

**ES102 Statics****Syllabus****Spring 2019**

Instructor: Craig T.G.-Mogren      Office: SC436E      Phone: 240-567-5237

E-Mail: [Craig.Mogren@MontgomeryCollege.edu](mailto:Craig.Mogren@MontgomeryCollege.edu)Website: <http://web4students.montgomerycollege.edu/facultyFTPSites/cgarriso/>

Username: PH\_ES

Password: studyharder

Text: Statics, 14<sup>th</sup> Ed, by Hibbeler    Class: 31327    TR 12:30-1:45    SW211

Week	Chapter	Subject	Problems
1	1	Introduction	1.7,12,18, 19
	2.1-3	Vectors and 2-D vector addition	2.3,19, 28
2	2.4-6	3-D Cartesian Coordinates and unit vectors	2.34, 66, 76, 84
3	2.7-8	Position vectors and direction of forces	2.88, 100, 105
	2.9	Inner (Dot) Product	2.113, 121,127
4	3.1-4	Equilibrium and the Free Body Diagram	3.7, 23, 46, 65
5	4.1-4	Moments and the outer (cross) product	4.5, 17, 39, 44
6	4.5-6	Moment around an axis and couples	4.55, 65, 75, 95
7	4.7-9	Equivalent systems	4.101, 129, 135
	4.10	Distributed loads	4.139, 148, 151
8	<b>SPRING BREAK</b>		
9	5.1-2	Equilibrium and the Free Body Diagram 2-D	5.1, 3, 6, 8
10	5.3-4	Equilibrium equations	5.16, 26, 36, 57
	5.5-7	Equilibrium and the Free Body Diagram 3-D	5.64, 70, 78
11	6.1-3	Simple Trusses	6.4, 19, 23
12	6.4-5	Sections	6-32, 41, 45
13	6.6	Frames and machines	6-64, 68, 86, 97
	7.1-3	Internal forces, shear, and bending moment	7.4, 22, 56, 65
14	8.1-2	Dry friction	8.7, 26, 45, 55
	9.1-2	Center of mass and centroid	9.6, 13, 25, 34
15	9.3-5	Composite bodies	9.58, 73, 79
	10.1-5	Moments of inertia	10.22, 34, 49
16	<u>Scheduled Final Exam</u>		Tuesday, May. 7, <b>12:30-2:30pm</b>

## Rules

- 1- The chapters to be covered and homework assignments for each week are on the schedule. The class moves through the material quickly so it will make more sense if you are prepared.
- 2- The homework is a representation of what you can expect to know for that week's classwork. The class problems will not be the same, but by doing these problems and understanding them is the minimum preparation for the classwork.
- 3- Each week there will be a group problem on that week's material. The group work is handed in at the end of class and the graded as a group.
- 4- Each week there will be an individual problem on that week's material. You are allowed to use your book and one, one sided, 8.5x11 inch, sheet of notes. You may only bring your text book for this problem (no eReaders or online text). There are no makeups, but the lowest three grades on these problems will be dropped. Most of your grade is calculated from these problems.
- 5- There are three projects that you will do independently. You will have about two weeks to complete these. They will be described in class.
- 6- There will be a two hour comprehensive final exam. You are allowed to use your book and five, one sided, 8.5x11 inch, sheets of notes. You may only bring your text book for the exam (no eReaders or online text). This exam gives you a final opportunity to show that you understand the course material.
- 7- The full Class Performance grade is given to everyone at the beginning of the semester. It is assumed that everyone is an honest and responsible person. But, by rarely coming to class, being a disturbance in class, cheating, etc., you can lose that grade. This does not happen often. One must show themselves to be irresponsible.
- 8- All communication devices, like phones or tablets, must be turned OFF when in the classroom. These devices cannot be used when working on the problems.
- 9- **CLASS ATTENDANCE IS MANDATORY. YOU ARE ALLOWED ONLY THREE UNEXCUSED ABSENCES. CALL ME OR LEAVE A MESSAGE (phone: 240-567-5237 or e-mail: [craig.mogren@montgomerycollege.edu](mailto:craig.mogren@montgomerycollege.edu)) BEFORE CLASS IF YOU CANNOT ATTEND A CLASS SESSION.**

FINAL GRADE	
CLASS PERFORMANCE	10 (PERCENT)
GROUP PROBLEMS	5
PROJECTS	5
INDIVIDUAL PROBLEMS	60
FINAL EXAM	<u>20</u>
	100

Canceled Classes: Listen to the radio (**not** Montgomery County Schools) or check the college website (<http://www.montgomerycollege.edu>).

## Important Links for Students

**2018-2019 Catalog PDF:** <http://appserv3.montgomerycollege.edu/acalog/working/all-catalog.pdf>

**Final Exam Schedule:** <https://cms.montgomerycollege.edu/EDU/Department2.aspx?id=48071>

**Academic calendar:** When is Spring break? When are midterm exams? When does the Spring semester begin? <http://cms.montgomerycollege.edu/edu/department2.aspx?id=16456>

**ADA Information and Compliance:** <http://cms.montgomerycollege.edu/edu/Department.aspx?id=53990>

**Alert Montgomery System:** Sign up for Alert Montgomery the official emergency communications service for Montgomery County, MD. During a major crisis, emergency or severe weather event, Montgomery County officials can send event updates, warnings and instructions directly to you on any of your devices. <https://member.everbridge.net/index/1332612387832009#/login>

**Code of Conduct:** If you have questions regarding behavioral expectations: <http://cms.montgomerycollege.edu/WorkArea/DAsset.aspx?id=35945>

**Counseling:** General and personal counseling. <http://cms.montgomerycollege.edu/edu/secondary1.aspx?urlid=4>

**Academic Advising:** See your academic faculty

**Disability Support Services:** If you are requesting a reasonable accommodation related to a disability: <http://cms.montgomerycollege.edu/edu/secondary5.aspx?urlid=52>

**Fuel for Success - Nourishing the Mind, Body, and Spirit:** <http://cms.montgomerycollege.edu/student-health-and-wellness/fuel-for-success/>

**Forms:** graduation, involuntary withdraw, change of major, appeals. <http://cms.montgomerycollege.edu/edu/department2.aspx?id=10072>

**Learning Centers and Academic Support Centers:** If you are a student who would benefit from tutoring and/or support in reading, writing languages, mathematics, Science, and Technology: <http://cms.montgomerycollege.edu/learningcenters/>

**Safety, Security, & Emergency Operations Plan:** Contacts for security offices, Emergency guidelines & procedures, evacuations, Montgomery College Alert, Emergency Guidelines for Individuals with Disabilities, <http://cms.montgomerycollege.edu/edu/plain2.aspx?id=4087>

**Sexual Harassment or Discrimination:** Office of Equity and Diversity. <http://cms.montgomerycollege.edu/edu/Department2.aspx?id=65693>