

## Fall 2016

City College of San Francisco  
Engineering and Technology Department  
**ENGN 36 – “Engineering Static”**  
Online Section 831  
Office Hours: Tuesdays 5-6 PM and Thursdays 2-3 PM, or by appointment

Instructor: Dr. Fabio Saniee  
Office: Science Bldg. Room 24  
Voice Mail: (415)452-5282  
Email: [fsaniee@ccsf.edu](mailto:fsaniee@ccsf.edu)

### Course Description:

This is an introductory course in applied mechanics for students majoring in engineering and planning to transfer to a 4-year university.

### Textbook:

Vector Mechanics for Engineers: Statics, 7<sup>th</sup>, or 8<sup>th</sup>, or 9<sup>th</sup>, or 10<sup>th</sup> edition, by: Beer & Johnson, McGraw-Hill  
(A copy is also available at CCSF library “Reserved Desk”)

### Delivery Modes:

The online option for this course is designed for students who are organized, do their work methodically and consistently, and take responsibility for their learning activities. They will invest the time they save from commuting and attending on campus classes to study on their own in a timely manner.

### On Campus Mandatory Attendance:

For the online section, students will access the online server via <http://online.ccsf.edu> for all the course related resources, including course weekly assignments, video clips, and graded quizzes.

The timeline for each weekly assignment is specified in the title of each week and must be adhered to.

The students will meet on campus on three occasions as follows:

- Orientation Session: On [Wednesday August 17, 2016, at 5:00 PM](#), in Science Building Room 47 (basement of Science Bldg.).
- Midterm Exam: On [Saturday October 15, 2016, 10 AM-12PM](#), in Science Building, Room 56 (picture IDs will be checked)
- Final Exam: On [Saturday December 10, 2016, 10 AM-12 PM](#), in Science Building, Room 56 (picture IDs will be checked)

The following deadlines are related to dropping the class:

Last day to drop w/o a “W” notation on transcript = **September 8, 2016**

Last day to drop with a “W” notation on transcript = **November 10, 2016**

### Assignments, Homework, Online Quizzes, Online Homework, and Exams:

- Assignments are specified on a weekly basis from the course textbook. The timeline to complete all weekly activities are specified.
- Homework: Several problems from the textbook are assigned each week associated with the topics covered in that week. These problems are not graded and will serve as practice for online HM quiz, which will be graded (see online homework quiz below). The list of weekly homework problems are provided below. Online HM quiz consists of problems similar to the homework problems from the text and are to be taken within the specified weekly timeline within “Insight”. They are graded and will count as 10% of the overall course grade.
- Online Conceptual Quizzes are based on the reading assignment from the text and are to be taken within the weekly specified timeline. These quizzes are graded and will count as 10% of the overall course grade.
- Active online participation in “Discussion” forum consists of engaging with the classmates on a weekly basis discussing the topics and homework problems.
- Midterm Exam: There is a comprehensive 2-hour in person exam covering chapters 1,2,3 and 4. This test consists of problems covering the topics from these four chapters. This midterm exam will count as 40% of the course overall grade. Students are required to show picture IDs at this exam, which will be conducted on campus. Check the following schedule for date, time, and location.

- Final Exam: There is a 2-hour in person exam similar to the midterm exam. This exam will cover the last four chapters, 5, 6, 8, and 9. The final exam also counts as 40% of the course overall grade, and picture IDs are also required at this exam. Check the following schedule for date, time, and location.

**Evaluation Criteria:**

Student’s overall course performance will be evaluated based on the following criteria:

Online Conceptual Quizzes	10%	90-100%	"A"
Online HM Quizzes	10%	80-89%	"B"
<b>Exams:</b>		70 - 79%	"C"
Midterm Exam	40%	60-69%	"D"
Final Exam	<u>40%</u>	below 59%	"F"
Total	100%		

**Other Important Applicable Points for this Online Class (the orientation quiz questions are based on the following statements):**

- Holidays DO NOT** impact the schedule for this online class! Make sure you follow the weekly assignments and take the quiz and HM on time.
- Forming study groups to meet and study on a weekly basis in library or coffee shops are very helpful.
- When taking online quizzes in “Insight”, make sure you press “save” for each question before pressing “next question”.
- The purpose of the quizzes is to gauge your efforts, not to learn the material. The learning is accomplished by studying the topics, watching the video clips, working on the problems listed in the following table, and discussing the issues with your classmates in the online "Discussion" forum.
- Discussion of the quiz questions and problems is **NOT** allowed in the "Discussion" forum. You can **ONLY** discuss any quiz related issues with the instructor and using "mail" tool in “Insight”. Any violation of this will lead to cutting access to the course and potential suspension.
- Students are encouraged to start the weekly work the 1<sup>st</sup> weekend it becomes available to allow time to ask their questions throughout the week and to be able to receive timely responses from their classmates and the instructor.
- For those with adequate math and physics foundations, reading the instructor's instructions in the "weekly assignment" page, reading the explanation in the text, reviewing the summary page in the text, reviewing the practice problems in the text, work on the assigned problems listed in the course syllabus for each week, and watching the video clips of solved problems available in the "weekly assignment" page will adequately prepare you to succeed in this course. Those with some deficiencies may have to do more to keep up with the requirements of this course. Some students have found "Schaum's Outline for Statics" or "Schaum's Outline of Engineering Mechanics" with hundreds of solved problems on the topics covered in this course helpful. You can buy a copy of this outline for less than \$15 from online sources such as Amazon.com.
- Quizzes can not be made up. No browser failure excuse on the last day is accepted.
- Midterm and Final exams are **ONLY** open books. No notes or solution manuals are allowed.
- Online students are welcome to attend the on campus section at any time without prior permission.
- When students ask questions in the “discussion” forum, they should be specific about what edition of the text they use, how they are approaching the problem, what they have done, and what numerical values are calculated, before asking their question.
- State law requires an average of 9 hours of studying time for a 3-unit course on a weekly basis. This figure may be more for engineering classes and for students who have not taken their math and physics courses recently. Plan the time for this activity in your schedule in advance to develop a weekly routine.
- Student’s time management skill is the most critical issue for online classes.
- Check the “Insight” site several times a week, preferably daily. You may not spend more than a minute or so each time, but will capture important announcements and replies to your questions and messages.
- When logging on to “Insight” and before entering the course environment, pay attention to the symbols (icons) shown under the course title. They indicate quizzes are due, unread messages in your mailbox, activities in the discussion forum, unchecked grades in the grade book, etc.

- The communication with **THE INSTRUCTOR** should take place in “Insight” “mail” tool and NOT in the “discussion” forum. The electronic communication language and style should follow the same standards as communications in person or on the phone. Communication with your college professor in a professional setting is not the same as chatting with friends online. Use proper title and language to comply with this standard.
- Any inappropriate and unprofessional language is considered a violation of the college "Students Code of Conduct" policy and can lead to disciplinary actions such as suspension from the class or even the college. For specifics of this college policy refer to college catalog available online.

### **Student Learning Outcome (SLO):**

The following list of learning objectives is in the official ENGN 36 course outline.

Upon completion of this course the student will be able to:

1. Formulate solutions to engineering Statics problems using classical Newtonian mechanics.
2. Synthesize a logical, orderly, step-by-step method of analysis and procedure for engineering Statics problems.
3. Revise complex statics problem statements to exclude their confusing aspects, and reformulate them into simple, readily analyzable components.
4. Assess the forces acting on an object from its surroundings.
5. Construct an appropriate representation of a force acting on an object from its surroundings.
6. Compose clear free body diagrams.
7. Predict if an object will be in equilibrium or not.
8. Calculate unknown forces acting on a body that is known to be in equilibrium.
9. Relate the skills learned in ENGN 36 to the design process.
10. Select and set up a state-of-the-art computer software tool to solve engineering Statics problems.
11. Compose a clear and complete presentation, in the manner of modern professional engineers, of a Statics solution.

An SLO assessment tool will be used to capture some data for the purpose of improving the learning process in the course incrementally and on an ongoing basis. The details of this activity will be communicated with you later in the course.