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Career Pathway Courses

**Ag, Food & Natural Resources**

**FOOD SCIENCE, DIETETICS & NUTRITION**
- DE Foundation of Nutrition 1020
- Food and Nutrition 1
- Food and Nutrition 2
- Medical Anatomy and Physiology
- *Dietetics
- *Food Science

**Architecture and Construction**

**ARCHITECTURAL DESIGN (CAD)**
- CAD Architectural Design 1
- CAD Architectural Design 2
- CAD Architectural Design 3
- *Carpentry 1
- *Construction Trades Foundation

**INTERIOR DESIGN**
- CAD Architectural Design 1
- Digital Graphics Art, Intro
- Interior Design 1
- Interior Design 2
- Marketing 1
- *Interior Design 3

**FASHION APPAREL & TEXTILES**
- Digital Graphic Arts, Intro
- Fashion Design Studio
- Screen Printing Technology
- Sewing and Textile Design 1
- Sewing and Textile Design 2
- *Sports and Outdoor Design 1

**GRAPHIC DESIGN & COMMUNICATIONS**
- Commercial Arts 1
- Commercial Arts 2
- Commercial Photo 1
- Commercial Photo 2
- Digital Graphic Arts, Intro
- Production Graphics 1
- Screen Printing Technology

**Business, Finance & Marketing**

**ACCOUNTING & FINANCE**
- Accounting 1
- Accounting 2
- Business Law
- Digital Graphic Arts, Intro
- Economics
- Entrepreneurship
- Sports and Entertainment Marketing
- Web Development 1
- *Business and Marketing Capstone

**BUSINESS ADMINISTRATION**
- Accounting 1
- Business Law
- Business Management
- Economics
- Entrepreneurship
- Leadership Principles 1
- Leadership Principles 2
- Sports and Entertainment Marketing
- *Business and Marketing Capstone
BUSINESS INFORMATION MANAGEMENT

Accounting 1
Business Law
Business Office Specialist
Digital Graphic Arts, Intro
Economics
Entrepreneurship
Sports and Entertainment Marketing
Web Development 1
*Business and Marketing Capstone

MARKETING

Accounting 1
Business Law
Digital Graphic Arts, Intro
Digital Marketing
Economics
Entrepreneurship
Marketing
Sports and Entertainment Marketing
Web Development 1
*Business and Marketing Capstone

Computer Science & Info Tech

CYBERSECURITY

Computer Programming 1
Computer Science Principles 1
Web Development 1
*Cybersecurity Forensics
*Linux Fundamentals

PROGRAMMING & SOFTWARE DEVELOPMENT

Computer Programming 1
Computer Programming 2
Computer Programming, Advanced
Computer Science Principles 1
Game Development Fundamentals 1
Information Technology, Intro
Mobile Development Fundamentals
*Algorithm and Data Structures

WEB DEVELOPMENT

Computer Science Principles 1
Digital Graphics Art, Intro
Entrepreneurship
Information Technology, Intro
Web Development 1
*Algorithm and Data Structures
*GIS Remote Sensing
*Web Development 2
*Web Development Capstone

Education & Training

PRE-K: EARLY CHILDHOOD EDUCATION

Early Childhood Education 1
Child Development
Food and Nutrition 1
Early Childhood Education 2
Early Childhood Education 3

K-12: TEACHING AS A PROFESSION

CE College Algebra 1050
CE College Writing 1010
DE Human Development 1100
Teaching as a Profession 1
Teaching as a Profession 2

Engineering & Technology

ENGINEERING

CAD Architecture Design 1
CAD Mechanical Design 1
Electronics 1
Electronics 2
Engineering Principles 1
Engineering Principles 2
Robotics 1
Robotics 2
Welding Technician, Entry Level
Woods 1
*Engineering Capstone
MECHANICAL DESIGN (CAD)
- CAD Mechanical Design 1 (recommended)
- CAD Mechanical Design 2
- CAD Mechanical Design 3
- Welding Technician, Entry Level

Health Science

HEALTH SCIENCE
- Biotechnology
- Emergency Medical Response
- Exercise Science/Sports Medicine
- Medical Anatomy and Physiology
- Medical Assistant
- Medical Terminology

Hospitality & Tourism

CULINARY ARTS
- ProStart 1 (recommended)
- Food and Nutrition 1
- ProStart 2
- *Baking and Pastry
- *Culinary Arts 1
- *Culinary Arts 2

HOSPITALITY & TOURISM
- Accounting 1
- Business Law
- Economics
- Digital Graphic Arts, Intro
- Marketing 1
- Web Development 1
- *Event Planning and Management
- *Business and Marketing Capstone

Human Services

PERSONAL CARE SERVICES
- Accounting 1
- Business Management

Manufacturing

WELDING & MACHINING
- Welding Technician, Entry Level
- Welding Technician, Intermediate Level
- Welding Technician, Advanced Level
- *American Welding Society Level 1 Welder (Certification)

Transportation, Distribution & Logistics

AUTO MECHANICS & LOGISTICS
- ASE Chassis MLR
- ASE Engine MLR
- Automotive, Intro (recommended)
- Collision 1 (recommended)
- Collision 3
- Electronics 1
- Welding Technician, Entry Level
- *Collision 2

DIESEL
- Automotive, Intro
- Electronics 1
- Welding, Entry Level
**Food Science, Dietetics & Nutrition**

**Workforce Trends:**
According to the U.S. Department of Labor, dietitians and nutritionists held 70,900 jobs nationwide in 2018. Employment of dietitians and nutritionists is projected to increase 11% nationwide through the year 2028.

In Utah, a dietitian and a nutritionist must be licensed. From hospitals to care facilities to grocery stores to schools, businesses and organizations in Utah utilize the expertise of dietitians and nutritionists. By the year 2026, the average annual growth rate for this occupation in Utah is projected to increase 3%.

**FACS – Student Organization:**
FCCLA is the CTSO for students in the Food Science, Dietetics and Nutrition Career Pathway. FCCLA provides students with opportunities to attain the knowledge, skills, and leadership characteristics necessary to succeed in life and careers. FCCLA has chapters in both Provo High School and Timpview High School.

**Sample Occupations:**
- Food Protections Manager
- Food Inspector Assistant
- Food Sanitation Coordinator
- Research and Development Technician
- CTE Teacher
- Dietitian/Nutritionist
- Food Scientist
- Nutrition Education Specialist
- Research Technician

**Collegiate or Technical Programs:**
- Brigham Young University
- University of Utah
- Utah State University
- Weber State University
Career Pathway: Food Science, Dietetics & Nutrition

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<tr>
<th>EXPLORER COURSES</th>
<th>CREDITS</th>
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<th>MTECH</th>
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Note: PCSD Pathway Completer Criteria: total earned credits of 3.0 or more, including a required concentrator course. To enhance your pathway background, it is recommended to also take completer courses.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.

**EXPLORER COURSES**

**Food and Nutrition 1 (recommended)**

- **Duration:** Semester (0.5)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This course is designed to focus on the science of food and nutrition. Experiences will include food safety and sanitation, culinary technology, food preparation and dietary analysis to develop a healthy lifestyle with pathways to career readiness. Laboratory based experiences strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course.

**DE Human Development 1100**

- **Duration:** Semester (0.5)
- **Grades:** 9-12
- **Graduation:** Qualifies for (SS, CTE)
- **Prerequisite:** None
- **Description:** This class covers the development of the human from the first stages of life in the womb through old age. It discusses the norms and abnormalities of human development from a biological and social point of view. This course fulfills the required Behavioral Science for Nursing and other medical fields.

**Medical Anatomy & Physiology**

- **Duration:** Year (1.0)
- **Grades:** 10-12
- **Graduation:** Qualifies for (SE, H, CTE)
- **Prerequisite:** None
- **Description:** This full-year course provides students with an in-depth study of healthcare careers including actual clinical experience in a variety of areas. Instruction includes intermediate anatomy & physiology, medical terminology, diseases and disorders, medical ethics and first aid. The class is designed to prepare students for the Advanced Health Science course and/or for a variety of health technology programs.
CONCENTRATOR COURSES

Food and Nutrition 2
Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: Food and Nutrition 1
Description: This course is designed to focus on principles of food preparation, sports nutrition, consumerism, and career options in the food industry. The study and application of nutrition, sanitation, food sciences and technology in this course provides students with laboratory-based experiences that will strengthen their comprehension of concepts and standards outlined in Science, Technology, Engineering and Math (STEM) education. FCCLA may be an integral part of this course.

COMPLETER COURSES

*Dietetics
(State ready by SY 2021-22)
Duration: TBD
Grades: TBD
Graduation: Qualifies for (CTE)
Prerequisite: TBD
Description: TBD

*Food Science
Duration: 0.5
Grades: 9-12
Graduation: Required (CTE)
Prerequisite: Foods and Nutrition 1 & 2
Description: This course teaches scientific principles and how those principles can be applied to improve the health of individuals and families. Instruction is given concerning the physical, microbiological, and chemical principles that affect the food we eat. This course will strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. Student leadership (FCCLA) may be an integral part of the course.

DE Foundation of Nutrition
UVU Title: NUTR 1020
Duration: Spring
Graduation Credit: 0.5
Collegiate Credit: 3.0
Grades: 11-12
Graduation: Qualifies for (H, CTE)
Prerequisite: Minimum 3.0 GPA
Description: This course is for students who are particularly interested in the health professions, such as nursing. This course covers basic principles of human nutrition and studies factors that influence nutritive requirements and maintenance of nutritional balance. It examines relationships between proper nutrition and social, mental and physical well-being.
CTE Internship

Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship

Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
**Architectural Design (CAD)**

**Workforce Trends:**

Computer Aided Design (CAD) technologies have allowed architects to do more work without the help of drafters, making it easier to share the work with engineers, contractors, and clients.

According to the U.S. Department of Labor, employment of architects is projected to grow 8% nationwide through the years 2028. In Utah, projected growth is 2.6% through the year 2026. Business expansion will provide the majority of job openings in the coming decade. In Utah, an architect must be licensed. From commercial to residential, Utah is home to more than 900 architects and building designers.

**TSA – Student Organization:**

TSA is the CTSO for students in the Architectural Design (CAD) Career Pathway. TSA fosters personal growth, leadership, and opportunities in science, technology, engineering, and mathematics (STEM).

**Sample Occupations:**

- Architectural Drafter
- Civil Drafter
- Architect
- Architectural and Engineering Manager
- CTE Teacher
- Civil Engineer
- Landscape Architect
- Secondary Education Teacher
- Surveyor

**Collegiate & Technical Programs:**

- Bridgerland Technical College
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University

**Provo City School District**
# Career Pathway: Architectural Design (CAD)

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Note: PCSD Pathway Completer Criteria: total overall credits of 3.0 or more, including a required concentrator course. *Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.*

## EXPLORER COURSES

**CAD Architectural Design 1 (recommended)**

or CE CAD Architectural Design 1090

**Duration:** Semester (0.5)

**Grades:** 10-12

**Graduation:** Qualifies for (CTE)

**Prerequisite:** None

**Description:** The first in a sequence of courses that prepare individuals for careers in the Architecture, Engineering, and Construction (AEC) industry. This course includes instruction in 2D or 3D Computer-Aided Design (CAD) software to draw a small residential home with an emphasis on blueprint reading.

**Carpentry 1 or CE Carpentry 1190**

**Duration:** Year (1.0)

**Grades:** 10-12

**Graduation:** Qualifies for (CTE)

**Prerequisite:** None

**Description:** This is the first in a sequence of courses that prepares individuals to layout, fabricate, erect, install, and repair wooden structures and fixtures using hand and power tools. Includes instruction in common systems of framing, construction materials, blueprint reading, concrete placing, siding, and mechanical systems.

**Construction Trades Foundation**

**Duration:** Semester (0.5)

**Grades:** 10-12

**Graduation:** Qualifies for (CTE)

**Prerequisite:** None

**Description:** A course that generally prepares individuals in the following areas: basic safety, introduction to blueprint reading, introduction to power tools, introduction to hand tools, and introduction to construction math. It also includes an industry overview, what to expect on the job and specific career opportunities. It is designed to allow for replica house building on a ¼"=1'-0" scale. This course is based on the current National Center for construction Education and Research (NCCER) task list.
CONCENTRATOR COURSES

CAD Architectural Design 2
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: CAD Architectural Design 1
Description: The second in a sequence of courses that prepare individuals for careers in the Architecture, Engineering, and Construction (AEC) industry. This course includes instruction in 3D Computer-Aided Design (CAD) software to design and model a small residential home with an emphasis on residential methods and materials of construction, codes, and Building information Modeling (BIM).

CAD Architectural Design 3
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: CAD Architectural Design 1
Description: The second in a sequence of courses that prepare individuals for careers in the Architecture, Engineering, and Construction (AEC) industry. This course includes instruction in 3D Computer-Aided Design (CAD) software to model a small commercial building with an emphasis on commercial methods and materials of construction, codes, and Building Information Modeling (BIM).

CTE Internship
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:
According to the U.S. Department of Labor, employment of interior designers is projected to grow 4% nationwide through the year 2028. Economic expansion, growing homeowner wealth, and an increased interest in interior design will increase demand for interior designers. According to the Utah Department of Workforce Services, there are 1,651 architectural and engineering services firms in Utah and 476 specialized design services firms.

FCCLA – Student Organization:
FCCLA is the CTSO for students in the Interior Design Career Pathway. FCCLA provides students with opportunities to attain the knowledge, skills, and leadership characteristics necessary to succeed in life and careers. Provo High School and Timpview High School have FCCLA Chapters.

Sample Occupations:
- Photo Stylist
- Architect
- CTE Teacher
- Interior Designer
- Sales Manager
- Set and Exhibit Designer

Collegiate & Technical Programs:
- LDS Business College
- Salt Lake Community College
- Utah State University
- Weber State University
# Career Pathway: Interior Design

## EXPLORER COURSES

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<tr>
<th>Course</th>
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Note: PCSD Pathway Completions Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.

## COMPLETER COURSES

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<th>Course</th>
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## Interior Design 1 (recommended)

**Duration:** Semester (0.5)

**Grades:** 9-12

**Graduation:** Qualifies for (CTE)

**Prerequisite:** None

**Description:** This course explores the field of interior design through engaging learning activities. Identification and use of the elements and principles of design are emphasized. Other topics are furniture arrangement, floor plan evaluation, space planning and design related careers. Skills learned can be applied to current living environments and future career options. This course will strengthen comprehension of concepts and standards outlined in Science, Technology, Engineering and Math (STEM) education. FCCLA may be an integral part of this course.

## CAD Architectural Design 1

**Duration:** Semester (0.5)

**Grades:** 10-12

**Graduation:** Qualifies for (CTE)

**Prerequisite:** None

**Description:** The first in a sequence of courses that prepare individuals for careers in the Architecture, Engineering, and Construction (AEC) industry. This course includes instruction in 2D or 3D Computer-Aided Design (CAD) software to draw a small residential home with an emphasis on blueprint reading.

## Digital Graphic Arts, Intro

**Duration:** Semester (0.5)

**Grades:** 9-12

**Graduation:** Qualifies for (CTE)

**Prerequisite:** None

**Description:** This course is designed to provide students with the basic knowledge and skills related to the graphic design industry. It is intended to serve as a starting point for several pathways including Digital Media, Graphics and Printing, 3D Animation and Game Development. This includes instruction and hands-on assignments in the following areas: creative design & layout, typography, color, related software, and computer and professional skills.

## Marketing 1

**Duration:** Semester (0.5)

**Grades:** 10-12

**Graduation:** Qualifies for (CTE)

**Prerequisite:** None

**Description:** Marketing 1 explores the seven core functions of marketing which include: Marketing Planning – why target market and industry affects businesses; Marketing-Information Management – why market research is important; Pricing – how prices maximize profit and affect the perceived value; Product/Service Management – why products live and die; Promotion – how to inform customers...
about products; Channel Management – how products reach the final user; and Selling – how to convince a customer that a product is the best choice. Students will utilize knowledge in hands-on projects which may include: Conducting research, creating a promotional plan, pitching a sales presentation, and introducing an idea for a new product/service. creative design & layout, typography, color, related software, and computer and professional skills.

**CONCENTRATOR COURSES**

**Interior Design 2**

Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: Interior Design 1
Description: This course provides students the opportunity to develop skills in applying the elements and principles of design to interiors. Projects are integrated throughout the course to provide applications as the students' study: architecture, furniture styles and constructions, surface treatments and backgrounds, design and function of space and lighting. This course will strengthen comprehension of concepts and STRANDSs outlined in Science, Technology, Engineering and Math (STEM) education. FCCLA may be an integral part of this course.
**COMPLETER COURSES**

*Interior Design 3*
- Duration: Semester (0.5) to Year (1.0)
- Grades: 11-12
- Graduation: Qualifies for (CTE)
- Prerequisite: Interior Design 1 & 2
- Description: This course provides students the opportunity to develop industry skills in applying previous content acquired in Interior Design 1 and 2. Projects are integrated throughout the course to provide students with hands-on application as they explore careers in interior design, programming and design development, design technology, product specification, sustainability, and universal design. A coordinated project that allows application of interior design skills in a residential, commercial, or school setting may be a component of this course. The study and application of textile and material sciences and technology in this course provide students with laboratory-based experiences that will strengthen their comprehension of concepts and standards outlined in Science, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be an integral part of the course.

CTE Internship
- Duration: Semester (0.5)
- Grades: 11-12
- Graduation: Qualifies for (CTE)
- Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
- Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

Technological improvements in the industry mean greater efficiencies in the workplace. Growth is expected to stem from businesses, schools, and radio and television stations seeking new equipment to improve their audio and video capabilities. According to the U.S. Dept. of Labor, employment of broadcast and sound engineering technicians is projected to increase 8% nationwide through the year 2028.

SkillsUSA – Student Organization:

SkillsUSA is the CTSO for students in the Broadcasting & Digital Media Career Pathway. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship, and character development. Provo High School & Timpview High School both have chapters of SkillsUSA.

Sample Occupations:

- Video Editor
- Sound Engineering Technician
- Audio Video Equipment Technician
- Broadcast Technician Communication Equipment
- Radio Broadcaster
- Sound Engineering Technician
- Announcer
- Camera Operator
- Film and Video Editor
- Producer and Director

Collegiate or Technical Programs:

- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
### Career Pathway: Broadcasting & Digital Media

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### EXPLORER COURSES

#### Computer Science Principles 1 or CE Computer Science Principles 1030

**Duration:** Semester (0.5)  
**Grades:** 10-12  
**Graduation:** Qualifies for (S, DS, CTE)  
**Prerequisite:** Digital Literacy  
**Description:** An introductory course in program engineering and applications. The course introduces students to the fundamentals of computer programming. Students will learn to design, code, and test their own programs while applying mathematical concepts. Teachers introduce coding concepts and problem-solving skills to beginning students through a programming language such as C++, C#, Java, Python, or JavaScript. Students will also be introduced to more complex data structures and their uses, including arrays and classes. Students will learn to create more powerful programs. (*Semester 2 – Language Specific*)

#### Computer Programming 1 or CE Computer Programming 1200

**Duration:** Year (1.0)  
**Grades:** 10-12  
**Graduation:** Qualifies for (DS, ME, CTE)  
**Prerequisite:** Computer Science Principles  
**Description:** An introductory course in program engineering and applications. The course introduces students to the fundamentals of computer programming. Students will learn to design, code, and test their own programs while applying mathematical concepts. Teachers introduce coding concepts and problem-solving skills to programming language such as C++, C#, Java, Python, or JavaScript. Students will also be introduced to more complex data structures and their uses, including arrays and classes. Students will learn to create more powerful programs. (*Semester 2 – Language Specific*)
**Digital Graphic Arts Intro**
Duration: Semester (0.5) or Year (1.0)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This course is designed to provide students with the basic knowledge and skills related to the graphic design industry. It is intended to serve as a starting point for several pathways including Digital Media, Graphics and Printing, 3D Animation and Game Development. This includes instruction and hands-on assignments in the following areas: creative design & layout, typography, color, related software, and computer and professional skills.

**Game Development Fundamentals or CE Game Development Fundamentals 1610**
Duration: 0.5
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: Intro to Graphics Communication, Digital Graphic Art, Intro, Digital Media 1, suggested Computer Programming 1
Description: This course is designed to provide students with knowledge and project-based experience of fundamental gaming development concepts relating to STEM. These concepts include game design, scripting, creation of digital assets, graphic resources, animations, understanding hardware, problem solving, critical thinking, collaboration, and project management.

**Screen Printing Technology**
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This course is designed to provide students with the knowledge to create, produce and reproduce visual graphics that communicate to an audience. Develop the knowledge and skills relative to the graphic design & screen-printing industries. Includes instruction and hands-on experiences in design & layout, digital prep of designs, and multiple color printing processes on various substrates. Provides an overview of the screen-printing and print making industries on the commercial level. Instruction includes the use of industry standard graphics software with the Adobe Creative Suite.

**Web Development 1 or CE Web Development 2420**
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (DS, CTE)
Prerequisite: None
Description: Web Development is a course designed to guide students in a project-based environment, in the development of up-to-date concepts and skills that are used in the development of today’s websites. Students will learn what it takes for a career in Web Development as they complete projects and create their own web site. Students will learn the fundamentals of how the internet works. They will learn and use the basic building blocks of the World Wide Web; HTML5 coding, Cascading Style Sheets (CSS), and JavaScript. They will follow the steps to create a website by planning, designing, developing, deploying, and maintaining of website projects. Students will learn and use different scripting technologies to create more dynamic and interactive websites. They will learn what it takes for a career in Web Development as they complete projects and create their own website(s).
## Digital Media 1 or
### CE Digital Media 1110
**Duration:** Semester (0.5)  
**Grades:** 9-12  
**Graduation:** Qualifies for (CTE)  
**Prerequisite:** Suggested - Art/Drawing  
**Description:** Digital Media is the process of analyzing, designing and developing interactive media. Digital media 1 is the first-year digital media course where students will create and learn digital media applications while using elements of text, graphics, animation, sound, video, and digital imaging for various formats. These abilities will prepare students for entry-level multimedia positions and provide fundamental 21st Century Learning skills beneficial for other occupational & educational endeavors.

## TV Broadcasting 1
**Duration:** Semester (0.5)  
**Grades:** 10-12  
**Graduation:** Qualifies for (CTE)  
**Prerequisite:** None  
**Description:** This course is designed to provide students with the basic knowledge and skills related to the television broadcasting industry. This includes instruction and hands-on assignments in the following areas: camera operation, audio systems, lighting systems, pre-production, studio operations, control room operations, visual effects and graphics, and copyright laws.

## Video Production 1 or
### CE Video Production 1061
**Duration:** Semester (0.5)  
**Grades:** 10-12  
**Graduation:** Qualifies for (CTE)  
**Prerequisite:** None  
**Description:** This course is designed to provide students with the basic knowledge and skills related to the video production industry. This includes instruction and hands-on assignments in the following areas: camera operation, audio systems, lighting systems, pre-production, studio operations, control room operations, visual effects and graphics, and copyright laws.
COMPLETER COURSES

Digital Media 2
Duration: Year (1.0)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: Digital Media 1
Description: Digital Media 2 is a course designed to teach the process of planning, instructional design, development, and publishing of digital media and interactive media projects. Digital media 2 is the second-year course within digital media pathway where students will focus on developing advanced skills to plan, design, and create interactive projects using the elements of text, 2-D and 3-D graphics, animation, sound, video, digital imaging, interactive projects, etc. These skills can prepare students for entry-level positions and other occupational and educational goals.

Video Production 2 or
CE Video Production 2110
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: Video Production 1
Description: This course is designed for students who want to further enhance their filmmaking knowledge and abilities. It is an application of the skills learned in Video Production 1 with an additional emphasis on advanced techniques in cinematography, audio production, postproduction, and storytelling. Students are expected to create a portfolio by the end of the course.

TV Broadcasting 2
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: TV Broadcasting 1
Description: This course is designed to provide students with the advanced knowledge and skills related to the television broadcasting industry. This includes instruction and hands-on assignments in the following areas: camera operation, audio systems, lighting systems, pre-production, studio operations, control room operations, visual effects and graphics, and copyright laws.

CTE Internship
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

Employment growth for fashion designers will stem from a growing population demanding more clothing, footwear, and accessories. The best job opportunities will be in design firms that design mass market clothing sold in department stores and retail chain stores, such as apparel wholesale firms. From theater and dance to music and acting numerous performing arts companies call Utah home, employing individuals in fashion design, fashion merchandising, costuming, technical apparel design, and custom dressmaking.

FCCLA – Student Organization:

FCCLA is the CTSO for students in the Fashion Apparel and Textiles Career Pathway. FCCLA provides students with opportunities to attain the knowledge, skills, and leadership characteristics necessary to succeed in life and careers.
## Career Pathway: Fashion Apparel & Textiles

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### EXPLORER COURSES

#### Fashion Design Studio

- **Duration:** Semester (0.5)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Complete the concentrator course
- **Description:** This course explores how fashion influences everyday life and introduces students to the fashion industry. Topics covered include: fashion fundamentals, elements and principles of design, textiles, consumerism, and fashion related careers, with an emphasis on personal application. This course will strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. FCCLA and/or DECA may be an integral part of this course.

#### Sewing Construction and Textiles 1 (Recommended)

- **Duration:** Semester (0.5)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This course introduces students to basic apparel design and construction skills. These skills prepare students for the exciting global apparel industry and entrepreneurial opportunities. Students will sew apparel and accessory projects. This course will strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course.

#### *Sports and Outdoor Design 1*

- **Duration:** Semester (0.5)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** Students learn basic design and construction skills using technical fabrics to make projects for the outdoor/sports industry. The skills will introduce and prepare students for employment opportunities in the outdoor/sports industry. This course will strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course.
### Digital Graphic Arts, Intro

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<td>Description</td>
<td>This course is designed to provide students with the basic knowledge and skills related to the graphic design industry. It is intended to serve as a starting point for several pathways including Digital Media, Graphics and Printing, 3D Animation and Game Development. This includes instruction and hands-on assignments in the following areas: creative design &amp; layout, typography, color, related software, and computer and professional skills.</td>
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### Screen Printing Technology

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<td>This course is designed to provide students with the knowledge to create, produce and reproduce visual graphics that communicate to an audience. Develop the knowledge and skills relative to the graphic design &amp; screen-printing industries. Includes instruction and hands-on experiences in design &amp; layout, digital prep of designs, and multiple color printing processes on various substrates. Provides an overview of the screen-printing and print making industries on the commercial level. Instruction includes the use of industry standard graphics software with the Adobe Creative Suite.</td>
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### Sewing Construction and Textiles 2

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<td>Description</td>
<td>Students will further strengthen and broaden apparel design and production techniques. In this course they design and construct intermediate level projects using various construction techniques. These skills prepare students for the exciting global apparel industry and entrepreneurial opportunities. This course will strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course.</td>
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</table>
Workforce Trends:

Graphic Design and Communications is the field of the future and is rapidly growing. Because our global economy is driven by technology, digital media is one of the most in demand fields.

“The talent pool of computer engineers, digital artists and animators in Utah is astounding,” said WildWorks CEO Clark Stacey. “The workforce talent here is perennially refreshed not only by in-state colleges and universities, but by seasoned professionals fleeing the congestion and high cost of living in other hub cities like San Francisco and Seattle.” Silicon Slopes Magazine, Spring 2017.

FBLA, SkillsUSA, & TSA – Student Organizations:

Students who participate in the Graphic Design and Communications Career Pathway can participate in one or all three of the CTSO organizations: FBLA, SkillsUSA, & TSA. Provo High School and Timpview High School both have chapters in all three CTSO organizations.

Sample Occupations:

- Commercial Photographer
- Web Developer
- Art Director
- Camera Operator
- Commercial Designer
- Fashion Designer
- Graphic Designer
- Multimedia Animator
- Multimedia Artist
- Multimedia Artist and Animator
- Software Developer
- Web Administrator

Collegiate & Technical Programs:

- Davis Technical College
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
# Career Pathway: Graphic Design & Communications

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*Note: PCSD Pathway Completer Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.

## EXPLORER COURSES

### Commercial Arts 1 (Recommended) or CE Commercial Arts 1120

- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (FA, CTE)
- **Prerequisite:** Design and Visual Communications
- **Description:** This is a course in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences via illustrations and other forms of digital or printed media. Instruction includes training in concept design, layout, and techniques such as screen printing, drawing, cartooning, painting, collage, and computer graphics.

### Screen Printing Technology

- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This course is designed to provide students with the knowledge to create, produce and reproduce visual graphics that communicate to an audience. Develop the knowledge and skills relative to the graphic design & screen-printing industries. Includes instruction and hands-on experiences in design & layout, digital prep of designs, and multiple color printing processes on various substrates. Provides an overview of the screen-printing and print making industries on the commercial level. Instruction includes the use of industry standard graphics software with the Adobe Creative Suite.

### Digital Graphic Arts, Intro

- **Duration:** Semester (0.5) or Year (1.0)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This course is designed to provide students with the basic knowledge and skills related to the graphic design industry. It is intended to serve as a starting point for several pathways including Digital Media, Graphics and Printing, 3D Animation and Game Development. This includes instruction and hands-on assignments in the following areas: creative design & layout, typography, color, related software, and computer and professional skills.
## CONCENTRATOR COURSES

### Commercial Arts 2 or
#### CE Commercial Arts 1400
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (FA, CTE)
- **Prerequisite:** Commercial Arts 1
- **Description:** A course in the applied visual arts that focuses on the general principles and techniques for effectively communicating ideas and information, and promoting products to business and consumer audiences. This course prepares individuals in any of the applied art media including: drawing, painting, computer graphics, and others.

### Commercial Photo 1 or
#### CE Commercial Photo 1050
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (FA, CTE)
- **Prerequisite:** None
- **Description:** This course is an introduction to the field of commercial photography. This course will cover a number of basic concepts, including but not limited to: purchasing a digital camera; image capture; image editing; and image output. This course will also feature Adobe Photoshop, its features and use. These concepts will enable the student to be more knowledgeable and prepared to enter the field of commercial photography. Camera Requirement: It is recommended that students have access to a Digital SLR camera. However, Digital Point and Shoot cameras can be used and will be covered in this course. Minimum equipment requirements for this course are cameras with removable memory cards and adjustable mode settings. Mobile devices may be used to complete some, but not all of the listed objectives.

### Production Graphics 1
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (FA, CTE)
- **Prerequisite:** Digital Graphics Art, Intro
- **Description:** This course is designed to be a continuation of Digital Graphic Arts Intro. The course prepares individuals to apply technical knowledge in the areas of design & layout, related computer and software, safety, printing processes, finishing & binding, and professional skills. The course includes instruction in printing, printing equipment and operation, computer hardware and software, digital imaging, print preparation, and electronic prepress.
COMPLETER COURSES

Commercial Photo 2
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (FA, CTE)
Prerequisite: Commercial Photo 1
Description: This course is designed for students who want to further enhance their photographic knowledge and abilities. It is an application of the skills learned in Commercial Photo 1 with an emphasis on professional jobs and assignments used in commercial photography. A portfolio of each student’s work is expected at the end of the course. Camera Requirement: Since there is an industry standard for this type of work, access to a Digital SLR camera is required for the Commercial Photo 2 course. Schools may provide necessary equipment to complete the course.
Software Requirement: Adobe Photoshop, Adobe Lightroom

CTE Internship
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Accounting & Finance

**Workforce Trends:**

Accountants, those with a CPA, continue to be in demand in both public and private industry audit and tax specialties. Demand is especially high in the tax and healthcare areas. In Utah, the average annual employment growth rate for accountants and auditors is 6% nationwide through the year 2028.

Accountant (CPA) must have a master’s degree in accounting and be licensed. The license must be renewed every two years. According to the Utah Department of Workforce Services, the median hourly wage for an experienced auditor and an accountant is $30.22.

**FBLA – Student Organization:**

FBLA is the CTSO for students in the Accounting and Finance Career Pathway. FBLA provides students with opportunities for leadership, community involvement, and career development.

**Sample Occupations:**

- Accountant
- Auditor
- CTE Teacher
- Financial Manager
- Loan Officer
- Tax Examiner

**Collegiate & Technical Programs:**

- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University

Provo City School District
### Career Pathway: Accounting & Finance

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#### COMPLETER COURSES

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<tr>
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Note: PCSD Pathway Completion Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.

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### EXPLORER COURSES

**Accounting 1 (Recommended)**
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (ME, CTE)
- **Prerequisite:** None
- **Description:** Students will develop skills beginning with and understanding of the basic elements and concepts of double-entry accounting systems related to service businesses organized as a sole proprietorship. Skills include understanding the accounting equation, analyzing business transactions, entering transactions in journals, posting to ledgers, compiling end-of-period financial statements, preparing closing entries, and managing cash.

**Business Law**
- **Duration:** Semester (0.5) or Year (1.0)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** Students will gain an understanding of the law as it relates to them currently and the implications of the law in their future lives as well as the lives of their family and friends. They will also work to gain an understanding of basic legal vocabulary. The course will include an understanding of the court system at the local, state, and national level. Students will gain an understanding of contract law, their rights and responsibilities as citizens, utilization of financial transactions, employment and agency relationships, and the understanding of the regulations governing different types of business organizations.

**Digital Graphic Arts, Intro**
- **Duration:** Semester (0.5) or Year (1.0)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This course is designed to provide students with the basic knowledge and skills related to the graphic design industry. It is intended to serve as a starting point for several pathways including Digital Media, Graphics and Printing, 3D Animation and Game Development. This includes instruction and hands-on assignments in the following areas: creative design & layout, typography, color, related software, and computer and professional skills.
Economics or CE Economics 1010

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (SS, CTE)
Prerequisite: None
Description: Economics is a social science that studies how people satisfy unlimited wants and needs with scarce resources. Characteristics of the market economy of the United States and its function in the world will be explored. Students will learn methods of applying economics to one’s life.

Entrepreneurship

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: Students will gain an understanding of the marketing and management principles necessary to start and operate their own business. They will develop an awareness of the opportunities for small business ownership and develop the planning skills needed to open a small business. Students will become aware of the traits and characteristics of successful entrepreneurs. Students will gain an awareness of knowledge needed in research, planning and regulations affecting the small business and the means of financing a small business. They will understand the specific strategies of business management and marketing and the economic role of the entrepreneur in the market system.

Sports and Entertainment Marketing

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This is an introductory course that will help students gain an understanding of marketing concepts as they apply to the sports and entertainment industry. The areas this course will cover include: core marketing standards, market segmentation, target marketing, the event marketing triangle (events, fans, and sponsors), sports and entertainment promotion and marketing plans.

Web Development 1 or CE Web Development 2420

Duration: Year (1.0)
Grades: 9-12
Graduation: Qualifies for (DS, CTE)
Prerequisite: None
Description: Web Development is a course designed to guide students in a project-based environment, in the development of up-to-date concepts and skills that are used in the development of today’s websites. Students will learn the fundamentals of how the internet works. They will learn and use the basic building blocks of the World Wide Web; HTML5 coding, Cascading Style Sheets (CSS), and JavaScript. They will follow the steps to create a website by planning, designing, developing, deploying, and maintaining of website projects. Students will learn and use different scripting technologies to create more dynamic and interactive websites. They will learn what it takes for a career in Web Development as they complete projects and create their own web site.
CONCENTRATOR COURSES

Accounting 2
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (ME, CTE)
Prerequisite: Accounting 1
Description: Students will develop advanced skills that build upon those acquired in Accounting 1. Students continue applying concepts of double-entry accounting systems related to merchandising businesses. Additional accounting skills will be developed, including preparing and journalizing payroll records, calculating and recording adjusting entries, and interpreting financial information. Exposure to automated accounting procedures is strongly encouraged.

COMPLETER COURSES

*Business and Marketing Capstone
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: The purpose of this course is to research and solve real world business needs. This course is designed for advanced business students to further their business knowledge and skills. The Business Capstone encourages students to think analytically, logically and creatively to integrate experience and knowledge in real world situations. Membership and participation in DECA and FBLA are highly encouraged.

CTE Internship
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

During the next decade a growing number of personal financial advisors will be needed to assist the millions of workers who are expected to retire. In Utah, the average annual employment growth rate for personal financial advisors is 2.4% through the year 2026.

Economists are found in state and federal businesses throughout Utah. According to the Utah Department of Workforce Services, the annual median salary of an economist is $78,260.

FBLA – Student Organization:

FBLA is the CTSO for students in the Business Management & Leadership Career Pathway. FBLA provides students with opportunities for leadership, community involvement, and career development. Provo High School and Timpview High School, both have FBLA Chapters.

Sample Occupations:

- Account Representative
- Consumer Advocate
- Dispute Resolution Analyst
- Budget Analyst
- CTE Teacher
- Credit Counselor
- Financial Manager
- Personal Financial Advisor

Collegiate & Technical Programs:

- LDS Business College
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
### EXPLORER COURSES

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### COMPLETER COURSES

- Business and Marketing Capstone: 0.5
- CTE Internship: 0.5

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**Note:** PCSD Pathway Completion Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.*

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### EXPLORER COURSES

#### Accounting 1 (recommended)
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (ME, CTE)
- **Prerequisite:** None
- **Description:** Students will develop skills beginning with and understanding of the basic elements and concepts of double-entry accounting systems related to service businesses organized as a sole proprietorship. Skills include understanding the accounting equation, analyzing business transactions, entering transactions in journals, posting to ledgers, compiling end-of-period financial statements, preparing closing entries, and managing cash.

#### Business Law (recommended)
- **Duration:** Semester (0.5) or Year (1.0)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** Students will gain an understanding of the law as it relates to them currently and the implications of the law in their future lives as well as the lives of their family and friends. They will also work to gain an understanding of basic legal vocabulary. The course will include an understanding of the court system at the local, state, and national level. Students will gain an understanding of contract law, their rights and responsibilities as citizens, utilization of financial transactions, employment and agency relationships, and the understanding of the regulations governing different types of business organizations.
### Entrepreneurship (recommended)
**Duration:** Semester (0.5)
**Grades:** 10-12
**Graduation:** Qualifies for (CTE)
**Prerequisite:** None
**Description:** Students will gain an understanding of the marketing and management principles necessary to start and operate their own business. They will develop an awareness of the opportunities for small business ownership and develop the planning skills needed to open a small business. Students will become aware of the traits and characteristics of successful entrepreneurs. Students will gain an awareness of knowledge needed in research, planning and regulations affecting the small business and the means of financing a small business. They will understand the specific strategies of business management and marketing and the economic role of the entrepreneur in the market system.

### Leadership Principles 1 (recommended)
**CE or DL Leadership Principles 1250**
**Duration:** Semester (0.5)
**Grades:** 10-12
**Graduation:** Qualifies for (CTE)
**Prerequisite:** None
**Description:** This class teaches how to be an effective leader. Concepts include leadership history, goal setting, time management, effective communication, diversity, and decision making. Students may be eligible to receive three (3) credits of concurrent enrollment at Utah Valley University.

### Marketing 1 (recommended)
**Duration:** Semester (0.5)
**Grades:** 10-12
**Graduation:** Qualifies for (CTE)
**Prerequisite:** None
**Description:** Marketing 1 explores the seven core functions of marketing which include: marketing Planning – why target market and industry affects businesses; Marketing—information Management – why market research is important; Pricing – how prices maximize profit and affect the perceived value; product/Service Management – why products live and die; Promotion – how to inform customers about products; Channel Management – how products reach the final user; and Selling – how to convince a customer that a product is the best choice. Students will utilize knowledge in hands-on projects which may include: Conducting research, creating a promotional plan, pitching a sales presentation, and introducing an idea for a new product/services.

### Economics
**Duration:** Semester (0.5)
**Grades:** 10-12
**Graduation:** Qualifies for (SS, CTE)
**Prerequisite:** None
**Description:** Economics is a social science that studies how people satisfy unlimited wants and needs with scarce resources. Characteristics of the market economy of the United States and its function in the world will be explored. Students will learn methods of applying economics to one’s life.

### Sports and Entertainment Marketing
**Duration:** Semester (0.5)
**Grades:** 10-12
**Graduation:** Qualifies for (CTE)
**Prerequisite:** None
**Description:** This is an introductory course that will help students gain an understanding of marketing concepts as they apply to the sports and entertainment industry. The areas this course will cover include: core marketing standards, market segmentation, target marketing, the event marketing triangle (events, fans, and sponsors), sports and entertainment promotion and marketing plans.

### Web Development 1 or
**CE Web Development 2420**
**Duration:** Year (1.0)
**Grades:** 9-12
**Graduation:** Qualifies for (DS, CTE)
**Prerequisite:** None
**Description:** Web Development is a course designed to guide students in a project-based environment, in the development of up-to-date concepts and skills that are used in the development of today’s websites. Students will learn the fundamentals of how the internet works. They will learn and use the basic building blocks of the World Wide Web; HTML5 coding, Cascading Style Sheets (CSS), and JavaScript. They will follow the steps to create a website by planning, designing, developing, deploying, and maintaining of website projects. Students will learn and use different scripting technologies to create more dynamic and interactive websites. They will learn what it takes for a career in Web Development as they complete projects and create their own web site.
**CONCENTRATOR COURSES**

**Business Management or CE Business Management 1010**  
Duration: Semester (0.5)  
Grades: 10-12  
Graduation: Qualifies for (CTE)  
Prerequisite: None  
Description: This Business Management course seeks to develop sound management concepts within students, as management plays a role in any future employment opportunity. Students are able to analyze, synthesize, and evaluate data from the other functional areas of business (e.g., marketing, finance, and production/operation). Effective management requires decision-making abilities, long-range planning knowledge, human relations expertise, and motivational skills. Students learn the four basic functions of management: planning, organizing, directing, and controlling.

**Leadership Principles 2**  
Duration: Semester (0.5)  
Grades: 10-12  
Graduation: Qualifies for (CTE)  
Prerequisite: Leadership Principles 1  
Description: This class teaches how to be an effective leader. Concepts include power, team management, dealing with change, and ethics. Students will also be in charge of organizing and implementing a class project. Students may be eligible to receive three (3) credits of concurrent enrollment at Utah Valley University.

**COMPLETER COURSES**

**Business and Marketing Capstone**  
Duration: Semester (0.5)  
Grades: 11-12  
Graduation: Required (CTE)  
Prerequisite: TBD  
Description: The purpose of this course is to research and solve real world business needs. This course is designed for advanced business students to further their business knowledge and skills. The Business Capstone encourages students to think analytically, logically and creatively to integrate experience and knowledge in real world situations. Membership and participation in DECA and FBLA are highly encouraged.

**CTE Internship**  
Duration: Semester (0.5)  
Grades: 11-12  
Graduation: Qualifies for (CTE)  
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship  
Description: CTE Internships provide on-the-job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

According to the Utah Department of Workforce Services, professional and business services makeup nearly 13% of Utah’s employment base. There are 23 million small businesses in the U.S., with women owning about 9.1 million.

In 2018: Amazon named Utah the #1 state for entrepreneurs. Forbes named Utah the #2 best state for business (Utah has been ranked #1 six out of the past nine years.) CNBC named Utah the #3 best state for business. WalletHub named Utah the #2 best state to start a business.

FBLA – Student Organization:

FBLA is the CTSO for students in the Business Information Management Career Pathway. FBLA provides students with opportunities for leadership, community involvement, and career development. Provo High School and Timpview High School, both have FBLA Chapters.

Sample Occupations:

- Desktop Publisher
- Legal Assistant/Paralegal
- Web Developer
- General and Operations Manager
- Marketing Manager
- Management Analyst
- Operations Manager
- Sales Manager

Collegiate and Technical Programs:

- LDS Business College
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
Career Pathway: Business Information Management

### EXPLORER COURSES

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### CONCENTRATOR COURSES

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### COMPLETER COURSES

*Business and Marketing Capstone                     | 0.5     |
CTE Internship                                       | 0.5     |

Note: PCSD Pathway Completer Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.

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**EXPLORER COURSES**

### Information Technology, Intro

**Duration:** Semester (0.5)  
**Grades:** 9-12  
**Graduation:** Qualifies for (CTE)  
**Prerequisite:** Digital Literacy  
**Description:** The Intro to IT course is for students interested in pursuing a career in the field of Information Technology. Students will be introduced to the different aspects of information technology to determine their interests. Students will complete assignments and projects in IT careers, digital media, hardware & operating systems, communications & networks, software development, databases, and new & emerging technologies.

### Accounting 1

**Duration:** Semester (0.5)  
**Grades:** 10-12  
**Graduation:** Qualifies for (ME, CTE)  
**Prerequisite:** None  
**Description:** Students will develop skills beginning with and understanding of the basic elements and concepts of double-entry accounting systems related to service businesses organized as a sole proprietorship. Skills include understanding the accounting equation, analyzing business transactions, entering transactions in journals, posting to ledgers, compiling end-of-period financial statements, preparing closing entries, and managing cash.

### Business Law

**Duration:** Semester (0.5) or Year (1.0)  
**Grades:** 10-12  
**Graduation:** Qualifies for (CTE)  
**Prerequisite:** None  
**Description:** Students will gain an understanding of the law as it relates to them currently and the implications of the law in their future lives as well as the lives of their family and friends. They will also work to gain an understanding of basic legal vocabulary. The course will include an understanding of the court system at the local, state, and national level. Students will gain an understanding of contract law, their rights and responsibilities as citizens, utilization of financial transactions, employment and agency relationships, and the understanding of the regulations governing different types of business organizations.
Digital Graphic Arts, Intro
Duration: Semester (0.5) or Year (1.0)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This course is designed to provide students with the basic knowledge and skills related to the graphic design industry. It is intended to serve as a starting point for several pathways including Digital Media, Graphics and Printing, 3D Animation and Game Development. This includes instruction and hands-on assignments in the following areas: creative design & layout, typography, color, related software, and computer and professional skills.

Web Development 1 or CE Web Development 2420
Duration: Year (1.0)
Grades: 9-12
Graduation: Qualifies for (DS, CTE)
Prerequisite: None
Description: Web Development is a course designed to guide students in a project-based environment, in the development of up-to-date concepts and skills that are used in the development of today’s websites. Students will learn the fundamentals of how the internet works. They will learn and use the basic building blocks of the World Wide Web; HTML5 coding, Cascading Style Sheets (CSS), and JavaScript. They will follow the steps to create a website by planning, designing, developing, deploying, and maintaining of website projects. Students will learn and use different scripting technologies to create more dynamic and interactive websites. They will learn what it takes for a career in Web Development as they complete projects and create their own web site.

Economics or CE Economics 1010
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (SS, CTE)
Prerequisite: None
Description: Economics is a social science that studies how people satisfy unlimited wants and needs with scarce resources. Characteristics of the market economy of the United States and its function in the world will be explored. Students will learn methods of applying economics to one’s life.

Entrepreneurship
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: Students will gain an understanding of the marketing and management principles necessary to start and operate their own business. They will develop an awareness of the opportunities for small business ownership and develop the planning skills needed to open a small business. Students will become aware of the traits and characteristics of successful entrepreneurs. Students will gain an awareness of knowledge needed in research, planning and regulations affecting the small business and the means of financing a small business. They will understand the specific strategies of business management and marketing and the economic role of the entrepreneur in the market system.
CONCENTRATOR COURSES

**Business Office Specialist**

Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (DS, CTE)
Prerequisite: None
Description: This course applies advanced concepts and principles using word processing, spreadsheets, databases, and electronic presentation software. Students may have the opportunity to obtain a Microsoft Office Specialist industry certificate through Microsoft and Certiport per district discretion. The certification is recognized worldwide as the best method for employers to validate computer skill proficiency. Students will integrate applications learned. This course builds on skills included in Digital Literacy.

COMPLETER COURSES

**Business and Marketing Capstone**

Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: 
Description: The purpose of this course is to research and solve real world business needs. This course is designed for advanced business students to further their business knowledge and skills. The Business Capstone encourages students to think analytically, logically and creatively to integrate experience and knowledge in real world situations. Membership and participation in DECA and FBLA are highly encouraged.

**CTE Internship**

Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

In Utah, the average annual employment growth rate projected for market research analysts and marketing specialists is 20% nationwide through the year 2028. The Utah Department of Workforce Services lists the median salary for a public relations specialist as $52,360.

In 2017, CNBC ranked Provo, Ogden, and Salt Lake City as one of the top twenty best places to start a business. Each metro area was hailed as a small-business hot spot. According to the Utah Business magazine, the top three public relations firms in Utah are: Fusion 360, Penna Powers, and Method Communications.

FBLA – Student Organization:

FBLA is the CTSO for students in the Marketing Career Pathway. FBLA provides students with opportunities for leadership, community involvement, and career development. Provo High School and Timpview High School, both have FBLA Chapters.

Sample Occupations:

- Art Director
- CTE Teacher
- Editor
- Graphic Designer
- Marketing Manager
- Market Research Analyst
- Marketing Specialist
- Public Relations specialist
- Sales Manager

Collegiate & Technical Programs:

- LDS Business College
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
Entrepreneurship (recommended)

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: Students will gain an understanding of the marketing and management principles necessary to start and operate their own business. They will develop an awareness of the opportunities for small business ownership and develop the planning skills needed to open a small business. Students will become aware of the traits and characteristics of successful entrepreneurs. Students will gain an awareness of knowledge needed in research, planning and regulations affecting the small business and the means of financing a small business. They will understand the specific strategies of business management and marketing and the economic role of the entrepreneur in the market system.

Marketing 1 (recommended)

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: Marketing 1 explores the seven core functions of marketing which include: marketing Planning – why target market and industry affects businesses; Marketing—information Management – why market research is important; Pricing – how prices maximize profit and affect the perceived value; product/Service Management – why products live and die; Promotional – how to inform customers about products; Channel Management – how products reach the final user; and Selling – how to convince a customer that a product is the best choice. Students will utilize knowledge in hands-on projects which may include: Conducting research, creating a promotional plan, pitching a sales presentation, and introducing an idea for a new product/services.
Sports and Entertainment Marketing (recommended)
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This is an introductory course that will help students gain an understanding of marketing concepts as they apply to the sports and entertainment industry. The areas this course will cover include: core marketing standards, market segmentation, target marketing, the event marketing triangle (events, fans, and sponsors), sports and entertainment promotion and marketing plans.

Accounting 1
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (ME, CTE)
Prerequisite: None
Description: Students will develop skills beginning with and understanding of the basic elements and concepts of double-entry accounting systems related to service businesses organized as a sole proprietorship. Skills include understanding the accounting equation, analyzing business transactions, entering transactions in journals, posting to ledgers, compiling end-of-period financial statements, preparing closing entries, and managing cash.

Business Law
Duration: Semester (0.5) or Year (1.0)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: Students will gain an understanding of the law as it relates to them currently and the implications of the law in their future lives as well as the lives of their family and friends. They will also work to gain an understanding of basic legal vocabulary. The course will include an understanding of the court system at the local, state, and national level. Students will gain an understanding of contract law, their rights and responsibilities as citizens, utilization of financial transactions, employment and agency relationships, and the understanding of the regulations governing different types of business organizations.

Digital Graphic Arts, Intro
Duration: Semester (0.5) or Year (1.0)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This course is designed to provide students with the basic knowledge and skills related to the graphic design industry. It is intended to serve as a starting point for several pathways including Digital Media, Graphics and Printing, 3D Animation and Game Development. This includes instruction and hands-on assignments in the following areas: creative design & layout, typography, color, related software, and computer and professional skills.

Economics or CE Economics 1010
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (SS, CTE)
Prerequisite: None
Description: Economics is a social science that studies how people satisfy unlimited wants and needs with scarce resources. Characteristics of the market economy of the United States and its function in the world will be explored. Students will learn methods of applying economics to one’s life.

Web Development 1 or CE Web Development 2420
Duration: Year (1.0)
Grades: 9-12
Graduation: Qualifies for (DS, CTE)
Prerequisite: None
Description: Web Development is a course designed to guide students in a project-based environment, in the development of up-to-date concepts and skills that are used in the development of today’s websites. Students will learn the fundamentals of how the internet works. They will learn and use the basic building blocks of the World Wide Web; HTML5 coding, Cascading Style Sheets (CSS), and JavaScript. They will follow the steps to create a website by planning, designing, developing, deploying, and maintaining of website projects. Students will learn and use different scripting technologies to create more dynamic and interactive websites. They will learn what it takes for a career in Web Development as they complete projects and create their own website.
CONCENTRATOR COURSES

Digital Marketing
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: The Digital Marketing course is designed to give students a general background in digital marketing and an introduction to the rapidly growing and evolving career field. Students will be exposed to the fundamental concepts and principles of the digital experience, focus on the learning tools and skills necessary for solving business problems, and developing marketing opportunities. This course will provide practical experience in, but not limited to: eCommerce, media planning, branding, online advertising, display advertising, digital campaigns, social media marketing, and mobile media.

COMPLETER COURSES

*Business and Marketing Capstone
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: TBD
Description: The purpose of this course is to research and solve real world business needs. This course is designed for advanced business students to further their business knowledge and skills. The Business Capstone encourages students to think analytically, logically and creatively to integrate experience and knowledge in real world situations. Membership and participation in DECA and FBLA are highly encouraged.

CTE Internship
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

According to the U.S. Department of Labor, employment of information security analysts is projected to grow 32% nationwide through the year 2028. Demand is expected to be very high, as these analysts will be needed to create innovative solutions to prevent hackers from stealing critical information or causing problems for computer networks.

In 2018, the Information Technology and Innovation Foundation (ITIF) ranked Utah’s state government website (Utah.gov) #1 for security, and 17th overall. “Government websites should be fast, secure, mobile-friendly, and accessible to everyone, said Daniel Castro, ITIF vice president.

Sample Occupations Requiring:

- Computer Network Support Specialist
- CTE Teacher
- Computer and Information Systems Manager
- Computer Programmer
- Information Security Analyst

Collegiate & Technical Programs:

- Stevens Henager College
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University

FBLA, SkillsUSA, TSA – Student Organization:

Students who participate in the Cybersecurity Career Pathway choose among the following CTSOs: FBLA, SkillsUSA, & TSA. Provo High School and Timpview High School, both have chapters in FBLA, SkillsUSA, & TSA.
**Career Pathway: Cybersecurity**

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Note: PCSD Pathway Complete Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board*  

**EXPLORER COURSES**

**Computer Programming 1 or CE Computer Programming 1200**
- **Duration:** Year (1.0)
- **Grades:** 9-12
- **Graduation:** Qualifies for (DS, ME, CTE)
- **Prerequisite:** Digital Literacy
- **Description:** The course places emphasis on the principles of computer science rather than just programming. Big ideas and concepts include: (1) Computing is a creative activity. (2) Abstraction reduces information and detail to facilitate focus on relevant concepts. (3) Data and information facilitate the creation of knowledge. (4) Algorithms are used to develop and express solutions to computational problems. (5) Programming enables problem solving, human expression, and creation of knowledge. 96) The Internet pervades modern computing. (7) Computing has global impacts. This fulfills the Digital Studies graduation requirement.

**Computer Science Principles 1 or CE Computer Science Principles 1030**
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (S, DS, CTE)
- **Prerequisite:** Digital Literacy
- **Description:** An introductory course in program engineering and applications. The course introduces students to the fundamentals of computer programming. Students will learn to design, code, and test their own programs while applying mathematical concepts. Teachers introduce coding concepts and problem-solving skills to beginning students through a programming language such as C++, C#, Java, Python, or JavaScript. Students will also be introduced to more complex data structures and their uses, including arrays and classes. Students will learn to create more powerful programs. (*Semester 2 – Language Specific*)
Web Development 1 or
CE Web Development 2420

Duration: Year (1.0)
Grades: 9-12
Graduation: Qualifies for (DS, CTE)
Prerequisite: None
Description: Web Development is a course designed to guide students in a project-based environment, in the development of up-to-date concepts and skills that are used in the development of today’s websites. Students will learn the fundamentals of how the Internet works. They will learn and use the basic building blocks of the World Wide Web; HTML5 coding, Cascading Style Sheets (CSS), and JavaScript. They will follow the steps to create a website by planning, designing, developing, deploying, and maintaining of website projects. Students will learn and use different scripting technologies to create more dynamic and interactive websites. They will learn what it takes for a career in Web Development as they complete projects and create their own website.

*Linux Fundamentals or
CE Linux Fundamentals 1510

Duration: Year (1.0)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: Suggested – Introduction to Information Technology
Description: The CompTIA Linux+ (Powered by LPI) certification is a vendor neutral credential. In order to receive CompTIA Linux+ certification, a candidate must pass two exams. The successful junior level Linux administrator should be able to: Work at the Linux command line; Perform easy maintenance tasks including assisting users, adding users to a larger system, executing backup & restore, shutdown & reboot; Install and configure a workstation (including X) and connect it to a LAN, or a stand-alone PC via modem to the Internet.
**COMPLETER COURSES**

*Cyber Forensics*
- **Duration:** Semester (0.5)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Digital Literacy
- **Description:** Computer hacking forensic investigation is the process of detecting hacking attacks and properly extracting evidence to report the crime and conduct audits to prevent future attacks.

**CTE Internship**
- **Duration:** Semester (0.5)
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Directly related to CCRP & previously or currently taking CTE class associated with internship
- **Description:** CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Sample Occupations:
- Web Developer
- CTE Teacher
- Computer Programmer
- Computer Systems Analyst
- Computer Systems Engineers/Architect
- Software Developer
- Video Game Designer

Collegiate & Technical Programs:
- Davis Technical College
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University

Workforce Trends:
Demand continues for programmers who can help organizations keep up with changing technology. Prospects are best for those who have the knowledge of various programming languages. In Utah, the average annual employment growth rate for software developers is 7.1% through the year 2026.

Silicon Slopes was formed to promote Utah’s growing technology community and is home to more than 5,000 tech companies that has generated 142,500 jobs. From Ogden to Provo, technology companies dot the landscape. Pluralsight, Insidesales.com, Qualtrics, Vivint, Entrata, HealthCatalyst all started in Utah.

FBLA, SkillsUSA, & TSA – Student Organizations:
Students who participate in the Programming and Software Development Career Pathway choose among the following CTSOs: FBLA, SkillsUSA, & TSA. Provo High School and Timpview High School both have chapters in FBLA, SkillsUSA, & TSA.
Computer Programming 1 or
CE Computer Programming 1200
Duration: Year (1.0)
Grades: 9-12
Graduation: Qualifies for (DS, ME, CTE)
Prerequisite: Digital Literacy
Description: The course places emphasis on the principles of computer science rather than just programming. Big ideas and concepts include: (1) Computing is a creative activity. (2) Abstraction reduces information and detail to facilitate focus on relevant concepts. (3) Data and information facilitate the creation of knowledge. (4) Algorithms are used to develop and express solutions to computational problems. (5) Programming enables problem solving, human expression, and creation of knowledge. (6) The Internet pervades modern computing. (7) Computing has global impacts. This fulfills the Digital Studies graduation requirement.

Computer Science Principles 1 or
CE Computer Science Principles 1030
Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (S, DS, CTE)
Prerequisite: Digital Literacy
Description: An introductory course in program engineering and applications. The course introduces students to the fundamentals of computer programming. Students will learn to design, code, and test their own programs while applying mathematical concepts. Teachers introduce coding concepts and problem-solving skills to beginning students through a programming language such as C++, C#, Java, Python, or JavaScript. Students will also be introduced to more complex data structures and their uses, including arrays and classes. Students will learn to create more powerful programs. (*Semester 2 – Language Specific)
Game Development Fundamentals 1 or
CE Game Development Fundamentals 1610
Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: Digital Graphic Art, Intro, Digital Media 1, suggested Computer Programming 1
Description: This course is designed to provide students with knowledge and project-based experience of fundamental gaming development concepts relating to STEM. These concepts include game design, scripting, creation of digital assets, graphic resources, animations, understanding hardware, problem solving, critical thinking, collaboration, and project management.

Information Technology, Intro
Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: Digital Literacy
Description: The Intro to IT course is for students interested in pursuing a career in the field of Information Technology. Students will be introduced to the different aspects of information technology to determine their interests. Students will complete assignments and projects in IT careers, digital media, hardware & operating systems, communications & networks, software development, databases, and new & emerging technologies.

CONCENTRATOR COURSES

Computer Programming 2
Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (ME, CTE)
Prerequisite: Computer Programming 1 Suggested, Digital Literacy, Computer Science Principles, or Teacher Approval
Description: This course reviews and builds on the concepts introduced in Computer Programming 1. This course introduces students to more complex data structures and their uses. Including sequential files, arrays, and classes. Students will learn to create more powerful programs within a specific programming language. Java, Python, C++, C#, Swift

Mobile Development Fundamentals 1
Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: Computer Programming 1, Computer Science Principles, Web Development 1, HTML5
Description: This course is designed to teach skills to develop apps for phones, tablets, and other devices that run on a variety of operating systems. Students will learn core mobile development skills. Before taking this course, students should have solid foundational knowledge of the following topics: c#, Visual Studio, .NET, HTML5, SQLite, CSS, JavaScript, ASP.NET MVC, Swift, and other phone operating system tools.
COMPLETER COURSES

*Algorithms and Data Structures or
CE Algorithms and Data Structures 2420

Duration: Year (1.0)
Grades: 10-12
Graduation: Qualifies for (ME, CTE)
Prerequisite: Computer Programming 1 & 2
Description: This course builds on the object-oriented programming principles taught in Computer Programming 1, 2, and 3. A solid understanding of these concepts is assumed and required in this course. This course presents the ideas, tools, structure, syntax, libraries and object-oriented design techniques for developing well-formed programs using data structures. Students study and strengthen their concepts such as problem solving, program structure, classes, methods, data types, control constructs, file and console I/O. Students will also learn other important principles in designing object-oriented programs containing data structures. Students will design and use common data structures including arrays, hash tables, stacks, queues, linked lists, binary trees, multiway trees, graphs. Students will define and use common algorithms including traversals, searching, sorting, compression and paths. Students will write several programs that demonstrate their understanding of these concepts using an appropriate programming language including: C++, C#, Java, Python, and Swift.

Computer Programming, Advanced or
CE Computer Programming 1410

Duration: Year (1.0)
Grades: 10-12
Graduation: Required (ME, CTE)
Prerequisite: Computer Programming 1, 2, & Computer Programming, Advanced
Description: This is an advanced course in computer programming/software engineering and applications. It reviews and builds on the concepts introduced in Computer Programming 1 and 2. It introduces students to dynamic data structures, advanced utilization of classes, and applications of recursion through the application of mathematical concepts. This course will also highlight the differences between the many different languages of computer programming.

CTE Internship

Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

The World Wide Web has changed the way we communicate and consume information. With more than 1 billion websites the need for Web developers is high. According to the Utah Department of Workforce Services, the average annual employment growth rate for Web developers is 4.2% through the year 2026.


FBLA, SkillsUSA, & TSA – Student Organizations:

Students who want to participate in the Web Development Career Pathway can choose among the following CTSOs: FBLA, SkillsUSA, & TSA. Provo High School and Timpview High School, both have chapters in FBLA, SkillsUSA, and TSA.

Sample Occupations:

- Web Developer
- CTE Teacher
- Computer and Information Systems Manager
- Computer Programmer
- Database Administrator
- Graphic Designer
- Multimedia Artists and Animators
- Software Developer

Collegiate & Technical Programs:

- University of Utah
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
**Career Pathway: Web Development**

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<td>*Web Development Capstone</td>
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**Note:** PCSD Pathway Completer Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.

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**EXPLORER COURSES**

**Computer Science Principles 1 or CE Computer Science Principles 1030**

- **Duration:** Semester (0.5)
- **Grades:** 9-12
- **Graduation:** Qualifies for (DS, CTE)
- **Prerequisite:** Digital Literacy
- **Description:** An introductory course in program engineering and applications. The course introduces students to the fundamentals of computer programming. Students will learn to design, code, and test their own programs while applying mathematical concepts. Teachers introduce coding concepts and problem-solving skills to beginning students through a programming language such as C++, C#, Java, Python, or JavaScript. Students will also be introduced to more complex data structures and their uses, including arrays and classes. Students will learn to create more powerful programs. (*Semester 2 – Language Specific)*

**Information Technology, Intro**

- **Duration:** Semester (0.5)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Digital Literacy
- **Description:** The Intro to IT course is for students interested in pursuing a career in the field of Information Technology. Students will be introduced to the different aspects of information technology to determine their interests. Students will complete assignments and projects in IT careers, digital media, hardware & operating systems, communications & networks, software development, databases, and new & emerging technologies.

**Digital Graphic Arts, Intro**

- **Duration:** Semester (0.5) or Year (1.0)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This course is designed to provide students with the basic knowledge and skills related to the graphic design industry. It is intended to serve as a starting point for several pathways including Digital Media, Graphics and Printing, 3D Animation and Game Development. This includes instruction and hands-on assignments in the following areas: creative design & layout, typography, color, related software, and computer and professional skills.
Entrepreneurship
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: Students will gain an understanding of the marketing and management principles necessary to start and operate their own business. They will develop an awareness of the opportunities for small business ownership and develop the planning skills needed to open a small business. Students will become aware of the traits and characteristics of successful entrepreneurs. Students will gain an awareness of knowledge needed in research, planning and regulations affecting the small business and the means of financing a small business. They will understand the specific strategies of business management and marketing and the economic role of the entrepreneur in the market system.

Web Development 1 or
CE Web Development 2420
Duration: Year (1.0)
Grades: 9-12
Graduation: Qualifies for (DS, CTE)
Prerequisite: None
Description: Web Development is a course designed to guide students in a project-based environment, in the development of up-to-date concepts and skills that are used in the development of today’s websites. Students will learn the fundamentals of how the Internet works. They will learn and use the basic building blocks of the World Wide Web; HTML5 coding, Cascading Style Sheets (CSS), and JavaScript. They will follow the steps to create a website by planning, designing, developing, deploying, and maintaining of website projects. Students will learn and use different scripting technologies to create more dynamic and interactive websites. They will learn what it takes for a career in Web Development as they complete projects and create their own web site.

*Web Development 2
Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: Web Development 1
Description: Web Development is a course designed to guide students in a project-based environment, in the development of up-to-date concepts and skills that are used in the development of today’s websites. Students will learn the fundamentals of how the Internet works. They will learn and use the basic building blocks of the World Wide Web; HTML5 coding, Cascading Style Sheets (CSS), and JavaScript. They will follow the steps to create a website by planning, designing, developing, deploying, and maintaining of website projects. Students will learn and use different scripting technologies to create more dynamic and interactive websites. They will learn what it takes for a career in Web Development as they complete projects and create their own web site.

CONCENTRATOR COURSES
## Web Development Capstone
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Web Development 1 & 2
- **Description:** Web Development is a course designed to guide students in a project-based environment in the development of up-to-date concepts and skills that are used in the development of today's websites. Some concepts for discovery and mastery include: Front-end (HTML5, CSS3, Bootstrap, JavaScript, jQuery, jQuery mobile), Foundation paradigms (OOPS, Design Patterns, Object Modeling, JSON, AJAX), MEAN Stack (MongoDB, Express Framework, AngularJS, Node.js), Data Exchange (HTTP, Websockets), Development Environment & Tools, DISHA (Resume & Interview prep package).

## Geographic Information Systems (GIS) Remote Sensing
- **Duration:** Semester (0.5)
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** TBD
- **Description:** TBD

## CTE Internship
- **Duration:** Semester (0.5)
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Directly related to CCRP & previously or currently taking CTE class associated with internship
- **Description:** CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Pre-K: Early Childhood Education

Workforce Trends:
According to the Utah Department of Workforce Services, the annual growth rate for childcare workers is projected to increase 4% through the year 2026. Large concentrations of this occupation are found in the following industries: private households, social services, and educational services both public and private.

Elementary, middle, and secondary school teachers are in high demand across the state of Utah. There are four ways to earn a teaching license in Utah: 1. Out-of-state licensure, 2. University licensure program, 3. ARL-alternative route to licensure program, and 4. The APT-academic pathway to teaching. In Utah, an elementary, middle, and secondary school teacher must be licensed.

FCCLA – Student Organization:
FCCLA is the CTSO for students in the Pre-K: Early Childhood Education Career Pathway. FCCLA provides students with opportunities to attain the knowledge, skills, and leadership characteristics necessary to succeed in life and careers. Provo High School and Timpview High School, both have a FCCLA chapter.

Sample Occupations:
- Teacher Assistant
- Education Administrator, Preschool
- Preschool Teacher Assistant
- CTE Teacher
- Elementary Education Teacher
- Special Education Teacher
- Social Worker

Collegiate & Technical Programs:
- Care Courses School
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
# Career Pathway: Pre-K: Early Childhood Education

<table>
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## CONCENTRATOR COURSES

| Early Childhood Education 2 | 0.5 | ✓ | ✓ | | | | | |

## COMPLETER COURSES

| Early Childhood Education 3 | 0.5 | ✓ | ✓ | | | | | |
| CTE Internship             | 0.5 | | | | | | | |

Note: PCSD Pathway Completer Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.

## EXPLORER COURSES

### Early Childhood Education 1 (recommended)

- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Child Development
- **Description:** This semester course introduces students to child-related careers and the Child Development Associate Credential (CDA). Instruction is given regarding developmentally appropriate practices (DAP) and curriculum and facility design for young children. Early Childhood Education lab training may be a part of the course. This course will strengthen comprehension of concepts and standards outlined in Science, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course. Previous completion of the Child Development course is REQUIRED.

### Child Development

- **Duration:** Semester (0.5)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** Students will understand the aspects of child growth and development, positive guidance techniques, and child-related issues. Learning activities, observation techniques, and lab experiences in working with young children may be included. This course will strengthen comprehension of concepts and standards outlined in Science, Technology, Engineering and Math (STEM) education. Family, Career and Community Leaders of America (FCCLA) supports student leadership and has competitive events that may be an integral part of the course.

### Food and Nutrition 1

- **Duration:** Semester (0.5)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This course is designed to focus on the science of food and nutrition. Experiences will include food safety and sanitation, culinary technology, food preparation and dietary analysis to develop a healthy lifestyle with pathways to career readiness. Laboratory based experiences strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course.
CONCENTRATOR COURSES

**Early Childhood Education 2**
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Early Childhood Education 1
- **Description:** This semester course provides students an opportunity to work with children in a professional lab setting. Instruction given includes: applying developmentally appropriate practices (DAP) and teaching lessons to children, maintaining a healthy environment for children, and developing positive relationships with children. Students will continue preparing for the Child Development Associate Credential (CDA). This course will strengthen comprehension of concepts and standards outlined in Science, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course. The Child Development and Early Childhood Education 1 courses are required prerequisites.

**Early Childhood Education 3**
- **Duration:** Semester (0.5)
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Early Childhood Education 2
- **Description:** This semester course provides students an opportunity to work with children in a professional lab setting. Students enrolled in this course will: teach young children, demonstrate positive employment skills, maintain a healthy environment for children, and develop positive relationships with children. Onsite lab experiences will be a major component of the course. Students will continue preparing for the Child Development Associate Credential (CDA). This course will strengthen comprehension of concepts and standards outlined in Science, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course. Child Development, Early Childhood Education 1 and Early Childhood Education 2 courses are required prerequisites.

**CTE Internship**
- **Duration:** Semester (0.5)
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Directly related to CCRP & previously or currently taking CTE class associated with internship
- **Description:** CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

In Utah, individuals who would like to teach but don’t have a Utah license can obtain one through the Alternative Route to Licensure (ARL). The ARL Program is a teacher preparation program for individuals who want to earn a Level 1 teaching license, or who are licensed and want to earn another type of teaching license.

Educators Rising – Student Organization:

Educators Rising is the CTSO for students in the K-12: Teaching as a Profession. Educators Rising offers resources and opportunities that integrate directly into the academic programs for teacher education at the high school level. It is dedicated to ensuring that the future is full of high-quality educators. This is a new CTSO as of SY 2020-21.

Sample Occupations:

- Elementary School Teacher
- Kindergarten Teacher
- Middle School Teacher
- Secondary School Teacher
- Special Education Teacher
- Adjunct Professor
- Researcher
- Daycare Coordinator
- Online Teacher
- Tutoring
- Company Trainer

Collegiate & Technical Programs:

- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
Career Pathway: K-12: Teaching as a Profession

**EXPLORER COURSES**

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Note: PCSD Pathway Completion Criteria: total overall credits of 3.0 or more, including a required concentrator course.
*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.

**EXPLORER COURSES**

**Teaching as a Profession 1**
Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: A course designed to help students learn about the role and characteristics of an effective educator. Students will observe and participate with teachers and students in the classroom. Major topics include exploring current teaching methods and instructional strategies, assessments and when/how to use them, and how students learn and what instructional strategies can be implemented to assist all learners.

**CE College Algebra 1050**
Duration: Fall & Spring
Graduation Credit: 0.5
Collegiate Credit: 3.0
Grades: 9-12
Graduation: Qualifies for (M, ME, CTE)
Prerequisite: Minimum 3.0 GPA, Completion of high school SM 1,2, and 3 with C average or better, and ACT Math score of 23 or higher or qualifying Accuplacer score, which can be taken at the UVU Testing Services Center.
Description: This course meets the basic math requirement for an Associate or Bachelor of Arts Degree. It studies inequalities, functions and their graphs, polynomial and rational functions, exponential and logarithmic functions, conic sections, systems of linear and nonlinear equations, matrices and determinants, arithmetic and geometric sequences, and the Binomial Theorem.

**DE Human Development 1100**
UVU Course Title: PSY 1100
Duration: Fall
Graduation Credit: 0.5
Collegiate Credit: 3.0
Grades: 11-12
Graduation: Required (SS, CTE)
Prerequisite: Minimum 3.0 GPA
Description: This class covers the development of the human from the first stages of life in the womb through old age. It discusses the norms and abnormalities
of human development from a biological and social point of view. This course fulfills the required Behavioral Science for Nursing and other medical fields.

CONCENTRATOR COURSES

Teaching as a Profession 2
Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: Teaching as a Profession 1
Description: This course is designed for students to learn, observe, and experience how an educator uses instructional strategies to successfully manage a classroom. Students will learn the importance of teaching as a profession. Students will learn to apply instructional strategies and create learner appropriate activities that inspire each student to enjoy learning.

COMPLETER COURSES

CTE Internship
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

Employment of engineers will be limited by computer-aided design and other technologies that increase productivity. Job opportunities will be best for those individuals who have an associate degree or extensive job training.

TSA – Student Organization:

TSA is the CTSO for students in the Engineering Career Pathway. TSA fosters personal growth, leadership, and opportunities in science, technology, engineering, and mathematics (STEM). Provo High School and Timpview High School, both have chapters of TSA.

Sample Occupations:

- Machine Operator
- Production Technician
- Electro-Mechanical Technicians
- Electronics Equipment Assembler
- Automation Engineer
- CTE Teacher
- Electrical Engineer
- Electronics Drafter
- Electronics Engineer
- Engineer
- Industrial Engineer
- Manufacturing Engineer
- Robotics Engineer

Collegiate & Technical Programs:

- MTECH
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
### Career Pathway: Engineering

#### EXPLORER COURSES

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
<th>PHS</th>
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#### CONCENTRATOR COURSES

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#### COMPLETER COURSES

- Engineering Capstone 1.0
- CTE Internship 0.5

**Note:** PCSD Pathway Completer Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.

### EXPLORER COURSES

#### Electronics 1 (recommended) or CE Electronics 1130

- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** The first in a sequence of courses that prepare individuals to apply technical knowledge and skills to assemble and operate electrical/electronic equipment used in business, industry, and manufacturing. Instruction includes training in safety, electrical theory, parallel & series circuits, Kirchoff’s Laws, schematic diagrams, electrical components, and soldering.

#### Engineering Principles 1 (recommended)

- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (SE, CTE)
- **Prerequisite:** None
- **Description:** The first in a sequence of “hands on” courses that tie observations and concepts common to a variety of different engineering disciplines in order to develop a better understanding of basic math and science principles used in engineering. By utilizing problem-solving skills in a laboratory environment, students will develop skills and attitudes that impact and expand occupational opportunities.

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Robotics 1 (recommended)

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (SE, CTE)
Prerequisite: None
Description: The first in a sequence of courses that prepares individuals with a lab-based, hands-on curriculum combining electrical, mechanical and engineering principles. Students will learn to design, build, program, and control robotic devices. A rigorous study and application of electrical concepts will include: sources of energy, electrical safety, use and identification of basic electronic components, sensors and actuators. Engineering concepts will include: mechanical design, prototype development, design testing, programming, and proper engineer documentation.

CAD Architectural Design 1 or
CE CAD Architectural Design 1090

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: The first in a sequence of courses that prepare individuals for careers in the Architecture, Engineering, and Construction (AEC) industry. This course includes instruction in 2D or 3D Computer-Aided Design (CAD) software to draw a small residential home with an emphasis on blueprint reading.

CAD Mechanical Design 1 or
CE CAD Mechanical Design 1040

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: The first in a sequence of courses that prepares individuals to develop technical knowledge and skills required to plan and prepare scale pictorial interpretations and technical documentation of engineering and design concepts. This includes instruction in the use of 2D Computer-Aided Design (CAD) software, sketching, drawing layout, geometric construction, orthographic projection, and dimensioning.

Welding Technician – Entry Level

Duration: Year (1.0)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This is an entry level course that will teach basic welding skills. This course will prepare students to apply technical knowledge and skill in the workplace and in project construction. In this course, students will learn and practice knowledge, attitude, skills, and habits required for performing tasks autonomously, including the selection and use of appropriate techniques and equipment with minimum supervision.

Woods 1

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This is the first instructional course in a sequence that prepares individuals to apply technical knowledge and skills to lay out and shape stock; assemble projects; saw and sand projects; and stresses the safe use of a variety of hand and power tools and machinery. Recommended projects would be anything that would allow students to incorporate all joints and tools, e.g. a nightstand.
### CONCENTRATOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
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<td>The second in a sequence of courses that prepares individuals to apply technical knowledge and skills to assemble and operate electrical/electronic equipment used in business, industry, and manufacturing. Instruction includes training in safety, numbering systems, Boolean algebra, logic diagrams, digital devices, and combinational logic circuits.</td>
</tr>
<tr>
<td>Robotics 2</td>
<td>Semester (0.5)</td>
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<td>Qualifies for (SE, CTE)</td>
<td>Robotics 1</td>
<td>The second in a sequence of courses that prepares individuals with a lab-based, hands-on curriculum combining electrical, mechanical and engineering principles. Students will learn to design, build, program, and control robotic devices. A rigorous study and application of electrical concepts will include: sources of energy, electrical safety, use and identification of basic electronic components, sensors and actuators. Engineering concepts will include: mechanical design, prototype development, design testing, programming, and proper engineering documentation.</td>
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<td>Engineering Principles 1</td>
<td>The second in a sequence of “hands on” courses that tie observations and concepts common to a variety of different engineering disciplines in order to develop a better understanding of basic math and science principles used in engineering. By utilizing problem-solving skills in a laboratory environment, students will develop skills and attitudes that impact and expand occupational opportunities.</td>
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### COMPLETER COURSES

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<tr>
<th>Course</th>
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<td>As members of an engineering team, students apply science, technology, and mathematical concepts and skills to solve engineering design problems or to significantly innovate existing products. Students research, develop, test, and analyze designs using criteria such as cost, effectiveness, safety, human factors, and ethics. Long term project development by student teams and regular interaction with and presentations to members of industry are essential components to the success of this course.</td>
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<td>CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.</td>
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</table>
**Sample Occupations:**

- Engineering Technician
- Mechanical Drafter
- Mechanical Engineering Technician
- Aerospace Engineer
- CTE Teacher
- Civil Engineer
- Industrial Designer
- Mechanical Engineer
- Secondary Education Teacher

**Collegiate & Technical Programs:**

- Davis Technical College
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University

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**Mechanical Design (CAD):**

**Workforce Trends:**

Industrial growth and increasingly complex designs will spur growth in drafting services. As technology advances, opportunities will be best for drafters with at least two years of postsecondary training, and computer-aided design systems experience.

According to the Utah Department of Workforce Services, 620 mechanical drafters are employed by more than 3,000 businesses throughout the state. The annual median salary for an experienced mechanical drafter is $51,690.

**TSA – Student Organization:**

TSA is the CTSO for students in the Mechanical Design (CAD) Career Pathway. TSA fosters personal growth, leadership, and opportunities in science, technology, engineering, and mathematics (STEM). Provo High School and Timpview High School, both have chapters of TSA.
### Career Pathway: Mechanical Design (CAD)

**EXPLORER COURSES**

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<th>Course</th>
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<th>PHS</th>
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*Note: PCSD Pathway Concentration Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.

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### EXPLORER COURSES

**CAD Mechanical Design 1 (Recommended) or CE CAD Mechanical Design 1040**

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: The first in a sequence of courses that prepares individuals to develop technical knowledge and skills required to plan and prepare scale pictorial interpretations and technical documentation of engineering and design concepts. This includes instruction in the use of 2D Computer-Aided Design (CAD) software, sketching, drawing layout, geometric construction, orthographic projection, and dimensioning.

**Welding Technician, Entry Level**

Duration: Year (1.0)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This is an entry level course that will teach basic welding skills. This course will prepare students to apply technical knowledge and skill in the workplace and in project construction. In this course, students will learn and practice knowledge, attitude, skills, and habits required for performing tasks autonomously, including the selection and use of appropriate techniques and equipment with minimum supervision.

**Woods 1**

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This is the first instructional course in a sequence that prepares individuals to apply technical knowledge and skills to lay out and shape stock; assemble projects; saw and sand projects; and stresses the safe use of a variety of hand and power tools and machinery. Recommended projects would be anything that would allow students to incorporate all joints and tools, e.g. a nightstand.
CONCENTRATOR COURSES

CAD Mechanical Design 2 or
CE CAD Mechanical Design 1070
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: CAD Mechanical Design 1
Description: The second in a sequence of courses that prepares individuals with an emphasis in developing technical knowledge and skills to develop 3D models in support of mechanical and industrial engineers, and related professionals. This includes instruction in the use of 3D Computer-Aided Design (CAD) software, model creation, and technical communication.

COMPLETER COURSES

CAD Mechanical Design 3 or
CE CAD Mechanical Design 1071
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: CAD Mechanical Design 2
Description: The third in a sequence of courses that prepares individuals with an emphasis in developing technical knowledge and skills to develop working drawings in support of mechanical and industrial engineers, and related professionals. This includes instruction in the use of 3D Computer-Aided Design (CAD) software, threads & fasteners, welding symbols, geometric dimensioning & tolerancing and assemblies.

CTE Internship
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

According to the Utah Department of Workforce Services, healthcare occupations are expected to make up seven of the 20 fastest growing occupations by the year 2030. Utah is known for its medical innovations, such as the Kolff artificial heart and genetic research. The Utah Population Database (UPDB) is one of the world’s richest sources of in-depth information supporting research on genetics, epidemiology, demography, and public health. (Governor’s Office of Economic Development [GOED])

HOSA – Student Organization:

HOSA is the CTSO for students in the Health Science Career Pathway. HOSA enhances the delivery of compassionate, quality health care by providing opportunities for knowledge, skill and leadership development of all health science education students.

Sample Occupations:

- Clinical Lab Technician
- Certified Nurse Assistant
- Emergency Medical Technician
- Medical Assistant
- Clinical Lab Technologist
- Dental Hygienist
- Occupational Therapy Assistant
- Registered Nurse (RN)
- Athletic Trainer
- Forensic Science Technician
- Microbiologist

Collegiate & Technical Programs:

- MTECH
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
# Career Pathway: Health Science

## EXPLORER COURSES

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## COMPLETER COURSES

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*Note: PCSD Pathway Complete Criteria: total overall credits of 3.0 or more, including a required concentrator course.
*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board*

## EXPLORE COURSES

### Medical Anatomy & Physiology
- **Duration:** Year (1.0)
- **Grades:** 10-12
- **Graduation:** Qualifies for (SE, H, CTE)
- **Prerequisite:** None
- **Description:** This full-year course provides students with an in-depth study of healthcare careers including actual clinical experience in a variety of areas. Instruction includes intermediate anatomy & physiology, medical terminology, diseases and disorders, medical ethics and first aid. The class is designed to prepare students for the Advanced Health Science course and/or for a variety of health technology programs.

### Medical Terminology or CE Medical Terminology 1300
- **Duration:** Semester (0.5)
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Secondary Math 2 PLUS a health science course
- **Description:** An instructional program that prepares students with skills to compute mathematical equations related to healthcare. The course integrates medical-physiological concepts and mathematics. Students will engage in math activities including problem solving, reasoning and proof, communication, connections, and representations.
CONCENTRATOR COURSES

Biotechnology or
CE Biotechnology 1010
Duration: Year (1.0)
Grades: 11-12
Graduation: Qualifies for (SE, CTE)
Prerequisite: Biology or Chemistry
Description: Biotechnology is an exploratory course designed to introduce students to methods and technologies that support bioscience research and practice. Students are also introduced to career possibilities in the field of biotechnology.

Exercise Science/Sports Medicine or
CE Exercise Science/Sports Medicine 2400
Duration: Year (1.0)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Medical Anatomy and Physiology
Description: This full-year course is designed to teach students components of exercise science/sports medicine; including exploration of therapeutic careers, medical terminology, anatomy and physiology, first aid, injury prevention principles, the healing process, rehabilitation techniques, therapeutic modalities, sport nutrition, sport psychology, and performance enhancement philosophies.

Emergency Medical Response or
CE Emergency Medical Response 1200
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite:
Description: Emergency medical Responder is a dynamic 56-hour course featuring lecture, video, simulated emergency situations, discussion and hands-on skill practice based on the national EMS curriculum requirements and educational standards. While (EMR) does not provide state licensure or certification as an EMR, this course is ideal to receive training similar to the training EMS professionals receive as they look to enter careers in healthcare, public safety, or law enforcement.

Medical Assistant
Duration: Year (1.0)
Grades: 12
Graduation: Qualifies for (SE, H, CTE)
Prerequisite: Medical Anatomy and Physiology
Description: An instructional program that prepares individuals to support physicians by providing assistance during patient examinations, treatment administration and monitoring; by keeping patient and related health record information; and by performing clinical, administrative, and laboratory duties.

COMPLETER COURSES

CTE Internship
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

In Utah, job openings for chefs and head cooks are projected to increase 3.1% through the year 2026; however, competition should be fierce for jobs in the top kitchens of higher-end restaurants. According to the National Restaurant Association, in Utah restaurant and food service jobs represent 10% of employment in the state. Through the year 2026, growth is projected at 13.3%. In 2018, sales in Utah restaurants totaled $5.5 billion. Restaurant jobs represent 9% of employment in Utah.

FCCLA – Student Organization:

FCCLA is the CTSO for students in the Culinary Arts Career Pathway. FCCLA provides students with opportunities to attain the knowledge, skills, and leadership characteristics necessary to succeed in life and careers.

Sample Occupations:

- Baker/Pastry Chef
- Sous Chef
- Restaurant Manager
- CTE Teacher
- Culinary Arts Instructor
- Executive Chef

Collegiate & Technical Programs:

- Park City Culinary Institute
- Brigham Young University Idaho
- University of Utah
- Utah Valley University
EXPLORER COURSES

*Culinary Arts 1 (recommended) or CE Culinary Arts 1110

Duration: Year (1.0)
Grades: 11-12
Graduation: Required (CTE)
Prerequisite: Food and Nutrition 1 & 2
Description: Students will be trained for career opportunities in the food service/culinary arts industry. Students will have the opportunity to learn and practice safety and sanitation procedures, and to use and maintain commercial food service equipment. They will perform quantity food preparation as it relates to catering, bakery, restaurant, hospitality, and fast food business operations. This course will strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course.

ProStart 1 (recommended) or CE ProStart 1110

Duration: Year (1.0)
Grades: 11-12
Graduation: Required (CTE)
Prerequisite: Food and Nutrition 1 & 2; ProStart 2 can be taken before ProStart 1
Description: The ProStart 1 is a program of the National Restaurant Association Educational Foundation that introduces students to career opportunities in the restaurant and foodservice industry and provides them with foundational skills in culinary arts and restaurant management that will jump-start their post-secondary experience, in college and/or careers. In Utah, FCCLA may complement this course.

Food and Nutrition 1

Duration: Semester (0.5)
Grades: 9-12
Graduation: Required (CTE)
Prerequisite: None
Description: This course is designed to focus on the science of food and nutrition. Experiences will include food safety and sanitation, culinary technology, food preparation and dietary analysis to develop a healthy lifestyle with pathways to career readiness. Laboratory based experiences strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into the course.

CE Culinary Arts 1110

Duration: Year (1.0)
Grades: 11-12
Graduation: Required (CTE)
Prerequisite: None
Description: This course is designed to focus on the science of food and nutrition. Experiences will include food safety and sanitation, culinary technology, food preparation and dietary analysis to develop a healthy lifestyle with pathways to career readiness. Laboratory based experiences strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into the course.
**Culinary Arts 2 or CE Culinary Arts 1180**

- **Duration:** Year (1.0)
- **Grades:** 11-12
- **Graduation:** Qualifies (CTE)
- **Prerequisite:** Food and Nutrition 1 & 2
- **Description:** Students will receive additional training for career opportunities in Culinary Arts and the Hospitality Industry. Students will have the opportunity to learn and practice safety and sanitation procedures, and maintain food service equipment. Students will perform quantity food preparation as it relates to catering, bakery, restaurant, hospitality, and quick service business operations. Greater emphasis will be placed on employment skills, management operations, and business and marketing practices. This course will strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course.

**ProStart 2**

- **Duration:** Year (1.0)
- **Grades:** 11-12
- **Graduation:** Qualifies (CTE)
- **Prerequisite:** Food and Nutrition 1 & 2, and ProStart 1 are recommended. ProStart 2 can be taken before ProStart 1.
- **Description:** ProStart 2 is a companion to ProStart 1 from the National Restaurant Association Educational Foundation. The ProStart is a program of the National Restaurant Association Educational Foundation that introduces students to career opportunities in the restaurant and foodservice industry and provides them with foundational skills in culinary arts and restaurant management that will jump-start their post-secondary experience, in college and/or careers.

**Baking and Pastry**

*(State ready by SY 2021-22)*

- **Duration:** TBD
- **Grades:** TBD
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** TBD
- **Description:** TBD

**CTE Internship**

- **Duration:** Semester (0.5)
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Directly related to CCRP & previously or currently taking CTE class associated with internship
- **Description:** CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Hospitality & Tourism

Workforce Trends:
According to the U.S. Department of Labor, travel and tourism is one of the largest and fastest growing industries in the world. Annual sales exceed a half-trillion dollars. According to the Utah Department of Workforce Services, 567 individuals are employed as travel agents throughout Utah, with 263 travel arrangement and reservation services businesses.

FBLA – Student Organization:
FBLA is the CTSO for students in the Hospitality and Tourism Career Pathway. FBLA provides students with opportunities for leadership, community involvement, and career development. Provo High School and Timpview High School, both have chapters of FBLA.

Sample Occupations:
- CTE Teacher
- Marketing Manager
- Meeting, Convention, and Event Planner
- Tour Agent
- Tour Guide
- Sales Manager

Collegiate & Technical Programs:
- University of Utah
- Brigham Young University
- Brigham Young University
- University of Utah
- Utah Valley University
- Utah State University
- Weber State University
## Career Pathway: Hospitality and Tourism

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### EXPLORER COURSES

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<td><strong>Description:</strong> Students will be trained for career opportunities in the food service/culinary arts industry. Students will have the opportunity to learn and practice safety and sanitation procedures, and to use and maintain commercial food service equipment. They will perform quantity food preparation as it relates to catering, bakery, restaurant, hospitality, and fast food business operations. This course will strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and math (STEM) education. Student leadership and competitive events (FCCLA) may be integrated into this course.</td>
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<td><strong>Description:</strong> Marketing 1 explores the seven core functions of marketing which include: marketing Planning – why target market and industry affects businesses; Marketing-Information Management – why market research is important; Pricing – how prices maximize profit and affect the perceived value; product/Service Management – why products live and die; promotion – how to inform customers about products; Channel management – how products reach the final user; and Selling – how to convince a customer that a product is the best choice. Students will utilize knowledge in hands-on projects which may include: Conducting research, creating a promotional plan, pitching a sales presentation, and introducing an idea for a new product/service.</td>
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*Note: PCSD Pathway Course Criteria: total overall credits of 3.0 or more, including a required concentrator course.

*Currently not an approved PCSD course, yet suggested for future consideration by the PCSD School Board.*
### Accounting 1
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (ME, CTE)
- **Prerequisite:** None
- **Description:** Students will develop skills beginning with and understanding of the basic elements and concepts of double-entry accounting systems related to service businesses organized as a sole proprietorship. Skills include understanding the accounting equation, analyzing business transactions, entering transactions in journals, posting to ledgers, compiling end-of-period financial statements, preparing closing entries, and managing cash.

### Business Law
- **Duration:** Semester (0.5) or Year (1.0)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** Students will gain an understanding of the law as it relates to them currently and the implications of the law in their future lives as well as the lives of their family and friends. They will also work to gain an understanding of basic legal vocabulary. The course will include an understanding of the court system at the local, state, and national level. Students will gain an understanding of contract law, their rights and responsibilities as citizens, utilization of financial transactions, employment and agency relationships, and the understanding of the regulations governing different types of business organizations.

### Digital Graphic Arts, Intro
- **Duration:** Semester (0.5) or Year (1.0)
- **Grades:** 9-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This course is designed to provide students with the basic knowledge and skills related to the graphic design industry. It is intended to serve as a starting point for several pathways including Digital media, Graphics and Printing, 3D Animation and Game Development. This includes instruction and hands-on assignments in the following areas: creative design & layout, typography, color, related software, and computer and professional skills.

### Economics or CE Economics 1010
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (SS, CTE)
- **Prerequisite:** None
- **Description:** Economics is a social science that studies how people satisfy unlimited wants and needs with scarce resources. Characteristics of the market economy of the United States and its function in the world will be explored. Students will learn methods of applying economics to one’s life.

### Web Development 1 or CE Web Development 2420
- **Duration:** Year (1.0)
- **Grades:** 9-12
- **Graduation:** Qualifies for (DS, CTE)
- **Prerequisite:** None
- **Description:** Web Development is a course designed to guide students in a project-based environment, in the development of up-to-date concepts and skills that are used in the development of today’s websites. Students will learn the fundamentals of how the Internet works. They will learn and use the basic building blocks of the World Wide Web; HTML5 coding, Cascading Style Sheets (CSS), and JavaScript. They will follow the steps to create a website by planning, designing, developing, deploying, and maintaining of website projects. Students will learn and use different scripting technologies to create more dynamic and interactive websites. They will learn what it takes for a career in Web Development as they complete projects and create their own web site.
CONCENTRATOR COURSES

*Event Planning and Management
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: The Event Planning and Management course is designed for students interested in learning about this multi-billion-dollar industry. Students are introduced to many facets of event planning including: site selection, budgeting, promotion, and catering. Students will organize, plan, and evaluate various meetings and events. Examples include, but not limited to, conferences, sporting events, weddings, and workshops.

COMPLETER COURSES

*Business and Marketing Capstone
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: The purpose of this course is to research and solve real world business needs. This course is designed for advanced business students to further their business knowledge and skills. The Business and Marketing Capstone encourages students to think analytically, logically and creatively to integrate experience and knowledge in real world situations. Membership and participation in DECA and FBLA is highly encouraged.

CTE Internship
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Personal Care Services

Workforce Trends:

According to the Utah Department of Workforce Services, there are 1,097 personal care services businesses throughout Utah employing 88.1% of individuals practicing in this profession.

In Utah, an electrologist and a nail technician (manicurist and pedicurist) must be licensed.

SkillsUSA – Student Organization:

SkillsUSA is the CTSO for students in the Personal Care Services Career Pathway. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship, and character development. Provo High School and Timpview High School, both have chapters of SkillsUSA.

Sample Occupations:

- Manicurists and Pedicurists
- Skincare Specialist (Esthetician)
- Entrepreneur

Collegiate & Technical Programs:

- MTECH
- Davis Technical College
- Skin Science Institute of Laser and Esthetics in Orem
- Mandalyn Academy
- Aveda Institute of Provo
## EXPLORER COURSES

### Accounting 1
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (ME, CTE)
- **Prerequisite:** None
- **Description:** Students will develop skills beginning with and understanding of the basic elements and concepts of double-entry accounting systems related to service businesses organized as a sole proprietorship. Skills include understanding the accounting equation, analyzing business transactions, entering transactions in journals, posting to ledgers, compiling end-of-period financial statements, preparing closing entries, and managing cash.

### Business Management
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This Business Management course seeks to develop sound management concepts within students, as management plays a role in any future employment opportunity. Students are able to analyze, synthesize, and evaluate data from the other functional areas of business (e.g., marketing, finance, and production/operation). Effective management requires decision-making abilities, long-range planning knowledge, human relations expertise, and motivational skills. Students learn the four basic functions of management: planning, organizing, directing, and controlling.

## CONCENTRATOR COURSES

The courses are available at MTECH.
CTE Internship

Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: Directly related to CCRP & previously or currently taking CTE class associated with internship
Description: CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

In Utah, the occupation projection for welders, cutters, solderers, and brazers is 290 annual openings. Job prospects should be excellent for skilled candidates. From construction sites to automotive body shops, from farms to manufacturing plants, welders are found in numerous industries throughout Utah. According to the Utah Department of Workforce Services, the median hourly wage for welders, cutters, solderers and brazers is $18.64.

SkillsUSA – Student Organization:

SkillsUSA is the CTSO for students in the Welding and Machining Career Pathway. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship, and character development.

Sample Occupations:

- Tool and Die Maker
- Tool Maker
- Welder
- Machine Tool Technician
- Welding Technician
- CTE Teacher
- Machine Tool Engineer
- Welding Engineer

Collegiate & Technical Programs:

- Bridgerland Applied Technology
- Davis Applied Technology
- MTECH
- Clearfield Job Corps Center
- Salt Lake Community College
- Utah State University
Career Pathway: Welding & Machining

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Note: PUSD Pathway Completer Criteria: total overall credits of 3.0 or more, including a required concentrator course.
*Currently not an approved PUSD course, yet suggested for future consideration by the PUSD School Board.

EXPLORER COURSES

Welding Technician, Entry Level
Duration: Year (1.0)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This is an entry level course that will teach basic welding skills. This course will prepare students to apply technical knowledge and skill in the workplace and in project construction. In this course, students will learn and practice knowledge, attitude, skills, and habits required for performing tasks autonomously, including the selection and use of appropriate techniques and equipment with minimum supervision.

CONCENTRATOR COURSES

Welding Technician, Intermediate Level
Duration: Year (1.0)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: Welding Technician, Entry Level
Description: This is an intermediate level course that will teach the next level of welding skills. This course will prepare students to apply technical knowledge and skill in the workplace and in project construction. In this course, students will learn and practice knowledge, attitude, skills, and habits required for performing tasks autonomously, including the selection and use of appropriate techniques and equipment with minimum supervision.
## COMPLETER COURSES

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<td><strong>Description:</strong> This is an advanced welding skills course. This course will teach students the processes that will prepare them to apply technical knowledge and skill in the workplace and in project construction. In this course, students will learn and practice knowledge, attitude, skills, and habits required to perform tasks autonomously and with minimum supervision, including the selection and use of appropriate techniques and equipment.</td>
<td><strong>Description:</strong> CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.</td>
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Auto Mechanics & Repairs

**Workforce Trends:**
Job opportunities in the automotive industry are very good for persons with formal training in automotive body repair and mechanics. According to the Utah Department of Workforce Services, more than 1,500 individuals are employed as automotive body and related repairers. Those employees with experience make an annual salary of $41,950.

**SkillsUSA – Student Organization:**
SkillsUSA is the CTSO for students in the Auto Mechanics & Repairs Career Pathway. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship, and character development. Provo High School and Timpview High School, both have SkillsUSA chapters.

Sample Occupations:
- Automotive Service Technician – ASE (Automotive Service Excellence)
  www.ase.com/ is a national certification for automotive service technicians.
- CTE Teacher

Collegiate & Technical Programs:
- MTECH
- Bridgerland Applied Technology
- Davis Technical College
- Clearfield Job Corps
- Brigham Young University
- Utah Valley University
- Utah State University
- Weber State University
Career Pathway: Auto Mechanics and Logistics

EXPLORER COURSES

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CONCENTRATOR COURSES

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COMPLETER COURSES

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Note: PCSO Pathway Completor Criteria: total overall credits of 3.0 or more, including a required concentrator course.
*Currently not an approved PCSO course, yet suggested for future consideration by the PCSO School Board.

EXPLORER COURSES

Automotive, Intro (recommended) or CE Automotive, Intro 1000

- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This is an entry-level course in Automotive Service. Through demonstrations, lectures, research and practical experiences is designed to introduce the student to a broad experience in the use of: equipment, tools, materials, processes and techniques of automotive service.

Collision 1 (recommended) or CE Collision 1120

- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This course prepares individuals to perform non-structural repair, replacement, and adjustment of automotive outer body panels and uni-body components. This course is based on the Automotive Service Excellence (ASE) automotive collision task list and the I-CAR training program. Work ethics and productivity are an integral part of the classroom and laboratory activities of this program.

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### Electronics 1 or CE Electronics 1130
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** The first in a sequence of courses that prepares individuals to apply technical knowledge and skills to assemble and operate electrical/electronic equipment used in business, industry, and manufacturing. Instruction includes training in safety, electrical theory, parallel & series circuits, Kirchoff’s Laws, schematic diagrams, electrical components, and soldering.

### Welding Technician, Entry Level
- **Duration:** Year (1.0)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This is an entry level course that will teach basic welding skills. This course will prepare students to apply technical knowledge and skill in the workplace and in project construction. In this course, students will learn and practice knowledge, attitude, skills, and habits required for performing tasks autonomously, including the selection and use of appropriate techniques and equipment with minimum supervision.

### ASE Chassis MLR
- **Duration:** Semester (0.5) minimum
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Introduction to Automotive
- **Description:** This is an advanced-level course in Automotive Service that deals with the overall chassis of a vehicle. Through demonstrations, lectures, research and practical experiences dealing with chassis, this course is designed to assist students in broadening their experience, through the use of equipment, tools, materials, processes and techniques in inspecting, diagnosing, and servicing of automobiles.

### *Collision 2
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Collision 1
- **Description:** This course prepares individuals to perform structural repairs on automobile uni-bodies, fixed glass, and frames. This course is based on the Automotive Service Excellence (ASE) automotive collision task list and the I-CAR training program. Work ethics and productivity are an integral part of the classroom and laboratory activities of this program.
**ASE Engine MLR**

- **Duration:** Semester (0.5) minimum
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Introduction to Automotive
- **Description:** This is an advanced-level course in Automotive Service that deals with the engine and related components. Through demonstrations, lectures, research and practical experiences dealing with the engine, this course is designed to assist students in broadening their experience, through the use of equipment, tools, materials, processes and techniques in inspecting, diagnosing, and servicing of automobiles.

**Collision 3**

- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Collision 1 & 2
- **Description:** This course prepares individuals to safely prepare, mask, prime, seal, and paint vehicles and parts; use and maintain spray guns, booths, and equipment; address paint defects; mix, match, tint, and blend paint; store and dispose of hazardous materials; understand the corrosion protection process; and sand, buff, and detail a refinished vehicle. Work ethics and productivity are an integral part of the classroom and laboratory activities of this program.

**CTE Internship**

- **Duration:** Semester (0.5)
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Directly related to CCRP & previously or currently taking CTE class associated with internship
- **Description:** CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
Workforce Trends:

Employment growth will result from the increased manufacturing of buses and trucks powered by durable, economical diesel engines. Opportunities are good for those with formal diesel mechanic training and experience with electronic and diagnostic equipment.

Utah high school seniors have the opportunity to participate in the Utah Diesel Technician Pathways program. The program was created by industry to open opportunities for young men and women who are interested in the diesel technician field.

SkillsUSA – Student Organization:

SkillsUSA is the CTSO for students in the Diesel Career Pathway. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship, and character development. Provo High School and Timpview High School, both have SkillsUSA chapters.

Sample Occupations:

- Automotive Service Technician – ASE (Automotive Service Excellence)
  
  www.ase.com/ is a national certification for automotive service technicians.
- CTE Teacher

Collegiate & Technical Programs:

- MTECH
- Bridgerland Technical College
- Davis Technical College
- Clearfield Job Corps
- Utah Valley University
- Utah State University
- Weber State University
## Career Pathway: Diesel

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<th>CREDITS</th>
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### CONCATRATOR COURSES

| Diesel 1 | 1.0 | ✓ |

### COMPLETER COURSES

| Diesel 2 | 1.0 | ✓ |
| CTE Internship | 0.5 | |

Note: PCSSD Pathway Completer Criteria: total overall credits of 3.0 or more, including a required concentrator course. *Currently not an approved PCSSD course, yet suggested for future consideration by the PCSSD School Board.

### EXPLORER COURSES

**Automotive Intro (recommended) or CE Automotive, Intro 1000**
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This is an entry-level course in Automotive Service. Through demonstrations, lectures, research and practical experiences is designed to introduce the student to a broad experience in the use of: equipment, tools, materials, processes and techniques of automotive service.

**Electronics 1 or CE Electronics 1130**
- **Duration:** Semester (0.5)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** The first in a sequence of courses that prepares individuals to apply technical knowledge and skills to assemble and operate electrical/electronic equipment used in business, industry, and manufacturing. Instruction includes training in safety, electrical theory, parallel & series circuits, Kirchoff’s Laws, schematic diagrams, electrical components, and soldering.

**Welding, Entry Level**
- **Duration:** Year (1.0)
- **Grades:** 10-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** None
- **Description:** This is an entry level course that will teach basic welding skills. This course will prepare students to apply technical knowledge and skill in the workplace and in project construction. In this course, students will learn and practice knowledge, attitude, skills, and habits required for performing tasks autonomously, including the selection and use of appropriate techniques and equipment with minimum supervision.
CONCENTRATOR COURSES

The equivalent to the Diesel 1 course is taught at MTECH.

COMPLETER COURSES

The equivalent to the Diesel 2 course is taught at MTECH.

**CTE Internship**

- **Duration:** Semester (0.5)
- **Grades:** 11-12
- **Graduation:** Qualifies for (CTE)
- **Prerequisite:** Directly related to CCRP & previously or currently taking CTE class associated with internship
- **Description:** CTE Internships provide on the job training opportunities that are directly related to a career goal and course of study identified through the College and Career Ready Plan (CCRP). Therefore, a student must have taken or currently be enrolled in a CTE class related to the internship opportunity. This Work-Based Learning experience is designed to bridge the gap between school and work. Appropriate supervision by a school/district coordinator must be maintained.
The asterisk “**” next to a course title in the completer career pathway tables indicates it is a course that is:

- As of this version of the PCSD High School Planning Guide SY 2020-21, not currently an approved PCSD course and/or
- In the new course application phase to the Provo City School Board and/or
- Suggested to be considered by the Provo City School Board, in the future, to help meet the guidelines for the specific PCSD completer pathway

TBD stands for “to be determined”. As of this version of the PCSD High School Planning Guide SY 2020-21, the State was in the process of completing a massive revamping of the State CTE Career Pathways and applicable CTE course descriptions. The TBD areas will be replaced with the necessary information as it becomes available from the State, in updated versions of the Guide.
Business & Marketing

Marketing 2
Duration: Semester (0.5)
Grades: 9-12
Graduation: Qualifies for (CTE)
Prerequisite: Marketing 1
Description: This project-based course allows students to develop and demonstrate management level marketing skills. Students will learn advanced marketing principles then demonstrate proficiency by completing a marketing project. The majority of class time should be spent by students completing their marketing project.

Word Processing
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: Students will create a variety of documents, increase efficiency, productivity, quality, and creativity through the use of basic and advanced software features. Instruction on proper keyboarding technique and recommended styles for business documents will coincide with their software training.

Family and Consumer Sciences

Adult Roles and Responsibilities
Duration: Semester (0.5)
Grades: 11-12
Graduation: Qualifies for (CTE)
Prerequisite: None
Description: This course prepares students to understand human relationships involving individuals and families. Topics include career and workforce preparation, family, parenting, money management, decision-making skills, communication skills, self-awareness, crisis management, and individual roles and responsibilities within the family, community and workforce. This course will strengthen comprehension of concepts and standards outlined in Science, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA) may be an integral part of the course.

Fashion Design Merchandising
Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: Fashion Design Studio
Description: The Fashion Design Merchandising course is an introductory course that teaches the concepts of entry-level business and fashion fundamentals. The following list of skill standards prepares the student in fashion merchandising with the fundamentals of: basic fashion concepts and marketing terminology, fashion cycles, key components of the fashion industry, retail merchandise categories, fashion promotion and fashion careers. This course will strengthen comprehension of concepts and standards outlined in Sciences, Technology, Engineering and Math (STEM) education. Student leadership and competitive events (FCCLA and/or DECA) may be an integral part of the course.

Computer Science and Information Technology

AP Computer Science
Duration: Year (1.0)
Grades: 10-12
Graduation: Qualifies for (S, DS, CTE)
Prerequisite: Computer Programming 1
Description: AP Computer Science is equivalent to a first semester college level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language.
**Production Graphics 2**

Duration: Semester (0.5)  
Grades: 10-12  
Graduation: Qualifies for (CTE)  
Prerequisite:  
Description: Create, produce and reproduce visual graphics that communicate to an audience. Develop knowledge and skills relative to the graphic design and printing industries. Apply effective principles and techniques to project designs.

**Health Sciences**

**Introduction to Health Science**

Duration: Semester (0.5)  
Grades: 9-12  
Graduation: Qualifies for (CTE)  
Prerequisite: None  
Description: This semester course is designed to create an awareness of career possibilities in health care and inform students of the educational options available for health science and health technology programs. Instruction includes beginning anatomy and physiology, medical terminology, medical ethics, diseases, and disorders. The course prepares students for the Medical Anatomy and Physiology course and/or for a variety of health technology programs.

**Skilled and Technical Sciences**

**ASE Brakes**

Duration: Semester (0.5)  
Grades: 11-12  
Graduation: Qualifies for (CTE)  
Prerequisite: Introduction to Automotive  
Description: This course is part of a sequence that prepares individuals to engage in the servicing and maintenance of all types of automobiles. Instruction includes: training in safety, the diagnosis of malfunctions, and repair of braking systems. This course is based on the Automotive Service Excellence (ASE) task list. Work ethics and productivity are an integral part of the classroom and lab activities of these courses.

**ASE Electrical/Electronics**

Duration: Semester (0.5)  
Grades: 11-12  
Graduation: Qualifies for (CTE)  
Prerequisite: Introduction to Automotive  
Description: This course is part of a sequence that prepares individuals to engage in the servicing and maintenance of all types of automobiles. Instruction includes training in safety, the diagnosis of malfunctions and repair of electrical systems. This course is based on the Automotive Service Excellence (ASE) task list. Work ethics and productivity are an integral part of the classroom and lab activities of this course.

**ASE Steering & Suspension**

Duration: Semester (0.5)  
Grades: 10-12  
Graduation: Qualifies for (CTE)  
Prerequisite: Introduction to Automotive  
Description: This course is part of a sequence that prepares individuals to engage in the servicing and maintenance of all types of automobiles. Instruction includes training in safety, the diagnosis of malfunctions and repair of steering and suspension systems. This course is based on the Automotive Service Excellence (ASE) task list. Work ethics and productivity are an integral part of the classroom and lab activities of this course.

**Protective Services**

**Law Enforcement**

Duration: Semester (0.5)  
Grades: 10-12  
Graduation: Qualifies for (CTE)  
Prerequisite: None  
Description: This course prepares individuals to perform the duties of police and public security officers, including patrol and investigative activities, traffic control, crowd control, public relations, witness interviewing, evidence collection and management, court procedures and the law in general. Basic crime prevention methods, weapon and equipment operation, equipment maintenance, and other routine law enforcement responsibilities are also included.
**Metalworking 1**

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: Welding Technician – Intermediate Level
Description: This is an entry-level course in Metalworking. Through demonstrations, lectures, research and practical experiences it is designed to introduce the student to a broad experience in the use of: equipment, tools, materials, processes and techniques of metalworking trades. This is a one-semester course of instruction.

**Woods 2**

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: Woods 1
Description: The second instructional course in a sequence that prepares individuals to apply technical knowledge and skills to prepare and execute furniture design projects; assemble and finish furniture articles; repair furniture; and stresses the safe use of a variety of hand and power tools and machinery. Recommended projects would be anything that would allow students to incorporate all joints and tools, e.g. a chest of drawers.

**Woods 3**

Duration: Semester (0.5)
Grades: 10-12
Graduation: Qualifies for (CTE)
Prerequisite: Woods 1
Description: The third instructional course in a sequence of courses that prepares individuals to apply technical knowledge and skills, set up and operate industrial woodworking machinery, and use such machinery to design and fabricate custom cabinets and architectural millwork. It stresses the safe use of trade hand and power tools and machinery used in the production of millwork items. Cabinets, such as kitchen and vanities are constructed, finished, and installed as part of this program.
Advanced Web Page Design
ASE General Service Tech
Basic Film Photography
Computer Technology
Computer Technology 2
Desktop Publishing
Industrial Maintenance Technician
Medical Principles & Practices
Metals 2
Physics with Technology
Robotics and Automation
Small Engine Repair
Small Engines M/T
Web Page Design
Wood Turning
### New Titles / Combined CTE Courses

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<tr>
<td>Advanced Production Graphics</td>
<td>Production Graphics 2</td>
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<tr>
<td>Apparel Design &amp; Production 2 or Designer Sewing 2</td>
<td>Sewing Construction &amp; Textiles 2</td>
</tr>
<tr>
<td>Apparel Design &amp; Production or Designer Sewing 1</td>
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<tr>
<td>Auto 1</td>
<td>Introduction to Automotive</td>
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<tr>
<td>Basic Digital Photography</td>
<td>Commercial Photo 1</td>
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<td>Cabinetmaking</td>
<td>Woods 3</td>
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<td>Collision Refinishing &amp; Painting</td>
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<tr>
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<td>Advanced Computer Programming</td>
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<td>Furniture Design &amp; Manufacturing</td>
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<td>Digital Graphic Arts Intro</td>
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Suggested Order of CTE Courses

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1. Introduction to Automotive
2. ASE Brakes
   a. ASE Steering & Suspension
   b. ASE Electrical/Electronics
3. ASE Engine Performance
4. ASE Chassis MLR

Computer Programming

1. Computer Science Principles or AP CS Principles
2. Computer Programming 1
3. Computer Programming 2
4. Advanced Computer Programming

Digital Graphic Art

1. Digital Graphic Art Intro
2. Production Graphics 1
3. Production Graphics 2

Woodworking

1. Woods 1: Woodworking
2. Woods 2: Furniture Design & Manufacturing
3. Woods 3: Cabinetmaking (or)
4. Carpentry (Construction emphasis)
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