

Survey of Manufacturing Processes

COURSE SYLLABUS

Revised 12/01/2011

C - L - CR
3 - 0 - 3

COURSE NUMBER: AMT 110

PREREQUISITE(S): None

CO-REQUISITE(S): None

COURSE DESCRIPTIONS This course includes the processes, alternatives and operations used in a broad range of manufacturing environments.

TEXTBOOK(S): **Modern Materials and Manufacturing Processes 3rd Edition** 0-13-094698-2
by Bruce, Gregg
Publication: Pearson Prentice Hall, Inc., 2004
Upper Saddle River New Jersey

OTHER REQUIRED MATERIALS, TOOLS, AND EQUIPMENT: Course Materials as provided in the AMT lecture site:
<http://lecture.sccsc.edu/amt>

INSTRUCTOR ASSISTANCE: All students are encouraged to contact the instructor as course or advising needs arise. The best way to do this is to see the instructor after class to schedule an appointment and/or look at the office hours schedule posted on the instructor's office door. You can also contact the instructor using email.

METHOD OF INSTRUCTION: This is a lecture type course with supporting materials available on the AMT lecture site:
<http://lecture.sccsc.edu/amt/amt101>.

The course will be presented through lecture/quiz methods with supporting homework assignments. In addition, videos will be presented for expanded understanding of the course material. Occasional research projects may be assigned for the purpose of accentuating some subject matter.

<u>GRADING SYSTEM:</u>	90	-	100	=	A
	80	-	89	=	B
	70	-	79	=	C
	60	-	69	=	D
	Below	-	60	=	F

<u>GRADE CALCULATION METHOD:</u>	Quizzes	=	40%
	Homework	=	30%
	Research	=	10%
	Class Participation	=	<u>20%</u>
		=	100%

**ATTENDANCE
POLICY:**

Students are responsible for punctual and regular attendance in all classes, laboratories, field trips, and other class activities. The College does not grant excused absences; therefore, students are urged to reserve their absences for emergencies. When illness or other emergencies occur, the student is responsible for notifying instructors and completing work missed.

Students are tardy if not in class at the time the class is scheduled to begin. Tardy students are admitted to class at the discretion of the instructor.

If you have attended at least one session during the first week of the semester you are responsible for dropping yourself from the class. It is the students' responsibility to withdraw from a course. A student who stops attending class and fails to initiate a withdrawal will remain on the class roster.

If you do not attend a class session during the first week of class you will automatically be dropped by the College.

A student who does not complete an assignment, test, or final exam in the course will receive a zero for each missing grade and the final course grade will be calculated accordingly.

Absences for Religious Holidays: Students who are absent from class in order to observe religious holidays are responsible for the content of any activities missed and for the completion of assignments occurring during the period of absence. Students who anticipate their observance of religious holidays will cause them to be absent from class and do not wish such absences to penalize their status in class should adhere to the following guidelines:

1. Observance of religious holidays resulting in three or fewer consecutive absences: Discuss the situation with the instructor and provide written notice at least one week prior to the absence(s). Develop (in writing) an instructor-approved plan which outlines the make-up of activities and assignments.
2. Observances of religious holidays resulting in four or more consecutive absences: Discuss the situation with the instructor and provide the instructor with written notice within the first 10 days of the academic term. Develop an instructor-approved plan which outlines the make-up of activities and assignments.

**ACADEMIC
CONDUCT:**

ACADEMIC DISHONESTY: Students are expected to uphold the integrity of the College's standard of conduct, specifically in regards to academic honesty. All forms of academic dishonesty including, but not limited to, cheating on assignments/tests, plagiarism, collusion, and falsification of information will call for disciplinary action. Disciplinary action imposed may include one or more of the following: written reprimand, loss of credit for assignment/test, termination from course, and probation, suspension, or expulsion from the College. For further explanation of this and other conduct codes, please refer to the Student Handbook.

CELLULAR PHONES AND PAGERS/BEEPERS: Cellular phones, pagers and beepers are not permitted to be turned on or used within the classroom. Use of these devices during classroom time will be considered a violation of the student code as it relates to "disruptive behavior."

**CLASSROOM
PROCEDURES:**

Lecture Modules will be graded with "In Class" quizzes that will measure the students' comprehension of lecture materials as they are delivered. Students are responsible for making up missed quizzes. Arrangements should be made with the instructor to take the missed quizzes in the Testing Center. Class time will not be used for makeup quizzes.

Class Participation is strongly encouraged in this course, therefore students in regularly scheduled classes will be awarded points per class session for timely and complete attendance. (Come on time; stay till done). In this way, class participation can affect the final grade by at least two whole letter grades.

ACCOMMODATIONS Students who need special accommodations in this class because of a documented disability should notify Student Disability Services by calling (864) 592-4818, toll-free 1-800-922-3679; via email through the SCC web site at www.sccsc.edu/resources/disabilities; or by visiting the office located in the East Building Room 30-B on the SCC Central campus. Contacting Student Disability Services early in the semester gives the College an opportunity to provide necessary support services and appropriate accommodations.

**COURSE
COMPETENCIES &
OBJECTIVES:**

Upon satisfactory completion of this course, the student will be able to:

Describe the characteristics and applications of various types of manufacturing processes in the modern manufacturing plant.

1. Explain the methods used in the molding process
2. Identify the types of press work done and how these methods determine the type of tooling used.
3. Discuss the several types of “conventional” machining in a manufacturing plant.
4. Identify what is meant by “non-traditional” machining.
5. Explain the various methods of component fastening and joinery.

Identify and explain the representative types of materials used in manufacturing products that are produced in various manufacturing plants.

6. Identify various types of plastics used in product manufacture.
7. Explain the benefit and uses of powdered metal.
8. Discuss the characteristics of ceramics and their benefits.
9. Identify the more common types of steels and specialty metals.