



TENTATIVE—SUBJECT TO CHANGE
MCHT 1012 Blueprint for Machine Tool
COURSE SYLLABUS
Online
Fall Semester 2021 (202212)

COURSE INFORMATION

Credit Hours/Minutes: 3/2250

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

Class Meets: Via Internet for 15 weeks

Course Reference Number (CRN): 20009

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 **“Due to the uncertainties of COVID-19, contact instructor by phone or email to make an appointment.”**

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 \(https://catalog.southeasterntech.edu/college-catalog/downloads/current.pdf\)](https://catalog.southeasterntech.edu/college-catalog/downloads/current.pdf).

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

MAJOR COURSE COMPETENCIES

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

PREREQUISITE(S)

None

COURSE OUTLINE

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

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.

COVID-19 MASK REQUIREMENT

Regardless of vaccination status, masks or face coverings must be worn at all times while in a classroom or lab of Southeastern Technical College. This measure is being implemented to reduce COVID-19 related health risks for everyone engaged in the educational process. Masks or face coverings must be worn over the nose and mouth, in accordance with the Centers for Disease Control and Prevention (CDC). A student's refusal to wear a mask or face covering will be considered a classroom disruption and the student may be asked to leave campus and/or receive further discipline.

COVID-19 SIGNS AND SYMPTOMS

We encourage individuals to monitor for the signs and symptoms of COVID-19 prior to coming on campus.

If you have experienced the symptoms listed below or have a body temperature 100.4°F or higher, we encourage you to self-quarantine at home and contact a primary care physician’s office, local urgent care facility, or health department for further direction. Please notify your instructor(s) by email and do not come on campus for any reason.

COVID-19 Key Symptoms
Fever or felt feverish
Chills
Shortness of breath or difficulty breathing (not attributed to any other health condition)
Cough: new or worsening, not attributed to another health condition
Fatigue
Muscle or body aches
Headache
New loss of taste or smell
Sore throat (not attributed to any other health condition)
Congestion or runny nose (not attributed to any other health condition)
Nausea or vomiting
Diarrhea
In the past 14 days, if you:
Have had close contact with or are caring for an individual diagnosed with COVID-19 at home (not in healthcare setting), please do not come on campus and contact your instructor (s).

COVID-19 SELF-REPORTING REQUIREMENT

Students, regardless of vaccination status, taking classes on campus, who test positive for COVID-19 or who have been exposed to a COVID-19 positive person, are required to self-report using <https://www.southeasterntech.edu/covid-19/>. Report all positive cases of COVID-19 to your instructor and [Stephannie Waters](mailto:swaters@southeasterntech.edu), Exposure Control Coordinator, swaters@southeasterntech.edu, 912-538-3195.

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: [Daphne Scott \(dscott@southeasterntech.edu\)](mailto:dscott@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: [Daphne Scott \(dscott@southeasterntech.edu\)](mailto:dscott@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.

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. 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 event on the scheduled date and do not present a valid documented excuse within three business days of the scheduled event will be withdrawn from the course with a "WF" (Withdrawn Failing). If the event is scheduled during final exams, any student who misses the event will be issued an "F" (Failing) for the course.**

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, 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:

<p>American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer</p>	<p>Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer</p>
<p>Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1st Street, Vidalia Office 165 Phone: 912-538-3126 Email: Helen Thomas (hthomas@southeasterntech.edu)</p>	<p>Lanie Jonas, Director of Human Resources Vidalia Campus 3001 East 1st Street, Vidalia Office 138B Phone: 912-538-3230 Email: Lanie Jonas (ljonas@southeasterntech.edu)</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 Blueprint for Machine Tool

Fall Semester 202212 Lesson Plan

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 1 8/16-8/19	Welcome to Immerse2learn	<ul style="list-style-type: none"> • Course Introduction • Learning Management System • System Menu and Navigation 	Due by 8-18-2021: Loading Software & Introduction	1,2,3,4,5,a,b,c
Week 2 8-23-2021	Reading Manufacturing Blueprints Module 1 Blueprint Basics	<ul style="list-style-type: none"> • Understand industrial language terms. • Understand the use of blueprints. • Understand the basics of how a blueprint is laid out 	Due by 8-25-2021: Module 1 Pre-test & Post-test	1,2,3,4,a,b,c
Week 3 8-30-2021	Reading Manufacturing Blueprints Module 2 Blueprint Standards	<ul style="list-style-type: none"> • Match ISO and ANSI with their definitions. • Identify the symbols associated with ISO and ANSI standards. • Identify the meaning of orthographic projection. • Decipher the difference between 3rd and 1st angle projection. • Identify where different standards are used throughout the world 	Due by 9-1-2021: Module 2 Pre-test & Post-test	1,2,3,4,a,b,c
Week 4 9-7-2021	Reading Manufacturing Blueprints Module 3 Drawing Views	<ul style="list-style-type: none"> • List the six principle views associated with orthographic projection. • Decipher the difference between 3rd and 1st angle projection. • Decipher the difference between one, two and three view drawings. • Identify what a section view represents 	Due by 9-9-2021: Module 3 Pre-test & Post-test Students also are to do hand sketch of orthographic projection scan and email to instructor Discussion #1 Views	1,2,3,4,a,b,c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 5 9-13-2021	Reading Manufacturing Blueprints Module 4 Drawing Types	<ul style="list-style-type: none"> • Identify section lines. • Decipher the difference between engineering drawings and blueprints. • Interpret detailed drawings. • Identify shape and size descriptions of detailed drawings. • Identify specifications of detailed drawings. • Interpret assembly drawings. • Identify assembly drawings 	Due by 9-15-2021: Module 4 Pre-test & Post-test	1,2,3,4,a,b,c
Week 6 9-20-2021	Reading Manufacturing Blueprints Module 5 Blueprint Layout	<ul style="list-style-type: none"> • Identify the 5 standard paper sizes for blueprints. • Decipher the different sections of a blueprint. • Understand the basic blueprint template. • Identify and interpret the seven different components of a blueprint title block. 	Due by 9-22-2021: Module 5 Pre-test & Post-test	1,2,3,4,a,b,c
Week 7 9-27-2021	Reading Manufacturing Blueprints Module 6 Line Styles	<ul style="list-style-type: none"> • Identify the 11 types of lines in a basic blueprint. • Locate each line type on a blueprint. 	Due by 9-29-2021: Module 6 Pre-test & Post-test Students also are to hand sketch all 11 line types scan an email to instructor Discussion #2 Lines	1,2,3,4,a,b,c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 8 10-4-2021	Reading Manufacturing Blueprints Module 7 Fundamentals of Geometric Dimensioning	<ul style="list-style-type: none"> • Verify the purpose of dimensions in a drawing. • Match commonly used dimension symbols and terminologies with their purpose. • Identify size dimensions. • Identify diameter dimensions. • Identify radius dimensions. • Identify angular dimensions. • Identify datum dimensions. • Identify location dimensions. • Understand dimensioning standards for threaded fasteners. • Calculate dimensions on a blueprint. • Demonstrate how precision dimensions are expressed. • Understand what the drawing scale means. 	<p>Due by 10-6-2021: Module 7 Pre-test & Post-test</p> <p>Discussion #3 Dimensions</p>	1,2,3,4,5,a,b,c
Week 9 10-11-2021	Reading Manufacturing Blueprints Module 8 Fundamentals of Geometric Tolerancing	<ul style="list-style-type: none"> • Verify different tolerancing methods used in GD&T. • Identify tolerances located on an engineering drawing. • Identify different tolerance types. • Verify the purpose of tolerances. • Identify the symbols used when tolerancing. • Identify the terms used when tolerancing. • Identify and interpret the different tolerancing methods. • Interpret clearance fits. • Interpret interference fits. • Interpret transition fits. 	<p>Due by 10-12-2021: Module 8 Pre-test & Post-test</p> <p>Discussion #4 CAD</p>	5,a,b,c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 10 10-18-2021	Reading Manufacturing Blueprints	Modules 1-8 of Reading Manufacturing Blueprints	Reading Manufacturing Blueprints Comprehensive Exam Due 10-20-2021	1,2,3,4,5,a,b,c
Week 11 10-25-2021	Geometric Dimensioning and Tolerancing Module 1 Introduction Geometric Dimensioning and Tolerancing Module 2 Fundamentals	<ul style="list-style-type: none"> • Geometric Dimensioning and Tolerancing Defined • American Society of Mechanical Engineers (ASME) Y14.5 • Terms • Symbols • Dimensioning • Datums • Feature Control Frames • Virtual Condition • Material Modifiers 	Due by 10-27-2021: Module 1 Pre-test & Post-test Module 2 Pre-test & Post-test	5,a,b,c
Week 12 11-1-2021	Geometric Dimensioning and Tolerancing Module 3 Geometric Tolerancing System Geometric Dimensioning and Tolerancing	<ul style="list-style-type: none"> • Introduction • Form Tolerances • Profile Tolerances • Orientation Tolerances • Runout Tolerances • Location Tolerances <p>Modules 1,2, & 3 of Geometric Dimensioning and Tolerancing</p>	Due by 11-3-2021: Module 3 Pre-test & Post-test AND Comprehensive Exam	5,a,b,c

<p>Week 13 11-8-2021</p>	<p>Precision Measurement Module 1 Steel Rules</p>	<ul style="list-style-type: none"> • Identify the types of measurements that can be measured accurately with steel rules. • Understand the physical attributes of steel rules. • Understand the different configurations of steel rules. • Decipher between a fractional scale and a decimal scale. • Identify what scale needs to be used based on the dimensional size on the part print. • Understand how to properly position a steel rule on a part. • Determine the measurement value using a fractional scale. • Determine the measurement value using a decimal scale. 	<p>Due by 11-10-2021: Precision Measurement Module 1 Pre-test & 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"> • Decipher between a Vernier, dial, and digital precision caliper. • Identify the three different measurements that can be taken with precision calipers. • Clean and calibrate precision calipers. • Identify specifications that should be measured with a precision calipers. • Identify the different components of precision calipers. • Use, read and interpret an inch Vernier precision caliper. • Use, read and interpret a metric Vernier precision caliper. • Use, read and interpret a dial precision caliper. • Use, read and interpret a 	<p>Due by 11-10-2021: Precision Measurement Module 2 Pre-test & Post-test</p>	

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
		digital precision caliper.		
Week 14 11-15-2021	Precision Measurement Module 3 Micrometers	<ul style="list-style-type: none"> Identify different types of micrometers. Identify the different components of micrometers. Understand the mechanics of a micrometer. Properly handle and maintain micrometers. Properly test and calibrate micrometers. Use, read and interpret outside micrometers. Use, read and interpret depth micrometers. 	Precision Measurement Module 3 Pre-test & Post-test	5,a,b,c
	Precision Measurement	Modules 1,2, & 3 of Precision Measurement	Precision Measurement Comprehensive Exam Due 11-17-2021	
Week 15 11-29-2021		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
12-6-2021	Final	Final Exam accessed through Blackboard	Due 12-6-2021	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.