



**TENTATIVE—SUBJECT TO CHANGE**

**AMCA 2130 CNC Mill Manual Programming  
COURSE SYLLABUS  
Spring Semester 2020 (202014)**

**COURSE INFORMATION**

Credit Hours/Minutes: 5/5250

Campus/Class Location: Swainsboro/6112

Class Meets: Monday, Tuesday, Wednesday, & Thursday / 9:45AM to 11:15AM

Course Reference Number (CRN): 40153

**INSTRUCTOR CONTACT INFORMATION**

Instructor Name: James Yearty

Email Address: [James Yearty \(jyearty@southeasterntech.edu\)](mailto:jyearty@southeasterntech.edu)

Campus/Office Location: Swainsboro/6111

Office Hours: 7:30 to 8:00 & 12:30 to 2:30 Monday Tuesday Wednesday & Thursday

Phone: (478) 289-2323

Tutoring Hours (if applicable): Schedule with instructor as needed

**SOUTHEASTERN TECHNICAL COLLEGE'S (STC) CATALOG AND HANDBOOK**

Students are responsible for all policies and procedures and all other information included in Southeastern Technical College's [Catalog and Handbook \(http://www.southeasterntech.edu/student-affairs/catalog-handbook.php\)](http://www.southeasterntech.edu/student-affairs/catalog-handbook.php).

**REQUIRED TEXT**

CNC Programming Workbook for Milling by camInstructor. ISBN: 978-1-897466-84-1

**REQUIRED SUPPLIES & SOFTWARE**

Each student should have the following: Spiral notebook, pen, pencil, highlighter, 0-1 micrometer, 6" flexible rule, 0-6" dial caliper, pocket scriber, deburr tool, & safety glasses. You will not be permitted to borrow from the Instructor or your fellow classmates.

**Students should not share login credentials with others and should change passwords periodically to maintain security.**

**COURSE DESCRIPTION**

Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) milling machines. Topics include: safety, calculation for programming, program codes and structure, program run and editing of programs.

## **MAJOR COURSE COMPETENCIES**

1. Safety
2. Programming Calculations
3. Program Codes and Structure
4. Program Run and Editing

## **CO-REQUISITE(S)**

MCHT 1012 Blueprint Reading for Machine Tool, CNC Fundamentals

## **COURSE OUTLINE**

Introduces students to Safety, Programming Calculations, Program Codes and Structure, and Program Run and Editing.

## **GENERAL EDUCATION CORE COMPETENCIES**

Southeastern Technical College has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

## **STUDENT REQUIREMENTS**

Tests and assignments must be completed on specified date. Students are also responsible for policies and procedures in the STC E-Catalog.

## **ATTENDANCE GUIDELINES**

Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and also interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Instructors have the right to give unannounced quizzes/assignments. Students who miss an unannounced quiz or assignment will receive a grade of 0. Students who stop attending class, but do not formally withdraw, may receive a grade of "F" (Failing 0-59) and face financial aid repercussions in upcoming semesters.

Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor.

Students will not be withdrawn by an instructor for attendance; however, all instructors will keep records of graded assignments and student participation in course activities. The completion dates of these activities will be used to determine a student's last date of attendance in the event a student withdraws, stops attending, or receives an "F" in a course.

## **STUDENTS WITH DISABILITIES**

Students with disabilities who believe that they may need accommodations in this class based on the impact

of a disability are encouraged to contact the appropriate campus coordinator to request services.

**Swainsboro Campus:** [Macy Gay \(mgay@southeasterntech.edu\)](mailto:mgay@southeasterntech.edu), 478-289-2274, Building 1, Room 1210

**Vidalia Campus:** [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 912-538-3126, Building A, Room 165

### **SPECIFIC ABSENCES**

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

### **PREGNANCY**

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please make arrangements with the appropriate campus coordinator.

**Swainsboro Campus:** [Macy Gay \(mgay@southeasterntech.edu\)](mailto:mgay@southeasterntech.edu), 478-289-2274, Building 1, Room 1210

**Vidalia Campus:** [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 912-538-3126, Building A, Room 165

It is strongly encouraged that requests for consideration be made **PRIOR** to delivery and early enough in the pregnancy to ensure that all the required documentation is secured before the absence occurs. Requests made after delivery **MAY NOT** be accommodated. The coordinator will contact your instructor to discuss accommodations when all required documentation has been received. The instructor will then discuss a plan with you to make up missed assignments.

### **WITHDRAWAL PROCEDURE**

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% point of the term in which student is enrolled (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" (Withdrawn) is assigned for the course(s) when the student completes the withdrawal form.

Important – Student-initiated withdrawals are not allowed after the 65% point. After the 65% point of the term in which student is enrolled, the student has earned the right to a letter grade and will receive a grade for the course. Please note: Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of "F" (Failing 0-59) being assigned.

Informing your instructor that you will not return to his/her course, does not satisfy the approved withdrawal procedure outlined above.

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid for the current semester and in the future, so a student must also speak with a representative of the Financial Aid Office to determine any financial penalties that may be assessed due to the withdrawal. A grade of "W" will count in attempted hour calculations for the purpose of Financial Aid.

### **MAKEUP GUIDELINES (TESTS, QUIZZES, HOMEWORK, PROJECTS, ETC.)**

Make up test will be at the discretion of the instructor.

### **ACADEMIC DISHONESTY POLICY**

The Southeastern Technical College Academic Dishonesty Policy states that all forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the Southeastern Technical College Catalog and Handbook.

## PROCEDURE FOR ACADEMIC MISCONDUCT

The procedure for dealing with academic misconduct and dishonesty is as follows:

### 1. First Offense

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

### 2. Second Offense

Student is given a grade of "WF" (Withdrawn Failing) for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

### 3. Third Offense

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

## STATEMENT OF NON-DISCRIMINATION

The Technical College System of Georgia (TCSG) and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member, or citizenship status (except in those special circumstances permitted or mandated by law). This nondiscrimination policy encompasses the operation of all technical college-administered programs, federally financed programs, educational programs and activities involving admissions, scholarships and loans, student life, and athletics. It also applies to the recruitment and employment of personnel and contracting for goods and services.

All work and campus environments shall be free from unlawful forms of discrimination, harassment and retaliation as outlined under Title IX of the Educational Amendments of 1972, Title VI and Title VII of the Civil Rights Act of 1964, as amended, the Age Discrimination in Employment Act of 1967, as amended, Executive Order 11246, as amended, the Vietnam Era Veterans Readjustment Act of 1974, as amended, Section 504 of the Rehabilitation Act of 1973, as amended, the Americans With Disabilities Act of 1990, as amended, the Equal Pay Act, Lilly Ledbetter Fair Pay Act of 2009, the Georgia Fair Employment Act of 1978, as amended, the Immigration Reform and Control Act of 1986, the Genetic Information Nondiscrimination Act of 2008, the Workforce Investment Act of 1998 and other related mandates under TCSG Policy, federal or state statutes.

The Technical College System and Technical Colleges shall promote the realization of equal opportunity through a positive continuing program of specific practices designed to ensure the full realization of equal opportunity.

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

<b>American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer</b>	<b>Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer</b>
Helen Thomas, Special Needs Specialist	Lanie Jonas, Director of Human Resources

<b>American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer</b>	<b>Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer</b>
Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 165 Phone: 912-538-3126 Email: <a href="mailto:hthomas@southeasterntech.edu">Helen Thomas</a> <a href="mailto:hthomas@southeasterntech.edu">hthomas@southeasterntech.edu</a>	Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 138B Phone: 912-538-3230 Email: <a href="mailto:ljonas@southeasterntech.edu">Lanie Jonas</a> <a href="mailto:ljonas@southeasterntech.edu">ljonas@southeasterntech.edu</a>

### ACCESSIBILITY STATEMENT

Southeastern Technical College is committed to making course content accessible to individuals to comply with the requirements of Section 508 of the Rehabilitation Act of Americans with Disabilities Act (ADA). If you find a problem that prevents access, please contact the course instructor.

### GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on Southeastern Technical College's website.

### ACCESS TO TECHNOLOGY

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the [Southeastern Technical College \(STC\) Website \(www.southeasterntech.edu\)](http://www.southeasterntech.edu).

### TECHNICAL COLLEGE SYSTEM OF GEORGIA (TCSG) GUARANTEE/WARRANTY STATEMENT

*The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.*

### GRADING POLICY

Assessment/Assignment	Percentage
Workbook Exercises	25%
Projects	40%
Final Project	35%

### GRADING SCALE

Letter Grade	Range
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

## AMCA 2130 CNC Mill Manual Programming Spring Semester 2020 Lesson Plan

Subject to change

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
1/7/20 Day 1		First day of class/Class Introduction—Syllabi, Outline CNC Mill Manual Programming		1,2,3,4,a,b,c
1/8/20 Day 2	Lesson 1 Absolute & Incremental Positioning	CNC Programming Mill student workbook camInstructor	Class discuss & complete Exercises 1 thru 4	1,2,3,4,a,b,c
1/9/20 Day 3	Lesson 2 Introduction to CNC codes	CNC Programming Mill student workbook camInstructor	Class discuss & complete CNC Part 1 page 17	1,2,3,4,a,b,c
1/13/20 Week 1	Lesson 3 Creating CNC Programs Lesson 4 Drilling using canned cycles Lesson 5 Drilling using canned cycles	CNC Programming Mill student workbook camInstructor	Class discuss lesson 3 & 4  Lesson 5 CNC part #2, #3, #4, exercises due by 1/16/20 for grade	1,2,3,4,a,b,c
1/21/20 Week 2	Lesson 6 Straight line milling-linear interpolation	CNC Programming Mill student workbook camInstructor	Lesson 6 CNC part #7 & CNC part #8 create programs to machine contour for grade due 1/23/20	1,2,3,4,a,b,c
1/27/20 Week 3	Lesson 7 & Lesson 8 Circular Interpolation	CNC Programming Mill student workbook camInstructor	Lesson 8 CNC part #9 & CNC part #10 create programs to machine parts for grade due 1/30/20	1,2,3,4,a,b,c
2/3/20 Week 4	Lesson 9 Circular Interpolation	CNC Programming Mill student workbook camInstructor	Lesson 9 CNC part #11 & CNC part #12 create programs to machine parts for grade due 2/6/20	1,2,3,4,a,b,c
2/10/20 Week 5	Lesson 10 Cutter Compensation	CNC Programming Mill student workbook camInstructor	Lesson 10 CNC part #13 & CNC part #14 create programs to machine parts for grade due 2/13/20	1,2,3,4,a,b,c
2/17/20 Week 6		Retrieve print 101 from instructor	Project 101 due 2/20/20	1,2,3,4,a,b,c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
2/24/20 Week 7		Retrieve print 102 from instructor	Project 102 due 2/27/20	1,2,3,4,a,b,c
3/2/20 Week 8		Retrieve print 103 from instructor	Project 103 due 3/4/20	1,2,3,4,a,b,c
3/9/20 Week 9		Retrieve print 104 from instructor	Project 104 due 3/12/20	1,2,3,4,a,b,c
3/16/20 Week 10		Retrieve print 105 from instructor	Project 105 due 3/19/20	1,2,3,4,a,b,c
3/21/20 Week 11		Retrieve print 106 from instructor	Project 106 due 3/26/20	1,2,3,4,a,b,c
3/30/20 Week 12		Retrieve print 107 from instructor	Project 107 due 4/2/20	1,2,3,4,a,b,c
4/6/20 THRU 4/9/20		Student Holidays		1,2,3,4,a,b,c
4/13/20 Week 13		Retrieve print 108 from instructor	Project 108 due 4/16/20	1,2,3,4,a,b,c
4/20/20 Week 14		Retrieve print finale project from instructor		1,2,3,4,a,b,c
4/27/20 Week 15			Finale Project due 4/28/2020	1,2,3,4,a,b,c
<b>Live work may be substituted for any or all projects. All programs are to be saved on your flash drive.</b>				

**COMPETENCY AREAS: (WILL VARY FOR EACH COURSE/TAKEN FROM STATE STANDARDS)**

1. Safety
2. Programming Calculations
3. Program Codes and Structure
4. Program Run and Editing

**GENERAL CORE EDUCATIONAL COMPETENCIES:**

- a) The ability to utilize standard written English.
- b) The ability to solve practical mathematical problems.
- c) The ability to read, analyze, and interpret information.