



ELCR-2140 Mechanical Devices
COURSE SYLLABUS
ONLINE
Summer Semester 2018

COURSE INFORMATION

Credit Hours/Minutes: 2 Hour / 2250 Minutes

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

Class Meets: Via Internet for 9 weeks

Course Reference Number (CRN): 60044

INSTRUCTOR CONTACT INFORMATION

Instructor Name: William Greene

Email Address: [William Greene \(wgreene@southeasterntech.edu\)](mailto:wgreene@southeasterntech.edu)

Campus/Office Location: Vidalia Campus, Gillis Building B, Room 822, Vidalia Campus

Office Hours: Monday through Thursday, 11:00 AM to Noon, and 4:30 PM to 6:30 PM

Phone: (912) 538-3102

Fax Number: (912) 538-3106

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, SUPPLIES AND SOFTWARE

Power Transmission Handbook & Workbook,
5th ed.
by PTDA,
published by PTDA,
ISBN# 978-0-9817331-9-7
(2 volume set)



REQUIRED VIDEOS

STC Supplied (see your instructor)

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

Develops knowledge and skills necessary to transmit mechanical power using common industrial linkage types. Emphasis is placed on use of mechanical devices in combination with electronic controls. Topics include: linkages, motion analysis, gear drives, and preventative maintenance.

MAJOR COURSE COMPETENCIES / COURSE OUTLINE

1. Linkages
2. Gear Drives
3. Motion Analysis
4. Preventative Maintenance

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.

PREREQUISITE(S)

Provisional Admission

STUDENT REQUIREMENTS (ONLINE)

Students are expected to complete all tests and comprehensive projects by the due dates listed in the Lesson Plan. A ten point penalty will be assessed for each day a test or comprehensive project is late. Tests are made available for several days; therefore, there are no makeup tests. Students who miss a test will be assigned a grade of zero. Students are responsible for policies and procedures included in the [STC Catalog and Handbook](#). All online students must pledge that they have read and understand the STC Online Orientation within the first five days of class. Online students are responsible for checking e-mails and Blackboard announcements DAILY.

Students are expected to prove weekly academic engagement by meeting assignment deadlines each week and spending a minimum of 30 hours during the semester doing the required reading, soldering projects, and tests. Students are expected to communicate frequently through college email and discussion boards. College email is accessed at <https://portal.office.com>, under Quick links on our webpage, or in the menu of our 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 and lesson plan.

Students will have at least one week to complete tests and assignments. All tests and assignments are due by the date listed in the lesson plan. 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.

SPECIAL NEEDS

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 912-538-

3126, to coordinate reasonable accommodations.

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 advise me and make appropriate arrangements with [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 912-538-3126.

WITHDRAWAL PROCEDURE

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (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 when the student completes the withdrawal form from the course.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a “W” for the course. Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of “F” being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

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 speak with a representative of the Financial Aid Office to determine any financial penalties that may be assessed due to the withdrawal. All grades, including grades of ‘W’, will count in attempted hour calculations for the purpose of Financial Aid.

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

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. Dual enrollment students enrolled in online courses have the same options, but can also complete the event on the high school campus. The event will be monitored by the instructor, another College employee, or high school counselor. 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 withdrawn from the course with a "WF" (Withdrawn Failing). If the proctored event is scheduled during final exams, any student who misses the proctored event will be issued an "F" (Failing) for the course.**

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, Monday June 25th and Tuesday June 26th, 9:00 AM or 2:00 PM, Gillis Building, Room 824.

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

Students are required to take all tests and complete all assignments scheduled during the semester. Failure to take Tests/Exam(s) and complete assignments will result in a grade of zero. There will be no makeup of assignments or EXAMS. If Internet or browser failure occurs, contact instructor immediately. A decision will be made at that time if the exam will be reset. Instructor reserves the right to deduct points from the exam scores for exceeding the scheduled time limit on the exam and/or requiring student to come to campus to take the final exam. Note: If student notifies instructor about exam problems because of technical issues after the due date or on the last day of the semester, the student will NOT be allowed to make-up the exam. No exceptions! Assignments must be turned in on the assigned date and will not be accepted late, a grade of zero will be given. ALL Assignments are due according to the lesson plan.

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 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, 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 school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

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 108 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](http://www.southeasterntech.edu) (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
Chapter Review Questions	35%
Video Review Questions	10%
Discussion Boards	10%
Laboratory Skills (Proctored)	20%
Midterm & Final Exams	25%

GRADING SCALE

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

ELCR 2140 DISCUSSION BOARD GRADING RUBRIC

Criteria	Grade Level 1 (0%)	Grade Level 2 (70%)	Grade Level 3 (100%)
Student Post to Discussion Board (50% Weighting)	0 points Student did not post to the Discussion Board -OR- Student post has at least 3 of the following: * Grammatical, spelling, or punctuation errors. * Less than four sentences. * Does not address all questions posed.	35 points Student post has at least 2 of the following: * Grammatical, spelling, or punctuation errors. * Less than four sentences. * Does not address all questions posed.	50 points Student post contains 4 or more sentences and addresses all questions. Student post has no more than 1 grammatical, spelling, or punctuation error.
Student Reply to Another Student (50% Weighting)	0 points Student did not reply to another student post. -OR- Student reply has at least 2 of the following: * Grammatical, spelling, or punctuation errors. * Less than three sentences.	35 points Student reply has at least 1 of the following: * Grammatical, spelling, or punctuation errors. * Less than three sentences. * Does not address all questions posed.	50 points Student reply contains 3 or more sentences. Student post has no grammatical, spelling, or punctuation errors.

DISCLAIMER STATEMENTS:

- (1) Instructor reserves the right to change the syllabus and/or lesson plan as necessary.
- (2) The official copy of the syllabus is located inside the student's online course shell or will be given to them during face to face class time the first day of the semester. The syllabus displayed in advance of the semester in a location other than the course you are enrolled in is for planning purposes only.

**ELCR-2140 Mechanical Devices
Online
Summer Semester 2018 Lesson Plan**

WEEK 1

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
May 15		Chapter 1 – Fundamentals BLACKBOARD	Read / Review START HERE information POST to appropriate Message Boards Download/Review all material Start planning for Proctored Lab Events	a,c
May 16	1	HANDBOOK page 1-9 to 1-15 BLACKBOARD WORKBOOK page 1-3 to 1-5	Read Chapter 1 Review Chapter 1 Power Points Review Chapter 1 Workbook Questions	1-4,a,b,c
May 17	1	VIDEO Fundamental Principles BLACKBOARD BLACKBOARD	Watch Video 820.01 (Take Notes) Do Video 820.01 Questions Do Chapter 1 Workbook Questions	1-4,a,b,c
May 21	2	Chapter 2 – Bearings HANDBOOK page 2-17 to 2-41 BLACKBOARD BLACKBOARD	Read Chapter 2 POST on Discussion Board #1 Review Chapter 2 Power Points	1,4,a,b,c

WEEK 2

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
May 22	2	WORKBOOK page 2-7 to 2-10 BLACKBOARD VIDEO Bearings: Types & Maintenance	Review Chapter 2 Workbook Questions REPLY on Discussion Board #1 Watch Video 820.02 (Take Notes)	1,4,a,b,c
May 23	2	BLACKBOARD BLACKBOARD BLACKBOARD	Do Video 820.02 Questions POST on Discussion Board #2 Do Chapter 2 Workbook Questions	1,4,a,b,c
May 24	3	Chapter 3 – Belt Drives HANDBOOK pg 3-43 to 3-59 BLACKBOARD	Read Chapter 3 REPLY on Discussion Board #2	1,4,a,b,c
May 28		HOLIDAY – Memorial Day	HOLIDAY – Memorial Day	
May 29	3	BLACKBOARD WORKBOOK pg 3-11 to 3-13 BLACKBOARD	Review Chapter 3 Power Points Review Chapter 3 Workbook Questions POST on Discussion Board #3	1,4,a,b,c

WEEK 3

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
May 30	3	BLACKBOARD BLACKBOARD	REPLY on Discussion Board #3 Do Chapter 3 Workbook Questions	1,4,a,b,c
May 31	3	BLACKBOARD BLACKBOARD BLACKBOARD	POST on Discussion Board #4 REPLY on Discussion Board #4 POST on Discussion Board #5	1,4,a,c
June 4	4	Chapter 4 – Chain Drives HANDBOOK pg 4-61 to 4-84	Read Chapter 4	1,4,a,c
June 5	4	BLACKBOARD WORKBOOK pg 4-15 to 4-18	Review Chapter 4 Power Points Review Chapter 4 Workbook Questions	1,4,a,b,c

WEEK 4

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
June 6	4	BLACKBOARD BLACKBOARD	REPLY on Discussion Board #5 Do Chapter 4 Workbook Questions	1,4,a,c
June 7	1-4	BLACKBOARD	Do MIDTERM Exam	1,4,a,b,c
June 11	5	Chapter 5 – Clutches & Brakes HANDBOOK pg 5-85 to 5-96 BLACKBOARD	Read Chapter 5 Review Chapter 5 Power Points	1,4,a,b,c
June 12	5	WORKBOOK pg 5-19 to 5-21	Review Chapter 5 Workbook Questions	1,4,a,b,c

WEEK 5

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
June 13	5	BLACKBOARD	POST on Discussion Board #6	1,4,a,c
		BLACKBOARD	REPLY on Discussion Board #6	
June 14	5	BLACKBOARD	Do Chapter 5 Workbook Questions	1,4,a,b,c
June 18	7	Chapter 7 – Couplings & U-Joints	Read Chapter 7 MIDTERM	1,4,a,c
		HANDBOOK pg 7-123 to 7-151		
		MIDTERM		
June 19	7	BLACKBOARD	Review Chapter 7 Power Points	1,4,a,b,c
		WORKBOOK pg 7-27 to 7-29	Review Chapter 7 Workbook Questions	

WEEK 6

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
June 20	7	BLACKBOARD	POST on Discussion Board #7	1,4,a,c
		BLACKBOARD	REPLY on Discussion Board #7	
June 21	7	BLACKBOARD	Do Chapter 7 Workbook Questions	1,4,a,b,c
June 25	Lab	STC – GILLIS BUILDING 824	LAB 1: V-Belt Installation	4,b,c
		PROCTORED EVENT	LAB 2: Motor & Shaft Alignment	
		65% Semester Point	65% Semester Point	
June 26	Lab	STC – GILLIS BUILDING 824	LAB 1: V-Belt Installation	4,b,c
		PROCTORED EVENT	LAB 2: Motor & Shaft Alignment	

WEEK 7

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
June 27		BLACKBOARD SUMMER ACTIVITY DAY BLACKBOARD	POST on Discussion Board #8 REPLY on Discussion Board #8	4,b,c
June 28	8	Chapter 8 – Gears HANDBOOK pg 8-153 to 8-171	Read Chapter 8 POST on Discussion Board #9	2,4,a,c
July 2 - 5		HOLIDAY – Independence Day	HOLIDAY – Independence Day	
July 9	8	BLACKBOARD WORKBOOK pg 8-31 to 8-34	Review Chapter 8 Power Points Review Chapter 8 Workbook Questions	2,4,a,b,c
July 10	8	VIDEO Gear Drives BLACKBOARD	Watch Video 820.03 (Take Notes) Do Video 820.03 Questions	2,4,a,c

WEEK 8

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
July 11	8, 10	BLACKBOARD Chapter 10 – Linear Motion HANDBOOK pg 10-193 to 10-223 BLACKBOARD	Do Chapter 8 Workbook Questions Read Chapter 10 REPLY on Discussion Board #9	2,3,4,a,b,c
July 12	10	BLACKBOARD WORKBOOK pg 10-39 to 10-42	Review Chapter 10 Power Points Review Chapter 10 Workbook Questions	3,a,b,c
July 16	10	BLACKBOARD BLACKBOARD BLACKBOARD	POST on Discussion Board #10 REPLY on Discussion Board #10 Do Chapter 10 Workbook Questions	3,a,b,c
July 17	16	Chapter 16 – Lubrication HANDBOOK pg 16-315 to 16-329	Read Chapter 16	4,a,c

WEEK 9

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
July 18	16	WORKBOOK pg 16-63 to 16-65	Review Chapter 16 Workbook Questions	4,a,b,c
July 19	16	BLACKBOARD	Do Chapter 16 Workbook Questions	4,a,b,c
July 23	16	REVIEW	REVIEW for Final Exam	1-4,b,c
July 24	16	REVIEW	REVIEW for Final Exam	1-4,b,c

FINALS WEEK

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
July 25	1 – 5, 7, 8, 10, 16	Day 1 of Final Exams	Mechanical Devices Final Exam	1-4,a,b,c
July 26	1 – 5, 7, 8, 10, 16	Day 2 of Final Exams	(Complete by Midnight of Day 2)	1-4,a,b,c

COMPETENCY AREAS:

1. Linkages
2. Gear Drives
3. Motion Analysis
4. Preventative Maintenance

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.