



**TENTATIVE—SUBJECT TO CHANGE**  
**MCHT 1012 Print Reading for Machine Tool**  
**COURSE SYLLABUS**  
**Online**  
**Summer Semester 2023 (202316)**

**COURSE INFORMATION**

Credit Hours/Minutes: 3/2250

Campus/Class Location: Georgia Virtual Technical Connection (GVTC)/Blackboard

Class Meets: Via Internet for 9 weeks

Course Reference Number (CRN): 60114

Preferred Method of Contact: Office 365 College Email at mySTC

**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: 12:30 to 2:30PM Monday Tuesday Wednesday & Thursday

Phone: (478) 289-2323

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

**SOUTHEASTERN TECHNICAL COLLEGE (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 \(https://catalog.southeasterntech.edu/\)](https://catalog.southeasterntech.edu/).

**NO REQUIRED TEXT**

**REQUIRED SUPPLIES & SOFTWARE**

Daily, MTWR, access to a reliable internet connection for use with Blackboard, Immerse2learning, mySTC, and college email.

Note: Although students can use their smart phones and tablets to access their online course(s), exams, discussions, assignments, and other graded activities should be performed on a personal computer. Neither Blackboard nor Georgia Virtual Technical Connection (GVTC) provide technical support for issues relating to the use of a smart phone or tablet so students are advised to not rely on these devices to take an online course.

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

**COURSE DESCRIPTION**

Introduces the fundamental concepts necessary to develop blueprint reading competencies, interpret

drawings, and produce sketches for machine tool applications. Topics include interpretation of blueprints, sketching, sectioning, geometric dimensioning and tolerancing, and assembly drawings.

### **MAJOR COURSE COMPETENCIES**

1. Interpretation of Blueprints
2. Sketching
3. Assembly Drawings
4. Sectioning
5. Geometric Dimensioning and Tolerancing

### **PREREQUISITE(S)**

None

### **COURSE OUTLINE**

Introduces students to interpretations of blueprints, sketching, assembly drawings, sectioning, & geometric dimensioning and tolerancing.

### **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 (ONLINE)**

Students are expected to complete all work required by the instructor. Students will have at least one week to complete tests and assignments. All tests and assignments are due at midnight on Wednesday of each week. Assignments must be keyed in Microsoft Word, saved, uploaded, and attached for grading in Blackboard.

Students are expected to prove weekly academic engagement by meeting assignment deadlines each week and spending a minimum of 37.5 hours during the semester doing the required homework, quizzes, and tests. Students are expected to communicate frequently through college email and discussion boards. College email and other STC resources can be accessed from the [mySTC](#) tab on STC's Website. Email can also be accessed in the menu of your Blackboard course.

### **ONLINE ATTENDANCE**

It is the student's responsibility to be academically engaged each week doing course related 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" (Failing 0-59) in a course.

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. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Students will have at least one week to complete tests and assignments. All tests and assignments are due by 11:59 p.m. on Wednesday of each week and are scheduled on the lesson plan for online Blueprint. Exceptions to the time frame and Wednesday deadline may be the proctored exam and final exam. Past due assignments will have 5 points deducted from the grade for the first day the assignment is late. An additional 2 points will

be deducted for each day thereafter for late submissions.

Exceptions to the due dates of assignments due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

### **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: [Emily Jarrell \(ejarrell@southeasterntech.edu\)](mailto:ejarrell@southeasterntech.edu), 478-289-2259, 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: [Emily Jarrell \(ejarrell@southeasterntech.edu\)](mailto:ejarrell@southeasterntech.edu), 478-289-2259, 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.

### **EXIT EXAM**

NA

## **PROCTORED EVENT REQUIREMENT**

In order to validate student identity for all online courses, students enrolled in online courses are **required** to complete one proctored event per online course. Students are required to bring a photo ID (STC Student ID, Driver's License, or Passport) to the proctored event. The proctored event will be administered on separate days—once on the Vidalia campus and once on the Swainsboro campus. Students must attend one of the proctored sessions as scheduled on the Lesson Plan/Course Calendar. The event will be monitored by the instructor or by an approved proctor. The proctored event may be a major exam, assignment, or presentation, etc. that will count a minimum of 20% of the course grade. Students must attend one of the scheduled proctored sessions and will need to make arrangements with work, childcare, etc. The specific dates of the proctored event are scheduled on the Lesson Plan/Calendar for the online course.

Students living farther than 75 miles from either campus who cannot come to Southeastern Tech for the event must secure an approved proctoring site. The site and the proctor must meet Southeastern Technical College's requirements (instructor will provide more information and necessary forms if this is the case). Note: Students taking proctored events off campus will utilize the Proctor Scheduling and Approval Form found in Blackboard within the Getting Started/Start Here and Proctoring Event area. The completed form should be submitted to the course instructor a minimum of two weeks prior to the proctored event. If approved, the instructor will notify the proctor.

Students arranging off-campus proctoring must take the event on one of the originally scheduled days. Students who do not complete the proctored event as scheduled must submit a valid documented excuse within three business days after the scheduled event. If the excuse is approved by the instructor of the course, students must make arrangements with the instructor to makeup/reschedule the missed event. The penalty and makeup instructions will be at the instructor's discretion. Proctored events will be given after the 65% point of the semester. Students who do not complete the proctored event on the scheduled date and do not present a valid documented excuse within three business days of the scheduled event will be given a zero for the proctored event.

## **PROCTORING FEES**

Students are not charged a proctoring fee when taking a proctored event at Southeastern Technical College or any other TCSG college. Students who choose to use an off-campus proctor may be assessed a proctoring fee by the proctoring site. In this instance, the student is responsible for payment.

**The required proctored event for this class is scheduled on the following dates and times: Vidalia Campus, (date), (time), (room location) and Swainsboro Campus, (date), (time), (room location). (The CNC program is taught on the Swainsboro campus only. All proctored tests will be conducted on this campus in room 6110.)**

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

Makeup assignments will be allowed in extenuating circumstances.

## **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, sex, religion, disability, age, political affiliation or belief, genetic information, veteran status, or citizenship status (except in those special circumstances permitted or mandated by law).

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

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

**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 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
Quizzes	10%
Post-Tests	20%
Discussions	10%
Module Comprehensive Exams	30%
Proctored Event/Final Exam	30%

### GRADING SCALE

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

# MCHT 1012 Print Reading for Machine Tool

## Summer Semester 202316 Lesson Plan

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 1 5-15-2023	Welcome to Immerse2learn	<ul style="list-style-type: none"> <li>• Course Introduction</li> <li>• Learning Management System</li> <li>• System Menu and Navigation</li> </ul>	Due by 5-17-2022: Loading Software & Introduction	1,2,3,4,5,a,b,c
Week 2 5-22-2023	Reading Manufacturing Blueprints Module 1 Blueprint Basics	<ul style="list-style-type: none"> <li>• Understand industrial language terms.</li> <li>• Understand the use of blueprints.</li> <li>• Understand the basics of how a blueprint is laid out</li> </ul>	Due by 5-24-2023: Module 1 Pre-test & Post-test	1,2,3,4,a,b,c
	Reading Manufacturing Blueprints Module 2 Blueprint Standards	<ul style="list-style-type: none"> <li>• Match ISO and ANSI with their definitions.</li> <li>• Identify the symbols associated with ISO and ANSI standards.</li> <li>• Identify the meaning of orthographic projection.</li> <li>• Decipher the difference between 3rd and 1st angle projection.</li> <li>• Identify where different standards are used throughout the world</li> </ul>	Module 2 Pre-test & Post-test	
	Reading Manufacturing Blueprints Module 3 Drawing Views	<ul style="list-style-type: none"> <li>• List the six principle views associated with orthographic projection.</li> <li>• Decipher the difference between 3rd and 1st angle projection.</li> <li>• Decipher the difference between one, two and three view drawings. Identify what a section view represents</li> </ul>	Module 3 Pre-test & Post-test  Students also are to do hand sketch of orthographic projection scan and email to instructor  Discussion #1 Views	

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 3 5-29-2023	Reading Manufacturing Blueprints Module 4 Drawing Types	<ul style="list-style-type: none"> <li>• Identify section lines.</li> <li>• Decipher the difference between engineering drawings and blueprints.</li> <li>• Interpret detailed drawings.</li> <li>• Identify shape and size descriptions of detailed drawings.</li> <li>• Identify specifications of detailed drawings.</li> <li>• Interpret assembly drawings.</li> <li>• Identify assembly drawings</li> </ul>	Due by 5-31-2023: Module 4 Pre-test & Post-test	1,2,3,4,a,b,c
	Reading Manufacturing Blueprints Module 5 Blueprint Layout	<ul style="list-style-type: none"> <li>• Identify the 5 standard paper sizes for blueprints.</li> <li>• Decipher the different sections of a blueprint.</li> <li>• Understand the basic blueprint template.</li> <li>• Identify and interpret the seven different components of a blueprint title block.</li> </ul>	Module 5 Pre-test & Post-test	
	Reading Manufacturing Blueprints Module 6 Line Styles	<ul style="list-style-type: none"> <li>• Identify the 11 types of lines in a basic blueprint.</li> <li>• Locate each line type on a blueprint.</li> </ul>	Module 6 Pre-test & Post-test Students also are to hand sketch all 11 line types scan an email to instructor Discussion #2 Lines	



Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 4 6-5-2023	<p>Reading Manufacturing Blueprints Module 7 Fundamentals of Geometric Dimensioning</p> <p>Reading Manufacturing Blueprints Module 8 Fundamentals of Geometric Tolerancing</p>	<ul style="list-style-type: none"> <li>• Verify the purpose of dimensions in a drawing.</li> <li>• Match commonly used dimension symbols and terminologies with their purpose.</li> <li>• Identify size dimensions.</li> <li>• Identify diameter dimensions.</li> <li>• Identify radius dimensions.</li> <li>• Identify angular dimensions.</li> <li>• Identify datum dimensions.</li> <li>• Identify location dimensions.</li> <li>• Understand dimensioning standards for threaded fasteners.</li> <li>• Calculate dimensions on a blueprint.</li> <li>• Demonstrate how precision dimensions are expressed.</li> <li>• Understand what the drawing scale means.</li> </ul> <ul style="list-style-type: none"> <li>• Verify different tolerancing methods used in GD&amp;T.</li> <li>• Identify tolerances located on an engineering drawing.</li> <li>• Identify different tolerance types.</li> <li>• Verify the purpose of tolerances.</li> <li>• Identify the symbols used when tolerancing.</li> <li>• Identify the terms used when tolerancing.</li> <li>• Identify and interpret the different tolerancing methods.</li> <li>• Interpret clearance fits.</li> <li>• Interpret interference fits.</li> <li>• Interpret transition fits.</li> </ul>	<p>Due by 6-7-2023: Module 7 Pre-test &amp; Post-test</p> <p>Discussion #3 Dimensions</p> <p>Module 8 Pre-test &amp; Post-test</p> <p>Discussion #4 CAD</p>	1,2,3,4,5,a,b,c
Week 5 6-12-2023	Reading Manufacturing Blueprints	Review of Modules 1-8 of Reading Manufacturing Blueprints	Due 6-14-2023 Reading Manufacturing Blueprints Comprehensive Exam	1,2,3,4,5,a,b,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 6 6-19-2023	<p>Geometric Dimensioning and Tolerancing Module 1 Introduction</p> <p>Geometric Dimensioning and Tolerancing Module 2 Fundamentals</p> <p>Geometric Dimensioning and Tolerancing Module 3 Geometric Tolerancing System</p>	<ul style="list-style-type: none"> <li>• Geometric Dimensioning and Tolerancing Defined</li> <li>• American Society of Mechanical Engineers (ASME) Y14.5</li>   <li>• Terms</li> <li>• Symbols</li> <li>• Dimensioning</li> <li>• Datums</li> <li>• Feature Control Frames</li> <li>• Virtual Condition</li> <li>• Material Modifiers</li>   <li>• Introduction</li> <li>• Form Tolerances</li> <li>• Profile Tolerances</li> <li>• Orientation Tolerances</li> <li>• Runout Tolerances</li> <li>• Location Tolerances</li> </ul>	<p>Due by 6-21-2023: Geometric Dimensioning and Tolerancing Module 1 Pre-test &amp; Post-test</p> <p>Geometric Dimensioning and Tolerancing Module 2 Pre-test &amp; Post-test</p> <p>Geometric Dimensioning and Tolerancing Module 3 Pre-test &amp; Post-test</p>	5,a,b,c
Week 7 6-26-2023	<p>Geometric Dimensioning and Tolerancing Module 4 Project Based Inspection</p> <p>Geometric Dimensioning and Tolerancing</p>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Dial Indicator</li> <li>• Base (CNC Lathe Project 1)</li> <li>• Name Plate (CAM Mill Project 1)</li> <li>• Square Base (CNC Mill Project 2)</li> <li>• Round Base (CNC Mill Project 3)</li>   <li>• Modules 1,2, 3,&amp; 4 of Geometric Dimensioning and Tolerancing</li> </ul>	<p>Due by 6-28-2023: Geometric Dimensioning and Tolerancing Module 4 Pre-test &amp; Post-test</p> <p>Geometric Dimensioning and Tolerancing Comprehensive Exam</p>	
Week 7-4-2022		<b>STUDENT HOLIDAYS</b>		

<p>Week 8 7-10-2023</p>	<p>Precision Measurement Module 1 Steel Rules</p>	<ul style="list-style-type: none"> <li>• Identify the types of measurements that can be measured accurately with steel rules.</li> <li>• Understand the physical attributes of steel rules.</li> <li>• Understand the different configurations of steel rules.</li> <li>• Decipher between a fractional scale and a decimal scale.</li> <li>• Identify what scale needs to be used based on the dimensional size on the part print.</li> <li>• Understand how to properly position a steel rule on a part.</li> <li>• Determine the measurement value using a fractional scale.</li> <li>• Determine the measurement value using a decimal scale.</li> </ul>	<p>Due by 7-13-2022: Precision Measurement Module 1 Pre-test &amp; Post-test</p> <p>Discussion #5 Steel Rules</p>	<p>5,a,b,c</p>
	<p>Precision Measurement Module 2 Slide Calipers</p>	<ul style="list-style-type: none"> <li>• Decipher between a Vernier, dial, and digital precision calipers.</li> <li>• Identify the three different measurements that can be taken with precision calipers.</li> <li>• Clean and calibrate precision calipers.</li> <li>• Identify specifications that should be measured with a precision calipers.</li> <li>• Identify the different components of precision calipers.</li> <li>• Use, read and interpret an inch Vernier precision caliper.</li> <li>• Use, read and interpret a metric Vernier precision caliper.</li> <li>• Use, read and interpret a dial precision caliper.</li> <li>• Use, read and interpret a digital precision caliper.</li> </ul>	<p>Due by 7-13-2022: Precision Measurement Module 2 Pre-test &amp; Post-test</p>	
	<p>Precision Measurement Module 3 Micrometers</p>	<ul style="list-style-type: none"> <li>• Identify different types of micrometers.</li> <li>• Identify the different components of micrometers.</li> <li>• Understand the mechanics of a</li> </ul>	<p>Precision Measurement Module 3 Pre-test &amp; Post-test Due 7-13-2022</p>	

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
	Precision Measurement	micrometer. <ul style="list-style-type: none"> <li>• Properly handle and maintain micrometers.</li> <li>• Properly test and calibrate micrometers.</li> <li>• Use, read and interpret outside micrometers.</li> <li>• Use, read and interpret depth micrometers.</li> </ul> Modules 1,2, & 3 of Precision Measurement	Precision Measurement Comprehensive Exam Due 7-13-2022	
Week 9 7-17-2023		Review all notes for Final Exam. Refer to announcement in Blackboard on Final Exam.	Proctored Event Schedule with instructor	1,2,3,4,5,a,b,c
7-27-2022	Final	Final Exam accessed through Blackboard	Due 7-27-2023	1,2,3,4,5,a,b,c

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

1. Interpretation of blueprints
2. Sketching
3. Assembly drawings
4. Sectioning
5. Geometric Dimensioning and Tolerance 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.

## **Discussion Board Rubric**

**0%**

Student did not make any attempt to complete discussion post.

**50%**

Explanation of key points is unclear.

**75%**

A good, solid response with clear explanation.

**100%**

A complete response with a detailed explanation.