

**MFGT 490—MANUFACTURING FUNDAMENTALS AND PRACTICE**      **Spring 2007**

**Instructors:** MMEM Department Faculty, by areas of expertise      **Class #:** 3919

**Class Meetings:** Thursdays, 5:00-6:50pm, in OCNL 436

**Course Fee:** \$95 paid by the 3<sup>rd</sup> week of the semester or the student will be dropped.

**Prerequisites:** Graduation      in MFGT expected within 12 months      **Grading:** C/NC Only

**Textbook:** Rufe, P. (2002). *Fundamentals of manufacturing*, 2<sup>nd</sup> ed. Dearborn, MI: Society of Manufacturing Engineers. ISBN 0872635244

**Course Objectives:** Review of manufacturing technology fundamentals and foundation for professional practice. Current topics in manufacturing. Preparation and encouragement for the Fundamentals of Manufacturing Examination.

**Course Requirements: BOTH items A and B below must be fulfilled to receive credit:**

- A)** Score 60% or above on the one-hour, open-book, open-note “Prep Exam,”  
**and**
- B)** take the SME Fundamentals of Manufacturing Certification (CMfgT) Exam given during the Final Exam time scheduled for this course.

*Note 1.* Students scoring below 60% on the “Prep Exam” will be given an Incomplete (“I”). Students receiving an “I” may remove it and receive credit for the course by accomplishing **one** of the following (within one year):

- a) present their passing SME score report (CMfgT Certification notice), **or**
- b) score 60% or above on a ‘Make-up Exam’ in July, **or**
- c) retake the SME CMfgT Exam (one ‘free’ retest allowed) **and** present their SME Certification notice.

*Note 2.* SME Exams: Regular/List \$490 (\$245 for members), SME Regular membership \$99, initiation fee \$10  
Students \$195 (**\$95** for members, paid by course fee), SME Student Membership **\$20**, no initiation fee

*Note 3.* Submit all checks in class (payable to SME) **by Thursday, April 12<sup>th</sup>**.

<b>Date:</b>	<b>Faculty:</b>	<b>Subject Areas:</b>	<b>Chapters:</b>
Jan 31	Otten	Course Intro & Practice Test	
Feb 07	Vanderloop	Ceramics & Specialized Processes	15,26,27,30,31
	Otten	Polymer Materials & Processes	13,14,28,29
	Greene	Physics & Engineering Science	6,7,8,9,10
	Greene	Mathematics & Physics	1,2,3,4,5
Mar 06*	Brogden	Material Properties & Metals	11,12,24,25
13*	Brogden	Metals Processes (cont'd)	20,21,22,23
17-21	SPRING BREAK		
	Greene	Graphics, GD&T, DFM, QFD	16,17,18,19
April 03	Fallscheer	Metrology & CAD/CAM Integration	44,36,37,38
	Fallscheer	PLCs, Robotics, & Mat'l Handling	39,40,41
	Vanderloop	Production Planning, & Logistics	32,33,34,35
	Dahlgren	Management, Health & Safety	45,46,47
May 01	Vanderloop	TQM, Quality Assurance, & SPC	42,43
	Otten	“Prep Exam” (scored same day)	All notes & ref. books
	ALL	Group Q&A/Review Session	All materials
	Otten	SME Certification Exam, <b>Thursday (05/15), 6:00-9:00pm**</b>	

**Note:** \* March 6 and 13 Class will start at 6PM not 5PM

\*\*CMfgT Exam is **three** hours long—check your Finals schedule now for time conflicts!