

# Auburn Career Center



**Attitude – Respect – Responsibility**

## **Electrical Engineering Prep**

Syllabus

Class of 2026

Building Location: Main Building

Room 6A

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## Welcome

### Auburn Career Center's Mission

Our mission is to guarantee that all students empower themselves, excel in the emerging workplace, and enrich their community.

### Auburn Career Center's Core Values

We believe that:

- People are personally responsible for their choices and actions
- Treating people with dignity and respect will enhance learning
- Attitude and goals drive achievement
- All people can learn
- All people can make positive contributions
- Change is exciting and essential for growth

## Course Details

### Course Materials

- Calculator
- Pen or Pencil
- Class fee \$25
- Uniforms \$35-\$48 (two shirts)
- Student Kits/Tools\*\*
  - First year - Kit with digital meter (\$50)
  - Second year - digital circuitry sensor kit (\$75)
- **Total approximate cost \$255**

***\*All fees are due by October 31, 2024. Fees will be waived for students who qualify for free and reduced meals. Accounts will be adjusted after the approval of free/reduced meal applications.***

***\*\*Tool kits will be provided for students to use during their two year career and technical training and will be provided in the classroom. Students will sign a tool list agreement. Fees will be assessed for any missing items. Student Kit/Tool fees will be waived at the completion of the program for any students who choose to not purchase these items.***

### Course Credits

- Three elective credit hours First Year
- Three elective credit hours Second Year

### Program Scope

#### First-Year

- |  |   |
|--|---|
| • Use basic electrical hand tools            | • Construct and analyze series circuits     |
| • Make basic electrical connections          | • Construct and analyze parallel circuits   |
| • Make continuity tests                      | • Use OHM's law to analyze basic circuitry  |
| • Measure voltage, current, and resistance   | • Use Watt's law to analyze basic circuitry |
| • Magnetism & Principles of Atomic Structure | • Construct basic relay circuits            |
| • Understand N.E.C. codes and wire sizes     | • Analyze basic schematic diagrams          |
| • Solder and wire PC boards and kits         | • Use Oscilloscopes and function generators |
| • Use a variety of components in circuits    |   |

- Wire and test single-phase transformers

## Second-Year

- Construct and analyze inductive circuits
- Construct and analyze capacitive circuits
- Calculate reactance and impedance
- Wire receptacle circuits
- Wire single pole lighting circuits
- Wire three-way lighting circuits
- Wire split receptacle circuits
- Wire circuit breaker panel
- Wire low voltage control system
- Wire G.F.C.I. circuit
- Wire lighting fixtures
- Use an oscilloscope
- Use a function generator
- Wire and test diode circuits
- Wire and test rectifier circuits
- Wire and test filter circuits
- Wire and test power supply circuits
- Design and construct a Senior Project

### First Year Sequence

1. Safety
2. Soldering Applications
3. Direct Current (DC)
4. Alternating Current (AC)
5. AWG Wire Sizing/NEC Codes
6. Residential Wiring Methods

### Second Year Sequence

1. Digital Electronics
2. Programmable Logic Controls (PLCs)
3. Analog Components
4. Power Supplies
5. Amplifiers
6. Solid State Applications

## Grades

Grades are due at the end of each nine-week grading period. **The grading scale is as follows:**

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
59 and below	F

Final grades will be automatically calculated by Infinite Campus based on the students' percentage each grading period. **Each Quarter is worth 25% of a student's final grade.**

For example, compare the percentages for **STUDENT 1 & STUDENT 2** and **STUDENT 3 & STUDENT 4** (below) to see how the percentage, rather than the letter grade, impact the FINAL grade. Notice that the letter grades each quarter are identical but their percentages are not. The FINAL grade now rewards students who try their best to maximize their percentage earned each quarter.

	Q1	Q2	Q3	Q4	FINAL
<b>STUDENT 1</b>	90% (A)	87% (B)	82% (B)	91% (A)	<b>87.5% (B)</b>
<b>STUDENT 2</b>	94% (A)	88% (B)	87% (B)	92% (A)	<b>90.25% (A)</b>
<b>STUDENT 3</b>	60% (D)	70% (C)	80% (B)	90% (A)	<b>75% (C)</b>
<b>STUDENT 4</b>	65% (D)	75% (C)	85% (B)	95% (A)	<b>80% (B)</b>

### EXCEPTIONS

**One EXCEPTION TO THIS RULE** is if a student receives **THREE** passing grades and **ONE** failing grade over the course of the school year, their grade can **ONLY** fall a maximum of **ONE** letter grade from their lowest passing grade of the quarter and cannot be below a D for the year. **In these cases, you will need to OVERRIDE their precalculated grade in IC.** Another

**EXCEPTION** is if a student fails **TWO** quarters in the same school year. Per Auburn policy, that student **fails for the year** and will not be allowed to return to Auburn (as outlined in the Failure Policy Section below).

Below are two examples of the first rule exception. Notice that the **lowest NON-FAILING grade for STUDENT 1 is a B** (meaning their **FINAL grade can't be lower than a C**) & the **lowest NON-FAILING grade for STUDENT 2 is a C** (meaning their **FINAL grade can't be lower than a D**):

	Q1	Q2	Q3	Q4	FINAL
<b>STUDENT 1</b>	86% (B)	92% (A)	80% (B)	12% (F)	<del>67.25% (D)</del> = <b>C</b>
<b>STUDENT 2</b>	20% (F)	72% (C)	75% (C)	70% (C)	<del>59.25% (F)</del> = <b>D</b>

## Weighted Gradebook

### ACC 1st-Year Gradebook (including AM SR-Only):

- Assessments (Performance-Based & Traditional) - 50%
- Employability (Standards-Based) - 20%\*
- HW/Classwork- 20%
- ACE Time - 10%

### ACC 2nd-Year Gradebook (including PM SR-Only):

- Assessments (Performance-Based & Traditional) - 60%
- Employability (Standards-Based) - 20%\*
- HW/Classwork - 20%

*\*See [APPENDIX A](#) for Employability Rubric (Standards-Based)*

## Standards-Based to Letter Grade - Conversion Chart

Employability - Standard-Based Conversion to Letter Grade / Percentage		
Level of Mastery	Reported Score	Letter Grade / Percentage
Expert	4	A / 100%
Proficient	3	B / 85%
Developing	2	C / 70%
Below Expectations	1	F / 55%

*\*Employability will be scored using a "Decaying Average" formula. The "Decaying Average" formula considers scores over time and recognizes that a recent score is more representative of the student's current mastery level and thus puts more weight on that score.*

## ACE Time - Achieving Career Excellence

- A.C.E. Time encompasses program-specific content, as well as, skills that apply to all career fields
- A.C.E. Time will provide first-year students (and AM Senior Only Students) the opportunity to add additional value and Industry-Recognized Credentials to their time at Auburn that will enhance a student's overall experience at Auburn.
- ACE Time activities will support and expand upon what student are learning in their program. Additionally, ACE Time will allow students to spend more of their classroom/lab time doing the work of their profession!
- We believe that ACE Time is an opportunity for all students to have high levels of engagement, gain needed employability skills, and, ultimately, have better learning outcomes to thrive in their pathway, program, and, eventually, their careers.
- Finally, A.C.E. Time will expose students to work-based learning experiences, credentialing opportunities, resume writing, e-portfolio building, leadership development, safety training, club activities, and more.

## Incompletes

An incomplete may be given for those students who have excused absences. The student will have two (2) days for each day of excused absence to make up missed work, up to ten (10) days. There may be an alternative assignment in lieu of lab work. An incomplete grade issued on a report card may be changed to a letter grade if work is made up within ten (10) days. After ten (10) days, any work not made up receives zero (0) or partial credit if some work is turned in.

## Failure Policy

- If a student fails quarters one and two of their first or second year, they cannot return to Auburn for the second semester.
- If a student fails two quarters in their first year, they cannot return for their second year.
- If a student fails the first and third quarter OR second and third quarter an intervention meeting will be held to determine option for the fourth quarter:
  - Student can return back to his/her Associate High School.
  - Student can remain at Auburn for the fourth quarter with the opportunity to earn partial credit for the school year (must pass fourth quarter) but must be approved by the Associate High School.

## Making Up Missed Work Due to Absence/Suspension

Students who have an excused or unexcused absence can make-up the work they missed for that absence. Students will have a minimum of 2 days to make-up work, for full credit, for each day they missed. **It is the student's responsibility** to check with each teacher the day the student returns from an absence to arrange to get course content or any missed assignments or tests and to establish due dates for missed assignments. Should a student miss the make-up deadline, it is up to the discretion of the teacher to determine the amount of credit awarded.

**Students who have been suspended from school or referred to PBIS will have the opportunity to make-up academic/written work for full credit at Auburn Career Center.** Students who are expelled from school may not make-up any work for credit during the time of the expulsion.

Due to the nature of authentic learning experiences and work created for a lab environment in career and technical education, it may not always be possible to recreate missed assignments for make-up when a student is absent (excused or unexcused) or suspended. The teacher will provide the lab assignment or an alternative assignment will be provided to subsidize for work missed during an absence or suspension at equal credit.

## Visitor Regulations

All visitors must report to the receptionist upon arrival at Auburn and secure a visitor's pass. Students should continue their regular classroom and laboratory activities as visitors walk through the building unless instructed otherwise. Pride in appearance of the building and grounds should be a common concern of both students and teachers. Students from associate schools who wish to visit the school for a day, or a particular class will make their visiting arrangements for a personal visit through the Enrollment Specialists in the Career Development Department only. No student visitors are allowed in unless prior arrangements have been made.

- No staff or students should ever open doors for visitors or other students unless otherwise directed by the administration.
- All visitors must enter through the front doors only and check in for safety reasons.

## Student Information:

### Free & Reduced Lunch Form

Families can apply online for free or reduced-price meals by logging into your parent portal on Infinite Campus. After logging in, they should click on the "Application/Forms" link on the left side under "Family." Click [here](#) for a translated Free and Reduced Meals application.

## Injuries

### NON-EMERGENCY

The Receptionist should be contacted if someone is injured in your classroom; the office will contact Mr. Blauch/Mrs. Boehnlein to make arrangements for necessary care.

#### Emergency Response Procedures:

If there is an emergency in the lab or classroom, students should immediately inform the instructor. If the emergency involves the instructor, students should contact the Receptionist by using the telephone in the instructor's office and dial **8112**. If there is no answer, please continue to dial the following numbers: 8298 (Carol Szoka) or 8113 (Diane Buchs). Remain calm!

If there is no immediate answer send someone to the nearest classroom or office and notify an adult of the incident and request additional help by calling 911.

*If the victim is conscious, it is best to have them lie still with feet elevated until qualified emergency response personnel arrive on the scene. Do not move a victim unless there is risk of additional immediate danger to them and you. You can cause additional severe injury by unnecessarily moving a victim.*

*There is the possibility of the victim going into a state of physiological shock – a condition of insufficient blood circulation different from electrical shock – and so they should be kept as warm and as comfortable as possible.*

### Request to Dispense Medication Form

Students should complete the [Request to Dispense Medications Form](#) (as needed). Only the medications identified through this form can be dispensed during school hours.

### Student Emergency Medical Form (EMF)

Student Emergency Medical Forms are in Infinite Campus. Parents can log into the Parent Portal to complete the form. All parents were sent a link to the parent portal so they can review the information and update any necessary items at the beginning of August. **STUDENTS MAY NOT GO INTO LAB WITHOUT AN EMF ON FILE!!!**

### Student Photography & Video Release Form

The information about Student Photography and Video Release is contained in the student handbook. However, parents must sign off in Infinite Campus through the Parent Portal. All parents were sent a reminder to complete this task at the beginning of August.

### Student Technology Agreement

This information is part of the Student Handbook and Code of Conduct. Parents will sign into the Parent Portal in Infinite Campus and sign off on the agreement. Students should NOT be using Auburn Technology if the form is not signed.

### Hall Pass

When a student is given permission to leave the classroom, they must use their ID to check in/out of class electronically via [Hall Pass](#). We will be checking the electronic system to ensure they have checked in or out. **There is no need for a buddy system.** Leaving the classroom is a privilege that will be taken away if abused. You are missing valuable instructional time when you are out of the room.



## Business Partnerships

*Participation in a Business Partnership Internship includes the following requirements:*

- Participate in Auburn's mock interviews
- Attend and complete CTE testing or National Certification testing
- Complete weekly logs and turn in every Thursday to the Business Partnership Office

## Internships

The Director of Business Partnerships handles all internship plans and the process to get a student out on an internship. Students wishing to go out on an internship should be referred to the Director of Business Partnerships. Program Internships are an educational opportunity that prepares a student for workforce employment and transition to post-secondary education. An internship is a privilege and not for all students. During the internship, students will apply academic, employability, and technical skills in the workplace. Internship sites must be related to the students' career training program. Internships will be scheduled in coordination with the students' academic schedule and coursework. They will take place up to three days a week during the student's time at Auburn. **All paperwork must be completed and signed prior to any student starting an internship!**

### *Recommended Requirements:*

Auburn students will meet the following criteria to be eligible:

- ✓ Passing their Auburn program
- ✓ On track for Graduation
- ✓ Teacher recommendation
- ✓ Teacher, Director(s) of High School and Business Partnerships and student develop Individualized Training Plan

**\*\*\*Students may be removed from internships due to academic, disciplinary or attendance issues.**

## Industry Credentials

We encourage students to prepare and take Industry Recognized Credential Assessments; however, it is the responsibility of the teacher to ensure they are prepared to take those industry credential exams. Therefore, instructors must have students take and pass with an 80% a pre-test for the industry credential prior to scheduling the exam. The district will pay for the first attempt for each student to earn a 12-point industry credential(s). i.e.: if you have four 3-point exams, the district pays for one attempt at each of the four tests. If you have more than one 12-point exam the district pays for one attempt at each exam.

## Career Technical Student Organizations (CTSOs)

### SkillsUSA

SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce. We help each student excel. A nonprofit national education association, SkillsUSA serves middle-school, high-school and college/postsecondary students preparing for careers in trade, technical and skilled service occupations. **Please use the [link](#) for more information.**

### Mission

- SkillsUSA empowers its members to become world-class workers, leaders and responsible American citizens. We improve the quality of our nation's future skilled workforce through the development of Framework skills that include personal, workplace and technical skills grounded in academics. Our vision is to produce the most highly skilled workforce in the world, providing every member the opportunity for career success.

## Events

### Parent-Teacher Conferences

Parent/Teacher conferences are held in October of each school year. The option for parents to attend conferences in person or virtually will continue to be offered.

## Information Night

Information night provides students and their families with a wealth of information about Auburn, our programs, and connections to their future within their career pathway (i.e. job opportunities, CTAGs, Articulated Agreements, etc.). This evening typically occurs near the end of January and is a learning opportunity for students and parents alike.

## Parent Visit Day

Parent visit day is generally held in the Second Semester of each year. This is an opportunity for students to showcase their work to their parents.

## Completion Ceremony

Completion Ceremony is an award ceremony for Auburn students who have successfully completed a two-year Career and Technical Education program. This is held during the school day. In order to participate, students need to turn in a permission form, complete their portfolio, have all fees paid in full and attend the rehearsal on the day before the Completion Ceremony. There is a strict dress code to be able to walk across the stage. More information regarding the Completion Ceremony will be provided in the Spring of your second year.

## APPENDIX A:

### Employability Rubric - Standards-Based

#### ACC Employability Skills Rubric

The following skills have been identified as some of the most important skills students can demonstrate to potential employers as proof of their employability. Students who display these skills put themselves in a better position to be hired.

Attendance* (un-graded)	Days Present _____ Days Absent _____ Days Tardy _____			
Criteria	Below Expectations (1 point)	Developing (2 points)	Proficient (3 points)	Expert (4 points)
	Requires Further Development Students may require further development or need direct supervision		Meets Expectation Students who meet expectations do so with limited supervision	Exceeds Expectation Students who exceed expectations do so without supervision
Attitude	<ul style="list-style-type: none"><li>•Demonstrates a consistently negative attitude</li><li>•Lacks motivation and enthusiasm for learning; is uncooperative</li><li>•Resists feedback and suggestions for improvement</li></ul>	<ul style="list-style-type: none"><li>•Displays a mixed attitude, sometimes positive but inconsistent</li><li>•Shows occasional cooperation and interest in learning but may need improvement in maintaining a positive attitude</li><li>•Accepts feedback and suggestions inconsistently; doesn't show a willingness to improve</li></ul>	<ul style="list-style-type: none"><li>•Maintains a positive attitude most of the time</li><li>•Demonstrates interest and enthusiasm in learning and is cooperative</li><li>•Accepts feedback and implements suggestions for improvement willingly</li></ul>	<ul style="list-style-type: none"><li>•Consistently maintains a positive and proactive attitude</li><li>•Demonstrates exceptional enthusiasm for learning; encourages and supports others</li><li>•Embraces feedback and suggestions for improvement eagerly and actively seeks challenges to grow</li></ul>

<b>Respect</b>	<ul style="list-style-type: none"> <li>•Shows little respect for safety regulations, personal space, and others' opinions</li> <li>•Frequently interrupts others and displays rude behavior</li> <li>•Does not exhibit cultural sensitivity</li> </ul>	<ul style="list-style-type: none"> <li>•Shows some respect for safety regulations, personal space, and others' opinions, but occasional lapses in behavior</li> <li>•May interrupt occasionally and need reminders about respectful conduct</li> <li>•Demonstrates limited cultural sensitivity</li> </ul>	<ul style="list-style-type: none"> <li>•Demonstrates respect for safety regulations, personal space, and others' opinions</li> <li>•Listens well, follows basic etiquette, and treats others with courtesy and consideration</li> <li>•Exhibits cultural sensitivity consistently</li> </ul>	<ul style="list-style-type: none"> <li>•Consistently shows deep respect for safety regulations, personal space, and diverse opinions</li> <li>•Actively listens, values diverse perspectives, fosters an inclusive and supportive environment</li> <li>•Exhibits cultural sensitivity without exception</li> </ul>
<b>Responsibility</b>	<ul style="list-style-type: none"> <li>•Does not manage time effectively &amp;/or fails to meet deadlines</li> <li>•Lacks determination, accuracy, organizational skills, &amp;/or accountability</li> <li>•Does not take responsibility for own actions - does not arrive on-time, lacks proper supplies, &amp;/or fails to wear job specific apparel</li> </ul>	<ul style="list-style-type: none"> <li>•Manages time inconsistently &amp;/or occasionally meets deadlines</li> <li>•Exhibits determination and accuracy inconsistently; requires reminders to stay on track with organizational skills and accountability</li> <li>•Takes responsibility inconsistently - inconsistent with arriving on-time, having proper supplies, &amp;/or wearing job specific apparel</li> </ul>	<ul style="list-style-type: none"> <li>•Manages time effectively and meets deadlines consistently</li> <li>•Exhibits determination and accuracy; demonstrates good organizational skills and accountability</li> <li>•Takes responsibility for own actions - generally arrives on-time, with proper supplies, and wearing job specific apparel</li> </ul>	<ul style="list-style-type: none"> <li>•Always manages time effectively and meets all deadlines without exception</li> <li>•Exhibits exceptional determination and accuracy; demonstrates outstanding organizational skills and accountability</li> <li>•Takes responsibility and initiative and goes above and beyond - always arrives on-time, with proper supplies, and wearing job specific apparel</li> </ul>

## APPENDIX B:

### Syllabus Agreement

**Auburn  
Career Center**



*After reviewing this syllabus, please sign and return this agreement page to your instructor.*

**I have read and understand all of the information included in this syllabus.**

**Program:** \_\_\_\_\_

**Student Name:** \_\_\_\_\_  
*(Please print)*

**Student Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Parent/Guardian Name:** \_\_\_\_\_  
*(Please print)*

**Parent/Guardian Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

***This Syllabus Agreement MUST be returned by Friday, Aug 30, 2024***