

MAE 3344 - Introduction to Manufacturing Engineering Course Syllabus

Instructor's Name: Dr. Raul Fernandez

Office Number: ARRI 118

Office Telephone Number: 817-272-5973

Email Address: fernandez@uta.edu

Office Hours: Immediately after class period or by appointment at ARRI

Course Number, Section Number and Course Title: MAE 3344 (001) – Introduction to Manufacturing Engineering

Time and Place of Class Meetings: Woolf Hall 221 / MW 1-1:50pm F 1-3:50pm

Description of Course Content: Introduction to casting, forming, machining, and joining processes for metals and nonmetals. Survey of manufacturing technologies and industrial practice.

Student Learning Outcomes: After completing the course, the student will be able to:

- be prepared to attain the Society of Manufacturing Engineers Certified Manufacturing Technologist (Engineer) certification exam
- be conversant with common manufacturing technologies
- have awareness and understanding of the major bodies of knowledge within industrial manufacturing practice

Requirements: MAE 2312, MAE 2321

Required Textbooks and Other Course Materials: *Fundamentals of Manufacturing* and *Fundamentals of Manufacturing Supplement* by Philip D. Rufe, Society of Manufacturing Engineers, 2nd edition

Descriptions of major assignments and examinations with due dates:

- Introduction; materials and product design for manufacturing
- MIDTERM EXAM I
- Cutting; machining; forming; casting; rapid prototyping
- MIDTERM EXAM II
- Welding; assembly; robotics and automation; CNC control
- MIDTERM EXAM III
- Production systems; process engineering; lean; quality systems
- MIDTERM EXAM IV
- Course review; advanced manufacturing technologies
- COMPREHENSIVE FINAL EXAM

Grading Policy: All exams equally weighed. Final grade is average of the four highest scores; this policy compensates for missed exams, and therefore no makeups will be offered regardless of circumstance.

Drop Policy: consistent with UTA regulations.

Other: Please silence cell phones during the lecture. The use of recording devices (audio / video) is explicitly not allowed in class. Please restrict use of e-mail to critical matters only. All required UT Arlington regulations will be observed (e.g., ADA, Academic Integrity, Student Support Services) and supersede above policies where in conflict.

Americans with Disabilities Act:

The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal opportunity legislation; reference Public Law 92-112 – The Rehabilitation Act of 1973 as amended. With the passage of federal legislation entitled *Americans with Disabilities Act (ADA)*, pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. Information regarding specific diagnostic criteria and policies for obtaining academic accommodations can be found at www.uta.edu/disability. Also, you may visit the Office for Students with Disabilities in room 102 of University Hall or call them at (817) 272-3364.

Academic Integrity:

It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

“Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or 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.” (Regents’ Rules and Regulations, Series 50101, Section 2.2)

Student Support Services Available:

The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally or socially should contact the Office of Student Success Programs at (817) 272-6107 for more information and appropriate referrals.