

EGM 3503 Applied Mechanics

Spring 2023

LOGISTICS

Instructor: Dr. Leonel E. Lagos, PMP®
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Office Hours: Room: EC 2182; **Wednesdays, 1:30 pm –2:30 pm** (other times by appointment)
Room: EC2200/Zoom (**with TA**), Date/Time: **Mondays 1:00 pm – 2:30 pm**
Fridays 2 pm – 3:30 pm

Class
Schedule/Location: **Wednesday/Friday 3:00 pm - 4:50 pm (EC 1105)**

“Engineering Mechanics: Statics and Dynamics”, by R.C. Hibbeler, 15th edition, Pearson Prentice Hall, 2022. ISBN-10: 0-13-391542-5; ISBN-13: 978-0-13-391542-6.

Textbooks:
“Fundamentals of Biomechanics: Equilibrium, Motion and Deformation”
(used as reference only) Ozkaya, Nordin, et al (3rd Edition)

Teacher Assistant: **Mr. Salman Jamal**

COURSE OBJECTIVES

1. Identify appropriate models (particle, rigid body or deformable body for systems)
2. Analyze systems in static equilibrium
3. Understand and mathematically describe relationship between motion and forces
4. Use different methods to solve problems, including work, energy and impulse/momentum methods

MAIN TOPICS

	Chapters
1. Statics	1-6 & 8-10
2. Kinematics of Particles, Force and Acceleration	12-13
3. Kinetics of Particles, Work, Energy, Impulse/Momentum	14-15
4. Kinematics of Rigid Bodies	16

COURSE GRADING

Course-Work Evaluation

Quizzes (unannounced)	10%
Exam I	30%
Exam II	30%
Final Exam	30%

TOTAL	100%
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Grading Scale:

<u>GRADE</u>	<u>SCORE RANGE</u>	<u>GRADE</u>	<u>SCORE RANGE</u>
A	94 - 100	B-	77 - 79
A-	90 - 93	C+	73 - 76
B+	85 - 89	C	67 - 72
B	80 - 84	D	60 - 66

Grades below 60 are considered as an F

Course Policies:

Homework: Selected problems are assigned in class and/or immediately thereafter. It is recommended that student complete these problems by the next lecture period for which they are assigned. The instructor will not collect any of these problems for grading. Answers to selected homework problems are provided in the text, and detailed solutions for some problems related to the topic will be available on the website <http://web.eng.fiu.edu/leone/>

Quizzes: Unannounced quizzes will be given during regular class times. **No make-up quizzes will be granted for any excuse** [5 – 6 quizzes will be given, but only 4 will be counted for final grade].

Exams: Excusable absence from an exam **is accepted only if** the student informs the professor **before the event** such as illness, non-reschedulable prior appointments/travel, **or after the event** such as last-minute medical or other emergencies, within a reasonable time frame and with a **valid documentary proof** shown (e.g., medical memo from doctor, letter from employer, **letter from FIU’s COVID Response Team**). **Under this conditions, a make-up of an exam will be honored.**

All exams and quizzes are closed book/notes, **using a non-programmable calculator only.**

Class Attendance: Attendance is expected at all lectures, although it will not be checked. Proper learning of the course material can only be achieved through regular course attendance and an abundance of time spent completing all of the assigned homework and practicing the skills introduced in this course. You should try to make every effort in a timely manner.

No 4-C Policy: No Cell-phone, Computer (unless taking notes), Chatting, or Cheating is allowed in this class.

Learning Strategy: Simply reading the solutions is absolutely the worst strategy for this course. **You need to practice as much as possible.**

Dishonesty: Any form of dishonesty during the semester will result in a final grade of “F” for the course and a recommendation for expulsions to the Provost. No exceptions. Please avoid dishonesty or any other form of misconduct. If you are having personal problems, come and talk to me.

COVID-19 Pandemic:

- As variants continue to impact our community, wearing a mask combats this disease. Please be part of the solution and wear a mask while in class.
- **Please check your FIU email account and your Canvas course at least once a day.** Email and Canvas are the best ways for the university, and your professors, to contact you.
- **COVID:** It is strongly advised that individuals on campus wear a face covering indoors and wash their hands frequently. Additionally, the P3 app has transitioned from a screening tool to a reporting tool. All students, faculty and staff are highly encouraged to utilize the P3 app to report symptoms or a COVID-positive test. These measures are crucial to help prevent the spread of the virus that

causes COVID-19. [University Operations | Panthers Protecting Panthers | Florida International University \(fiu.edu\)](#)

- **COVID:** If you do not feel well, have tested positive for COVID, or have been in contact with a person with COVID while not yet being fully vaccinated, **please do not come to class, immediately complete the P3 app to notify the COVID Response Team (CRT) or call them at 305-348-1919, and contact me by email as soon as you can. To excuse absences for P3 failure/COVID, please contact the COVID Response Team at 305-348-1919.**
- Please take every precaution to keep yourself and others healthy. Per CDC guidelines, you are encouraged to get vaccinated and strongly advised to wear a mask indoors and in public including all FIU facilities.
- The make-up policies are outlined in this syllabus [See **Quizzes/Exams** section]. For up-to-date information about COVID, please see FAQs found at FIU's website: [repopulation.fiu.edu](#).

Other Course Information:

- **If in-person class is cancelled by any reason, I will provide material via canvas and/or Zoom recording for the specific class/topic.**
- Missing excessive days may lead to failing a class or a grade of incomplete.
- **For me to assist you in achieving your goals, it is important for you to contact me as soon as you experience any events that might disrupt your course participation.**
- Please be advised that classes may be audio and visually recorded and/or subject to course capture for future access by students in this course. Your attendance/ participation in this course constitutes consent to such recordings, which will only be used for educational purposes by students in the course and securely stored in University systems. If there is a concern regarding the recording and use of such recording, please contact FERPA@fiu.edu .