 AM – 10:45 PM | OCNL 337 |

C. Instructor

Jaime Cochran jcochran@csuchico.edu
Office Hours: Tuesday/Thursday: 11:00 am – 12:30pm and By Appointment
Office Location: Langdon 101
Cell Phone: 916-878-6462

D. Catalog Description:

A study of the equipment used in the construction industry. Included are the types, capabilities, selection, purchase/lease/rent options and balancing of equipment.

This course will study the important units of construction equipment used in the industry. For each major equipment type, the distinguishing features, usage, size ranges, and analytical basis for estimating productive capability will be presented.

E. Course Learning Outcomes (CLO):

Upon successful completion of this course, the student will:

1. Analyze methods, material, and equipment used to construct projects.
2. Be able to balance a load and haul operation using the correct number of haul units and calculate the production rate. **(Reinforce: ACCE SLO #8)**
3. Determine production rates using various types of equipment. **(Reinforce: ACCE SLO #8)**
4. Be able to calculate ownership costs (depreciation) as well as operating expenses such as fuel, oil, and grease usage.
5. Be able to calculate safe rigging size for a given crane hoisting situation. **(Reinforce: ACCE SLO #3)**
6. As a project team, apply multiple class concepts and determine the most appropriate equipment spread(s) given a set of Jobsite constraints and other various dynamic project conditions. **(Reinforce: ACCE SLO #8)**

Student Learning Outcomes (SLO):

The American Council for Construction Education (ACCE) prescribes 20 Student Learning Outcomes (SLO) as Educational Objectives for an undergraduate degree program in Construction Management. For a list of these 20 SLOs visit the Chico State Department of Construction Managements website www.csuchico.edu/cm and the SLO link under the ACCE Accreditation drop down menu.

The following SLOs are supported by this course in the form of I=Introduction, R=Reinforced, or DA= Direct Assessment:

- SLO 3 – Create a construction safety plan (R).
- SLO 8 – Analyze methods, materials, and equipment used to construct projects (R).

ACCE Assessment Mapping:

There are no Direct Assessments in this course

F. Course Resource Materials Requirements:

Textbook: "Construction Planning, Equipment, & Methods," Peurifoy 9th Edition

Course Pack: A course pack will be built from handouts provided throughout the semester

Laptop Computer: A computer will be required for some assigned activity work. There are no university provided computers in classroom.

G. Course Requirements:

Conduct

I believe that students are adults and you will be treated and respected as such. Simply put, this means that you will be held accountable for your actions, decisions, and the consequences. I expect each of you to conduct yourself in a professional and mature manner, showing courtesy and respect for fellow students and the instructor. Please review the Universities Disruptive Behavior policy under section M of this document.

Advisory Note!

- **During class time any disruptive or annoying behavior, outbursts, unbecoming language, or personal visiting during discussion time will result in you being asked to leave and forfeit that day's participation points.**
- **Your personal agenda must be set aside during class time for the greater good of all your classmates.**

Honesty in the Classroom

You are expected to be familiar with the University's policy on academic integrity. As such, there will be no tolerance for dishonesty, sharing of work, or copied work. Ethical standards as established by the university will be strictly upheld as defined in the University Catalog.

Tobacco Products

The use of any type of tobacco product (smokeless, chewable or otherwise) is not permitted in any building at California State University, Chico. If you chew tobacco products, please refrain during class time.

Electronic Devices

The use of phones, and other electronic devices (excluding laptops) is not permitted in class. If you must take a call (work or emergency), please EXIT the classroom before answering the call.

Withdrawal from Class

Please refer to the Academic Calendar Deadlines as published in the University Catalog.

Professional Work

As a student looking towards gaining an internship/career within the construction industry, *it is expected that your completed work will be professional in presentation*. Consider this course as practice in presenting professional quality industry work to your future employer.

H. Instructional Methods:

This course is designed around the following methods of presenting material to the student:

1. Class discussions and assigned readings reinforced by quizzes
2. In-class break-out groups where students will discuss the content and respond to particular questions.
3. Class Assignments/Homework to reinforce your skills in analyzing and selecting appropriate construction equipment for a project.
4. Group Project to facilitate teamwork and application of skills learned in class to a construction project.

I. Assignments:

Out of class work will be assigned on a regular basis. *Completed assignments will be collected at the beginning of class.*

Homework must be neat, organized, and completed on **Engineering Calculation paper**. When applicable, free body diagrams should be included. Use a straight edge or paper grid to draw clear and concise free body diagrams. Proper units must be used at all times.

All homework solutions handed in must conform to the following:

- Indicate the problem number and the statement of the problem (if helpful) followed by the answer/calculations.
- Answers should be well identified by underlining or boxing.
- Place your name, course-section, date, and homework assignment number across the top your paper.
- If multiple pages, have them stapled (not loose, folded together (dog-eared) or paper clipped) and documents are not be wrinkled, stained, torn, etc. Points will be deducted for assignments turned in with any of these characteristics.

Failure to follow the homework guidelines will result in a loss of points. [Refer to the sample homework solution handed out in class today.]

Advisory Note!

- **Assignments will be collected at the beginning of class and any submission after the class has started will be considered “LATE” and will be docked 15% of the available points.**
- **All other submissions after the class period they are due *will not be accepted for credit*, unless the student has an excusable reason and has notified the instructor *prior to the start of class regarding their excusable circumstance*.**

Readings

Readings are noted in the course calendar. You are encouraged to have the required reading completed prior to class, as this will facilitate your comprehension of discussion materials.

Assignments/Homework

There will be weekly assignments built to reinforce your understanding of the current classroom discussion material. These activities are intended to build your skills in analyzing and selecting appropriate construction equipment for a project.

Group Work

You are encouraged to study and work in groups, however all submitted work must be your own.

J. Assessments:

Assessments are the basis of determining your ability to create, analyze, apply, and understand the Course Learning Outcomes (CLO) and Student Learning Outcomes (SLO) provided by ACCE. Instructional target goals have been established (as noted above) and the results of the assessment in these areas will be used to determine the success of the student and instructor for this course.

Quizzes

In general, weekly quizzes will be given based upon the class discussions, assigned readings, and homework. Quizzes may be given at any time during the class period; additional time will not be given to students that show up late and miss part or all of the quiz. The quizzes will cover material from prior lecture topics. Your lowest quiz score will be dropped. No makeup quizzes will be given unless prior arrangements have been made or extenuating circumstances exist.

Advisory Note!

There will be NO make-up quizzes, unless arranged prior. If you miss a quiz, do not come to me after the fact. It is your responsibility to attend class regularly and complete quizzes.

Exams

There will be two exams throughout the semester but there will not be a final exam. In-lieu of the final exam, students will work on a group project and present that project during the time

slot of the final exam. Exam and quiz solutions are to include **all relevant work in a logical order, with explanations where necessary.**

Examinations and quizzes are due when called. Points will be deducted for tardy submittals. There will not normally be a make-up for anyone missing an exam. If a student is unable to take an exam due to an emergency or illness, the instructor should be notified in advance. A prorated examination score may be given for excused absences. Unexcused absences will yield a score of zero. Please come prepared to stay the whole exam period; no one may leave prior to the end of the exam period. No makeup exams will be given except for a serious and compelling reason as outlined by the University Catalog.

Group Project

The group project will require critical analysis and application of skills developed throughout the course applied to a realistic construction scenario. An overview of the project and group assignments will be given early in the semester. You are encouraged to begin work on the project early as it is worth a significant part of your overall grade in the course. **Some class time will be set aside to work on your group project; however, the project will likely require additional meeting times outside of class.**

Participation, Attitude, and Attendance

A portion of your course grade will be based on participation, attitude and **attendance**. On time attendance and staying the entire class duration is required; as is keeping all course notes, homework and quizzes in a binder in a neat and orderly fashion.

Your fellow classmates and instructor should be treated with respect and courtesy at all times. Disruptive behavior will not be tolerated, and students may be asked to leave for such behavior (See sections M and N below).

Athletes

It is your responsibility to get your competition schedule to the instructor. You must make up all missed work. If you do not request this work in advance of your competition, the instructor has the right not to allow it as make up work. Plan ahead. Quizzes can only be done ahead of time; there will not be make-up quizzes.

K. Grading/Evaluation:

Grades for this course will be weighted as follows:

| | |
|-----------------------------|-----|
| Homework | 15% |
| Quizzes | 20% |
| Exam #1 | 15% |
| Exam #2 | 15% |
| Group Project | 25% |
| Participation/Miscellaneous | 10% |

Grades are generally assigned by the following distribution, although the professor reserves the right to modify the distribution.

| | | | | | |
|----|---|------------------------|----|---|--------------------------|
| A | = | 94 -100% (Exceptional) | C+ | = | 77 – 79% (Above Average) |
| A- | = | 90 – 93% (Excellent) | C | = | 73 – 76% (Average) |
| B+ | = | 87 – 89% (Very Good) | C- | = | 70 – 72% (Below Average) |
| B | = | 83 – 86% (Good) | D | = | 60 – 69% (Inadequate) |
| B- | = | 80 – 82% (Adequate) | F | = | < 60% (Failing) |

L. Topical Outline:

Refer to the course work calendar posted on Blackboard Learn.

M. University Policies and Campus Resources

Disruptive Behavior

Students are required to adhere to the behavior standards articulated in the Campus Policies and Code of Student Conduct, and to refrain from disrupting classes and other academic settings. "Disruptive behavior" means conduct that materially and substantially interferes with or obstructs the teaching or learning process in the context of a classroom or educational setting. Disruptive behavior includes conduct that distracts or intimidates others in a manner that interferes with instructional activities, fails to adhere to an instructor's appropriate classroom rules or instructions, or interferes with the normal operations of the University.

Disruption in the classroom may include:

- Persistent speaking without permission.
- Side conversations.
- Excessive talking.
- Engaging in activities not related to the class, or other overt inattentiveness including but not limited to sleeping, talking to others, doing work for another class, checking e-mail, and exploring the Internet.
- Ringing cell phones or using a cell phone.
- Using mobile devices or laptop computers in the classroom for non-course related purposes.
- Eating/drinking in class without permission.
- Monopolizing class discussion and refusing to defer to instructor, or listen to others; persisting when the instructor has indicated that the student's remarks are off topic and it is time to move on.
- Chronically entering late/leaving early, moving about the classroom when not appropriate for the classroom activity.
- Filming, photographing, or taping the class without the instructor's prior permission.
- Disputing authority or arguing with faculty and other students.
- Yelling, arguing, swearing, bullying, or other harassing or intimidating behavior.
- Inappropriate, disrespectful, or uncivil responses to the comments, opinions, presentations, etc. of others in the classroom.
- Physically or verbally abusive conduct.
- Failure to adhere to the instructor's rules or instructions.
- Vulgar or obscene language, slurs or other forms of intimidation.
- Threats of any kind.
- Improper use of equipment, materials or resources.

- Destruction of property.
- Coming to class under the influence of alcohol or another controlled substance.
- Bringing individuals to class who are not enrolled, including infants/children.
- Any behavior that puts the health or safety of the instructor or other students in the classroom in jeopardy.

Attendance in Class

You are expected to attend classes regularly. You should discuss absences with your instructors, but you may report an absence of more than a week's duration to Academic Advising Programs when it results from circumstances beyond your control, such as illness or accident. The office will then send notification of your absence and the reason for it to your instructors. Instructors can, if they choose, drop you from a course for non-attendance. If you miss two consecutive classes, please provide a doctor note. Missing more than 4 classes over the semester may result in an automatic drop of one grade level.

Academic integrity

Students are expected to be familiar with the University's Academic Integrity Policy. Be familiar with the University's policy on academic honesty. I take this issue very seriously, and will not tolerate any form of dishonesty such as plagiarism or cheating. Your own commitment to learning, as evidenced by your enrollment at California State University, Chico, and the University's Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the Office of Student Judicial Affairs. The policy on academic integrity and other resources related to student conduct can be found at: <http://www.csuchico.edu/sjd/sja.shtml>

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Students with disabilities requesting accommodations must register with the ARC Office (Accessibility Resource Center).

Special accommodations for exams require ample notice to the testing office and must be submitted to the instructor well in advance of the exam date.

Student Computing

Computer labs for student use are available <http://www.csuchico.edu/stcp> located on the 1st floor of the Merriam Library Rm 116 and 450, Tehama Hall Rm.131 and the BMU Rm 301.

Student Services

Student services are designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. Students can find support for services such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. Student services information can be found at: www.csuchico.edu/5.-studentservices.html.

Disability Services

Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Please also contact the Accessibility Resource Center office to coordinate reasonable accommodations for students with documented disabilities. Accessibility Resource Center online: <http://www.csuchico.edu/arc/instructors/support-services.shtml>.

Student Learning Center

The mission of the Student Learning Center (SLC) is to provide services that will assist CSU, Chico students to become independent learners. The SLC prepares and supports students in their college course work by offering a variety of programs and resources to meet student needs. The SLC facilitates the academic transition and retention of students from high schools and community colleges by providing study strategy information, content subject tutoring, and supplemental instruction. The SLC is online at <http://www.csuchico.edu/slc/>. The University Writing Center has been combined with the Student Learning Center.

N. Other

Title IX: Confidentiality and Mandatory Reporting

As a Chico State instructor, one of my responsibilities is to help create a safe learning environment for Chico State students. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep information you share private to the greatest extent possible. **However, I am required to share information regarding sexual misconduct with the University.**

Students may speak to someone confidentially by contacting the Counseling and Wellness Center (898-6345) or Safe Place (898-3030). Information about campus reporting obligations and other Title IX related resources are available here: <http://www.csuchico.edu/title-ix>.