

NORTHWEST -SHOALS COMMUNITY COLLEGE

Drafting and Design Technology

DDT 117 Manufacturing Processes

Instructor: Alton Rice
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Credit Hours: 3 **Contact:** 5 Hrs. **Lecture:** 2 hrs. **Lab:** 3 Hrs.

Program/Degree: Drafting and Design Technology / Associate in Applied Science Degree

Description: This web course in Manufacturing Processes includes the principles and methodology of material selection, application, and manufacturing processes. Emphasis is directed to solids to include material characteristics, castings, forging, and die assemblies.

Prerequisites: None

Primary Text: Engineering Drawing and Design – Third Edition
Madsen, Folkestad, Schertz, Shumaker, Turpin, and Stark
Delmar Publishers - 2002

Supplemental Text: Machinery's Handbook – Latest Edition
Industrial Press, Inc.

Supplies: None

Course Objectives:

After completion of this course the student will be able to;

- Define and describe various manufacturing materials, material terminology, numbering systems, and material treatment.
- Discuss casting processes and terminology.
- Explain the forging processes and terminology.
- Describe and draw the representation of various machined features.
- Explain tool design and drafting practices.
- Describe manufacturing processes.
- Discuss the statistical process quality control assurance system.
- Evaluate the results of an engineering and manufacturing problem.
- Explain the use of computer-aided-manufacturing (CAM) in today's industry.
- Discuss robotics in industry.

Assignments, Directions & Grading Policy	Score 1	Score 2	Score 3	Total Scores	Possible Points
There will be 3 quizzes that will test you on each of the 3 sections of questions at the end of Chapter 11 in the text. The quizzes will also test you on 70 of the 210 terms supplied here. To clarify, there will be “3 total test” consisting of the questions and definitions listed under “Score 1”, “2”, and “3” to the right. The quizzes should be taken in the Drafting Department and administered by the Instructor, after an appointment has been made. If students will email or hand deliver to the Instructor the answered questions and defined terms, prior to the quiz, the Instructor will in turn provide answers to those items back to the student for studying. That is not mandatory but advised since the terms on the quiz will be in the form of “fill in the blank” and “word bank.” Be sure to read “TERMS/DEFINITIONS below!! Students must read the chapter thoroughly prior to answering the questions for that section. The quiz questions will come directly from those questions.	Questions Part I & Definitions 1 – 70 240 Total Pts.	Questions Part II & Definitions 71 - 140 220 Total Pts.	Questions Part III & Definitions 141 - 210 180 Total Pts.		640
Definitions/Research – (1 point each definition) See “TERMS/DEFINITIONS” below!	Definitions 1 – 70 (70 Pts)	Definitions 71 - 140 (70 Pts)	Definitions 141 - 210 (70 Pts)		210
Attitude, Participation & Communication with the Instructor					150
Total					1000 Pts.

TERMS/DEFINITIONS: Important instructions!!

Definitions shall be acquired through extensive research using various means. (Internet, Library, etc...) Finding some terms may be difficult. I assure you all terms are legitimate. Many words have different meanings; therefore, you should always select the definition that is related to manufacturing processes, marketing, or industry in general. Try not to get frustrated. All of you will have the same level of difficulty in finding these definitions, so the assignment is fair to all. If you do not have most of the terms defined, when I check your work and review for the test, you will not be able to attend the review session. You must “**TRY**”. One of the **major intents** of this assignment is your learning how to do “**research**”. It was not meant to be easy.

Words of advice...do not wait till late in the semester to begin searching. They may be harder than you think to find and will take some time to find the “appropriate” answer. Do not spend too much time looking for a definition, skip it and go to the next one then return later. Even though they are assigned in sections, I suggest you work on **all definitions**

from the beginning. I will supply the correct answers before each test if you follow the directions above. I know which definitions are the most difficult to find. You should be able to find the remaining ones.

Your grade will be available for viewing at the end of each semester. You must log on to the NWSCC website: www.nwsc.edu for viewing.

GRADES WILL BE ASSIGNED AS FOLLOWS:

A	=	900 to 1000 Points
B	=	800 to 899
C	=	700 to 799
D	=	600 to 699
F	=	Less Than 600

MISCELLANEOUS INFORMATION:

- This syllabus is subject to amendment by the Instructor at his or her discretion. Students must be notified of any such amendment.
- Northwest-Shoals Community College's policy regarding academic honesty will be **strictly enforced!** As a common courtesy to the instructor, you should communicate with the Instructor as often as possible to let them know your progress in the course. You should also contact them if you need assistance in completing any of the assignments. If you are going to be absent from an appointment you should contact the Instructor as soon as possible. This will establish communications with the instructor about the possibility of making up your work or arranging for another appointment.
- Make-up test and assignments shall be given on an individual basis and only with a proper excuse.
- It is **"your"** responsibility to contact the instructor when necessary. Communication is the key to being successful in these courses.
- Completing the research assignments (term definitions) is an integral part of this course. **Each student must satisfactorily complete at least 75% of the research to receive a passing grade in the course. If a student does not complete "75%" of the research, the student will receive a grade of "F" for the course.**
- **All cell phones and pagers are to be turned off at the beginning of each quiz session period.**

AMERICANS WITH DISABILITIES ACT (ADA)

It is the policy of Northwest-Shoals Community College to comply with the Americans with Disabilities Act (ADA). Any student covered under this act needing and desiring reasonable accommodations for this class should **notify the Instructor and the Department of Student Services, during the first week of class.**