

COMPUTER-AIDED MACHINING (CAMM)

CAMM 111, INTRODUCTION TO COMPUTER NUMERICAL CONTROL 2 (4)

This introductory course covers manual CNC programming techniques for 3-axis milling machines and 2-axis turning centers. Basics of job planning, tooling, tool path graphics and verification are included. Course focuses on Fanuc-compatible controllers using late model CNC equipment. Laboratory required. (A special fee will be assessed.)

General Education: GEO1, GEO2

Course Entry Requirement(s): Concurrent: TECN 111 and either TECN 131 or AETC 115

Typically Offered: Fall and Spring Semesters

CAMM 141, TOOL AND DIE 2 (4)

This course covers the design, construction, and operation of stamping dies, punches, die sets, stops, strippers, gages, pilots, and presses. Students will design and construct a working die set using the traditional machining and CNC machines. Laboratory required. (A special fee will be assessed.)

General Education: GEO2, GEO5

Course Entry Requirement(s): Prerequisite: TECN 131 AND CAMM 111

Typically Offered: Spring Semester

CAMM 215, ADVANCED CNC MILLING MACHINES 3 (6)

Covers advanced CNC programming techniques for mills or machining centers. Topics include set-up, operation, up to 4th-axis programming, parametric programming, and introduction to Computer-Aided Machining (CAM) techniques for machining centers. Laboratory required. (A special fee will be assessed.)

General Education: GEO2

Course Entry Requirement(s): Prerequisite: CAMM 111; Course placement policy: Grade of C or higher in MTHM 033 or satisfactory placement assessment score in mathematics

Typically Offered: Fall Semester

CAMM 225, ADVANCED CNC LATHES 3 (5)

This course covers advanced CNC programming techniques for lathes or turning centers. Topics include set-up, operation, and programming of the machines as well as parametric programming techniques and introductory Computer-Aided Machining (CAM) for turning centers. Laboratory required. (A special fee will be assessed.)

General Education: GEO2

Course Entry Requirement(s): Prerequisite: CAMM 111; Course placement policy: Grade of C or higher in MTHM 033 or satisfactory placement assessment score in mathematics

Typically Offered: Fall and Spring Semesters

CAMM 235, CAD-CAM GRAPHICS 3 (6)

Course develops skill in graphic toolpath generation for machining and turning. Students build wireframe, surface, and solid models using CAM software and develop associated toolpath. The course also covers CAD data translation, CNC communications, customization of post-processors and other related topics. Laboratory required. (A special fee will be assessed.)

General Education: GEO2, GEO3

Course Entry Requirement(s): Prerequisite: CAMM 215 or CAMM 225 and CADD 212 or CADD 213 or CADD 214; Course Placement Policy: MTHM 033

Typically Offered: Spring Semester

CAMM 237, COMPUTER AIDED MACHINING CAPSTONE 3 (6)

Study of applications of computer aided manufacturing and machining. Designed to take the students through the entire process of developing, designing, programming, fixturing, and documenting machined products and assemblies. Project management and team-based skills will be emphasized. Laboratory required. (A special fee will be assessed.)

General Education: GEO1, GEO2, GEO3, GEO6, GEO8

Course Entry Requirement(s): Prerequisite: CAMM 215 and CAMM 225; Concurrent: CAMM 235

Typically Offered: Spring Semester

CAMM 287, WORK BASED LEARNING I - CAMM 1-3 (1)

This course provides supervised work experience building on experience in Work-Based Learning with approved employer(s) in an area related to the student's program. Emphasis is placed on integrating classroom learning with work experience. Students will be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Activities are coordinated and evaluated by college personnel.

General Education: GEO1, GEO2, GEO6, GEO8

Course Entry Requirement(s): Prerequisite: Minimum 2.0 GPA overall and division approval

Typically Offered: Offer as required

CAMM 288, WORK BASED LEARNING II - CAMM 1-3 (1)

Building on experiences from Work Based Learning I, this course provides supervised, paid work experience with approved employer(s) in an area related to the student's program. Emphasis is placed on integrating prior or concurrent classroom learning with work experience through career readiness competencies. Students will be able to evaluate career selection and satisfactorily demonstrate work-related competencies.

General Education: GEO1, GEO2, GEO6, GEO8

Course Entry Requirement(s): Prerequisite: CAMM 287

Typically Offered: Offer as required

CAMM 289, WORK BASED LEARNING III - CAMM 1-3 (1)

Building on experiences from Work Based Learning II, this course provides supervised, paid work experience with approved employer(s) in an area related to the student's program. Emphasis is placed on integrating prior or concurrent classroom learning with work experience through career readiness competencies. Students will be able to evaluate career selection and satisfactorily demonstrate work-related competencies.

General Education: GEO1, GEO2, GEO6, GEO8

Course Entry Requirement(s): Prerequisite: CAMM 288

Typically Offered: Offer as required