



Soules College of Business
Department of Technology
TECH 333 Polymer Processing
Course Syllabus

Course: TECH 3333
Title: Polymer Processing
Section: .001&.090
Semester: **SPRING 2023**
Class Time: Tue/Th 11:00 - 12:25 pm
COB 162

Instructor: Ms. RaeJean Griffin
Office: COB 225.07
Office Hours: Before and after class
Other Availability: By appointment
Phone #: 903-566-7211
Email: rgriffin@uttyler.edu

Course Description:

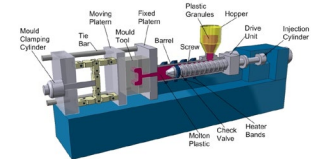
Study of processing methods for polymer-based materials. Processing methods include: injection molding, blow molding, thermoforming, compression molding, extrusion, filament winding, lay-up methods, and vacuum bag molding and pultrusion.

NOTE: Longview University Center (LUC) students may be required to complete their lab projects at the Tyler campus. This will require driving to the Tyler campus (COB 162) for 5-7 evening class meetings.

Course Objectives

At the end of this course, participants will be able to:

1. Explore the fundamental concepts industrial plastics manufacturing.
2. Develop safe working habits.
3. Become familiar with processing equipment for plastic materials.
4. Develop skills working with plastic processing equipment.
5. Investigate plastic materials, specifications, tools, and hardware.



Course Learning Objectives:

1. Demonstrate how to use plastics processing equipment by successfully manufacturing a class project to specified dimensions.
2. Demonstrate a comprehensive knowledge of polymer properties by earning passing scores on quizzes and exams.
3. Demonstrate a fundamental knowledge of plastic manufacturing processes by earning passing scores on exams and quizzes.

Course Competencies

1. Computer-Based Skills – the student will complete written assignments using the word processor.
2. Communication Skills – the student will exhibit a mastery of both written and oral skills in completion and presentation of the assigned group projects.
3. Interpersonal Skills – the student will interact in class discussion regarding the plastics processing industry.
4. Problem Solving (Critical Thinking) – the student will use conceptual thinking to analyze and make determinations regarding the use of industrial processing equipment.
5. Competence in Technology Principles

- a. Competence in major field and grounding in other major technology major core areas – the student will gain knowledge and skills related to production technology.
- b. Exposure to and appreciation for industrial experiences such as industrial tours, work-study options and cooperative education, senior seminars – The student will be able to attend field trips to various industries in the area.

Grading Policy and Criteria to Determine Final Course Grade:

Daily Quizzes	200
Assignments	100
Projects	200
Midterm exam	200
Class Participation/Attendance	100
<u>Final Exam</u>	<u>200</u>

TOTAL POINTS = 1000

*NOTE: Points may differ depending upon the content covered.

Grade Scale Breakdown:

A=90 - 100%

B=80 - 89%

C=70 - 79%

D=60 - 69%

F=BELOW 60%

Note: 89.9999999999999999 is still a B.

Date of Final Exam: Thursday, April 28th

Date to Withdraw without Penalty: Monday, March 25th

Course Content & Tentative Calendar/Schedule:

WEEK	TOPIC
1	Course Description & Policy & Overview and Intro. to Plastics
2	Thermoplastics

3	Laboratory & Machine Tool Safety & Demonstration
4	Thermosets

5	Chemicals & Additives for Plastics and Composites
6	Exam 1 Review/Laboratory Work

7	EXAM I
8	Reinforced Plastics & Composites

9	Laboratory Work
10	Processing Plastics

11	Auxiliary Equipment
12	Laboratory Assignment

13	Fabricating & Finishing Plastics & Laboratory Assignment
14	Laboratory Work

15	Coating Processes & Final Exam Review/Laboratory Clean-Up
16	FINAL EXAM (Comprehensive) will be due April, 28th

Attendance and Make-Up Policy:

Attendance is mandatory and will be taken at every scheduled class and laboratory period. No make-ups unless:

1. Organized university trip.
2. Illness or death in **immediate** family (mother, father, brother and/or sister).
3. Illness of student.

Each one of these will require either a **doctor's statement** or a **signed** statement from the individual in charge of the trip.

A student will lose a letter grade in the course each time s/he is absent or late 3 times. Any student entering the classroom 1 second after the scheduled starting time will be considered late unless accompanied with a valid excuse.

Late Work:

All work not turned in on time will have an automatic reduction in value to 50% of its full value. **Work that is not turned in by the next class will NOT be accepted.** Exceptions to this will be as per University Policy concerning absences from class. If you know an assignment will be late for a valid reason, inform your instructor in advance to avoid unnecessary penalty.

Required Textbooks, Materials, and Supplies:

J. Barry Duvall and David R. Hillis (2012). **Manufacturing Processes: Materials, Productivity, and Lean Strategies (3rd ed.)**. Tinley Park, IL: Goodheart-Willcox. ISBN: 978-1-60525-569-9

A copy of the **lecture notes** is required and is available online from the course listed on Canvas. **Print it out before coming to class.**

Required Activities Scheduled Outside of Regularly-Scheduled Class time (fees, tickets, procedures and/or forms required):

Review lecture notes, read textbook, prepare presentations/assignments.

Department Website: <http://www.uttyler.edu/cbt/hrd/tech/>

Commencement: Saturday, April 29th

Holidays:

Spring Break for Students and Faculty Mar 13--18

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

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Campus Carry

We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>

UT Tyler a Tobacco-Free University

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.

Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.

There are several cessation programs available to students looking to quit smoking, including counseling, quit lines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.

Grade Replacement/Forgiveness and Census Date Policies

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

Disability/Accessibility Services

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including non-visible a disability diagnosis such as a chronic disease, learning disorder, head injury or ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to contact the Student Accessibility and Resources office and schedule an interview with an Accessibility Case Manager. If you are unsure if the above criteria applies to you, but have questions or concerns please contact the SAR office. For more information or to set up an appointment please visit the SAR webpage (<http://www.uttyler.edu/disabilityservices/>) or the SAR office located in the University Center, Room 3150 or call 903.566.7079. You may also send an email to saroffice@uttyler.edu.

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement:

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation:

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

Student Standards of Academic Conduct

Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

i. "Cheating" includes, but is not limited to:

- copying from another student's test paper;
- using, during a test, materials not authorized by the person giving the test;
- failure to comply with instructions given by the person administering the test;
- possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test;
- using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;

- collaborating with or seeking aid from another student during a test or other assignment without authority;
- discussing the contents of an examination with another student who will take the examination;
- divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructor has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
- substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
- paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;
- falsifying research data, laboratory reports, and/or other academic work offered for credit;
- taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
- misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.

ii. "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit.

iii. "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

iv. All written work that is submitted will be subject to review by SafeAssign™, available on Blackboard.

UT Tyler Resources for Students

- UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu
- UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu
- The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.

EXPECTED CLASSROOM ETIQUETTE

The University of Texas at Tyler is committed to promoting a level of classroom etiquette that is conducive to maximum teaching and learning. Therefore, the following etiquette is expected of students:

1. Attend class each time the class meets.
2. Be on time for class and remain for the entire period. Students are inconsiderate of their classmates when they arrive late and leave early.
3. Refrain from talking while the teacher or another student is lecturing. Idle chattering and giggling are disruptive to the class and disrespectful to the teacher and classmates.
4. Without prior approval from the instructor, students are not allowed to use cell-phones, devices with earphones or any other electronic device (including laptops) in class.
5. Be attentive and participate in class.
6. Refrain from eating and drinking in the classroom.

Academic Dishonesty

The University of Texas at Tyler has a "zero tolerance policy" on plagiarism. Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is

not limited to cheating, plagiarism, collusion, and the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give an unfair advantage to a student or the attempt to commit such acts. For purposes of this class, scholastic dishonesty occurs if you:

- Quote or paraphrase a source without properly citing it.
- Misquote or misrepresent an outside source.
- Pass off any portion of an outside source as your own.
- Turn in for credit any paper that has been purchased through the internet, copied from the internet, or cut and paste a source from the internet.
- Turn in a paper written by someone else.

The penalties for academic dishonesty vary, ranging from an F on an assignment, an F in the course, or expulsion from the university, depending on the severity of the incident. The Office of Student Affairs keeps records of any suspected case of scholastic dishonesty, and instructors are required to alert them if we believe a student has plagiarized or cheated in any way.

Writing Assistance

Each student is entitled to free writing assistance in the Writing Center. Students who take advantage of this service will receive five extra points on essay grades if they take their drafts to the Writing Center. The student must provide documentation that he or she received assistance in the Center. An appointment is strongly advised.

Late Work

All work not turned in on time will have an automatic reduction in value to 50% of its full value. **Work that is not turned in by the next class will NOT be accepted.** Exceptions to this will be as per University Policy concerning absences from class. If you know an assignment will be late for a valid reason, inform your instructor in advance to avoid unnecessary penalty.

Format for Reports

Each textbook assignment or laboratory report will have a cover page. The cover must contain the following:

1. Assignment Title (**Should be bolded and list the chapter number as well**)
2. Prepared by: Your name here
3. Instructor's name (i.e., Submitted to Ms. RaeJean Griffin)
4. Course Name and Number (TECH 3333 Polymer Processing)
5. The Date (i.e., January 12, 2029)

Your grade will reflect the quality of the presentation.

Cell Phones

Cell phones are not to be seen nor heard. Make sure you turn off your cell phone during class or turn it to the vibrator mode. A ringing cell phone is a distraction and is inappropriate for the classroom. Allowing your cell phone to ring and then answering it is very rude. It is not fair to your fellow classmates who have paid for this course. **Please be considerate and make sure your cell phone is turned off during any of your classes. Students will be asked to leave for the day if this behavior continues. Absolutely no texting or looking at your cell phone during class.**

Discrimination

The policy of this department is to make your college experience as pleasant as possible. However, if at any time you feel that you are being discriminated against, belittled, or not treated appropriately, please notify the instructor either anonymously or in-person **immediately** after class. It is not the intention of any of the faculty in this department to make your college experience an unpleasant one. Remember, the first step in the process is to inform the instructor so s/he can be made aware of the problem and take corrective action. If the problem continues to persist, please inform the chair of the department. The dean can then be notified if the problem continues to exist after a few days. A grievance can then be filed in the Office of Student Services if there has still been no change in the instructor's behavior. **It should be noted that filing a grievance is a serious act and should NOT be done so just because you received a bad grade on an exam or in the course.** **Communication is an effective tool to solve problems and is rarely used enough. Most people are not deliberately trying to upset you, they are just not aware of your vantage point.**

Talking

While the instructor is talking, it is understood that no one should be talking. Students talking in class prevent other students from hearing the instructor and learning the material that is required to pass the course. If you are caught talking, then you will **earn a zero on your daily quiz** grade. On the second offense, **you will be asked to leave**. This behavior is rude and disruptive and most students who talk in class typically earn lower grades. It should be noted, that students who have been granted permission to talk by the instructor should not be interrupted as well.

Offensive Language

Any type of offensive language will not be tolerated in the classroom or laboratory. How you speak to your friends outside the classroom is your business, however, when you are in the classroom you must follow The University of Texas rules of conduct. **You will be asked to leave if your language or conduct is offensive.**

Lecture/Laboratory Materials

Students will be required to provide the following:

1. ASTM or OSHA approved safety glasses
2. Notebook and paper to take notes
3. Lecture notes packet is available online on Canvas
4. Pen and pencil
5. Hearing protection
6. 3 - Scantrons (Exam type) #882-ES
7. Textbook

Important Dates:

Spring Term, Classes Begin	January 9 4
Martin L King, Jr. Holiday	January 2 6
Census Date (12th Class Day)	January 28
Registration for all summer sessions	February 1
Last day to file for Spring Graduation	February 15
Last Day to Drop/Withdraw from Classes	March 23
Spring Break for Students and Faculty	Mar 1 3 -18
	March 1
	April 1
	April 2
	April 3
	April 4
	April 29
	April 29 @ 6 pm
	April 29- May 4

