



Figure 1: Owens Logo.

**Course Syllabus
SEMESTER
School of STEM**

<i>Course Name:</i>	Motor Control Systems: I
<i>Course & Section Number:</i>	SKT 181-XXX
<i>Meeting Day(s) & Time(s):</i>	
<i>Credits:</i>	2
<i>Contact Hours:</i>	45 Lecture: 1.5 Lab: 1.5
<i>Text:</i>	ELECTRIC MOTORS AND CONTROL SYSTEMS
	UGLY'S ELECTRIC MOTORS AND CONTROLS, 2020 EDITION
<i>Instructor's Name:*</i>	
<i>Office Hours & Location:</i>	
<i>OCC Phone:</i>	
<i>OCC Email:**</i>	
<i>Additional Contact Information:</i>	

*Please call me NAME; it is my preferred name.

**Please use only Owens email for course communications.

Catalog description:

Introduces electrical control methods as applied to motor control and automation circuitry, electrical safety, tools and test instruments, logic, troubleshooting with schematics and line diagrams, control devices, use of a VOM, two and three-wire control, contactors, motor starters, relays, sequential control, and basic reversing methods.

Prerequisites: SKT 131 and (SKT 170 or SKT 171)

Course Materials:

BOOK 1 (Two separate options **NOT BOTH**)

OPTION ONE

ELECTRIC MOTORS AND CONTROL SYSTEMS (LOOSE LEAF)

PETRUZELLA, FRANK D.

ISBN13: 9781260439397

EDITION: 3RD

FORMAT: LOOSE-LEAF

PUBLISHER: McGraw Hill

COPYRIGHT: 11/22/2019

OR

OPTION TWO

ELECTRIC MOTORS AND CONTROL SYSTEMS [RENTAL EDITION]

PETRUZELLA

ISBN13: 9781260258059

FORMAT: TEXTBOOK

PUBLISHER: McGraw-Hill Rental Program

COPYRIGHT: 11/26/2019

AND

BOOK 2

UGLY'S ELECTRIC MOTORS AND CONTROLS, 2020 EDITION

MILLER, CHARLES R.

ISBN13: 9781284194555

EDITION: 4TH

FORMAT: SPIRAL BOUND

PUBLISHER: INGRAM

COPYRIGHT: 8/21/2020

If a print book, e-book, or access code is required for class, you can access the Owens Community College e-Campus Bookstore by accessing the course link called "Find Books" on the course schedule for each course section. See the example below.

Course		Course Title				Credit Hrs.	Course Fees	Seats
Academic Period		Academic Period Dates		Class Type	Course Links			
Days	Times		Room Dates	Instructor	Meeting Type	Building/Room	Location	
SKT131-002		Electrical Prints				3	\$0	20
2025 Fall Semester		2025-08-25 - 2025-12-11		Face-to-Face		[Course Info] [Find Books]		
T	8:00 AM - 10:40 AM		2025-08-25 - 2025-12-11	Todd Schick		Lecture	DC 111	Toledo
Last day to add: Aug 29, 2025 -- Last day to drop: Dec 11, 2025								
Refund deadlines: Aug 29, 2025 (100%) -- Sep 05, 2025 (60%) -- Sep 12, 2025 (50%)								

OER and Owens Community College Library Resources (Open Educational Resources are free online materials for instructor and student use. Some OER material may be available in print in the Owens Community College Library.)

Inclusive Access (I.A.) Materials are included in the cost of the course to save students money through lower negotiated rates with publishers. Courses containing I.A. materials will have it noted on the online class schedule. If your course includes I.A. digital materials, you will receive an email with subject line, “Your inclusive Access Materials,” and it will include any codes or digital links.

- The email will come to your Owens Community College email from the Owens e-Campus Bookstore on the first day of class, if not before. Be sure to check your spam (junk email) if you do not find it in your inbox. If the email is not in your inbox or spam folder, contact your instructor immediately. You may also see a folder at the top of your course labelled “Course Materials by eCampus.” This folder will contain any needed codes or links to needed materials.
- If the I.A. materials also include a printed book or are in print form, the item will be shipped to your address of record automatically based on your enrollment in the course. Please note that some courses do not include printed materials in I.A and those materials would need to be purchased separately using the link on the course schedule. When you access the Find Books link you will see which items in a course are included in I.A.

What You Will Learn in the Course

Course Objectives:

- Be able to recognize and identify various symbols used in the electrical industry.
- Be able to draw electrical symbols and basic electrical wiring diagrams without understanding circuit theory/operation.
- Be prepared for advanced courses in Skilled Trades technology.

Student Learning Outcomes:

Students will:

Outcome	Where Assessed
• Discuss various electrical tools and test instruments • Discuss control devices, electrical logic, and line diagrams • Discuss various types of relays, contactors, and motor starters • Discuss how to design a basic electrical line diagram • Students will design, construct, and operate various basic control circuits	These assignments will be assessed by a combination of lab grades / demonstration And the use of blackboard quizzes and paper quizzes and exams

Program Outcomes:

The following program outcomes are assessed in this course

Outcome	Where Assessed
1. Understand the proper and safe use of the DMM. 2. Develop the ability to analyze the operation of control devices in line diagrams. 3. Demonstrate the ability to draw and understand line diagrams for different two and three wire control circuits. 4. Demonstrate the ability to build, connect, test and analyze two and three wire control circuits. 5. Understand how to employ basic troubleshooting techniques for motor control circuits using line diagrams and a multimeter.	These assignments will be assessed by a combination of lab grades / demonstration And the use of blackboard quizzes and paper quizzes and exams

Institutional General Education Competencies:

As a student at Owens Community College, you will take General Education courses as part of your degree program. While specific to the General Education courses, will be reinforced in many of your degree program major courses and may be measured in your capstone course(s) and others as identified.

Competency
Communicate effectively.
Act with professional responsibility.
Demonstrate sensitivity to others' beliefs and values.
Think analytically, critically, and creatively.

Technology, Lab, and File Requirements:

Blackboard Platform: This course will use the Owens Blackboard Portal to access course materials. All quizzes and homework will be given electronically. You must be able to log into Blackboard to be successful in this course.

Academic Support

Disability Services Resource Center: If you have a disability or acquire one, you may be entitled to receive reasonable accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more information or to register for accommodations, please contact the Disability Resource Center at 567-661-7007, email disability@owens.edu, visit <https://www.owens.edu/disability/>, or stop by College Hall 116.

Tutoring Services: Owens Community College offers academic tutoring and assistance in a variety of subjects including: accounting, computing, economics, mathematics, science, and writing. For more information go to: <https://www.owens.edu/successcenters/>.

Counseling Services: Counseling Services provides assistance to students experiencing personal, educational, interpersonal/relationship, family, social, or psychological difficulties. If you feel you may benefit from this service, please contact them at counselingservices@owens.edu. More information is at <https://www.owens.edu/counseling/>.

Campus and Community Connections: The Center for Campus and Community Connections (College Hall 151) is a walk-in office created to provide retention support through resource stability initiatives and community connections. Go here for more information: <https://www.owens.edu/connection/> or contact connections@owens.edu

Owens Library: The Owens Library offers two locations (Toledo and Findlay) as well as online resources. For more information visit <https://www.owens.edu/library/>.

Students can find more information on campus resources, student support, student life, and security at this [link](#).

General Information

Student Code of Conduct: All students are expected to follow Owens Community College's Student Code of Conduct, which includes academic honesty, encompassing plagiarism. See the Board Policy for more information.

Anti-Discrimination and Harassment & Title IX/Sexual Misconduct: All students, faculty, and staff are expected to follow Owens Community College's Anti-Discrimination and

Harassment Policy and the College's Title IX Policy/Sexual Misconduct Procedures and Guidelines. The College strictly prohibits and will not tolerate harassment, discrimination, intimidation, or hostile/offensive working or learning environments.

Religious Accommodations: A student seeking an accommodation for an absence permitted under Ohio's Testing Your Faith Act must provide the instructor with a written email notice with the specific dates for an absence, and must do so not later than fourteen (14) days after the first day of instruction. Alternative accommodations are not retroactive, and no academic penalty will be imposed for an absence under the policy*. The request for an alternative accommodation will be kept confidential. Students with questions about a religious accommodation under Ohio's Testing your Faith Act may contact the College's Office of Academic Affairs: provost@owens.edu The policy may be found on the Owens website: [3358:11-2-63 Accommodation for a Student Absence for the Observance of Religious Beliefs and Practices Policy](#)

Document Collection: Throughout the semester, your instructors may ask for a variety of assignments including tests and/or quizzes for student learning of institutional general education competencies or program assessment. Please save all your class materials until the end of the semester.

Classroom Admittance: OCC classes shall only be attended by the officially registered OCC students or perspective students, instructor of record, guest lecturer, or substitute. Visitors are not permitted to be in the classroom and should not be invited to attend or participate in the class. See [FERPA](#) regulations for more information.

Use of AI Tools: This course requires you to complete various assignments that assess your understanding and application of the course content. You are expected to do your own work and cite any sources you use properly. You are not allowed to use any artificial intelligence (AI) tools, such as chatbots, text generators, paraphrasers, summarizers, or solvers, to complete any part of your assignments. Any attempt to use these tools will be considered academic misconduct and will be dealt with according to the Owens Community College academic integrity policy. Students are expected to complete all work independently and without the assistance of AI-generated content. If you have any questions about what constitutes acceptable use of AI tools, please consult with the instructor *before* submitting your work.

Student Responsibilities & Instructor Expectations

I populate the assignments every Monday morning at 1am so please check your assignments often. With every assignment there will be an assignment listed on the week listed on the blackboard website. These assignments will only be active for two weeks after that, they will drop off and be graded. I give you TWO chances on each assignment and I take the best of the two.

Instructor Expectations:

A bit of advice: do not under any circumstances, let yourself fall behind.
Let me repeat that. Do NOT PUT THE ASSIGNMENTS OFF!!!
If you fall behind, it will be extremely difficult to get yourself back on track.

Grades will be based on the following areas:

1. This includes academics, technical skills, online Blackboard assignments, Lab projects, quizzes and test, etc.
2. Grades are not “Given” -- Grades are earned. Everyone starts out with Zero points, and will build from there. It is just like the real world of work, you earn money; here you earn grade points.
3. Class participation/attendance (Soft-Skills) is a large part of the grade and cannot be made up. **Three (3) missed classes will result in your grade being lowered by one letter grade.**

Class participation will be evaluated by, but is not limited to, the following Classroom Rules violations:

- 1) Electronic Devices
- 2) Not on Job Task (classroom activity)
- 3) Horseplay
- 4) Verbal Control
- 5) Food/Drink left in Classroom
- 6) Absenteeism (*Three absences will result in the loss of a letter grade.*)
- 7) Tardiness or Leaving Early (30-minutes tardy, or leaving 30-minutes early equals one Absence.)
- 8) Insubordination

Late Work (work turned in after assigned due date)

1. Blackboard Exams must be taken during the posted time frame. In class exams must be taken during class. Extenuating circumstances, such as school approved absences will be offered make-up exams. (Bereavement, Hospitalization, etc.)
2. Online tests/quizzes/homework will have due-date limits set. You must complete the online work within the specified time frame. After the time limit (due-date) is reached, the form will stop accepting responses.
3. Hardcopy work (paperwork assignments) -- 5% of grade will be deducted for each calendar day late.
4. Work turned in after 7 calendar days will be evaluated by instructor, but the student will receive no more than 50% for their grade on the assignment. After 10 calendar days the student will receive a zero.

How Grades are Determined and Major Assignments

Week	Topic
1	Introduction, Syllabus, Tools and Safety
2	Basic Electricity Review, Conductors
3	Splices, Fittings, Push Buttons and Relays
4	Evaluation I
5	VOM/DMM I
6	VOM/DMM II
7	Symbols, Devices, Wiring Diagrams, Ladder Diagrams
8	Evaluation II
9	Two Wire Control, Starters, Relay Logic
10	Relay Logic, Three Wire Control
11	Combination Two/Three Wire Control, Starters
12	Evaluation III
13	Three Phase Magnetic Motor Starter, Multirung Control
14	Troubleshooting using Diagrams
15	Troubleshooting using Diagrams, Meters, Actual Live Circuit
16	Final Evaluation

Disclaimer: The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course. Please note that while unlikely, there is a possibility courses might need to change the delivery method due to external issues like public health concerns, weather issues, etc. If this happens, the college will communicate any changes via email and/or other communication methods.