



TENTATIVE—SUBJECT TO CHANGE

**MCHT 1012 Blueprint for Machine Tool
COURSE SYLLABUS
Fall Semester 2019 (202012)**

COURSE INFORMATION

Credit Hours/Minutes: 3/2250

Campus/Class Location: Swainsboro/6110

Class Meets: Monday, Tuesday, Wednesday, & Thursday / 8:40am to 9:15am

Course Reference Number (CRN): 20377

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 8:30 & 11:00 to 12:00 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

Blueprint Reading for the Machine Trades 7th Edition, ISBN-10: 0-13-217220-8

REQUIRED SUPPLIES & SOFTWARE

Each student should have the following: Spiral notebook, pen, pencil, highlighter, & 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

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

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 tests 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:

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

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
Quizzes	20%
Chapter Tests	50%
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
Fall Semester 2019 Lesson Plan
 Subject to Change

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates (all tests taken in Blackboard)	Competency Area
8/13/19 Week 1	Unit 1: <ul style="list-style-type: none"> • Dictionary of Terms • Standard Abbreviations • Alphabet of Lines 	<ul style="list-style-type: none"> • First day of class: Class Introduction, Syllabi, Outline • Read Unit 1, Pages 1-20 • Complete all quizzes on pages 6, 7, 12, 13, 17,18,19,20 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 1 Chapter test due 8/22/2019 	1,2,3,a,b,c
8/26/19 Week 2	Unit 2: <ul style="list-style-type: none"> • Dimensioning Systems • Engineering Drawings • Title Blocks • Drawing Notes • Single-View Drawings • Detailed Drawings • Center Lines • Diameters and Radii • Break Lines • Typical Dimensions • Tolerances • Bolt Circles • Maximum Materials Condition and Least Material Condition • Allowance • Arcs and Circles 	<ul style="list-style-type: none"> • Read Unit 2, Pages 21-46 • Complete all quizzes on pages 22, 23, 25, 26, 28, 30, 34, 36, 39, 41, 43, 45, 47 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 2 Chapter test due 8/29/2019 	1,2,5,a,b,c
9/3/19 Week 3	Unit 3: <ul style="list-style-type: none"> • Orthographic Projection • Third-angle Projection • Isometric Sketching 	<ul style="list-style-type: none"> • Read Unit 3, pages 48-73 • Follow instructions on pages 54-72 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 3 Chapter test due 9/05/2019 	1,2,3,4,a,b,c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates (all tests taken in Blackboard)	Competency Area
9/9/19 Week 4	Unit 4: <ul style="list-style-type: none"> • Reading Multiview Drawings • Precedence of Lines • Accumulated Tolerances • Dimensioning Methods 	<ul style="list-style-type: none"> • Read Unit 4, pages 74-97 • Follow instructions on pages 74, 76,77, 79, 80 • Answer questions on pages 82, 83, 85 • Follow instructions on page 86 • Answer questions on pages 87, 89 • Follow instructions on pages 90, 91 • Answer questions on pages 93, 95 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 4 Chapter test due 9/12/2019 	1,2,3,4,5,a,b,c
9/16/19 Week 5	Unit 5: <ul style="list-style-type: none"> • Orthographic Projection of Inclined Planes • Foreshortened Views • Angular Dimensions • Included Angle • Slots and Grooves 	<ul style="list-style-type: none"> • Read Unit 5, pages 98-128 • Answer questions on pages 100, 101, 102, 105, 106, 107, 108, 109, 113, 115, 117, 119, 125 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 5 Chapter test due 9/19/2019 	1,2,3,4,5,a,b,c
9/23/19 Week 6	Unit 6: <ul style="list-style-type: none"> • Reference Dimensions • Blind Holes • Chamfers • Keyseats and Keyways • Counterbores and Countersinks • Angular Hole Locations • Castings • Finish Symbols • Finish Allowance • Fillets and Rounds • Clearance Holes • Half-Views • Starting Dimensions • Surface Roughness • Roughness Average (R_a) • Surface Roughness Chart • Surface Texture Symbol 	<ul style="list-style-type: none"> • Read Unit 6, pages 129-154 • Answer questions on pages 131, 139, 143, 145, 153, 154 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 6 Chapter test due 9/26/2019 	1,2,3,5,a,b,c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates (all tests taken in Blackboard)	Competency Area
9/30/19 Week 7	Unit 7: <ul style="list-style-type: none"> • Bosses and Pads • Slotted Holes • Casting Dimensions • Tapers • Standard Tapers • Necks • Limits • Single Limits • Steel Processing • Steel Specifications • General Properties of Alloy Steels • Steel Carbon Content • Partial Enlarged Views • Stock Sizes • Knurling • Heat-Treat Notes 	<ul style="list-style-type: none"> • Read Unit 7, pages 155-178 • Answer questions on pages 157, 159 • Follow instructions for taper calculations on page 161 • Answer questions on pages 163, 165, 169, 171, 173, 175, 177, 178 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 7 Chapter test due 10/03/2019 	1,2,3,a,b,c
10/7/19 Week 8	Unit 8: <ul style="list-style-type: none"> • Sectional Views • Full Sections and Half Sections • Symbology • Annular Grooves • Wall Thickness • Cast Iron • Spotfacing • Revolved Sections • Broken-out Sections • Ribs in Section • Section Line Symbols • Rotated Features • Removed Sections • Offset Sections 	<ul style="list-style-type: none"> • Read Unit 8, pages 179-204 • Answer questions on pages 181, 183, 185, 186, 189, 193, 195, 199, 203, 205 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 8 Chapter test due 10/14/2019 	1,2,3,4,5,a,b,c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates (all tests taken in Blackboard)	Competency Area
10/15/19 Week 9	Unit 9: <ul style="list-style-type: none"> • Threaded Hole Specifications • Unified Thread Form • Thread Series • Classes of Fit • Threaded Hole Illustrations • Unified Thread Table • Numbered and Lettered Drills • Thread Calculations • Constant Pitch Series • Line Omission • Arrowless Dimensioning • External Threads • Thread Forms • Tabulated Dimensions • Multiple Threads • Pipe Threads • Dryseal Pipe Threads • Hex Bar Stock 	<ul style="list-style-type: none"> • Read Unit 9, pages 206-234 • Answer questions on pages 211, 213, 214, 215, 217, 219, 223, 225, 227, 231, 233, 235 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 9 Chapter test due 10/17/2019 	1,2,3,5,a,b,c
10/21/19 Week 10	Unit 10: <ul style="list-style-type: none"> • Typical Dimensions • Right Triangles • Repetitive Features • Detailed Drawings • Drawing Revisions • Conical Tapers • Rockwell Hardness Test • Thread Specification Placement • Patent Drawings 	<ul style="list-style-type: none"> • Read Unit 10, pages 236-258 • Answer questions on pages 239, 241, 243, 247, 249, 251, 253, 255, 258 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 10 Chapter test due 10/24/2019 	1,2,3,4,5,a,b,c
10/28/19 Week 11	Unit 11: <ul style="list-style-type: none"> • Metric Drawings • Dimensioning Symbols • Metric Threads • Metric Thread Table • Dimension Conversion • Coordinate Dimensioning • Dual Dimensioning • Dimension Origin 	<ul style="list-style-type: none"> • Read Unit 11, pages 259-273 • Answer questions on pages 263, 265, 267, 269, 271, 273 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 11 Chapter test due 10/31/2019 	1,2,3,4,5,a,b,c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates (all tests taken in Blackboard)	Competency Area
11/4/19 Week 12	Unit 12: <ul style="list-style-type: none"> • Auxiliary Views • Inclined Planes • Oblique Planes • Bend Allowance 	<ul style="list-style-type: none"> • Read Unit 12, pages 274-289 • Answer questions on pages 277, 279, 281, 285, 287, 289 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 12 Chapter test due 11/07/2019 	1,2,3,4,5,a,b,c
11/11/19 Week 13	Unit 13: <ul style="list-style-type: none"> • Geometric Tolerancing • Feature Control Frame • Material Condition Symbols • Projected Tolerance Zone • Basic Dimension Symbol • Between Symbol • Datum Feature Symbol • Combined Symbols • Composite Frames • Datum Target Symbol • Form Tolerances • Datums and the Datum Reference System • Orientation Tolerances 	<ul style="list-style-type: none"> • Read Unit 13, pages 290-320 • Answer questions on pages 296, 303, 305 • Follow instructions on page 315 • Answer questions on pages 317, 319, 321 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 13 Chapter test due 11/14/2019 	1,2,3,4,5,a,b,c
11/18/19 Week 14	Units 14 & 15: <ul style="list-style-type: none"> • Location Tolerances • Runout Tolerances • Projected Tolerance Zone • Profile Tolerances • All Over and All Around Symbols • Unilateral and Unequally Disposed Profile Tolerances • Geometric Characteristic Symbols • Former Practices • Comparison of Symbols • Spur Gear Terminology • Spur Gear Formulas • Spur Gears • Splines 	<ul style="list-style-type: none"> • Read Unit 14 & 15, pages 322-366 • Answer questions on pages 329, 331, 335, 337, 338, 341, 351, 359, 361, 363, 365 	<ul style="list-style-type: none"> • All quizzes and questions must be completed prior to Unit Test due date • Unit 14 & 15 Chapter test due 11/21/2019 	1,2,3,4,5,a,b,c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates (all tests taken in Blackboard)	Competency Area
11/25/19 Week 15	Review	Review for Final Exam	<ul style="list-style-type: none"> • All quizzes, questions, and chapter tests must be completed prior to taking Final Exam • Final exam due 12/04/2019 	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.