

Fundamentals of Production Engineering

EML 6324 Sections CAMP, 1FE2, 2FED

Class Periods: MWF, 7th period, 1:55 pm – 2:45 pm

Location: NEB 201

Academic Term: Fall 2025

Instructor:

Hitomi Greenslet

Email: hitomiy@ufl.edu

Office Phone Number: 352-392-0812

Office Hours: MWF, 3:00 pm–3:50 pm, WERT 483 and online

Teaching Assistant/Peer Mentor/Supervised Teaching Student:

Please contact through the Canvas website

- Dane Ungurait, daungurait97@ufl.edu, online, T and Th: 10:00 am–11:00 am

Course Description

Fundamentals of metal cutting, metal forming, and welding. Accuracy and rigidity of machine tools. Automation, Numerical control, Adaptive control

Course Pre-Requisites / Co-Requisites

Graduate standing

Course Objectives

The course introduces fundamental manufacturing technologies, explains how products are made, and describes how manufacturing problems are solved. Topics include engineering materials, manufacturing processes, machine tools, and automation.

Upon completion of this course, students will be able to demonstrate the following:

- an understanding of traditional and advanced manufacturing processes
- the ability to use engineering tools such as advanced mathematics and the theories of stress and strain and vibrations to analyze manufacturing processes and machines
- the ability to rapidly and accurately perform manufacturing engineering evaluations and analyses

Materials and Supply Fees

Please check One.UF.

Required Textbooks and Software

- *Manufacturing Processes and Equipment*
George Tlusty
Prentice-Hall, 2000
ISBN 0-201-49865-0

Recommended Materials

- *Manufacturing Processes for Engineering Materials* (6th Edition)
Serope Kalpakjian and Steven Schmid
Pearson Education, Inc., 2017
ISBN number 978-0-13-429055-3
- *Fundamentals of Modern Manufacturing* (6th Edition)
Mikell P. Groover
John Wiley & Sons, Inc., 2015
ISBN 978-1-119-12879-3

Required Computer

Recommended Computer Specifications: <https://it.ufl.edu/get-help/student-computer-recommendations/>
HWCOE Computer Requirements: <https://www.eng.ufl.edu/students/advising/fall-semester-checklist/computer-requirements/>

Course Schedule

Week 1: Introduction, Engineering materials and their properties
Week 2: Engineering materials and their properties
Week 3: Primary metalworking
Week 4: Metal forming technology, Course review
Week 5: Course review, Exam 1, Metal forming mechanics
Week 6: Metal forming mechanics
Week 7: Metal forming mechanics
Week 8: Metal forming mechanics, Processing of polymers
Week 9: Processing of polymers, Course review
Week10: Exam 2, Cutting technology
Week 11: Cutting technology, Cutting mechanics
Week 12: Cutting mechanics
Week 13: Cutting mechanics
Week 14: Cutting mechanics
Week 15: Cutting mechanics, Course review

Note: See the attached course schedule for more detail. (Dates are subject to change—this is to serve as a guideline only.)

Important Dates

Exam schedule

[On-campus students]

Exam 1: September 22, 2025 (1:55 pm – 2:45 pm)
Exam 2: October 29, 2025 (1:55 pm – 2:45 pm)
Final Exam: December 12, 2025 (10:00 am – 12:00 pm)

[Off-campus students]

Exam 1: September 22, 2025 (1:55 pm) – September 23, 2025 (11:59 pm)
Exam 2: October 29, 2025 (1:55 pm) – October 30, 2025 (11:59 pm)
Final Exam: December 12, 2025 (10:00 am) – December 13, 2025 (11:59 pm)

Attendance Policy, Class Expectations, and Make-Up Policy

Attendance policies

- Attendance is expected and encouraged for all students, but it will not be recorded.
- Excused absences must be consistent with university policies in the Graduate Catalog (<https://catalog.ufl.edu/graduate/regulations>) and require appropriate documentation. Additional information can be found here: <https://gradcatalog.ufl.edu/graduate/regulations/>

Class policies

- If you need to miss a class, please make appropriate arrangements with a classmate for class notes.
- Cheating or any other form of academic dishonesty will result in failure and prosecution according to University policies.
- Students are expected to conduct themselves in a manner that does not interfere with other students' learning. Disruptive or distracting behavior is prohibited, and Prof. Greenslet reserves the right to temporarily or permanently dismiss distracting students from the classroom.
- Students are responsible for all announcements, assignments, etc., made during lectures, including changes in the scheduling of lecture topics, homework assignments, and exams. Class absence is not a valid excuse for being unprepared.

- Any changes in the schedule or assignments will be communicated to the class via e-mail using your Gatorlink (@ufl.edu) e-mail address and the course website. You are responsible for monitoring your mailbox and the website regularly for any class notices.

Homework policies

- Homework must be scanned and uploaded **as one digital file (PDF)** through UF e-learning system **by the start** of class on the due date. **In general, late homework will not be accepted.**
- Homework must be neat and legible and show all major steps.
- Homework must be on 8.5" x 11" paper. Homework must have the assignment number, your name, and the date of submission in the upper right-hand corner of the first sheet.
- Homework must have the page number in the bottom right corner of every page.
- Multiple sheets must be placed in the proper order.
- Failure to adhere to the formatting requirements could result in loss of points.
- Failure to put your name in the document could result in 0 (zero) points. Note your name in the filename does not count.
- You may discuss the homework with your classmates; however, all students must provide the solutions themselves. Copying of homework will be treated as academic dishonesty. Use of a solution manual or any online answer source is also considered dishonest.

Exam policies

- It is the students' responsibility to demonstrate their knowledge on exams. In order to be able to grade your work, it must be neat, be legible, and follow logical steps with all work shown. Partial credit may be given for work that can be followed and where the nature and magnitude of the mistake can be identified. No credit will be given for correct answers with insufficient indication of how they were obtained.
- Students should be aware that their work is submitted under the honor code pledge taken by UF students. The pledge is *On my honor, I have neither given nor received unauthorized aid in doing this assignment.* Students can learn more about the UF honor code at the UF Student Government website. (<https://sccr.dso.ufl.edu/>)

[On-campus students]

Exams 1 and 2 will be held during the regular class period on date that is announced above. The final exam will be held at the time assigned by the Registrar.

[Off-campus students]

All exams will be held online. The details will be announced prior to the exam dates.

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Homework Sets (6)	5 each	15%
Exam 1	100	25%
Exam 2	100	25%
Final Exam	100	35%
Quiz assignment	1	Bonus
		100% + Bonus

Grading Policy

The following is given as an example only.

Percent	Grade	Grade Points
93.4 - 100	A	4.00
90.0 - 93.3	A-	3.67
86.7 - 89.9	B+	3.33
83.4 - 86.6	B	3.00

80.0 - 83.3	B-	2.67
76.7 - 79.9	C+	2.33
73.4 - 76.6	C	2.00
70.0 - 73.3	C-	1.67
66.7 - 69.9	D+	1.33
63.4 - 66.6	D	1.00
60.0 - 63.3	D-	0.67
0 - 59.9	E	0.00

Note: The instructor reserves the right to adjust individual grades according to a holistic evaluation of a student's knowledge and effort.

Academic Policies & Resources

To support consistent and accessible communication of university-wide student resources, instructors must include this link to academic policies and campus resources: <https://go.ufl.edu/syllabuspolices>. Instructor-specific guidelines for courses must accommodate these policies.

Commitment to a Positive Learning Environment

The Herbert Wertheim College of Engineering values varied perspectives and lived experiences within our community and is committed to supporting the University's core values.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Graduate Coordinator
- HWCOE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu
- Pam Dickrell, Associate Dean of Student Affairs, 352-392-2177, pld@ufl.edu