

Rio Hondo Community College

Architecture, Civil, Engineering, Design Drafting, CAD, and GIS

Course Syllabus – Spring 2014

Course Title: Engineering Careers & Applications (2 Units)
Friday, 9:00am – 12:40pm

Office Hours: Friday: 8:30 – 9:00am
Location: S306

Catalog Number: ENGT 138 (CRN: 72271)

Instructor: Mr. Dave Martin
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Class Web page: <https://sites.google.com/site/davemartin131> or
<http://goo.gl/GzIEjs> (case-sensitive)

Description: This course is for all students interested in the career field of Engineering and Engineering Design Drafting. Engineering Careers and Applications will explore the career opportunities and training requirements in the field of engineering and engineering technology. Topics will include the history of engineering, careers in engineering, ethics, communicating and responsibilities of the engineer with hands on problem solving.

Course Duration: Course is one semester in duration of approximately sixteen (16) weeks.

Prerequisite: None.

Advisory: READ 023 or appropriate assessment and ENGL 030 or ESL 197 or appropriate assessment.

Course Grading System

Area	% Value
Attendance	10
Book Assignments and Video/Speech/Website Questions	30
Projects	30
Midterm and Final Exams	30
Total	100%

Notes:

- All work is graded based on a percentage and is averaged to find the total grade.
- To achieve a minimum grade of "C" the following is required: 85% attendance for class sessions and labs and a grade average of 70% on all assigned lab work, tests, assignments and projects.
- It is required that students concurrently enroll in **CRN 72337**. The course designation is **NVOC 018**. The purpose of this class is so that the student will be signed up for a computer account and has access to the lab during non-class hours (open lab).
- There is **no grade** associated with the **NVOC 018** class and **no cost** to register. Registration for this class must occur within the **first week**.

Required Text: Raymond B. Landis, Studying Engineering – A Road Map to a Rewarding Career, 3rd Edition, 2007, Discovery Press, Los Angeles
ISBN: 978-0964696921

Materials: Flash Drive (2GB), 3-Ring Student Notebook.

Attendance Policy

Attendance is worth 10% of the overall grade. The attendance grade is calculated as follows:
1 Absence = 90%, 2½ Absences = 85%, 3 Absences or more = 0%.

Attendance is taken at the beginning of class. If a student is late more than 20 minutes then a ½ absence will be counted toward the attendance grade. Students may also be dropped from a class for excessive absences. If a student misses the equivalent time the class meets in a two-week period then the student may be dropped. Certain absences will be excused at the discretion of the instructor.

If a student does miss a class it is extremely important that they contact the instructor as soon as possible. Since it is extremely difficult to make up missed class time, it is extremely important that the student attend every class meeting! Be sure to pay close attention to the academic calendar for various deadlines throughout the semester.

Academic Honesty

It is extremely important the students are honest in their education. It is unacceptable for a student to copy the work of another student and turn it in as their own. This includes book assignments, answers on tests and quizzes, and other work done either inside or outside the lab. If a student allows another student to copy their work then both students will receive a zero (0%) on that assignment. Do not store your work on a computer drive or location that is accessible by others.

Grade Change Policy

It is the policy of the Instructor to only allow grade changes for the following reasons: clerical error on the part of the instructor, computer problem (technical error during submission of grade by instructor), reevaluation of student's work, and/or change from an incomplete grade. Unless arrangements are made with the instructor prior to the end of the semester, the grade given is the final grade. Grades **will not** be changed by the instructor for work that is turned in after the end of the semester.

Other Course Guidelines

- Students will be required to do group assignments and presentations. All members must participate.
- All outside written assignments must be typed.
- Work that is completed in class must be neatly handwritten.
- If a student misses a quiz or exam, they must inform the instructor to arrange a make-up.
- Students in drafting labs have access to the Internet. This access is granted as a privilege and for instructional purposes. Any misuse of the Internet may result in dismissal from the class. Since others can see the monitors, students accessing materials of questionable nature are subject to harassment and discrimination laws.
- Students who require special accommodations for hearing and/or vision disabilities should inform the instructor. Any student with a disability and who believes that he/she may need accommodations in this class, is encouraged to contact the Disabled Student Program and Services office as soon as possible to ensure that such accommodations are implemented in

a timely manner. The office is located in room SS-330 and the telephone number is (562) 908-3420.

- If you need to improve your study skills, communications skills, or test taking skills for this course, you are advised to seek a tutor's assistance in the Learning Assistance Center (LAC) located in LR 114.

Course Objectives

All the end of the course the student should be able to:

1. Define the areas of study available in the engineering field.
2. Demonstrate an understanding of the fundamental concepts of the civil engineering field.
3. Discuss the technical and professional and social responsibilities of the engineer.
4. Demonstrate the importance of having good communication skills such as listening, speaking and writing.

Internet and Lab Access

- There will be a temporary login and password available until September 7th, 2014. The user login is: **tempacc** and the password is: **sept072014**.
- Handouts, Syllabi, Grades, and other information will be available on the Y: Drive.

Weekly Schedule

<u>Week</u>	<u>Description of Topics</u>	<u>Assignments Due</u>
1 (8/29/2014)	Introduction, Syllabus Project #1 – Engineering Survey	None
2 (9/5)	Chapter 1 – <i>Keys to Success in Engineering Study</i>	Project #1 (Beginning of Meeting)
3 (9/12)	Chapter 1 – Continued Begin Project #2 – Invention Research	None
4 (9/19)	Chapter 2 – <i>The Engineering Profession</i> Bureau of Labor Statistics (BLS) Website Video & Questions Continue work on Project #2	None
5 (9/26)	Project #2 Presentations Chapter 2 – cont.	<ul style="list-style-type: none"> • Chapter 1 Questions • Video Questions • BLS/Discover Engineering Website Questions
6 (10/3)	20 Greatest Engineering Achievements Speech Project #3 – Team Structure Building	None
7 (10/10)	Project #3 – Continued Chapter 3 – <i>Understanding the Teaching/Learning Process</i>	<ul style="list-style-type: none"> • Speech Questions • Chapter 2 Questions
8 (10/17)	Chapter 3 – cont. "To Engineer is Human" Video	Video Questions
9 (10/24)	Chapter 4 – <i>Making the Most Out of How You Are Taught</i> Project #4 – Birdhouse Project	None

10 (10/31)	Chapter 4 – cont. Project #4 – cont.	Chapter 3 Questions
11 (11/7)	Chapter 5 – <i>Making the Learning Process Work for You</i>	Project #4 (End of Meeting)
12 (11/14)	Chapter 6 – <i>Personal Growth and Development</i>	<ul style="list-style-type: none"> • Chapter 4 Questions • Keirsey Temperament Sorter Survey
13 (11/21)	Chapter 7 – <i>Broadening Your Education</i> Holiday 11/28	None
14 (12/5)	Final Exam Review	None
15 (12/12)	Final Exam – 9:00 – 11:00am	

Student Learning Outcomes (SLO)

Student Learning Outcomes or SLOs are “something the student will **do** that will **show** you that they learned some essential aspect of the course.” Each class has a number of SLOs that are used to provide information about the goals and general purpose to others that are not familiar with the course.

In the case of most classes, the student should be able to perform a set of tasks to the instructor's satisfaction. This is evaluated in a variety of ways: projects, tests and exams. During the course of the class the projects and assignments are designed to test the student's ability with various types of tasks.

Below are the SLOs for this class. Each student must become familiar with them.

SLOs for ENGT 138

- Given reading assignments and classroom lectures and lab exercises, students will demonstrate an understanding of the fundamental concepts of the engineering field, discuss the technical, professional and social responsibility of the engineering field, and demonstrate the importance of having good communication skills such as listening, speaking and writing.
- Given a classroom / lab environment that simulates industry professional workstations, during lesson and lab activities, students will model professional behavior, professional ethics and professional social responsibility. (This SLO is also linked as a Program SLO for the Engineering Design Drafting Technician, Certificate and the Engineering Design Drafting, AS Degree.)

At the end of the course the entire class is evaluated as a whole based on their performance. The Criteria/Standards are evaluated using three levels: Excellent, Satisfactory, and Unsatisfactory. These results are then reported to the college and used to inform the instructor and depart of the effectiveness of the course and are used to make the class a better experience.