Auburn Career Center

Attitude – Respect – Responsibility

Technology Engineering and Design

2022-2023 Syllabus

Building Location: Main Building

Room Number: 3D

Instructor Name: Mrs. Laura Ciszewski

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Contents

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 Information/ Contact Information

Instructor Information:

Name: Laura Ciszewski

e-mail: lciszewski@auburncc.org

phone: 440-357-7542 x8136

Course Schedule

First Year Schedule: 8:15am to 10:53am

Second Year Schedule: 11:00am to 2:28pm

Course Credits:

3 Elective Credits – First Year from Associate School

3 Elective Credits – Second Year from Associate School

Lakeland C.C. College Tech Prep Articulation Agreement

To Be Eligible for Credit A Student Must:

1. Provide validation from the College Tech Prep Teacher that the student met the requirements to receive articulated credits.
2. Complete and submit a Lakeland Community College Application.
3. Successfully complete an approved high school Tech Prep program with a GPA of B (3.0) or higher in Tech Prep courses.
4. Successfully complete Algebra II or equivalent.
5. Submit and official high school transcript to LCC no later than August 1st of graduation year.

ITIS 1007	Principles of Information Tech. & Computer Science	3 credits
ITIS 1025	Managing & Optimizing Personal Computers	3 credits
ENGR 1000	Introduction to Engineering Technology	2 credits
CPET 1050	Assembling, Upgrading & Repairing PC	2 credits
CPET 2050	Advanced Assembly & Repair of PC	2 credits
CPET 2060	Preparation for A+ Certification	2 credits
ITON 1070	Operating Systems: Skills and Techniques	1 credit

Course Materials

Large three ring notebook	Section dividers
Notebook paper	16 GB or larger USB Flash Drive
Pen and pencil	Headphones
TED Uniform	**$38 - $46 (two shirts)**
Class fee	**$25 per year**
Lab Tool Kit	**$40**

All fees are due by October 31, 2022. 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.

Program Scope:

First Year Course(s) Description/Outcomes:

Computer Software
Subject Code: 145030
In this course, students will apply knowledge and skills of commercial and open source operating systems in portable, stand alone, and networked devices. Students will install a variety of operating systems manually and using remote assistance. They will learn to configure, modify, and troubleshoot operating systems. Desktop virtualization, system security, and operating system history will be addressed.

Outcomes:

1. IT Fundamentals
2. Information Security
3. Infrastructure Systems

Computer Hardware
Subject Code: 145025
Students will learn to install, repair, and troubleshoot computer hardware systems. They will perform preventative maintenance practices and learn techniques for maintaining computer hardware security. Communication skills and professionalism in troubleshooting situations will be emphasized.

Outcomes:

1. IT Fundamentals
2. Information Security
3. Infrastructure Systems

Second Year Course(s) Descriptions/Outcomes:

Engineering Principles
Subject Code: 175002
This course will introduce students to fundamental engineering concepts and scientific principles associated with engineering design applications. Topics include mechanisms, energy statics, materials and kinematics. Additionally, students will learn material properties and electrical control and fluid power systems. Students will learn to apply problem solving, research and design skills to create solutions to engineering challenges.

Outcomes:

1. Business Operations/21st Century Skills
2. Electrical/Electronics
3. Computer Integrated Manufacturing
4. Pre-Engineering: Design and Development

Engineering Design
Subject Code: 175001
Students will learn the application of the engineering design process. Topics include work-processes, optimization methods, design optimization and risk management tools. Students will use 2D and 3D modeling software to help them design solutions to proposed problems, document their work and communicate solutions. Additionally, students will interpret industry prints and create working drawings from functional models. Emphasis is given to experimental problem solving in real systems.

Outcomes:

1. Business Operations
2. Electrical/Electronics
3. Computer Integrated Manufacturing
4. Pre-Engineering: Design and Development
5. Precision and Advanced Machining

Engineering Capstone
Subject Code: 175009
The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in an Engineering program in a more comprehensive and authentic way. Capstones often include project/problem based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.

First Year Sequence

1st Qtr. Students will work on OSHA requirements and Computer Basics
2nd Qtr. Computer Hardware
3rd Qtr. Computer Hardware and Software, State Testing basic TED
4th Qtr. Computer Software and CompTIA A+ testing

Second Year Sequence

1st Qtr. Engineering Principles
2nd Qtr. Engineering Design
3rd Qtr. Engineering Design, State Testing
4th Qtr. Engineering Capstone

Auburn Certificates

Auburn Career Center provides an extended curriculum for our eleven participating school districts. Students attending Auburn Career Center may earn multiple elective and academic credits each year. Following successful completion, these credits are certified by the high school in which the student is enrolled. High school students can also earn several college credits while attending Auburn Career Center.

In addition to earning academic credit toward graduation, students may earn the following certificates of achievement from Auburn Career Center:

- Honors
- Distinction
- Merit
- Completion

These certificates are placed in the student's porfolio, then awarded at the Auburn Completion Ceremony.
See APPENDIX for additional information on certificates

Instructional Philosophy

Instruction is delivered through a variety of instruction including: lecture based, online/internet based, hands-on labs, student center inquiry based learning.

Assessment Plan

Grades will be determined by a Total Points method. Approximate weights are as follows:

Employability 20%
Class work, assignments, and projects 20%
Tests and Quizzes 20%
Academy Core Class 40%

Grading

Grading Scale

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

Grading Policies

It is expected that students complete assignments on time. Assignments will be dropped one letter grade for each day that they are late. If an assignment is turned in more than four days late, it will be worth half credit.

Employability Skills

Employability includes attendance, work ethics, and class preparation. Students graded as an employee. Class uniform and Auburn Career Center Identification badge is a daily requirement. Grading policy is per the Student/Parent Handbook.

Course Assignments, Labs and Projects

Weekly plans along with information about assignments, labs, and projects are available on Schoology.

All assignments are to be word processed and are to include your name, class, assignment name, and assignment date in the upper left hand corner. No hand written assignments will be accepted unless prior permission has been given. Absolutely no assignments will be accepted on torn out spiral notebook paper or assignments done in pencil.

Late assignments will only be accepted with an excused absence.
Assignments are due by midnight on the day they are scheduled to be completed
Students can expect assignments on a regular basis. Projects of significant importance will be assigned throughout the year.

Course Policies

Attendance

Attendance is taken at the start of class. All students should be in their assigned classroom/lab before the bell sounds. If you are tardy you must report to the High School Office and obtain an admit slip. **Excessive unexcused absences may result in disciplinary action.** Refer to the Student/Parent Handbook for more information

An unexcused absence will result in the loss of all employability points for that day. An unexcused tardy will result in a percentage of the employability points for that day depending upon the time of arrival. If a student's home school is not in session but Auburn Career Center is in session, it is highly suggested that the student attend Auburn; however, if the student does not, the student is responsible for the assigned work from the Technology Engineering & Design class.

Safety

Completion of the CareerSafe OSHA 10-Hour course is required before the actual lab work can begin in the class. Also a specific class safety test must be passed at 100% before lab work can begin.

Safety is always a concern. Safe practices will be in place at all time within the classroom and the lab.

Emergency Response

If there is an emergency in the lab or class room, inform the instructor. If the emergency involves the instructor, contact the main office by using the telephone in the Instructors office.

Pick up the phone and dial "0" for the Reception Office.

Remain calm, explain the situation.

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 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.

Program Apparel

Standard daily dress:

-TED approved Polo shirt. Available in both a men's and women's style shirt.
-Full length pants. Jeans or Khaki style pants are acceptable. Pants must be in presentable condition. Extremely low cut, torn/ripped, are not acceptable.
-Casual dress or tennis shoes. No open toed shoes.
-TED black zip fleece, jacket (optional)
-ID Badge

Special event dress; Formal School Events and Skills USA events: -TED approved button down, long sleeve oxford shirt.
-Khaki or dress pants. Women may wear skirts
-Casual/Dress shoes
-TED approved fleece, black color or sweater
-Professional apparel is an acceptable substitute
-ID Badge must be worn at all times

Students are required to have and display on themselves at all times an Auburn Career Center ID badge, which is provided free during the first weeks of school. The Auburn ID badge must be clearly visible and presented upon request to any teacher, administrator, resource officer, or school personnel. If a

student's original badge is lost or stolen, a duplicate ID badge must be purchased. The fee for a replacement ID badge is $5.00.

Classroom Entry –

All students should be in their assigned classroom/lab before the bell sounds. If you are tardy you must report to the High School Office and obtain an admit slip.

Classroom Exit – Dismissal

Students are dismissed by the Instructor, not the bell. Students are not to line up at the door, be in the hall, or leave the classroom or lab prior to dismissal by the teacher.

Mobile Technology Policy

Cell Phones, MP3 Players and other mobile devices are included in the definition of personal mobile technology. It is expected that students will realize that mobile technology devices have their time and place and will utilize them appropriately, as stated in this handbook while in the Technology Engineering and Design classroom/lab. Students will abide by any policies stated within the Auburn Student Handbook and Technology Agreement while at Auburn Career Center.

Classroom Rules, Consequences and Rewards

All students are expected to adhere to the code of conduct as spelled out in the Student Handbook.

Respect for yourself and others is essential.

Cheating is not tolerated. If cheating occurs a zero (0) will be given for the assignment, and parents/guardians will be contacted.

CTSO

Our program is part of the Career & Technical Student Organization SkillsUSA.

Overview of 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 (including health) occupations.

Membership:

SkillsUSA serves more than 333,527 students and instructors annually. This includes 19,019 instructors who join as professional members. Including alumni, Skills USA membership totals over 394,000. SkillsUSA has served nearly 14 million annual members cumulatively since 1965 and is recognized by the U.S. Department of Education and the U.S. Department of Labor as a successful model of employer-driven workforce development.

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.

APPENDIX

AUBURN CERTIFICATES

Auburn Honors Certificate Requirements

- 95% Attendance rate for two years at Auburn (no more than 18 days over two years)
- Earned a 3.5 or higher grade point average in their career tech program over two years
- Safety certification earned in career tech program
- Employability skills earned in career tech program
- Passage of four (4) Ohio Career Technical Competency Analysis exams and/or earning twelve (12) points of Industry Recognized Credentials in the program's Career Field
- Active participation in the program's Career Technical Student Organization
- High school diploma for Seniors

Auburn Distinction Certificate Requirements

- 93% Attendance rate for two years at Auburn (no more than 26 days over two years)
- Earned a 3.0 or higher grade point average in their career tech program over two years
- Safety certification earned in career tech program
- Employability skills earned in career tech program
- Passage of three (3) Ohio Career Technical Competency Analysis exams and/or earning six (6) points of Industry Recognized Credentials in the program's Career Field
- Active participation in the program's Career Technical Student Organization
- High School Diploma for Seniors

Auburn Merit Certificate Requirements

- Earned high school credit for their career tech program over two years
- Safety certification earned in career tech program
- Employability skills earned in career tech program
- Overall passage of Ohio Career Technical Competency Analysis exams and/or earning three (3) points of Industry Recognized Credentials in the program's Career Field

Auburn Completion Certificate Requirements

- Earned high school credit for their career tech program over two years
- Safety certification earned in career tech program
- Employability skills earned in career tech program

BUSINESS PARTNERSHIPS AND STUDENT INTERNSHIPS

The Business Partnership program is an educational opportunity that prepares a student for workforce employment and transition to post-secondary education. During the program, students will apply academic, employability, and technical skills in the workplace. There are three levels students can participate in including:

- Internship
- Mentorship
- Career Field Experience

Students must meet specific criteria in order to participate. Additional information is available in the Auburn Student/Parent Handbook.

CAREER SAFE PROGRAM/OSHA 10-HOUR GENERAL INDUSTRY TRAINING

Description of Program

The OSHA Outreach Training Program for General Industry provides training for students, entry level workers, and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces in general industry. The program also provides information regarding workers' rights, employer responsibilities, and how to file a complaint. Through this training, OSHA helps to ensure that workers are more knowledgeable about workplace hazards and their rights. Each module contains a brief assessment, which must be successfully completed before the student can move on to the next module. Once all modules have been viewed and the corresponding assessments are passed, there is a comprehensive final assessment.

Purpose

The purpose of the program is to provide students with basic safety awareness training so they will be able to recognize, avoid and prevent safety and health hazards in the workplace. Young workers develop a safety mindset and acquire marketable skills for a competitive edge.

Credential Earned

Students who successfully complete the CareerSafe OSHA 10-Hour course receive an OSHA 10-Hour General Industry wallet card from the OSHA Training Institute (OTI). As a result, they become more employable, gaining a competitive advantage in the job market.

Student Support Services:

- Special Education Department: Intervention Specialist.
- Student Services: Counseling and Career Development Services.
    - You can make an appointment to see a counselor or recruitment specialist by visiting the Student Services office.

Symplicity

It is with great enthusiasm that I want to announce an opportunity for students to participate in an on-line job match software program. The online job match software, Symplicity, allows students to develop an online profile and to upload a resume and cover letter in order to apply for employment. Once students choose to apply to job opportunities posted by local employers interested in Auburn students, those employers can contact students directly for interviews.

If you would prefer your son or daughter not to participate in our on-line job board or at in school job fairs, please contact the high school office or send in a note.

TECHNOLOGY LITERACY PROGRAM

Description of Course

Technology Literacy is offered to first and second year students at Auburn Career Center. In the first year, the course provides an overview of the basic fundamentals of working with computers. Students will study computer basics such as computer hardware, software, and operating systems. The course introduces basic use of Windows 10 and productivity programs such as Gmail and Microsoft Office 2019 including Word, PowerPoint, and Excel. Students will also begin to use and navigate e-learning environments using Schoology, Internet navigation, and ever-changing technology will also be overviewed within the course.

In the second year, students focus on creating a portfolio that showcases their work over the last two years at Auburn. It includes their resume, three references, a cover letter, a transition plan and samples of the projects they have completed. Also included are the certificates they have earned in their program of study.

Purpose

The purpose of the Technology Literacy course is to provide students with the basic knowledge of working with computers in ways beneficial in their career paths of choice. The course will give them an overview of online communication, email, word processing, spreadsheets, presentation programs, internet navigation, computer security and our technologically evolving world.

Mastery Learning

Grades in the Technology Literacy course will be based on Mastery Learning. Students will be required to achieve 80% on each assignment. Additional attempts will be provided if the 80% benchmark is not achieved.

FINANCIAL LITERACY

Financial understanding is a competency requirement in the Technology Engineering and Design coursework. Students will learn financial goal setting, borrowing, budgeting, and spending. Through weekly assignments, simulations, and other activities, the financial education students receive will help to prepare students for monetary success post-graduation.

All grades will be assigned accordingly based on the completion of assignments and participation. All student accommodations will be met.

Auburn Career Center – Technology Engineering & Design

Syllabus Agreement

After reviewing the Technology Engineering & Design Syllabus, please sign and return this agreement page to the Technology Engineering & Design Instructor.

I have read and understand all of the information included in the Auburn Career Center Technology Engineering & Design Syllabus.

Student Name: _____
(Please print)

Student Signature: _____

Date: _____

Parent/Guardian Name: _____
(Please print)

Parent/Guardian Signature: _____

Date: _____