

BME F921100 –Engineering Mechanics : Statics
Course Syllabus
Fall 2020

Class Meeting Time and Location

11:10 am-12:00 pm Tuesday and 10:10 am-12:00 pm Thursday
BME F921100
BME 5725

Course Credit and Work Expectations:

This course is worth *three credit hours*. As such, the work expectations outside the classroom are approximately 9 hours per week *on average* throughout the semester.

Course Instructor:

Instructor: Prof. Han-Sheng Chuang (莊漢聲)
Office: BME 5758B
E-mail: oswaldchuang@mail.ncku.edu.tw
Phone: 63433

Tel: 06-2757575 #63431-139
Office Hours:
9:10am-11:10am Friday @ BME 5708

Reference Books:

Engineering Mechanics : Statics (J.L. Meriam, L.G. Kraige, J.N. Bolton, 8th edition)

Course WWW Page:

Moodle

Course Goals:

Mechanics is a branch of the physical science that is concerned with the state of rest or motion of bodies that are subjected to the action of forces. Engineering Mechanics: Statics especially deals with the equilibrium of bodies, that is, those that are either at rest or move with a constant velocity. This course aims to provide students with a clear and thorough presentation of the theory and applications of this subject.

.Prerequisites:

Calculus or Physics.

Computer Skill:

Not necessary.

Attendance Policy:

Attendance is figured into the calculation of the course grade. The instructor reserves the right not to repeat instruction on topics that were addressed in class. If the instructor is late, students should wait 15 minutes before leaving.

Honesty Policy:

The University Code of Honor is in effect for all students at all times.

Quiz:

The first 10 minutes of every Thursday class will be reserved for a quiz. The problems will be from the lectures taught in last week.

Grading Policy:

Course grades will be determined as follows:

Quizzes:	23%
Project 1	5% (2% incentive for winners)
Project 2	5% (2% incentive for winners)

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Project 3	5% (2% incentive for winners)
1st Mid-term Exam	20%
2nd Mid-term Exam	20%
Final Exam	22%

Course grades will be determined using the following scale:

90-100	A
80-89	at least a B
70-79	at least a C
60-69	at least a D
0-59	F

Final grades may be curved by the instructor based on the overall class performance.

Approximate Schedule

Lecture	Date	Subject
1, 2a	9/8, 9/10	General Principles
2b, 3a	9/15, 9/17	Force Vectors I
3b	<u>9/22</u> , <u>9/24</u>	Force Vectors II
4a, 4b	9/29, 10/6	Force Vectors III
5a, 5b	<u>10/8</u> , 10/13	Equilibrium of a Particle
6a	<u>10/15</u> , <u>10/20</u>	Force System Resultants I
6b, 7a	<u>10/22</u> , 10/27	Force System Resultants II
7b, 8a	<u>10/29</u> , 11/3	Equilibrium of a Rigid Body I
8b, 9a	<u>11/5</u> , 11/10	Equilibrium of a Rigid Body II
9b	<u>11/12</u> , 11/17	Structural Analysis I (1 st mid-term exam)
10a	<u>11/19</u> , 11/24	Structural Analysis II, Internal Forces I (Project I)
10b, 11a	<u>11/26</u> , 12/1	Internal Forces II
11b, 12a	<u>12/3</u> , 12/8	Center of Gravity and Centroid I
12b	<u>12/10</u> , 12/15	Center of Gravity and Centroid II, Moments of Inertia I (2 nd mid-term exam)
13a	<u>12/17</u> , 12/22	Moments of Inertia II (Project II)
13b, 14a	<u>12/24</u> , 12/29	Friction
14b, 15	<u>12/31</u> , 1/5	Virtual Work
	<u>1/7</u> , <u>1/11</u>	Final Exam, (Project III) (1/11 make-up class for 9/22 and 10/20)

P.S. Quizzes are scheduled on the underlined dates.