Engineering Analysis - Statics Syllabus

EGN2312 Class 70816, Fall 2019

Course Information

Engineering Analysis - Statics - EGN2312 Class 70816
Date: August 20 to December 9, 2019

In this course, the fundamental concepts of building structures (structural mechanics) are introduced and studied.

Pre-reqs: Prerequisites: MAC 2311 and PHY 2048C. Corequisite: MAC 2312.
Credits: 3

Instructor Information

Cecilia Larsson, Ph.D.
Email: larssons@seminolestate.edu

Best method of contact is sending a message in Canvas
Direct office phone: (407) 971 5168
Office location: Lee campus at Oviedo, Faculty office OVE 301C.

Office hours: Mondays 9 am - noon, Tuesdays 9 am - noon online, Wednesdays 5 pm - 6 pm, and Thursdays 9 am - noon online. Please make an appointment by e-mail or phone.

Instructional Mode

Lecture and Discussion

Instruction includes classroom lecture and discussion.

Textbook Information

Required Textbook

Engr Mech.:statics Access

Author:	Hibbeler
ISBN:	9780133916379
Publisher:	Pearson
Edition:	14TH 16 NE
Buy:	$133.30 New
	$100.00 Used

Choice - Please pick one

Other Textbook

Engr Mech.:statics (loose) W/ Access

Status:	Recommended Choice - Please
Author:	Hibbeler pick one
ISBN:	9780134209296
Publisher:	Pearson
Edition:	14TH 16 NE
Buy:	$180.00 New
	$135.00 Used
Rent:	$162.00 New
	$162.00 Used

Please do not get the international version of this book. It is required that each student acquire access to "Mastering Engineering" for homework submission. Additionally, scientific calculator, graph paper, and computer with internet access are also needed.

Grade Scale and Evaluation Methods

Description	% of Total Grade
Exam 1	20 %
Exam 2	20 %
Exam 3	20 %
Exam 4	20 %
Assignments	15 %
Attendance/Participation	5 %

Grading Scale:

A= 90% - 100%, B = 80% - 89%, C = 70% - 79%, D = 60% - 69%, and F = <59%

Measurable Course Objectives

Measurable Course Objectives are outcomes students are expected to achieve by the end of the course.

- Use free body diagrams to vectorially analyze simple two- and three-dimensional, statically loaded force systems involving internal and external forces.
- Solve problems involving static and kinetic friction and determine distributed forces involving areas and masses.

Collegewide Student Learning Outcomes

The Collegewide Student Learning Outcomes assessed and reinforced in this course include the following:

- Communication
- Critical Thinking
- Information Literacy

Attendance Policy

The College recognizes the correlation between attendance and both student retention and achievement. Per College Policy 3.060 **Students are expected to attend all classes, actively participate and complete all assigned course work for all courses for which they are registered.**

For online classes, attendance is determined by consistently logging in and accessing the course content and completing courses in accordance with the syllabus. Simply logging in to an online class does NOT count as attendance. Students must engage in an academically-related activity.

A student who do not participate in class nor submit required assignment by the end of add/drop may be withdrawn from the class. Additionally, attending class is part of the grade.

Class Assignments

Class assignments will in general be assigned during each class and due date will be indicated in MasteringEngineering. Late submission will not be accepted. Solutions will be presented/discussed after the due date and therefore the fairness of late submission will be compromized. Not following directions will additionally result in points being deducted from the assignment/exams.

Withdrawal Policy

A student desiring to withdraw from a course after the add/drop period should initiate withdrawal procedures with an instructor or counselor. Withdrawals are not official until the withdrawal form is completed and given to the Office of Enrollment Services and Registrar. Withdrawal deadlines are published in the official College Catalog Academic Calendar.

www.seminolestate.edu/catalog/#calendar

It is the student's responsibility to withdraw from the class, before the withdrawal deadline. A student who is not active in the class (missing classes) or is not submitting answers to the assignments/quizzes/exams might be withdrawn from the class. The professor has the right to give the student a W2 before the deadline, after attempting to contact (message) the student regarding the non-participation.

College Emergency Information

In case of emergency conditions (such as tropical storms, hurricanes, power outages, etc), verify the college is open and classes are being held by calling 407.708.2290 or 407.708.4722. The Seminole State homepage will also feature updated announcements (www.seminolestate.edu).

Seminole State College also offers enrolled students a mobile app called LifeLine Response. The app allows the College to send email alerts and push notifications about potentially dangerous situations on campus and supplements emergency communications that are already in place. Students can also use the app for their own safety when traveling outside of the College. Students can download the app through the LifeLine Response website and register using their Seminole State email address. For more information, visit www.seminolestate.edu/lifeline.

Accommodation Statement

Seminole State College abides by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), which stipulates that no student shall be denied the benefits of an education 'solely by reason of a handicap.' Disabilities covered by law include, but are not limited to psychiatric impairments, learning disabilities and hearing, sight or mobility impairments. If you have a disability that may have some impact on your work in this class and for which you may require accommodations you must contact the Disability Support Services Office (DSS) to facilitate the accommodation process.

Campus locations and phone numbers for DSS are:

- Sanford/Lake Mary Campus, Room SC-130, 407.708.2109
- Altamonte Campus, Room ALT 107, 407.404.6005
- Heathrow Campus, Room HEA 115, 407.708.4440
- Oviedo Campus, Room OVF 102-D, 407.971.5114

Academic Integrity

As members of the Seminole State College of Florida community, students are expected to be honest in all of their academic coursework and activities. Academic dishonesty, such as cheating of any kind on examinations, course assignments or projects, plagiarism, misrepresentation and the unauthorized possession of examinations or other course-related materials, is prohibited.

Plagiarism is unacceptable to the college community. Academic work that is submitted by students is assumed to be the result of their own thought,

research or self-expression. When students borrow ideas, wording or organization from another source, they are expected to acknowledge that fact in an appropriate manner. Plagiarism is the deliberate use and appropriation of another's work without identifying the source and trying to pass-off such work as the student's own. Any student who fails to give full credit for ideas or materials taken from another has plagiarized.

Students who share their work for the purpose of cheating on class assignments or tests are subject to the same penalties as the student who commits the act of cheating.

When cheating or plagiarism has occurred, instructors may take academic action that ranges from denial of credit for the assignment or a grade of "F" on a specific assignment, examination or project, to the assignment of a grade of "F" for the course. Students may also be subject to further sanctions imposed by the judicial officer, such as disciplinary probation, suspension or dismissal from the College.

College Communication

Student Email Office 365

All official e-mail from the College is sent to your Seminole State Office 365 student e-mail address. When contacting the college students should use their student email accounts to ensure that communication is delivered to the appropriate party. Be sure to check your account regularly for information important to your academic and financial records. To access your student email account, visit www.seminolestate.edu/student-email/ for instructions.

Canvas Messages

Students currently enrolled in online or hybrid courses should use the Inbox link within their Canvas course to communicate with the professor. It is important for students to check the inbox regularly for important communication from the instructor.

Seminole State Text

Sign up for Seminole State Text and you will receive messages pertaining to registration dates, tuition deadlines, financial aid, emergency campus closings and changes to your student record or classes. To sign up to receive text messages, visit www.seminolestate.edu/text/

FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. Students have the right to have some control over the disclosure of information from the records. It is Seminole State Colleges policy to comply with the requirements of FERPA and to prevent improper disclosure of personally identifiable information from the records. For more details on FERPA, please refer to the FERPA information on the Seminole State website

Student Code of Conduct

It is the responsibility of a student to observe campus rules and regulations and to help maintain appropriate conditions in the classroom, on the campus, and in the community. The Student Code of Conduct is a statement of Seminole State's expectations regarding student standards of conduct, both academic and non-academic. It is the student's responsibility to read the Code of Conduct and follow its expectations. The Student Code of Conduct can be found at https://www.seminolestate.edu/policies-procedures/policies/student/3.090

A Tobacco-Free College

To promote the health and wellness of the Seminole State College community, the use if tobacco of any kind and in any form is prohibited on all College-owned and/or operated facilities. This includes tobacco use in personal vehicles while on College property. The College Tobacco-Free Policy can be found at www.seminolestate.edu/tobacco-free/

URL of Online Syllabus

Online version:

https://www.seminolestate.edu/ssap/ed-services/oasis/syllabus/2197/70816/EGN2312

PDF version:

https://www.seminolestate.edu/ssap/ed-services/oasis/syllabus/pdf/2197/70816/EGN2312

Syllabus Disclaimer

Changes in the syllabus may be made at any time during the term by announcement from the instructor.

Tentative Course Schedule for Engineering Analysis – Statics EGN 2312, Fall 2019.

Le.	Day	Date	Topics	Text Sections
1	Tuesday	Aug. 20	Introduction, Syllabus, General Principles, Force Vectors and Components	1.1 – 1.6, 2.1 – 2.3
2	Thursday	Aug. 22	Coplanar Forces & Cartesian Vectors	2.3 – 2.4
3	Tuesday	Aug. 27	Position Vectors and Dot Product	2.5 – 2.8
4	Thursday	Aug. 29	Coplanar Particle Equilibrium, Springs	2.9, 3.1 -3.3
5	Tuesday	Sep. 3	Three-Dimensional Particle Equilibrium	3.4
6R	Thursday	Sep. 5	Review Exam 1	
E1	Tuesday	**Sep. 10**	**Exam 1 - Chapters 2 &3**	
7	Thursday	Sep. 12	Cross Product and Moment of a Force	4.1 – 4.4
8	Tuesday	Sep. 17	Moments about a Specified Axis and Moment of a couple	4.5 – 4.6
9	Thursday	Sep. 19	Equivalent Systems Reduction of Force and Couple System	4.7 – 4.8
	Tuesday	Sep. 24	Convocation, no class	
10	Thursday	Sep. 26	Two-Dimensional Rigid Body Equilibrium and Free Body diagrams	5.1 – 5.2
11	Tuesday	Oct. 1	Two and Three Force Members	5.5 - 5.4
12	Thursday	Oct. 3	Three-Dimensional Rigid Body Equilibrium	5.5 – 5.6
R13	Tuesday	Oct. 8	Review Exam 2	
E2	Thursday	**Oct. 10**	**Exam 2 - Chapters 4 and 5 (not including Section 4.9 Dist. Loads)**	
14	Tuesday	Oct. 15	Trusses - Methods of Joints & Zero Force Members	6.1-6.3
	Thursday	Oct. 17	Trusses - Method of Sections	6.4
15	Tuesday	Oct. 22	Frames and Machines	6.6
	Wednesday	Oct 23	Last Day to Drop the Course	
16	Thursday	Oct. 22	Friction	8.1-8.2
17	Tuesday	Oct. 24	Centroids of Simple Shapes and Composite Bodies	9.1 – 9.2
18	Thursday	Oct. 31	Distributed Loads	4.9
R19	Tuesday	Nov. 5	Exam # 3 review	
E3	Thursday	**Nov. 7**	**Exam #3 - Sections 4.9; 6.1 - 6.4; 6.6; 8.1-8.2; 9.1- 9.2**	
20	Tuesday	Nov. 12	Internal Forces in Beams	7.1
21	Thursday	Nov. 14	Shear and Moments Equations and Diagrams	7.2 – 7.3
22	Tuesday	Nov. 19	Cables	7.4
23	Tuesday	Nov. 21	Moment of Inertia Principles	10.1 – 10.2
24	Thursday	Nov.26	Moment of Inertia for Composite Bodies	10.3 – 10.4
R25	Tuesday	Dec. 3	Exam #4 Review	
E4	Thursday	**Dec. 5**	**Exam #4 –Sections 10.1 - 10.4, 7.1 – 7.4**	

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