SPRINGFIELD-CLARK

CTC

CAREER TECHNOLOGY CENTER

Course & Career

Program of Study 2024-2025

Dear Students,

The Springfield-Clark CTC Course and Career Program of Studies will help prepare you to be ready for your future and to reach your career goals. The Career-Technical and Academic Programs at the CTC are focused to help you be ***Career Ready. College Ready. Life Ready***. This guide should help you identify your Career Field, Course Pathway, and the coursework you can take over the course of the time you are here. In order to best understand how to design your learning, please use this Program of Study by using the following process:

STEP 1. Identify the Career Field and Course Pathways that most interest you and fit your strengths.

STEP 2. Read the "Requirements for Graduation" (Section 1) in the Program of Study.

STEP 3. Use your transcript to help you determine what courses you need to graduate. Please also check with your home school counselor to make sure you know what you need to graduate.

STEP 4. Use the Course Pathways (Section 3) to help guide your course selections for your Schedule. Please read the course descriptions for each course you would like to take. Keep in mind the requirements you need to complete for graduation.

STEP 5. Select the courses for your schedule!

We hope that you enjoy your experience at Springfield-Clark CTC and that we can help you complete your path to success!

Sincerely,

The Staff at Springfield-Clark CTC

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SECTION 1. Requirements for Graduation

In order to receive a diploma in the state of Ohio, students must meet 1) Basic Coursework requirements as well as 2) Competency and 3) Readiness Requirements.

1. REQUIRED COURSEWORK

Take and earn a state minimum of 20 credits in specific subjects.

Courses	State Minimum
English language arts	4 credits
Health	½ credit
Mathematics	4 credits
Physical education	½ credit
Science	3 credits
Social studies	3 credits
Electives	5 credits

Please check with your home school to ensure you are meeting any additional requirements they have for graduation.

2. COMPETENCY REQUIREMENTS

CLASS OF 2023 AND BEYOND

Students entering ninth grade on or after July 1, 2019, will need to "Show Competency" by meeting option one or two below.

OPTION 1: Earn a passing score on Ohio's high school Algebra I and English II tests and **SHOW READINESS** by earning two diploma seals one of which is Ohio-designated (*see options below).

OPTION 2: If not proficient in Algebra I and English II, prepare and retake the test at least once and complete the following:

A. Show competency by meeting **one** of the three options below.
   1. Demonstrate two Career-Focused Activities, one of which must be a Foundational Skill:
      - **Foundational**

- Proficient scores on WebXams
- A 12-point industry credential
- A pre-apprenticeship or acceptance into an approved apprenticeship program

- **Supporting**
  - Work-based learning
  - Earn the required score on WorkKeys
  - Earn the OhioMeansJobs Readiness Seal

2. **Enlist in the Military:** Show evidence that you have signed a contract to enter a branch of the U.S. armed services upon graduation.
3. **Complete College Coursework:** Earn credit for one college-level math or English course through Ohio's free College Credit Plus program.

3. SHOW READINESS: DIPLOMA SEAL OPTIONS AND REQUIREMENTS

In addition to the competency requirements above, students MUST earn two of the following diploma seals, choosing those that line up with their goals and interests. These seals give students the chance to demonstrate academic, technical and professional skills and knowledge that align to their passions, interests and planned next steps after high school.

At least **one** of the two must be Ohio-designated:

- OhioMeansJobs Readiness Seal (OH)
- Industry-Recognized Credential Seal (OH)
- College-Ready Seal (OH)
- Military Enlistment Seal (OH)
- Citizenship Seal (OH)
- Science Seal (OH)
- Honors Diploma Seal (OH)
- Seal of Biliteracy (OH)
- Technology Seal (OH)**
- Community Service (SCCTC)
- Student Engagement (SCCTC)
- Fine Arts (SCCTC)

Please check with your home school to ensure you are meeting any additional requirements they have for graduation.

**All students who complete at least a semester of lab will receive a Technology Seal.

SECTION 2. Credit Flexibility

SCCTC provides an educational program with flexible credit that will make it possible for each student to not only complete a viable career-technical education curriculum but also meet the academic standards required for the student to receive a diploma from his/her resident high school.

Credit may be earned by:

1. completing coursework;
2. testing out of or demonstrating mastery of course content; or
3. pursuing one or more educational options in accordance with the District's Credit Flexibility Program. These options include:
    a. **Independent Study**. Please complete the Independent Study Proposal.
    b. **Work-Based Learning**. Requirements completed with the Work-Based Learning Coordinator.
    c. **Virtual Learning**. Students may take virtual courses to complete credit.

SECTION 3. Student Career Pathways

Career Pathways are an easy way to understand how courses, knowledge, and skills connect to various industries and career fields. Pathways make it easier for students to connect interests from high school to college and/or career and make sure they acquire the knowledge and skills linked to that specific industry. Completion of some pathways can lead to certificates, credentials, and/or degrees, which can save students time and money after high school. There are many pathways to success, and at SCCTC, we offer 24 different academic and Career-Technical (CTE) pathways for you to achieve your goals! Please see the Career Fields and Course Pathways below to help you schedule your classes to reach your personal and academic goals. SCCTC offers the following Career Fields and Course Pathways:

Career Fields	Programs of Study & Course Pathways			
Agricultural & Environmental Systems	Forestry & Park Management	Veterinary Science		
Arts & Communication	Computer Graphic Arts	Digital Media Design		
***Career Exploration** ***Program by Counselor or Intervention Specialist Recommendation Only**	*Jaguar Academy	*Job Training	*Project Search	
Construction Technologies	Carpentry	Electrical Trades	Heating & Air Technology (HVAC)	
Education & Training	Education Exploration			
Engineering & Science Technologies	Engineering & Architectural Design			
Health Science	Dental Assisting	Emergency Medical Technician (EMT)	Medical Assisting	Nurse Assisting
Hospitality & Tourism	Culinary Arts			
Human Services	Cosmetology			
Information Technology	Cybersecurity & Computer Networking	Software Programming Technologies		
Law & Public Safety	Criminal justice			
Manufacturing Technologies	Applied Engineering & Manufacturing	Welding & Fabrication		
Transportation Systems	Auto Body Collision Repair	Auto Services	Automotive Technology & Motorcycle Maintenance	

Agriculture & Environmental Systems Career Field

CAREER-TECHNICAL PROGRAMS:

- **Forestry & Park Management**
- **Veterinary Science**

Careers in Agriculture and Environmental Systems make up one of the largest industries and sources of long-term employment in the country, providing jobs for millions of Americans. These careers supply us with a multitude of food products and alternative energies, among many other important resources for sustaining our country and contribution to the world economy. In addition, these careers - particularly those associated with Forestry - conserve our natural resources and assure we have bountiful supplies of land to utilize in the future. Many of the careers in this industry are considered "Green Careers," meaning that the careers are involved in preserving or protecting our environmental resources.

TOP CAREERS in AGRICULTURE & ENVIRONMENTAL SYSTEMS

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
Fisheries & Wildlife Assistant	Greenhouse/Nursery Manager	Agricultural Engineer
Parks & Recreation Assistant	Grounds Maintenance Supervisor	Conservation Officer
Heavy Equipment Specialist	Agribusiness Owner	Zoologist
Agritourism Specialist	Chemical Applicator	Forester
Nursery & Greenhouse Grower	Custom Farmer	Environmental Engineer
Forestry Technician	Sports Field/Turf Manager/Greenskeeper	Marine Biologist
Environmental Analysis Assistant	Wildlife Technician	Landscape Architect

Agriculture & Environmental Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Forestry & Park Management						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	Embedded Eng 11	Math 3	Environmental	Government World History	Student Leadership Driver's Ed	Natural Resources Urban Forestry
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Flying Drones: Principles of Aeronautical Science	
12th Grade Regular	Embedded Eng 12	Math 4 - Technical Mathematics	Matter & Energy		Natural Disasters Business Foundations	Parks & Rec Mgmt. Forestry & Woodlands
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Psychology Strategic Entrepreneurship Geology	

Credentials and Certifications
ODNR Hunters Education
ODNR Boaters Driver's License
NCCER Heavy Equipment Operations (6 points)
OSHA 10-Hour Training (1 point)
CPR/First Aid (1 point)

Veterinary Science						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 3	Math 3	Microbes & Infection Control	Government World History	Student Leadership Driver's Ed	Animal Health Animal Science Tech Vet Tech Med Term I
11th Grade Advanced	CCP English 1111	Algebra 2 or Precalculus	Chemistry	Advanced Government	Strategic Entrepreneurship	
12th Grade Regular	English 4	Mathematics in Health Sciences	Environmental		Natural Disasters Financial Literacy	Animal A&P Vet Science Vet Tech Med Terminology II A Ag & Env Sys Capstone
12th Grade Advanced	CCP English 1112	Precalculus CCP Math	Anatomy & Physiology		Business Foundations College Ready Geology	
Credentials and Certifications						
OSHA 10-Hour Training (1 point)						
Vet Science Credential (12 points)						
CPR/First Aid (1 point)						

Arts & Communications Career Field

CAREER-TECHNICAL PROGRAMS:

- **Computer Graphic Arts**
- **Digital Media Design**



The Arts & Communication Career Field teaches general skills that students can use throughout their lives but also teaches specialized skills in design, visual arts and digital media. Students in this pathway are encouraged to go to college where they might major in art, visual communications, digital design, photography, graphic design, videography, motion graphics, animation, or sound editing.

TOP CAREERS in ARTS & COMMUNICATION

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
Tattoo Artist	Photoshop Artist	Art/Film Director
Digital Photographer	Digital Content Creator	Product Designer
Production Layout Artist	Graphic Designer	Concept Artist
Technical Illustrator	Commercial Photographer	3D Animator
Sign & Banner Associate	Animator	Storyboard Artist
Freelance Artist	Video/Sound Editor	Sound Engineer
Podcaster/Vlogger	Logo Designer/Illustrator	Multimedia Designer/Producer

Arts & Communication Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Computer Graphic Arts Course Pathway						
	English	**Math**	**Science**	**Social Studies**	**Electives**	**CTE Courses**
11th Grade Regular	English 11	Math 3	Environmental	Government World History	Student Leadership Driver's Ed	Visual Design Primer Visual Creation
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry Anatomy & Physiology	Advanced Government	Strategic Entrepreneurship Business Foundations	
12th Grade Regular	English 12	Math 4-Business Mathematics			Psychology College Ready	Digital Image Editing Digital Print Design
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Financial Literacy	
Credentials and Certifications						
Adobe Certified Associate Graphic Design & Illustration Using Adobe Illustrator (4 points)						
Adobe Certified Associate Visual Communication Using Adobe Photoshop (4 points)						
Ohio Department of Education Technology Seal (Graduation Requirement)						
Ohio Department of Education Fine Arts Seal (Graduation Requirement)						

Digital Media Design						
	English	**Math**	**Science**	**Social Studies**	**Electives**	**CTE Courses**
11th Grade Regular	Embedded Eng 11	Math 3	Environmental	Government World History	Student Leadership Driver's Ed	Digital Graphics Design Techniques
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry Anatomy & Physiology	Advanced Government	Flying Drones: Principles of Aeronautical Design	
12th Grade Regular	Embedded Eng 12	Math 4 - Business Mathematics			Strategic Entrepreneurship Business Foundations	Video & Sound Multimedia & Image Mgmt
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Financial Literacy College Ready	
Credentials and Certifications						
Adobe Certified Associate Visual Communication Using Adobe Photoshop (4 points)						
Adobe Certified Associate Graphic Design & Illustration Using Adobe Illustrator (4 points)						
Adobe Certified Associate Premiere Pro (4 points)						
Adobe Certified Professional: Animate CC (3 points)						
Ohio Department of Education Technology Seal (Graduation Requirement)						
Ohio Department of Education Fine Arts Seal (Graduation Requirement)						

Career Exploration

CAREER-TECHNICAL PROGRAMS:

- **Jaguar Academy**
- **Job Training**
- **Project Search**



The programs in this Career Field offer students, **who are recommended by school counselors or intervention specialists,** to explore many careers and pathways. Students receive career mentoring and hands-on experience in a variety of career-technical labs.

JAG Academy						
	English	**Math**	**Science**	**Social Studies**	**Elective**	
10th Grade	English 10	Algebra 1 Geometry	Physical Science Biology	US History Government	Student Leadership Driver's Ed	CBI Related A/B CBI Work A/B
11th Grade Regular	English 11 Embedded English 11	Math 3 Algebra 2	Matter & Energy Microbes Environmental	Government World History	Psychology Strategic Entrepreneurship	
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry Anatomy & Physiology	Advanced Government	Financial Literacy	
12th Grade Regular	English 12 Embedded English 12	Math 4			Service Learning	
12th Grade Advanced	CCP English 12	Precalculus CCP Math				

Job Training						
	English	**Math**	**Science**	**Social Studies**	**Elective**	
11th Grade Regular	English 11 CT English 11	Math 3 CT Math 3	Microbes & Infection Control	Government World History	Job Training I A/B	
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus		Advanced Government		
12th Grade Regular	English 12 CT English 12	Math 4 CT Math 4	Environmental Science	Service Learning	Job Training II A/B	
12th Grade Advanced	CCP English 1112	Precalculus CCP Math				
Credentials and Certifications						
Community Service Seal						

Project Search

Project Search is an onsite, transition-to-work training program for **5th year seniors** located at Springfield Regional Medical Center that provides internships and education leading to community employment for students with developmental disabilities.

Our curriculum focuses on work skills, primarily: team building, workplace safety, technology, self-advocacy, preparing for and maintaining employment, financial literacy, health and wellness, etiquette, social appropriateness, resume writing, travel training, and so much more! While these skills are developed onsite at a hospital, these skills also transfer to employment across several industries.

Construction Technologies

CAREER-TECHNICAL PROGRAMS:

- **Carpentry**
- **Electrical Trades**
- **Heating & Air Technology (HVAC)**



Construction technology is an industry on the rise, and with it comes many job opportunities with high growth potential and salaries. Within the Construction Tech industry, there are many options for a strong career path. Construction technology refers to the collection of innovative tools, machinery, modifications, software, etc. used during the construction phase of a project that enables advancement in field construction methods, including semi-automated and automated construction equipment.

TOP CAREERS in CONSTRUCTION TECHNOLOGIES

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
Construction Helper	Service Technician	Master Electrician
Registered Electrical Apprentice	Commercial/Industrial Electrician	Electrical Designer/Architect
Carpenter Apprentice	General Contractor	Building Inspector
Roofer	Finish Carpenter	Civil Engineer
Automotive HVAC Repair	Building Inspector	Superintendent
HVAC Installer	Energy Auditor	HVAC Engineer
Maintenance Technician	Control Specialist	Service Manager

Construction Technologies Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Carpentry						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	Embedded Eng 11	Math 3	Matter & Energy	Government World History	Student Leadership Driver's Ed	Construction Core Remodeling & Renovation
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Psychology Service Learning	
12th Grade Regular	Embedded Eng 12	Math 4 -Technical Mathematics	Geology		Financial Literacy	Structural Systems Structural Cover/Finish
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Strategic Entrepreneurship Business Foundations	
Credentials and Certifications						
CITF Career Connection Certificates - Level 2 (4 points)						
OSHA 10-Hour Training (1 point)						

Electrical Trades						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	Embedded Eng 11	Math 3	Matter & Energy	Government World History	Student Leadership Driver's Ed	Construction Core Residential Electrical
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Strategic Entrepreneurship Business Foundations	
12th Grade Regular	Embedded Eng 12	Math 4 -Technical Mathematics	Geology		Financial Literacy	Construction Safety Construction Electrical Systems
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Robotics	
Credentials and Certifications						
Ohio State Apprenticeship Council Recognized Pre-Apprenticeship Program Certificate of Completion (12 points)						
OSHA 10-Hour Training (1 point)						
CPR/First Aid (1 point)						

Heating & Air Technology (HVAC)						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 3	Math 3	Matter & Energy	Government World History	Rise Up Driver's Ed	Construction Core HVAC Refrigeration
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Strategic Entrepreneurship Business Foundations	
12th Grade Regular	Embedded Eng 12	Math 4 -Technical Mathematics	Geology		Financial Literacy	Construction Safety Heating & Cooling Systems
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Robotics Industry 4.0	
Credentials and Certifications						
EPA Refrigerant Recovery Core + Level 1 (Small Appliances) - (12 points)						
Ohio State Apprenticeship Council Recognized Pre-Apprenticeship Program Certificate of Completion (12 points)						
EPA Refrigerant Recovery Core + Level 2 (High Pressure) - (12 points)						
EPA Refrigerant Recovery Core + Level 2 (Low Pressure) - (12 points)						
EPA Refrigerant Recovery Universal (12 points)						
National Center for Construction Education & Research (NCCER) Core (6 points)						
National Center for Construction Education & Research (NCCER) Level 1 (6 points)						
OSHA 10-Hour Training (1 point)						
CPR/First Aid (1 point)						

Education & Training

CAREER-TECHNICAL PROGRAMS:

➢ Education Exploration

Learn the skills and take part in opportunities to become a school staff member at many different levels. Modern schools use a holistic approach to education that can include early childhood education, K-12 education, social work, administration and community involvement. School staff include teachers, administrators, counselors, mental health specialists, clerical staff, and education support staff.

TOP CAREERS in EDUCATION

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
Administrative Assistant	Tutor	Teacher
Family Childcare Worker	Family & Human Services Employee	School Psychologist
Paraprofessional	Social Service Aide	Curriculum Specialist
Administrative Assistant	Autism Behavior Technician	School Counselor
Independent Childcare Provider	Community-Based Family Program Coordinator	School Administrator
School-Age Program Employee	Head Start Teacher	Family & Social Services Administrator
Camp Counselor	Early Intervention Program Employee	Library/Media Specialist

Education Exploration Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Education Exploration						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 11	Math 3	Microbes & Infection Control	Government World History	Student Leadership Driver's Ed	Education Principles ECE Child Development
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Psychology Service Learning	
12th Grade Regular	English 12	Math 4-Business Mathematics	Environmental Science Geology		College Ready	Curriculum & Instruction Observation & Assessment
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Financial Literacy	
Credentials and Certifications						
CPR/First Aid (1 point)						
Child Abuse Awareness & Prevention (1 point)						
Communicable Disease Prevention (1 point)						
ParaPro Assessment (6 point)						
Six Sigma Leader - Yellow Belt (3 points)						

Engineering & Science Technologies

CAREER-TECHNICAL PROGRAMS:

➢ **Engineering & Architectural Design**



Engineering & Science Technologies fields continue to grow in the 21st Century. This Career Field can be divided into two categories: (1) Technical and professional level careers in biomedical scientific research and services (laboratory, testing, research and development), and (2) Services related to electrical and industrial engineering, materials science, fuel cell technology and robotics.

TOP CAREERS in ENGINEERING & SCIENCE TECHNOLOGIES

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
SolidWorks 3D Drafter	Architect Apprentice	Architect
Draftsman	CADD Manager	Civil Designer
Building Information Modeler	Surveyor	Production Engineer
Computer-Aided Design Technician	Field Engineer	Environmental Engineer
Electronic Drafter Entry Level	Civil Engineering Technician	Additive Manufacturing Design
Structural Detailer Entry Level	Aeronautical Drafter	Industrial Designer
Marine Drafter Entry Level	Engineering Technician	Engineer/Designer





Engineering & Science Technologies Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Engineering & Architectural Design						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	Embedded Eng 11	Math 3	Matter & Energy	Government World History	Driver's Ed Strategic Entrepreneurship	Engineering Design Engineering Principles
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Flying Drones: Principles of Aeronautical Science	
12th Grade Regular	Embedded Eng 12	Math 4 -Technical Mathematics	Geology		Financial Literacy Business Foundations	Plan Reading AD Electrical & Plumbing
12th Grade Advanced	CCP English 1112	Precalculus CCP Math	CCP Science		Robotics College Ready	
Credentials and Certifications						
Auto CAD Certified User (4 points)						
Certified Solidworks Certified User (4 points)						
Autodesk Inventor Certified User Certification (4 points)						
NOCTI Certification (coming soon!)						
OSHA 10-Hour Training (1 point)						
CPR/First Aid (1 point)						
Ohio Department of Education Technology Seal (Graduation Requirement)						

Health Science Career Field

CAREER-TECHNICAL PROGRAMS:

- **Dental Assisting**
- **Emergency Medical Technician**
- **Medical Assisting**
- **Nurse Assisting**



Perhaps the biggest reason to pursue a health career is **to make a difference in the lives of others**. You will contribute to creating a healthier world whether you work as a dental assistant, EMT, medical assistant, or in the field of nursing. You can work and live anywhere you want. The Health Science Career Field teaches students technical skills in planning, managing and providing therapeutic services, diagnostic services, health informatics, support services and biotechnology research and development.

TOP CAREERS in HEALTH SCIENCE

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
State Tested Nurse Aide	Dental Hygienist	Dentist
Dental Assistant	Laboratory Technician	Pharmacist
Phlebotomist	Massage Therapist	Healthcare Administrator
Home Health Aide	Medical Assistant	MD/DO/Surgeon
Lab Technician Assistant	Registered Nurse	Nurse Practitioner
Health Information Technician	Physical/Occupational Therapy	Nurse Anesthetist
Patient Care Assistant	Radiology Technician	Medical Lab Technician

Health Science Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Dental Assisting						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 11	Math 3	Microbes & Infection Control	Government or World History	Student Leadership	Dental Tech Oral Diagnosis/ Treatment
11th Grade Advanced	CCP English 1111	Algebra 2 or Precalculus	Chemistry	Advanced Government	Psychology College Ready	
12th Grade Regular	English 12	Mathematics in Health Sciences	Geology		Financial Literacy Business Foundations	Dental Radiography Dental Office Tech
12th Grade Advanced	CCP English 1112	Precalculus or CCP Math	Anatomy & Physiology		Any science elective	
Credentials and Certifications						
American Medical Technologists (AMT) - Registered Dental Assistant Certification (RDA) (6 points)						
Ohio State Dental Board Dental Assistant Radiographer Certificate (6 points)						
Ohio Department of Education Technology Seal (Graduation Requirement)						

Emergency Medical Technician						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 11	Math 3	Chemistry Microbes & Infection Control	Government World History	Student Leadership Driver's Ed	Principles of Allied Health Medical Terminology
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Psychology Service Learning	
12th Grade Regular	English 12	Math 4-Mathematics in Health Sciences	Anatomy & Physiology		Financial Literacy College Ready	Health Science Capstone B Body Systems & Functions CC+EMT
12th Grade Advanced	CCP English 1112	Precalculus CCP Math	CCP Biology		Any science elective	
Credentials and Certifications						
Ohio Dept. of Public Safety, Div. of EMS - EMT Basic (12 points)						
National Incident Management System 100 (4 points)						
National Incident Management System 700 (4 points)						
CPR/First Aid (1 point)						
OSHA 10-Hour Training (1 point)						
Ohio Department of Education Technology Seal (Graduation Requirement)						

Medical Assisting						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 11	Math 3	Chemistry Microbes & Infection Control	Government World History	Student Leadership Driver's Ed	Principles of Allied Health Medical Terminology
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Psychology College Ready	
12th Grade Regular	English 12	Math 4- Mathematics in Health Sciences	Anatomy & Physiology		Financial Literacy	Patient Centered Care & Diagnostics
12th Grade Advanced	CCP English 1112	Precalculus CCP Math	CCP Biology		Any science elective	Body System & Functions
Credentials and Certifications						
Clinical Medical Assistant Certification through the American Medical Certification Association (12 points)						
CPR/First Aid (1 point)						
Certified Phlebotomy Technician through NHA (12 point)						
Ohio Department of Education Technology Seal (Graduation Requirement)						

Nurse Assisting						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 11	Math 3	Chemistry Microbes & Infection Control	Government World History	Student Leadership Driver's Ed	Principles of Allied Health Medical Terminology
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Psychology College Ready	
12th Grade Regular	English 12	Math 4- Mathematics in Health Sciences	Anatomy & Physiology		Financial Literacy	Patient Centered Care & Diagnostics Body System & Functions Health Science Capstone
12th Grade Advanced	CCP English 1112	Precalculus CCP Math	CCP Biology		Any science elective	
Credentials and Certifications						
Ohio Department of Health State Tested Nurse Assistant (STNA) - (12 points)						
OSHA 10-Hour Training (1 point)						
CPR/First Aid (1 point)						
Ohio Department of Education Technology Seal (Graduation Requirement)						

Hospitality & Tourism Career Field

CAREER-TECHNICAL PROGRAMS:

➢ **Culinary Arts**



The hospitality and tourism industry is a vast sector that includes all the economic activities that directly or indirectly contribute to, or depend upon, travel and tourism. Springfield-Clark CTC offers a Culinary Arts program in this Career Field. Opportunities are endless for anyone interested in a career in the culinary arts or restaurant business.

TOP CAREERS in CULINARY ARTS

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
Cook	Caterer	Restaurant Owner
Barista	Maitre d'	Dietician
Server	Event Planner	Culinary Instructor
Baker	Professional Chef	Executive Pastry Chef
Line Cook	Food Trucker Owner	Personal Chef
Prep Cook	Registered Dietary Technician	Food Critic
Food Blogger	Kitchen Supervisor	Food Scientist

Culinary Arts Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Culinary Arts						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 3	Math 3	Microbes & Infection Control	Government World History	Rise Up Driver's Ed	Food Production Culinary Hospitality Fundamentals
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Strategic Entrepreneurship Business Foundations	
12th Grade Regular	English 4	Culinary Mathematics	Environmental Science		Psychology Service Learning	Dining Services Contemporary Cuisine
12th Grade Advanced	CCP English 1112	Precalculus CCP Math	Geology		Financial Literacy	
Credentials and Certifications						
ProStart Certificate of Achievement (9 points)						
National Restaurant Association - ServeSafe Manager (3 points)						
National Restaurant Association - ServeSafe Food Handler (1 point)						

Human Services Career Field

CAREER-TECHNICAL PROGRAMS:

➢ **Cosmetology**



The Human Services career field relates to meeting human needs through activities such as counseling and mental health services, family and community services, personal care and consumer services. SCCTC offers a Cosmetology program in this field.

TOP CAREERS in COSMETOLOGY

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
Cosmetology Assistant	Beauty Supply Store Manager	Chemist
Esthetician	Haircutting Specialist	Beauty Magazine Editor
Makeup Artist	Education Director	Cosmetology School Instructor
Manicurist	Entrepreneur/Salon Owner	Salon & Spa Manager
Salon Assistant/Receptionist	Licensed Cosmetologist	Research & Development Coordinator
Hair Removal Specialist	Retail Educator	Product Distributor Sales Consultant
Sales Representative/Manager	Textile Specialist	Photo & Movie Stylist

Cosmetology Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Cosmetology						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 3	Math 3	Microbes & Infection Control	Government US History	Rise Up Driver's Ed	Trichology & Microbiology Haircut & Style & Chemical Services
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Strategic Entrepreneurship Business Foundations	
12th Grade Regular	English 4	Business Mathematics	Anatomy & Physiology		Psychology Service Learning	Cosmetology Capstone A/B Salon Operations A/B Advanced Cut & Style
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Financial Literacy	
Credentials and Certifications						
Ohio State Board of Cosmetology - License of Cosmetology (12 points)						

Information Technology Career Field

CAREER-TECHNICAL PROGRAMS:

- **Cyber Security & Computer Networking**
- **Software Programming Technologies**



Working in IT can mean a variety of different things. You can work in computer support, cybersecurity, data, cloud computing,engineering, architecture, and other areas. Career paths in the IT industry can be broadly classified into the two main fields of hardware and software. Hardware includes manufacturing, maintenance, research and development, and management. Software includes manufacturing, development, programming, software testing, and maintenance and support.

TOP CAREERS in INFORMATION TECHNOLOGY

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
HelpDesk Technician	Cybersecurity Specialist	Database Architect
Audio/Visual Specialist	Database Administrator	Computer Hardware Engineer
Networking Assistant	Web Developer	Chief Information Security Officer
Data Entry Specialist	IT Project Manager	Software Developer
Computer Repair Technician	Systems Analyst	HelpDesk Manager
Broadband Installer	Information Technology Project MAnager	Network Architect/Engineer
Computer Support Specialist	Data Center Technician	Server Support Specialist



Information Technology Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Cyber Security & Computer Networking						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 11	Math 3	Environmental	Government World History	Financial Literacy	Computer Hardware IT Technology CC+ IT Capstone (ITS 1105)
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry Anatomy & Physiology	Advanced Government	Flying Drones: Principles of Aeronautical Science	
12th Grade Regular	English 12	Math 4 Business Mathematics	Geology		Industry 4.0 Strategic Entrepreneurship	Software CC+ IT Capstone Cyber Programming
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Robotics Genius Bar	
Credentials and Certifications						
CompTIA A+ (6 points)						
CompTIA Security + (6 points)						
Lean Six Sigma Green Belt (6 points)						
Lean Six Sigma Yellow Belt (3 points)						
Microsoft Office Specialist Word 2019 (3 points)						
Microsoft Office Specialist Excel 2019 (3 points)						
Microsoft Office Specialist PowerPoint 2019 (3 points)						
Microsoft Office Specialist Access Expert 2019 (3 points)						
Ohio Department of Education Technology Seal (Graduation Requirement)						

Software Programming Technologies						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 11	Math 3	Environmental	Government World History	Financial Literacy	Programming Web Design (CTAG) IT Basics
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Anatomy & Physiology	Advanced Government	Flying Drones: Principles of Aeronautical Science	
12th Grade Regular	English 12	Math 4 Business Mathematics	Chemistry		College Ready Strategic Entrepreneurship	Database Applications IT Capstone CC+ Object-Oriented Programming
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Robotics Industry 4.0 Genius Bar Business Foundations	
Credentials and Certifications						
MS Office Specialist Expert Excel 2019 (3 points)						
MS Office Specialist Access 2019 (3 points)						
MS Office Specialist PowerPoint 2019 (3 points)						
MS Office Specialist Expert Word 2019 (3 points)						
Comp TIA IT Fundamentals (6 points)						
Amazon Web Services Certified Cloud Practitioner (4 points)						
Certiport IT Specialist (1 point)						
Ohio Department of Education Technology Seal (Graduation Requirement)						

Law & Public Safety

CAREER-TECHNICAL PROGRAMS:

➢ Criminal Justice



The Law & Public Safety career cluster helps prepare students for careers in planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

TOP CAREERS in CRIMINAL JUSTICE

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
Police Officer	Intelligence Officer	Judge
Deputy U.S. Marshal	Victim Assistance Counselor	Defense Attorney
Court Clerk	Crime Scene Technician	Coroner/Medical Examiner
Security Guard	Deputy Probation Officer	Criminal Prosecutor
Crime Scene Technician	Detective	Police Psychologist
Corrections Officer	Background Investigator	Criminal Profiler
Emergency Dispatcher	Postal Inspector	Law Enforcement Administrator

Law & Public Safety Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Criminal Justice						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	English 11	Math 3	Matter & Energy	Government World History	Rise Up	
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Flying Drones: Principles of Aeronautical Science	
12th Grade Regular	English 12	Math 4 -Technical Mathematics	Anatomy & Physiology		Psychology Service Learning	American Criminal Justice System Police Work & Public Safety
12th Grade Advanced	CCP English 1112	Precalculus CCP Math	Geology		Financial Literacy	
Credentials and Certifications						
Ohio Department of Education Technology Seal (Graduation Requirement)						

Manufacturing Technologies Career Field

CAREER-TECHNICAL PROGRAMS:

- **Applied Engineering & Manufacturing**
- **Welding & Fabrication**



Manufacturing technologies require the ability to plan the practices of manufacturing; to research and to develop tools, processes, machines and equipment; and to integrate the facilities and systems for producing quality products with the optimum expenditure of capital. The primary focus of this field is to turn raw material into an updated or new product in the most effective, efficient & economic way possible.

TOP CAREERS in MANUFACTURING TECHNOLOGIES

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
Manufacturing Welder	Automation Technician	Aerospace Engineer
Assembler	CNC Programmer	Architectural Welding Designer
CNC Operator	Pipeline Fitter	Safety Engineer
Fabricator	Maintenance Technician	Welding Engineer
Spot Welder	Tool & Die Maker	Robotics Engineer
Grinder	Steam Fitter	Building & Code Inspector
Tool Maker Apprentice	Robotics Programmer	Estimator





Applied Engineering & Manufacturing Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Applied Engineering & Manufacturing						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	Embedded Eng 11	Math 3	Matter & Energy	Government World History	Student Leadership Driver's Ed	Machine Tools Manufacturing Operations
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Flying Drones: Principles of Aeronautical Science	
12th Grade Regular	Embedded Eng 12	Math 4 -Technical Mathematics	Geology		Strategic Entrepreneurship Business Foundations	Machine Industrial Milling Machine Industrial Lathing
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Robotics Industry 4.0	
Credentials and Certifications						
NIMS Machining Level 1 Certification (12 points)						
Autodesk Inventor Certified User Certification (4 points)						
OSHA 10-Hour Training (1 point)						
CPR/First Aid (1 point)						
Ohio Department of Education Technology Seal (Graduation Requirement)						
Ohio Department of Education Fine Arts Seal (Graduation Requirement)						

Welding & Fabrication						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	Embedded Eng 11	Math 3	Matter & Energy	Government World History	Student Leadership Driver's Ed	Shielded Metal Arc Welding Gas Metal Arc Welding
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Flying Drones: Principles of Aeronautical Science	
12th Grade Regular	Embedded Eng 12	Math 4 -Technical Mathematics	Geology		Financial Literacy	Flux Core Arc Welding Gas Tungsten Arc Welding
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Robotics Industry 4.0	
Credentials and Certifications						
American Welding Society Qualified Welder SMAW (9 points)						
American Welding Society Qualified Welder GMAW (9 points)						
Pre-Apprenticeship (12 points)						
Forklift Certification (1 point)						
Pre-Apprenticeship (12 points)						
OSHA 10-Hour Training (1 point)						
CPR/First Aid (1 point)						
Ohio Department of Education Technology Seal (Graduation Requirement)						
Ohio Department of Education Fine Arts Seal (Graduation Requirement)						

Transportation Systems Career Field

CAREER-TECHNICAL PROGRAMS:

- **Autobody Collision Repair**
- **Auto Services**
- **Automotive Technology & Motorcycle Maintenance**



Transportation careers include jobs in industries that transport passengers and cargo via plane, rail, bus, boat, transit system, and other modes of private and public transportation. Transportation career fields jobs also include the maintenance and repair of vehicles for transportation.

TOP CAREERS in TRANSPORTATION SYSTEMS

ENTRY LEVEL CAREERS	TECHNICAL CAREERS	PROFESSIONAL CAREERS
Auto Detailer	ASE Master Technician	Automotive Engineer
Lube Technician	Diesel Mechanic	Service Manager
Auto Parts Cashier	Heavy Line Technician	Automotive Instructor
Body Technician Apprentice	Body Shop Owner	Race Car Designer/Builder
Automotive Glass Installer	Refinishing Technician	Dealership Manager
Automotive Parts Specialist Apprentice	Engine Performance Specialist	Fixed Operations Manager
Vehicle Maintenance Technician	Electrical Systems Specialist	Automotive Technology Educator

Transportation Systems Career Field Course Pathways

The programs in this career field are listed below, along with the required and suggested courses you should take in this pathway to complete your program.

Autobody Collision Repair						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	Embedded Eng 11	Math 3	Matter & Energy	Government World History	Driver's Ed Rise Up	Collision Non-Structural Inspection/Repair Collision Structural Inspection/Repair
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Strategic Entrepreneurship Business Foundations	
12th Grade Regular	Embedded Eng 12	Math 4 -Technical Mathematics	Geology		Psychology Service Learning	Collision Paint/Refinish Collision Electrical /Mechanical Systems
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Financial Literacy	
Credentials and Certifications						
ICAR ProLevel 1 Refinishing Technician (12 points)						
ICAR ProLevel 1 Non-Structural Technician (12 points)						
OSHA 10-Hour Training (1 point)						
CPR/First Aid (1 point)						
Ohio Department of Education Technology Seal (Graduation Requirement)						

Auto Services

	English	Math	Science	Social Studies	Elective	CTE Courses
11th Grade Regular	Embedded Eng 11	Math 3	Matter & Energy	Government World History	Rise Up Driver's Ed	G Transportation Maintenance Outdoor Power Equipment
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Strategic Entrepreneurship Business Foundations	
12th Grade Regular	Embedded Eng 12	Math 4 -Technical Mathematics	Geology		Psychology Service Learning	Braking Systems GT Electrical & Electronics
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Financial Literacy	

Credentials and Certifications
OSHA 10-Hour Training (1 point)
CPR/First Aid (1 point)
Ohio Department of Education Technology Seal (Graduation Requirement)

Automotive Technology & Motorcycle Maintenance						
	English	**Math**	**Science**	**Social Studies**	**Elective**	**CTE Courses**
11th Grade Regular	Embedded Eng 11	Math 3	Matter & Energy	Government World History	Rise Up Driver's Ed	GT Maintenance Suspension/Steering Sports/Recreational Power Systems Brakes
11th Grade Advanced	CCP English 1111	Algebra 2 Precalculus	Chemistry	Advanced Government	Strategic Entrepreneurship Business Foundations	
12th Grade Regular	Embedded Eng 12	Math 4 -Technical Mathematics	Geology		Psychology Service Learning	GT Electrical & Electronics Auto Engine Performance
12th Grade Advanced	CCP English 1112	Precalculus CCP Math			Financial Literacy	
Credentials and Certifications						
ASE Student Certification - Automotive Brakes (4 points)						
ASE Student Certification - Automotive Suspension & Steering (4 points)						
ASE Student Certification - Automotive Electronic/Electrical System (4 points)						
ASE Student Certification - Automotive Engine Performance (4 points)						
OSHA 10-Hour Training (1 point)						
CPR/First Aid (1 point)						
Ohio Department of Education Technology Seal (Graduation Requirement)						

SECTION 4. Course Descriptions

Please read the course descriptions below to understand your pathway offerings.

English Course Offerings

English 11 (1 credit): English 11 covers the following types of literature.

- **Film as Literature 11** - Explore film in the context of story, language, theory, social sciences, and screenwriting. Learn to analyze the elements of film: shots, angles, lighting, color, sound, mise-en-scene, and editing. In addition, analyze the plot, character, setting, structure, and dialogue of particular films chosen by the instructor. Engage in discussion on various topics related to the film and write essays based on both analysis and research. Explore and study how to construct film.

- **Short Fiction** - Through stories we challenge assumptions, expand our understanding, and make connections with others. Stories allow us to travel and explore many places and people. Short fiction provides an opportunity to read work from the past, about the present, as well as fiction that predicts our future. Examine plot, character, setting, structure, dialogue, and conflict to become a stronger more worldly reader. If you prefer short stories to novels, this is your class! Discuss, develop projects, write essays, and create a story to showcase and expand learning.

- **Graphic Novels** - Read and discuss graphic novels as literature; analyze visual structure as it relates to content; trace the development of themes including family, gender, race, empathy, stereotypes, survival, and the human condition; and research the history and growth of the popular culture phenomenon called comics. Examine the special effects created in sequential art narrative and further appreciate the medium by constructing a variety of graphic narratives both independently and collaboratively. Develop composition skills through reader-response-based journal writing, critical research projects, essays of analysis, and creative writing practice.

- **Creative Writing** - Engage in writing and reading in the following genres: fiction, creative nonfiction, poetry, drama, and screenwriting. Confer regularly with the instructor, participate in writer/reader-response workshop groups with classmates, read and interpret mentor texts written by classic and contemporary authors, keep and regularly write in a writer's notebook, and experiment with and revise writing routinely. This class will go outside the bounds of formal writing providing opportunities to showcase work in a multi-faceted portfolio upon completion of the course.

English 12 (1 credit): English 12 covers the following types of literature

- **Literature and the Humanities** - Explore society, culture, the arts, history, music, law, and philosophy through the lens of literature. Analyze how people experience the world and how they express those experiences. Write, create, discuss, analyze, research, and develop projects that evidence the human experience.

- **Windows & Mirrors** - Expand your world with stories and novels from diverse voices. Develop your voice through reflecting on and writing about your own life story. This course will focus on short fiction from the anthology Fresh Ink. Choose a novel and participate in a book club. Analyze and write about literature through various lenses. The opportunity to research and discuss various topics related to the theme and plot of each story will also be embedded within the curriculum as well.

- **Film as Literature 12** - Explore film in the context of story, language, theory, social sciences, and screenwriting. Learn to analyze the elements of film: shots, angles, lighting, color, sound, mise-en-scene, and editing. In addition, analyze the plot, character, setting, structure, and dialogue of particular films chosen by the instructor. Engage in discussion on various topics related to the film and write essays based on both analysis and research. Explore and study how to construct film.

- **Banned Books** - Why are books banned today? Why have books been banned during different periods in history? Engage in a thorough examination of a few of the books on the American Library Association's list of banned books. Choose and profile a book independently. Learn and explore the historical and legal contexts of censorship. Research, examine and write about the complex issues of freedom and control.

**** Please note, if you are in a lab with embedded English you will take English through your lab and will not take a themed English***

***Embedded English** (1 credit)
Embedded English is part of select career technical programs. In these programs, the CTE instructor and Embedded English instructor have built a curriculum that coincides with ELA and CTE standards. Students receive English instruction while in their Career Tech Lab as well as through flexible learning strategies removing the traditional space/time from the learning environment. Students focus on building and utilizing real-world literacy skills over the two years in their career technical program. Embedded English programming increases student engagement through rigorous and relevant coursework, as well as a direct, visible link to students' post-secondary goals.

Advanced/CCP English 12 (2 credits, CC+ 6 Credits** at Clark State)
Earn six college credits and complete the college freshman English requirement. These college composition courses are writing-intensive with an emphasis on critical reading and writing in multiple modes. **English 1111/1112** ***Prerequisite:*** Accuplacer Reading 250 or higher; Writing 5 or higher OR ACT English 18; Reading 22.
**Additional information can be found regarding the CC+ program at the end of this course offerings guide.

Math Course Offerings

Modeling & Quantitative Reasoning (1 credit)
The Mathematical Modeling and Quantitative Reasoning course is an advanced quantitative reasoning course. Quantitative Reasoning (QR) is the application of basic mathematics skills, such as algebra, to the analysis and interpretation of quantitative information (numbers and units) in real-world contexts to make decisions relevant to daily life. Critical thinking is its primary objective and outcome. It emphasizes interpretation, representation, calculation, analysis/synthesis, assumptions and communication.

The Mathematical Modeling and Reasoning (MMR) course is designed to promote **reasoning**, **problem-solving** and **modeling** through thematic units focused on mathematical practices, while reinforcing and extending content in Number and Quantity, Algebra, Functions, Statistics and Probability, and Geometry.

Prerequisite: *Algebra 1/Math 1 and Geometry/Math 2*

Algebra 2 (1 credit)
This course is designed to prepare you for a high school Precalculus course. Systems of linear equations in two variables and applied problems; two-variable inequalities and systems of inequalities and applied problems; operations with rational exponents, radical expressions and complex numbers; relations and functions; simplifying radical expressions; solving equations with rational expressions, equations with radical expressions, quadratic equations by factoring, completing the square, and the quadratic formula, equations quadratic in form; quadratic functions.
Prerequisite: *Teacher recommendation, successful completion of Alg 1/Math 1 and Geom/Math 2*

Geometry (1 credit)
In this course students will study the properties and applications of common geometric figures in two and three dimensions. It includes the study of transformations and right triangle trigonometry. Inductive and deductive thinking skills are used in problem solving situations, and applications to the real world are stressed. It also emphasizes writing proofs to solve (prove) properties of geometric figures.

Math 4 (1 credit)
This course is designed to apply to students' specific career technical programming. Topics will include the review of arithmetic, mathematics of finance, mathematics of trade, payroll, taxes, insurance and elementary statistics. Compute with fractions, decimals, percentages and proportions to solve applications in technology, geometry; convert within and between metric and English systems of measurement; read and interpret measurement tools and gauges; simplify algebraic expressions, solve linear equations and graph linear equations.
Prerequisite: *Algebra 2/Math 3/Geometry*

Pre-Calculus (1 credit)
This course is designed to prepare you for a high school (and possibly a college) Calculus course. Through this course you will acquire a solid foundation in algebra and trigonometry. Emphasis is placed on understanding the properties of linear, polynomial, rational, radical, piecewise, exponential, logarithmic, and trigonometric functions. You will learn to work with various types of functions in algebraic, graphical and numerical forms.
Prerequisite: *Algebra 2*

Calculus (1 credit)
In Calculus, students will study functions, graphs, limits, and derivatives and their applications. The course encourages the geometric, numerical, analytical, and verbal expression of concepts, results, and problems.
Prerequisite: *Pre-Calculus*

Science Course Offerings

Anatomy and Physiology (1 credit)
Anatomy and Physiology provides an introduction to the study of the basic structure and function of the human body. This course provides an integrated view of how the body works, introduces the concept of internal environment and the maintenance of homeostasis, and explains the interrelatedness and the interdependency of organ systems.

Biology (1 Credit)

Biology investigates the composition, diversity, complexity and interconnectedness of life on Earth. Fundamental concepts of cellular processes, genetics, heredity, evolution and ecology provide a framework for exploring the living world, the physical environment and the interactions within and between them.

Chemistry (1 credit)
Chemistry is the central science and lays a foundation for study in other science disciplines. Topics include atomic theory, periodicity, the kinetic molecular theory of matter, energy in reactions, solutions, and stoichiometry. Labs focus on safety, proper measurement techniques, reporting data, and analyzing results. The pace and depth are designed to meet the needs of students who wish to pursue future studies in health or science career fields. *Although there is no college credit offered for this course, many college science classes require the completion of high school chemistry with a C or better as a prerequisite for enrollment. Students who do not complete high school chemistry may need to complete additional courses to enroll in desired courses.*
Prerequisite: *Earn a C+ or better in Algebra I or equivalent*

Environmental Science (1 credit)
Environmental science focuses on the role of humans in their environment. Students develop a knowledge base of the biological and physical environment, and explore current issues in the natural world. Common themes include ecosystem services, material flow through ecosystems, invasive species, biodiversity, nonrenewable energy, renewable energy, and sustainability.

Geology (1 credit)
Geology incorporates chemistry, physics and environmental science and introduces students to key concepts, principles and theories within geology. Investigations are used to understand and explain the behavior of nature in a variety of inquiry and design scenarios that incorporate scientific reasoning, analysis, communication skills and real-world applications.

Matter & Energy (1 credit)
Students will perform experiments, record measurements, and draw conclusions to understand matter and energy. Topics will include classifying matter, separating mixtures and compounds, forming, naming, and measuring compounds, and exploring how the properties of matter can be applied in real world situations. Students will also explore how the characteristics of matter are influenced by energy, temperature, and pressure.

Prerequisite: *Successful completion of Algebra I or equivalent recommended.*

Microbes & Infection Control (1 credit)
Microbes and Infection Control is designed to examine basic principles of microbiology and infectious disease control. Students will gain an understanding of microorganisms and the disease process as well as prevention. In studying Microbes and Infection Control the following topics may be covered: types of disease carrying organisms – viruses, bacteria, parasites; how disease carrying organisms may be spread; identification of factors which lead to infection; strategies to reduce the transmission of pathogenic organisms; and how infection control concepts are applied in practice.

Social Studies Course Offerings

American Government (1 credit)
American Government includes a study of government and economic systems, analysis of the Constitution and all amendments, a close look at the three branches of government, the structure of the Ohio state government, and the economic structure of the federal government, including taxes and the Federal Reserve System. Students will also study financial literacy by exploring personal finance, credit, interest rates and developing a retirement savings plan. This course also meets the state's requirements for receiving instruction in economics and financial literacy.

Advanced American Government (1 credit)
Advanced American Government is a rigorous variation of the standard American Government course designed to challenge and prepare students for the demands of a college course load. The advanced course covers the same curriculum as the standard American Government course, but in greater depth.
Prerequisite: *Have an A/B average in previous Advanced Social Studies courses*

World History (1 credit)
This course examines world events from 1600 to the present. It explores the impact of the democratic and industrial revolutions, the forces that led to world domination by European powers, the wars that changed empires, the ideas that led to independence movements and the effects of global interdependence. The concepts of historical thinking introduced in earlier grades continue to build with students locating and analyzing primary and secondary sources from multiple perspectives to draw conclusions. World History is required for graduation.

Business Course Offerings

BUSINESS PATHWAY

BUSINESS PATHWAY COURSES: All students are eligible to take courses in the Business Pathway. Please read this table below for the cycle of Business Courses offered. Descriptions of these courses are just below the table and in elective course descriptions.		
Course	**Year**	**Rotation in Schedule**
Strategic Entrepreneurship	Currently Offered	This course is offered every year at the CTC.
Business Foundations	Offered 2024-2025	This course is offered every other year at the CTC.
**Business Foundations in Senior Academy (Online)	Offered 2024-2025	This course is offered every year online to seniors only.
Marketing	Offered 2025-2026	This course begins in 2025-2026 and is offered every other year at the CTC.
OTHER BUSINESS-RELATED COURSES: These courses are related to the Business Pathway and can supplement learning in this coursework.		
Service Learning	Offered 2024-2025	This course is offered every other year at the CTC.
Rise Up	Offered 2024-2025	This course is offered every year at the CTC.
Financial Literacy	Offered 2024-2025	This course is offered every year at the CTC.

Strategic Entrepreneurship (1 credit)
Strategic Entrepreneurship explores how individuals use innovation skills to generate ideas for new products and services. Students will evaluate the feasibility of business ideas and develop a strategy for commercialization. Students will use technology to select target markets, define a venture's mission, and create problem/solution based business plans. Initial steps will be explored to develop a product or service and establish a business, including brand establishment, value proposition, setting prices and promoting products or services.

Business Foundations (1 credit)
Business Foundations offers students the opportunity to develop foundational professional skills, in addition to exploring fundamental business activities and concepts. Students will acquire knowledge of business processes, economics and business relationships. Students will use technology to synthesize and share business information. Employability skills, leadership and communications and personal financial literacy will be addressed.

Marketing Principles (1 credit)

In Marketing Principles students will develop fundamental skills and knowledge of the marketing functions, including marketing communications, marketing research, pricing, selling and branding. This course also includes learning outcomes in product and service development and social media communications. Technology, leadership, employability skills, business ethics and communications will be incorporated in classroom activities.

Elective Course Offerings

Driver's Education (1 credit)
This course will provide students with the required 24 hours of classroom instruction needed for individuals under 18 years old to work towards earning their drivers license.

College Ready (1 credit)
This course teaches the skills and knowledge needed to successfully transition from high school to college. Students will explore various aspects of college readiness, including academic preparation, critical thinking, time management, the college application process, financial literacy, test preparation, effective communication, and personal development.

Financial Literacy (1 credit)
Financial Literacy is defined as the ability to understand and apply financial skills pertaining to budgeting, personal banking, and investment. Topics of study for this course will include: financial responsibility and decision making; planning and money management; being an informed consumer; investing; responsible use of credit and debt; risk management and insurance. Students will develop the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future, and respond completely to life events that affect everyday financial decisions, including events in the general economy.

Natural Disasters (1 credit)
Natural Disasters is a *semester-long course* that examines causes and effects of the major natural disasters that occur on Earth. Each disaster type will be summarized by the instructor, investigated by student groups, and explored using documentaries and other videos. The Natural Disasters examined in this course include: Volcanoes, Earthquakes, Tsunamis, Hurricanes, Tornadoes, Drought, Wildfires, and Floods.

Flying Drones: Principles of Aeronautical Science (1 credit)
An introductory course in Aeronautical Science designed to provide the student with a broad-based aviation orientation. Subjects include historical developments in aviation and the airline industry, theory of flight, airport operations, aircraft systems and performance, elements of air navigation, basic meteorology theory, air traffic principles, flight physiology, and aviation regulations and safety. This program satisfies testing requirements for the Federal Aviation Administration (FAA) Part 107 small Unmanned Aerial Systems (UAS) commercial pilot certificate (6 college credits) and has the flexibility to expand into private pilot ground school. It also satisfies the Ohio Department of Education requirements for the Technology Seal and potential industry credentials.

Psychology (1 credit)

Psychology is the study of individual behavior and why an individual thinks, feels, and reacts to certain stimuli. This course will examine research methods in this field of study, stages in childhood and adolescence, how the brain works, altered states of consciousness, psychological testing, and psychological disorders.

Robotics (1 credit)
This course introduces students to the concepts of robotics, focusing on design, construction, and programming of VEX robots. This hands-on course will incorporate problem based learning as students learn how to use robots and their programming to solve new challenges.

Industry Credentials and Graduation Seal Course Offerings
(all students will take at least one of these courses)

At SCCTC, all students have the opportunity to earn at least one industry credential or graduation seal. The following courses will help students succeed after high school and contribute to their graduation pathways in high school. Please select **one** of the following courses to take for your Industry Credential or Seal Requirement. Descriptions are below.

1. Genius Squad
2. Industry 4.0
3. Rise Up Credential
4. Service Learning
5. Student Leadership

Genius Squad (1 credit)
This course prepares students to be a "Student Technology Coach," and includes concepts around Google Suite applications, troubleshooting, repair, system/network reconfiguration, software assistance, help desk practices, etc. It will also include a "call center" for students to man for trouble-shooting purposes. This course qualifies for Credit Flexibility Course credit, Work-Based Learning, and the Technology Seal for the state of Ohio's Graduation Requirements. Students will also receive a Community Service Seal.

Industry 4.0 (1 credit)
SACA micro-credentials: Industry 4.0, or the industrial internet of things, is revolutionizing the way our world works. Many aspects of life are becoming more and more connected with advances in technology. This class is designed to provide a foundation of Industry 4.0 basic operations and opportunities to earn microcredentials in specific areas of interest including pneumatic systems, sensor logic systems, electrical systems, electrical motor control and more. Industry recognized micro-credentials are earned through SACA (Smart Automation Certification Alliance) and can be used on resumes and towards graduation requirements in the manufacturing pathway.

Rise Up Industry Credential (1 credit)
RISE Up is the NRF Foundation training and credentialing program that provides foundational employability skills to help people land jobs and get promoted in retail and beyond. The curriculum and exams are industry-recognized and were developed in collaboration with more than twenty retailers, including Walmart, Macy's, The Home Depot, Burlington Stores, BJs Wholesale Club and Nordstrom. The NRF Foundation has helped more than 425,000 people earn RISE Up credentials.

Students will also receive the Ohio Means Jobs Seal.

Service Learning (1 credit)
Students will utilize reading, writing, communication, and critical thinking skills to assess community needs, create project proposals, and run service-learning projects. Students will develop skills in leadership, teamwork, and civic awareness. This is an opportunity for students to pursue passion projects and use their CT skills to make a difference in the community. Students can earn the Community Service Seal to meet graduation requirements.

Student Leadership (1 credit)
This course offers a graduation pathway for students that are needing Ohio Graduation Seals. Students will focus on many aspects of leadership that will help them develop a competitive advantage in the workforce. Lean Six Sigma is a well known and highly valued training that focuses on collaboration, communication, and problem solving. Students will earn 9 points during this process and will also earn 3 points in Leadership Excellence training. Additionally, students will have the opportunity to earn the Ohio Means Jobs Readiness seal.

Special Assignments

Teacher's Assistant (Work-Based Learning)
This opportunity is available for second-level students. Students can earn work- based learning credit and assist a teacher, the main office, the guidance office, or another choice. If you are interested in this opportunity, please contact the staff member you would like to assist for approval. You need teacher or staff approval in order to have this opportunity.

Early Release/Late arrival (no credit)
This opportunity is available to seniors in good standing academically and on track to complete graduation requirements. Students must also maintain attendance and behavior requirements. Counselors need to review transcripts to approve this option. You must have your own transportation. This option will be subject to review every quarter. If students are not on track, they will need to attend the intervention lab.

Work Placement (Work-Based Learning)
Students will complete paperwork through our Work-Based Learning office to take advantage of this opportunity.

Senior Academy



The SCCTC Senior Academy is a flexible learning academy, designed to offer SCCTC seniors a chance to work or complete an internship, while completing academic requirements for graduation in a "blended learning environment." In its initial year, 2024-2025, there will be a cohort of 50 seniors. Please click on the image to the left for more information on this opportunity for students.

Virtual Course Offerings

Through SCCTC's Credit Flexibility Board Policy, students may take virtual courses to fulfill credit requirements. Students can take virtual courses for three purposes:

1. **Credit Recovery:** If students need to recover credit or earn an initial credit due to a credit deficiency, the staff at SCCTC will work to identify appropriate courses for recovery, in conjunction with counselors at the students' home schools.
2. **Industry Credential:** Students who need an industry credential or graduation seal to graduate can do so through virtual course offerings. This would be determined in conjunction with home school counselors.
3. **Virtual Electives:** Students have the opportunity to select a virtual course option that may not be offered through our other Course & Career Program of Study offerings when applicable.

Academic Core Course Options: (1 credit each)

Math Courses:
Algebra 1 (A/B), Geometry (A/B), Algebra 2 (A/B), Consumer Math (A/B), Honors Algebra 1 (A/B), Honors Geometry (A/B), Data Analysis, Probability, & Statistics

Science Courses:
Physical Science (A/B), Honors Physical Science (A/B), Biology (A/B), Honors Biology (A/B), Environmental Science (A/B), Chemistry (A/B)

Social Studies:
Modern World History (A/B), Honors Modern World History, U.S. History (A/B), U.S. Government (A/B)

English Courses:
English 9 (A/B), English 10 (A/B), English 11 (A/B), English 12 (A/B) and Honors English 9 (A/B), Honors English 10 (A/B)

Foreign Languages:
Spanish 1-3

Wellness Course Options: (Credit as listed)

Health (0.5 credit)
In this course the student will be able to identify and understand major concepts regarding: Mental/Emotional Health, Social Well-Being, Bodily Functions, Human Sexuality, Alcohol and Drug Awareness, Fitness and Nutrition, and Disease and Illness.

Life Skills (0.5 credit)
This course meets the financial literacy requirement. Life Skills is a course created to help students with true "real life" skills for their lives now and in the future. It touches on a variety of content areas to help students feel more prepared once they take their next steps in life - whether that is college, trades, military, etc. The goal is that students who take this course will see the personal application of content.

Personal Growth & Wellness (0.5 credit)
Personal Growth and Wellness is a course designed for students to be able to become self-aware about themselves and others around them. Students will learn to identify and regulate emotions, how to set goals, how to become a productive citizen in their community, how to effectively communicate with others, and how to make decisions.

Physical Education 1 (0.25 credit)
Physical Education 2 (0.25 credit)
Physical Education 1 is developed around the importance of lifelong physical activity for everyone. This course will focus on being active while learning about the body, muscles, sports, and lifelong enjoyment of physical activities.

Physical Education 2 course focuses on project-based learning through applying physical fitness into daily living. Students will understand major concepts involving in-depth knowledge application of physical movement, bodily functions, and healthful living. Students will be exposed to a variety of lifelong physical activity and impact on lifelong health.

Psychology (1 credit)
Psychology is the study of individual behavior and why an individual thinks, feels, and reacts to certain stimuli. This course will examine research methods in this field of study, stages in childhood and adolescence, how the brain works, altered states of consciousness, psychological testing, and psychological disorders.

Elective Course Options: (Credit as listed)

Career Exploration (0.5 credit)
This course opens the door for students to explore their interests and skill sets that will help lead them to a career path that is suitable and relative to their findings. The information acquired will empower the students as they make choices about career paths.Students will research and explore a variety of careers throughout this course.

Creative Writing (0.5 credit)
This course is designed for students to explore the world of creative prose/poetry and grow their skills as writers. Students will gain basic knowledge in multiple forms of creative writing, including poetry, fictional writing and screenplay/script writing. Students will also be required to apply the conventions and mechanics associated with the different types of writing they produce.

Digital Storytelling (0.5 credit)
This course is designed for students to explore digital storytelling and learn best practices for planning, writing, recording, and producing powerful digital stories. Students will follow steps of a

digital storytelling process and build skills to produce their own digital story on a topic of their choice. The final project could take the form of a video, photo story, podcast, or "scrollytelling" (web stories in which a user scroll to navigate through text, audio, visuals, etc.).

Drawing & Painting (0.5 credit)
This course covers basic concepts and practice of drawing with accuracy and shading and painting with acrylics and watercolor. This includes the understanding of drawing with accuracy while creating depth and value using 1 point perspective and shading techniques, as well as addresses aesthetic principles as they relate to composition, space, light sources to highlight, shadowing and developing color using the standard color wheel.

Digital Literacy (0.5 credit)
Digital Literacy is designed to provide students with many of the needed digital and computer literacy skills necessary to prepare for accessing, creating, evaluating, applying and communicating ideas and information. Students will gain a better understanding and application of a wide range of digital learning tools. Safety, use of technology, critical thinking and problem-solving skill attainment are embedded throughout the course.

Everyday Sculpture (0.5 credit)
Everyday Sculpture is an elemental introduction to the skills required to make 3D sculptural objects. Through building, design, techniques, basic contemporary sculpture history and theory that introduce new concepts and materials, this class examines the historic position of sculpture and builds a working, personalized knowledge of how it exists today as a 21st century art practice.

Introduction to Sports History (0.5 credit)
Introduction to Sports History is a semester course in which students will examine the ways in which sports reflect values, trends, and movements in society. Sports play a major role in American culture and form a substantial part of many people's identities. Therefore, we can study society's past, present, and future relationships with sports. We will examine sports' intersection with social issues, economics, and history.

Photography & Digital Art (0.5 credit)
This course covers basic concepts and practice of digital art and photography, including understanding and use of the photopea, snapseed, pixlr, and google apps. The course will also cover basic computer and photographic equipment. As well as address aesthetic principles as they relate to composition, space, exposure, light and color.

College Credit Plus Program (CCP)

College Credit Plus is Ohio's dual enrollment program that provides students in grades 7-12 the opportunity to earn college and high school credits at the same time by taking courses from Ohio colleges or universities. The purpose of this program is to enhance students' career readiness and postsecondary success, while providing a wide variety of options to college-ready students, at no or limited costs to students and families.

In order to participate, students must apply for admission to an Ohio public or participating private college. The college will determine your eligibility and admit you based on your college-readiness in one or more subject areas. Additionally, participants must submit a letter of intent to participate no later than April 1st, during the school year before which they wish to take CC+ courses.

Additional information can be found at www.ohiohighered.org/ccp and CCP @ CTC. It is required that students discuss this programming with their school counselor before participating.

Please Note: Classes are scheduled based upon student requests. However, due to schedule conflicts and changes in course offerings, the staff cannot guarantee that students will be scheduled for all courses they request. Therefore, it is very important that students list alternatives in case of class conflicts. In addition, be aware that the school builds a master schedule and employs teachers based on students' requests; therefore, schedule changes after the deadline will only be considered on a very limited basis. Students should see their school counselor for a list of the schedule change requests that will be honored and the deadline by which these requests must be submitted.

NCAA Requirements: Students wanting to meet NCAA eligibility requirements must meet with their SCCTC counselor to ensure they are enrolled in NCAA approved courses.