

Course Syllabus
EMA 4666 Polymer Processing
Section 04E8, Spring 2015

1. Catalog Description - Major processing methods for polymers and polymeric composites as related to the rheological behavior of these systems. Synthesis of polymers via industrial processes.; 3 credit hours.
2. Pre-requisites and Co-requisites –EMA 3066, Introduction to Organic Materials
3. Course Objectives –
 - a. Understand the operation of polymer processing techniques.
 - b. Describe the products that can be made with different processing techniques.
 - c. Analyze and interpret data from rheological experiments.
 - d. Design a mold for injection molding using simulation techniques.
4. Contribution of course to meeting the professional component

Professional Component	# of credits
Math and science.	
Engineering.	3
General education.	
Other.	
Does it contain design (Y or N)?	Y

5. Relationship of course to program outcomes –

Outcome	Assessed?	Assessment Method
a: Apply knowledge of math, science, and engineering.		
b1: Conduct experiments, analyze and interpret data.	X	HW problems
b2: Conduct statistical analysis.		
c: Solve materials selection and design problems.		
d: Function on teams.		
e: Identify, formulate, and solve engineering problems.	X	HW problems
f: Understand professional and ethical responsibility.		
g: Communicate effectively.	X	Projects
h1: Understand economic impact.		
h2: Understand global, societal, and environmental impact.		
i: Engage in lifelong learning.	X	Projects
j: Knowledge of contemporary issues.		
k: Use techniques, skills, and tools of MSE.		

6. Instructor - Elliot P. Douglas

- a. Office location: 156 Rhines
- b. Telephone: 352-246-3505 (cell)
- c. E-mail address: edoug@mse.ufl.edu
- d. Web site: e-Learning
- e. Office hours: I generally maintain an open door policy. If my door is open you are welcome to come in at any time to ask me questions. I will have formal office hours Tuesday period 9 and Thursday period 7.

7. Teaching Assistant – None

8. Meeting Times – MWF period 4

9. Class/laboratory schedule - Three hours of class each week.

10. Meeting Location – 126 MAE

11. Material and Supply Fees – None.

12. Textbooks and Software Required – Understanding Polymer Processing by Tim A. Osswald, Hanser Publications, ISBN 978-1-56990-472-5

This course will utilize E-Learning Systems as an electronic course management system. The course website has a course schedule and will list your grades on assignments as they become available. All students are required to access the course site regularly. The site can be accessed from <http://lss.at.ufl.edu/>.

The simulation project will require downloading a free version of Autodesk Simulation Moldflow Advisor Ultimate 2014. The software can be downloaded at <http://www.autodesk.com/education/free-software/simulation-moldflow-adviser-ultimate>. System requirements are at <http://knowledge.autodesk.com/search-result/caas/sfdcarticles/sfdcarticles/System-requirements-for-Autodesk-Simulation-Moldflow-2014-products.html>.

13. Recommended Reading – None.
14. Course Outline – The general topics for the course are Processing Techniques, Polymer Rheology, and Process Simulation. A detailed schedule will be provided on E-Learning.
15. Attendance and Expectations – Attendance is not part of the course grade; however, all students are expected to attend class. The class is taught in an interactive lecture format, and includes discussion and practice problems. Cell phones should be turned off in class. Reading of newspapers, work on assignments for this or other classes, or other activities that are not part of the class are not allowed during class time.
16. Grading – Processing project 34%, rheology problems 33%, simulation project 33%.
17. Grading Scale – The grading scale is indicated below. Grades are not curved.
- | | | | | | | | | | | | | |
|--------------|-----|------|------|-----|------|------|-----|------|------|-----|------|-----|
| Percentage | ≥92 | ≥88 | ≥84 | ≥80 | ≥76 | ≥72 | ≥68 | ≥65 | ≥62 | ≥59 | ≥56 | <56 |
| Letter Grade | A | A- | B+ | B | B- | C+ | C | C- | D+ | D | D- | E |
| Grade Points | 4.0 | 3.67 | 3.33 | 3.0 | 2.67 | 2.33 | 2.0 | 1.67 | 1.33 | 1.0 | 0.67 | 0 |

A C- will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C-average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, please visit: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

18. Make-up Exam Policy – There are no exams in this course.
19. Honesty Policy – All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

Cheating is a very serious offense and will not be tolerated. All instances of cheating, no matter how minor it may seem to you, will be reported to the Dean of Students Office and prosecuted. The penalty for any instance of cheating is a grade of E for the semester. Actions that are considered cheating include, but are not limited to:

- Copying of homework solutions from another source or another student. Students are encouraged to work together to solve the homework, and thus it is expected that in some cases the homework solutions of two students will be the same. However, blatant copying can be identified and will be considered cheating.
- Copying from another student during an exam, or using disallowed resources (including programming information into a calculator) during an exam. Calculators will be spot-checked during exams.
- Plagiarism on written reports. Plagiarism is the practice of copying the text or information from other sources and presenting it as your own. Any phrase of more than four words that is taken directly from another text needs to be placed into quotation marks and properly attributed.
- Attempting to change answers or marked grades on homework assignments or exams after they have been graded and returned.
- Any other action which is an attempt to modify your grade for an assignment in a way that does not actually reflect your work or abilities.

20. Accommodation for Students with Disabilities – Students requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

21. UF Counseling Services – Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- University Counseling Center, 301 Peabody Hall, 392-1575, Personal and Career Counseling.
- SHCC mental Health, Student Health Care Center, 392-1171, Personal and Counseling.
- Center for Sexual Assault/Abuse Recovery and Education (CARE), Student Health Care Center, 392-1161, sexual assault counseling.
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

22. Software Use – All faculty, staff and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.