

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: AMFG 210

Credit Hours: 3-2-2

Course Title: Computer Aided Manufacturing

Course Prerequisite: AMFG 110 and (TEED 161 or TEED 162 or TEED 143)

Textbook(s): Amatrol/Sivad. Amatrol eLearning License Amatrol All and AME21 Libraries 4 Month. ISBN: Amatrol Prod# 206-WSC-IND4

Course Description: An introduction to computer aided manufacturing processes including CNC machining and automated plasma and oxy-fuel cutting systems.

Learning Outcomes:

At the end of the course, the student will:

- A. Understand computer controlled manufacturing concepts;
- B. understand and utilize the different CNC machining techniques and where they are applicable;
- C. understand and utilize automated plasma and oxy-fuel cutting processes; and
- D. understand and utilize software to convert 3D designs into machine usable instructions

To achieve the learning outcomes, the student will or will be able to:

(The letter designations at the end of each statement refer to the learning outcome(s).)

- 1. identify and explain the processes and equipment used in computer controlled manufacturing; (A)
- 2. program and apply 2D and 3D contour machining operations; (B)
- 3. program and apply pocketing and path machining operations; (B)
- 4. program and apply automated plasma material cutting operations; (C)
- 5. program and apply automated oxy-fuel material cutting operations; (C) and
- 6. using software convert 2D and 3D design data into machine instructions; (D)

Course Requirements: Complete all homework assignments, lecture tests and final exam.

Course Grading Scale:

- 90 – 100 = A
- 80 – 89 = B
- 70 – 79 = C
- 60 – 69 = D
- 0 – 59 = F

Attendance Policy: The college attendance policy is available at <http://www.bpcc.edu/catalog/current/academicpolicies.html>

Course Fees: This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, software licenses, certification exams, and/or clinical fees.

Nondiscrimination Statement: Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

COORDINATOR FOR SECTION 504 AND ADA

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