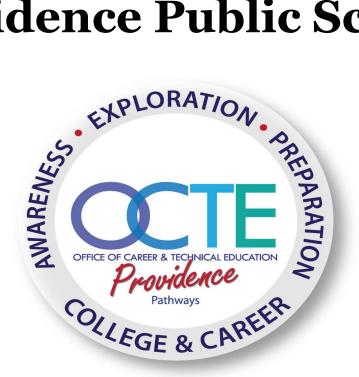# Career & Technical Education Providence Public Schools

Program of Studies

2022-2023

Please note: courses in this book are organized by Industry Cluster

INDUSTRY CLUSTER: ARCHITECTURE & CONSTRUCTION

<u>Electrical Technology</u>

Course Name	CTE Electrical Technology 1
School(s)	PCTA
Course Number/SCED Code	8860
Grade level	9
Prerequisite	none
Credit	1.0

This is the first course in the CTE Electrical Technology program sequence.

This course will serve as an introduction into the highly technical and demanding Electrical field. Safety is our top priority and will be emphasized throughout each lesson. This trade requires an in-depth knowledge of key scientific theories and principles specific to and prominent in Electrical as well as cognitive mathematical problem solving.

Students will obtain basic knowledge of the following:

NEC (National Electrical Code)	Renewable Energy Applications	Basic Wiring
Shop Practices	Employability Skills	Ohm's Law
Electric Motors	Safety, Tools & Equipment	Basic Engineering & System Design
Pipe Bending	Electrical Safety	Basic Blueprint Reading

Industry credentials:

Course Name	CTE Electrical Technology 2
School(s)	PCTA
Course Number/SCED Code	8861
Grade level	10
Prerequisite	CTE Electrical Technology 1

Credit	1.0

This is the second course in the CTE Electrical Technology program sequence.

This course will serve as an introduction into the highly technical and demanding Electrical field. Safety is our top priority and will be emphasized throughout each lesson. This trade requires an in-depth knowledge of key scientific theories and principles specific to and prominent in Electrical as well as cognitive mathematical problem solving.

Students will obtain basic knowledge of the following:

NEC (National Electrical Code)	Renewable Energy Applications	Basic Wiring
Shop Practices	Employability Skills	Ohm's Law
Electric Motors	Safety, Tools & Equipment	Basic Engineering & System Design
Pipe Bending	Electrical Safety	Basic Blueprint Reading

Industry credentials:

Course Name	CTE Electrical Technology 3
School(s)	PCTA
Course Number/SCED Code	8862
Grade level	11
Prerequisite	CTE Electrical Technology 2 with a grade of 70% or higher
Credit	2.0

This is the third course in the CTE Electrical Technology program sequence.

This course will serve as an introduction into the highly technical and demanding Electrical field. Safety is our top priority and will be emphasized throughout each lesson. This trade requires an in-depth knowledge of key scientific theories and principles specific to and prominent in Electrical as well as cognitive mathematical problem solving.

Students will obtain basic knowledge of the following:

NEC (National Electrical Code)	Renewable Energy Applications	Basic Wiring
Shop Practices	Employability Skills	Ohm's Law
Electric Motors	Safety, Tools & Equipment	Basic Engineering & System Design

Pipe Bending	Electrical Safety	Basic Blueprint Reading

Industry credentials:

Course Name	CTE Electrical Technology 4
School(s)	PCTA
Course Number/SCED Code	8863
Grade level	12
Prerequisite	CTE Electrical Technology 3 with a grade of 70% or higher
Credit	2.0

This is the fourth course in the CTE Electrical Technology program sequence.

This course will serve as an introduction into the highly technical and demanding Electrical field. Safety is our top priority and will be emphasized throughout each lesson. This trade requires an in-depth knowledge of key scientific theories and principals specific to and prominent in Electrical as well as cognitive mathematical problem solving.

Students will obtain basic knowledge of the following:

NEC (National Electrical Code)	Renewable Energy Applications	Basic Wiring
Shop Practices	Employability Skills	Ohm's Law
Electric Motors	Safety, Tools & Equipment	Basic Engineering & System Design
Pipe Bending	Electrical Safety	Basic Blueprint Reading

Industry credentials:

HVAC/Plumbing

Course Name	CTE HVAC/Plumbing 1
School(s)	PCTA
Course Number/SCED Code	8110
Grade level	9
Prerequisite	none

Credit	1.0

This is the first course in the CTE HVAC/Plumbing program sequence.

This course involves an orientation of the requirements and other information needed for job entry in the plumbing and HVAC field.
This course will familiarize the students with the terminology and principles of basic plumbing,
heating, ventilation and air conditioning used in the profession. A variety of topics will be present such as safety, drawings, fittings, fixtures, and fixtures. The students will be introduced to simple sheet metal techniques.

This course utilizes the following HBI curriculum modules: HBI PACT CORE curriculum.

Industry credentials:

Course Name	CTE HVAC/Plumbing 2
School(s)	PCTA
Course Number/SCED Code	8111
Grade level	10
Prerequisite	CTE HVAC/Plumbing 1
Credit	1.0

This is the second course in the CTE HVAC/Plumbing program sequence.

This course involves an orientation of the requirements and other information needed for job entry in the plumbing and HVAC field. This course will familiarize the students with the terminology and principles of basic plumbing, heating, ventilation and air conditioning used in the profession. A variety of topics will be present such as safety, drawings, fittings, fixtures, and fixtures. The students will continue with simple sheet metal techniques. The students will also obtain their OSHA-10 Certification.

This course utilizes the following HBI curriculum modules: HBI PACT Core; HBI Plumbing Module
HBI HVAC Module

Industry credentials:

Course Name School	CTE HVAC/Plumbing 3
School(s)	PCTA

Course Number/SCED Code	8112
Grade level	11
Prerequisite	CTE HVAC/Plumbing 2
Credit	2.0

This is the third course in the CTE HVAC/Plumbing program sequence.

This course involves learning the requirements and other information needed for job entry in the plumbing and HVAC field. This course will familiarize the students with the terminology and principles of basic plumbing, heating, ventilation and air conditioning used in the profession. A variety of topics will be present such as safety, drawings, fittings, fixtures, and fixtures. The students will be continue with sheet metal techniques

This course utilizes the following HBI curriculum modules: HBI Plumbing Module, HBI HVAC Module

Industry credentials:

Course Name	CTE HVAC/Plumbing 4
School(s)	PCTA
Course Number/SCED Code	8113
Grade level	12
Prerequisite	CTE HVAC/Plumbing 3
Credit	2.0

This is the fourth course in the CTE HVAC/Plumbing program sequence.

This course involves learning the requirements and other information needed for job entry in the plumbing and HVAC field. This course will familiarize the students with the terminology and principles of basic plumbing, heating, ventilation and air conditioning used in the profession. A variety of topics will be present such as safety, drawings, fittings, fixtures, and fixtures. The students will be continue with sheet metal techniques
This course utilizes the following HBI curriculum modules: HBI Plumbing Module , HBI HVAC Module

Industry credentials:

Carpentry & Home Building

Course Name	CTE Carpentry 1
School(s)	PCTA
Course Number/SCED Code	8830
Grade level	9
Prerequisite	none
Credit	1.0

This is the first course in the CTE Carpentry program sequence.

The exploratory in Construction Technology will introduce students to the construction field starting with basic carpentry concepts and skills. The topics explored include: introduction to hand tools, measuring, cutting, wood joinery, square, plumb, level and basic design concepts. The process of building construction, and the common components and materials used, are also a part of the exploratory program. All elements of the program will show relationships to mathematical and physics theories whenever possible. Historical and anthropological/sociological significance and perspective are also explored as they contextually relate to aspects of tools, materials, building and process, among other elements.
It is essential that safety practices and procedures are clearly understood by all students prior to beginning any applied shop lessons. The importance of proper safety practices must be reinforced throughout the exploratory period and beyond.

Industry credentials:

Course Name	CTE Carpentry 2
School(s)	PCTA
Course Number/SCED Code	8831
Grade level	10
Prerequisite	CTE Carpentry 1
Credit	1.0

This is the second course in the CTE Carpentry program sequence.

Carpentry 2 is a course designed to analyze and apply all aspects of residential building construction, from foundation to finish. Students will use the HBI text as a guide, and will apply technical concepts and procedures actively in the shop setting. Each chapter of the text(s) is designed to be a "Unit" for which students will receive a nationally recognized certification, upon successful completion. Each unit has an academic, written component as well as a Skill Achievement Record. Students must successfully achieve 80% of the tasks on

the SAR. Students must achieve a minimum of 70% on each written assessment in order to receive certification and passing.

Industry credentials:

Course Name	CTE Carpentry 3
School(s)	PCTA
Course Number/SCED Code	8832
Grade level	11
Prerequisite	CTE Carpentry 2
Credit	2.0

This is the third course in the CTE Electrical Technology program sequence.

Carpentry 3 is a course designed to analyze and apply all aspects of residential building construction, from foundation to finish. Students will use the HBI text as a guide, and will apply technical concepts and procedures actively in the shop setting. Each chapter of the text(s) is designed to be a "Unit" for which students will receive a nationally recognized certification, upon successful completion. Each unit has an academic, written component as well as a Skill Achievement Record. Students must successfully achieve 80% of the tasks on the SAR. Students must achieve a minimum of 70% on each written assessment in order to receive certification and passing.

Industry credentials:

Course Name	CTE Carpentry 4
School(s)	PCTA
Course Number/SCED Code	8833
Grade level	12
Prerequisite	CTE Carpentry 3
Credit	2.0

This is the fourth course in the CTE Carpentry Technology program sequence.

Carpentry 4 is a course designed to analyze and apply all aspects of residential building construction, from foundation to finish. Students will use the HBI text as a

guide, and will apply technical concepts and procedures actively in the shop setting. Each chapter of the text(s) is designed to be a unit for which students will receive a nationally recognized certification, upon successful completion. Each unit has an academic, written component as well as a Skill Achievement Record. Students must successfully achieve 80% of the tasks on the SAR. Students must achieve a minimum of 70% on each written assessment in order to receive certification and passing.

Tiny House
Industry credentials:

Maritime Welding/Pipefitting

Course Name	CTE Maritime Welding/Pipefitting 1
School(s)	PCTA
Course Number/SCED Code	9330
Grade level	9
Prerequisite	none
Credit	1.0

This is the first course in the CTE Maritime Welding program sequence.

The Maritime Welding 1 course is designed to introduce students to the principles and fundamentals of maritime welding, with a primary focus on safety, introductory craft skills, and the overall requirements of the construction and maritime industries.

Students will work towards developing their knowledge base and skills through classroom instruction and practical "hands-on" instruction in the shop setting. Among the many skill sets required, students in this course will work towards developing their abilities to: identify and understand important maritime, welding and construction industry standards; identify and practice appropriate workplace safety measures; proficiently perform construction math; and exhibit appropriate employability and communication skills.

There are no certifications obtained in the course, however, this course prepares students for the OSHA-10 and AWS SENSE Level 1 certifications offered later in the program. Students in this course will be taught using the NCCER, Core Curriculum (00101-15) and NCCER, Introduction to the Maritime Industry (84101-13).

Industry credentials:

Course Name	CTE Maritime Welding/Pipefitting 2
School(s)	PCTA

Course Number/SCED Code	9331
Grade level	10
Prerequisite	CTE Maritime Welding/Pipefitting 1
Credit	1.0

This is the second course in the CTE Maritime Welding program sequence.

This course is designed to serve as an introduction into the principles and fundamentals of maritime welding, with a primary focus on welding safety and the thermal metal cutting processes of Oxy-Fuel Cutting (OFC), Plasma Arc Cutting (PAC) and Air-Carbon Arc Cutting (A-CAC). Upon successful completion of the thermal cutting processes, students will begin the fundamentals of base metal preparation, weld quality analysis, and a preliminary exposure to the Shielded Metal Arc Welding (SMAW) process.

Students will work towards developing their knowledge base and skills through classroom instruction and practical "hands-on" instruction in the shop setting. Among the many skill sets required, students in this course will work towards developing their abilities to: identify and exhibit appropriate welding safety measures; develop their skills in safely and proficiently performing the thermal metal cutting processes; begin developing fundamental arc welding skills. Students will begin working towards their American Welding Society SENSE Level 1 certifications and they will also be encouraged to participate and compete in Skills USA.

Students in this course will be taught using the NCCER, Welding Level 1 (29100-15) curriculum.

Industry credentials: this course prepares students for the OSHA-10 and AWS SENSE Level 1 certifications offered later in the program.

Course Name	CTE Maritime Welding/Pipefitting 3
School(s)	PCTA
Course Number/SCED Code	9332
Grade level	11
Prerequisite	CTE Maritime Welding/Pipefitting 2
Credit	2.0

This is the third course in the CTE Maritime Welding program sequence.

This course is designed to serve as an in-depth introduction into the principles, fundamentals and skill development of maritime welding. With an emphasis on the maritime industry, this course will focus on developing the skills and knowledge bases needed to become proficient in the electric arc welding processes that are also used in a wide range of other industries across

the globe. Students will receive instruction and opportunities to develop their skills in the Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Flux Core Arc Welding (FCAW) processes, as well as Introductions to Welding Symbols, Welding and Mechanical Drawings, Physical/Mechanical Characteristics of Metals, and the Pre/Post-Heating of Metals. Emphasis will continue on safety in the workplace, construction math, employability skills, communication skills and material handling skills, as well as reinforcement of key scientific theories and principles that include electricity, metallurgy, physics, chemistry, and other fundamental concepts that surround cutting and metal joining technologies.

Students will obtain basic knowledge of the following:

Shielded Metal Arc Welding (SMAW)	Gas Metal Arc Welding (GMAW)	Flux Core Arc Welding (FCAW)
Welding Symbols	Reading Welding Detail Drawings	Physical Characteristics and Mechanical Properties of Metals
Pre-Heating and Post-Heating Metals	Shop Practices	Employability Skills
Safety, Tools & Equipment	Electrical Safety	Basic Employability Skills
Basic Communication Skills	Material Handling Skills	Introduction to Hand Tools
Introduction to Construction Math		

Industry credentials:

Course Name	CTE Maritime Welding/Pipefitting 4
School(s)	PCTA
Course Number/SCED Code	9333
Grade level	12
Prerequisite	CTE Maritime Welding/Pipefitting 1
Credit	2.0

This is the fourth course in the CTE Maritime Welding/Pipefitting program sequence.

The Maritime Welding 4 course, is the final "capstone" year of instruction received in the four year Maritime Welding and Pipefitting Program. Meeting 5 periods per day, for 90 days in the school year, this course will continue a more in-depth skill development of the electric arc welding processes learned in the Maritime Welding 4 course, with added instruction and opportunities for skill development in the Gas Tungsten Arc Welding (GTAW) process.

Proficient students will be encouraged to participate in internships and all students will be guided in the fundamentals of seeking employment in the maritime welding and other welding professions. Emphasis will continue on safety in the workplace, construction math, employability skills, communication skills and material handling skills, as well as reinforcement of key scientific theories and principles that include electricity, metallurgy, physics, chemistry, and other fundamental concepts that surround cutting and metal joining technologies.
Students will obtain basic knowledge of the following:

Shielded Metal Arc Welding (SMAW)	Gas Metal Arc Welding (GMAW)	Flux Core Arc Welding (FCAW)
Welding Symbols	Reading Welding Detail Drawings	Physical Characteristics and Mechanical Properties of Metals
Pre-Heating and Post-Heating Metals	Shop Practices	Employability Skills
Safety, Tools & Equipment	Electrical Safety	Basic Employability Skills
Basic Communication Skills	Material Handling Skills	Introduction to Hand Tools
Introduction to Construction Math		

Industry credentials:

General Construction

Course Name	CTE General Construction 1
School(s)	PCTA
Course Number/SCED Code	8930
Grade level	9
Prerequisite	none
Credit	1.0

This is the first course in the CTE General Construction program sequence.

Students accepted into the GenCon program work towards earning an OSHA 10 certification and introduction to Strand 2 hands-on with basic hand tools and power tools.

Industry credentials:

Course Name	CTE General Construction 2

School(s)	PCTA
Course Number/SCED Code	8931
Grade level	10
Prerequisite	CTE General Construction 1
Credit	1.0

This is the second course in the CTE General Construction program sequence.

GenCon students will continue with the LiUNA Chapter 74 framework with a heavy focus on Strand 2 and skills that will be evaluated during the TeamWorks SkillsUSA competition and Intermediate Masonry Construction. In addition to Strand 2 skills, students will work toward a WorkZone Safety certification.

Industry credentials:

Course Name	CTE General Construction 3
School(s)	PCTA
Course Number/SCED Code	8932
Grade level	11
Prerequisite	CTE General Construction 2
Credit	2.0

This is the third course in the CTE General Construction program sequence.

In the third course in the sequence students engage in Project Based Learning activities with previous skills they have learned and will continue with the LiUNA Chapter 74 framework with a heavy focus on Strand 2 and skills that will be evaluated during both the masonry and TeamWorks SkillsUSA competition. During this year we start to review projects that can be Showcased during SkillsUSA for a project presentation.

Industry credentials:

Course Name School	General Construction 4
School(s)	PCTA
Course Number/SCED Code	8933

Grade level	12
Prerequisite	CTE General Construction 3
Credit	2.0

This is the fourth course in the CTE General Construction program sequence.

In the fourth course in the sequence students continue to engage in Project Based Learning activities with previous skills they have learned and will continue with the LiUNA Chapter 74 framework with a heavy focus on Strand 2 and skills that will be evaluated during both the masonry and TeamWorks SkillsUSA competition. Students will spend the related period working on their Capstone paper and as we move into the fourth quarter they will complete a Capstone hands-on exhibition and presentation.

Industry credentials:

INDUSTRY CLUSTER: ARTS, A/V, TECHNOLOGY & COMMUNICATIONS

<u>Graphics/PCTA</u>

Course Name	CTE Graphics Communications 1
School(s)	PCTA
Course Number/SCED Code	8920
Grade level	9
Prerequisite	none
Credit	1.0

This is the first course in the CTE Graphic Communications program sequence.

The course is designed to serve as an introduction into the highly technical and demanding graphic design and media arts field. Students will be introduced to software within the Adobe Creative Cloud (Photoshop, Illustrator, InDesign & Premiere) which has been the industry standard software for over 2 decades. Students also study the importance of Lab Safety. In the Intro to Print Production section of the course, they will learn how to use large format printers, digital print press machines and other popular printing techniques and equipment used for T-shirts, apparel, print and design. In the Intro to Media Arts section of the course, students will be introduced to photo/video cameras, lighting and all assoicated equipment used in film and A/V production. There are 20 work-based learning hours embedded in this course.

Industry credentials: Adobe Illustrator, Adobe Photoshop, Adobe Premiere, Adobe InDesign.

Course Name	CTE Graphic Communications 2
School(s)	PCTA
Course Number/SCED Code	8235
Grade level	10
Prerequisite	none
Credit	1.0

This is the second course in the CTE Graphic Communications 2 program sequence.

The course is designed to further students' knowledge of Adobe Creative Cloud software and build upon what they learned in CTE Graphic Communications 1 with participation in more creative projects, print production and studying of design techniques using Adobe Photoshop, Adobe Illustrator and Adobe Lightroom. Participation in Photography and Studio Lighting allows students to gain experience in using professional equipment in the PCTA HD TV studio to complete photography and other interactive media projects. There are 20 work-based learning hours embedded in this course.

Industry Credentials: Career Essentials Fundamentals, Adobe Photoshop

Course Name	CTE-NEIT-VIDEO TECH/STUDIO 1 (CTE Graphic Communications 3)
School(s)	PCTA
Course Number/SCED Code	385
Grade level	12
Prerequisite	none
Credit	2.0

This is the third course in the CTE Graphic Communications program sequence.

The course is designed to serve as advanced coursework into the highly technical and demanding graphic design and media arts field. This course requires an in-depth knowledge of Adobe Creative Cloud and students use what they learned to create and complete their own advanced graphic design projects. Students will work on real design and A/V projects for clients and produce graphic design pieces to showcase in an end of year digital portfolio that they create by designing their own website. Students in their Junior year, will also learn audio/video production techniques and use what they learned to produce their own podcasts and video production projects. They will also have the opportunity to compete against other media arts students in the SkillsUSA competition and work on obtaining an Adobe Certification. Those who complete the Intro to Film and Video section with a B+ or better can earn 5 college credits towards New England Institute of Technology's Associate's Degree in TV & Radio Production! There are 40 work-based learning hours embedded in this course.

Industry Credentials: Career Essentials Advanced, Adobe Photoshop, Adobe Illustrator, InDesign, OR Premiere

Course Name	CTE Graphic Communications 4
School(s)	PCTA
Course Number/SCED Code	8237
Grade level	12

Prerequisite	CTE-NEIT-VIDEO TECH/STUDIO 1 (CTE Graphic Communications 3)
Credit	2.0

This is the fourth course in the CTE Graphic Communications program sequence.

The course is designed for Seniors in the graphic design and media arts program, creating opportunities to become more involved in A/V Video production and advanced graphic design projects, taking what they learned at PCTA and applying it in real internships and job opportunities in the industry! Students work towards obtaining Adobe ACA Certification by completing rigorous assessments and practice exams. Competition in the SkillsUSA graphic design and video production contests allow students to show off their skills. They also work on real world design projects and jobs for clients that come to the PCTA Media Design Center for services. Over 80 hours of Internship and work based learning hours are available for students outside of school. Class time is spent working with instructors in developing their professional design skills. Instructors assist students in college or career readiness through various instructional methods. There are 40 work-based learning hours embedded in this course.

Industry credentials: Adobe Illustrator, Adobe Photoshop, Adobe Premiere, Adobe InDesign.

Visual Arts

Course Name	CTE VISUAL ARTS 1
School(s)	HOPE
Course Number/SCED Code	8000/05199
Grade level	9-10
Prerequisite	CTE enrollment
Credit	1.0

This is the first course in the CTE Visual Arts program sequence.

The course is designed to introduce students to a wide range of media and techniques relating to the creation and appreciation of works of art. Students explore basic drawing, painting, and sculpture. Students identify significant themes expressed in the works of art from various cultures and time periods. Students participate in individual reflection and group critiques. Students will be exposed to various Arts & Artists through field trips and artist interactions.

Students will develop an individual proficiency portfolio, a process sketchbook, and an artist statement for each piece of work. Students will also begin their web-based portfolio, which will follow them throughout the 4 year CTE program.
Industry credentials:

Course Name	CTE VISUAL ARTS 2
School(s)	HOPE
Course Number/SCED Code	8001/05155
Grade level	10-11
Prerequisite	CTE VISUAL ARTS 1
Credit	1.0

This is the second course in the CTE Visual Arts program sequence.

This course is designed to give second year students the opportunity to develop the proficiencies introduced in CTE Visual Arts 1. Students explore the world of Printmaking, including monotype, relief, and intaglio. Students will experience 2-D and 3-D through the process of Design Thinking and to apply these design principles in individual artistic expression. Students will increase their art vocabulary, historical perspective and written documentation to demonstrate understanding and reflection. Students continue their exposure to various Art & Artists through participation in museum field trips and gallery walks as well as interaction with visiting artists.
Students will continue to add work to their web based portfolios.

Industry credentials:

Course Name	CTE VISUAL ARTS 3
School(s)	HOPE
Course Number/SCED Code	8002/05155
Grade level	11-12
Prerequisite	CTE VISUAL ARTS 2
Credit	1.0

This is the third course in the CTE Visual Arts program sequence.

The course is designed to give third year CTE Visual Arts students hands-on experience with Digital media. Topics include Graphic Design, Animation, Audio Production, Video production and web Design. Students will become proficient with media tools such as Photoshop and Adobe illustrator, and will create original digital media based works for their portfolio. Students will have access to state-of-the-art equipment and tools, and become familiar with industry standards in Media and Digital design. Students will be exposed to

working artists in the field of Digital media through participation in field trips to studios and galleries, as well as through interaction with visiting artists.

Students work towards Adobe Certification In InDesign and/or Illustrator.

Industry credentials:

Course Name	CTE VISUAL ARTS 4
School(s)	HOPE
Course Number/SCED Code	8003/05172
Grade level	12
Prerequisite	CTE VISUAL ARTS 3
Credit	1.0

This is the fourth course in the CTE Visual Arts program sequence.

The course is designed to give fourth year students an opportunity to explore their personal artistic voice through a variety of tools and media, such as Drawing, Painting, Sculpture and Digital media. Students will increase technical skills, develop a more sophisticated approach to process and subject matter, and create a final art-school-ready portfolio demonstrating the breadth of their experience, and the evolution of their skills and ideas. Students prepare an artist statement which explains and contextualizes their body of work.

Students work towards NOCTI certification. Additionally, students submit portfolios that are evaluated based on standardized scoring descriptors aligned with skills and understanding developed in college foundation courses.

Industry credentials:

Course Name	CTE MUSIC 1
School(s)	Mount Pleasant
Course Number/SCED Code	8010/05149
Grade level	9-12
Prerequisite	CTE enrollment
Credit	1.0

This is the first course in the CTE Music program sequence.

The course is designed to give first year students an opportunity to learn basic music theory and performance skills. Students will be exposed to basic music theory and general performance techniques on their chosen musical instrument or voice. Students will develop basic skills and an understanding of music theory and performance.

 Skills will be taught in conjunction with Mount Pleasant Band, Chorus or Piano class.

Industry credentials:

Course Name	CTE MUSIC 2
School(s)	Mount Pleasant
Course Number/SCED Code	8011/05109
Grade level	10-12
Prerequisite	CTE MUSIC 1
Credit	1.0

This is the second course in the CTE Music program sequence.

The course is designed to give second year students an opportunity to continue studies in music theory and instrumental or vocal performance. Students will also be introduced to higher level music and theory. This course will cover performance skills, rhythm training, sight reading and conducting.

Skills will be taught in conjunction with Mount Pleasant Band, Chorus or Piano class.

Industry credentials:

Course Name	CTE MUSIC 3
School(s)	Mount Pleasant
Course Number/SCED Code	8012/ 05109
Grade level	11-12
Prerequisite	CTE MUSIC 2
Credit	1.0

This is the third course in the CTE Music program sequence.

The course is designed to give third year students an opportunity to continue studies in music theory, and instrument or vocal performance. This course will cover performance skills (state festival/solo and ensemble), rhythm training, sight reading, and education skills such as conducting.

Industry credentials:

Course Name	CTE Music 4
School(s)	Mount Pleasant
Course Number/SCED Code	8013/05149
Grade level	12
Prerequisite	CTE MUSIC 3
Credit	1.0

This is the fourth course in the CTE Music program sequence.

The course is designed to give fourth year students an opportunity to continue studies in music theory, music technology and instrument performance. Students will also be introduced to Digital Audio Workstations (Logic) This course will cover performance skills (state festival/solo and ensemble), rhythm training, sight reading, and education skills such as conducting and basic composition of warm ups.

Industry credentials:

INDUSTRY CLUSTER: BUSINESS MANAGEMENT, ADMINISTRATION & FINANCE

<u>Business/Cosmetology</u>

Course Name	CTE Business & Cosmetology 1
School(s)	PCTA
Course Number/SCED Code	8840
Grade level	9
Prerequisite	none
Credit	1.0

This is the first course in the CTE Business & Cosmetology 1 program sequence.

The Cosmetology profession offers a wide range of opportunities. As part of the training the learner must pass a written and practical exam required by the state of Rhode Island before he/she can become licensed. The training period requires that the learner log 1200 hours that need to be completed during the four year term that they are in the Business & Cosmetology program. Cosmetology 1 begins with focusing on chapters 1-5 which consist of an introduction to cosmetology, a historical view, learning the importance of communicating for success, maintaining a professional Image, and Infection Control Principles and Practice. Professional attitudes and appearance are stressed. They will also practice the skills and techniques that are required in cosmetology 1 such as Safety and Infection Control, Shampoos, Wet Hairstyling, Hair Treatments, Hairstyling, Nail Care, and Fundamentals of Business Management. Learners will be assessed weekly and quarterly in theory and their practical skills. Students will also engage in 10 Work Based Learning hours working in the PCTA Salon servicing the public.

Engage in Skills USA Competition

This course will provide opportunities to learn and experience a variety of topics in the field of business. Students will be exposed to various economies, their roles in our economy, entrepreneurship, marketing, managing financial and technological resources, and the use of social media. Course activities involve students in writing, investigating, problem-solving, public speaking, demonstrating, and reporting

Industry credentials: S/P2 Safety in Cosmetology Certificate, Barbicide Certification, Career Essentials Fundamentals

Course Name	CTE-INTRO TO BUSINESS (0.5)
School(s)	PCTA

Course Number/SCED Code	8506
Grade level	9
Prerequisite	none
Credit	1.0

This is the first course in the CTE Business

Industry credentials:

Grade 10

Course Name	CTE Business & Cosmetology 2
School(s)	PCTA
Course Number/SCED Code	8841
Grade level	10
Prerequisite	CTE Business & Cosmetology 1
Credit	1.0

 This is the second course in the CTE Business & Cosmetology 2 program sequence.

The Cosmetology profession offers a wide range of opportunities. As part of the training the learner must pass a written and practical exam required by the state of Rhode Island before he/she can become licensed. The training period requires that the learner log 1200 hours that need to be completed during the four year term that they are in the Business & Cosmetology program. They will also practice the skills and techniques that are required in cosmetology 2 such as a review of Safety and Infection Control, Shampoos, Wet Hairstyling, Hair Treatments, Hairstyling, Haircutting, Intro to Color and Chemical Texture Services, Nail Care, Skin Care and Salon Business. Learners will be assessed weekly and quarterly in theory and their practical skills. Students will also engage in Work Based Learning hours working in the PCTA Salon servicing the public.

Engage in Skills USA Competition
Skills Connect

This course will guide a student through the process of becoming his/her/their own boss and help them to discover the important attributes an Entrepreneur needs in order to start off on the right road to success. Students will work to learn the value of personal branding, professionalism, having an "elevator pitch", and developing essential soft skills. COURSE

OBJECTIVE Students will acquire the necessary knowledge and skills required for organizing and carrying out entrepreneurial activities, to develop the ability to analyze and understand business situations in which entrepreneurs act, and to master the knowledge necessary to plan entrepreneurial activities.

Industry credentials: S/P2 Safety in Cosmetology, Barbicide, Keratin

Business/Cosmetology

Course Name	CTE-EEP MGT100 INTRO TO MANAGEMENT (0.5)
School(s)	PCTA
Course Number/SCED Code	3281
Grade level	
Prerequisite	
Credit	

This is the 3rd course in the CTE Business & Cosmetology program sequence.

Industry credentials:

Grade 11

Course Name	CTE Business & Cosmetology 3
School(s)	PCTA
Course Number/SCED Code	8842
Grade level	11
Prerequisite	CTE Business & Cosmetology 2
Credit	2.0

This is the third course in the CTE Business & Cosmetology 3 program sequence.

The Cosmetology profession offers a wide range of opportunities. As part of the training a learner must pass a written and practical exam required by the state of Rhode Island before he/she can become licensed. The training period requires that the learner log 1200 hours that need to be completed during the four year term that they are in the Business & Cosmetology program. During Cosmetology 3 the learners will practice the skills and techniques that are

required in cosmetology 3 such as a review of Safety and Infection Control, Shampoos, Wet Hairstyling, Hair Treatments, Hairstyling, Wigs, Hair Extensions, Haircutting, Advanced Color and Chemical Texture Services, Nail Care, Skin Care and Salon Business. Learners will be assessed weekly and quarterly in theory and their practical skills. Students will also engage in Work Based Learning hours working in the PCTA Salon servicing the public.

Engage in Skills USA Competition
Skills Connect
This course will guide a student through the process of becoming his/her/their own boss and help them to discover the important attributes an Entrepreneur needs in order to start off on the right road to success. Students will learn the value of personal branding, professionalism, having an "elevator pitch", and developing essential soft skills. COURSE OBJECTIVE Students will acquire the necessary knowledge and skills required for organizing and carrying out entrepreneurial activities, to develop the ability to analyze and understand business situations in which entrepreneurs act, and to master the knowledge necessary to plan entrepreneurial activities. Topics such as business opportunities, finance, marketing, planning, ethics, and risk-taking will be explored. COURSE OUTCOMES Upon completion of this course, the student will be able to: Understand how to translate a personal vision into a business vision Explain what entrepreneurs are and their shared skills and personal characteristics Describe how to identify the best fit customer for a product or service Summarize the key steps in starting your own business Describe the different methods for delivering a product or service to market Explain the purpose and key components of a business plan. Identify the range of marketing options available to an entrepreneur Identify the environmental trends that are instrumental in creating business opportunities. Compare and analyze the methods used for sustained growth in a business Describe the key ethical and legal considerations for entrepreneurs. There are 20 work-based learning hours embedded into this course.

Industry credentials: S/P2 Safety in Cosmetology Certificate; Barbicide Certification, Keratin certification

Course Name	CTE-EEP ACCT201 ACCOUNTING I (2.0)
School(s)	PCTA
Course Number/SCED Code	382
Grade level	
Prerequisite	
Credit	
This is the 3rd course in the CTE Business & Cosmetology program sequence.For EEP College Credit and to receive Certification students must complete all work at a minimum of C and achieve a C or better each quarter and for a final course grade. Final grades will be submitted one week prior to end of year.	

Accounting is an introduction to basic accounting systems, concepts, methods and applications of GAAP (Generally Accepted Accounting Principles). Students learn the identification, measurement, summarization and reporting of financial events and their effect on the business enterprise. A general knowledge of accounting will provide students with the background necessary to study finance, financial markets both profit and non-profit organizations, as well as other related fields.

Students will focus on developing skills in preparing accounting records through the use of the double-entry accounting system. This system involves recording transactions in journals, using source documents, posting to ledgers for both payables and receivables, creating schedules and statements, using worksheets and maintaining a simulated set of account books.

Students are required to take one of the following certification exams at the beginning, mid and end of year.

Precision/YouScience-Accounting 1
OR
NOCTI-Accounting Foundations 1091 or Accounting Basics 4100

Industry credentials:

Course Name	CTE Business & Cosmetology 4
School(s)	PCTA
Course Number/SCED Code	8843
Grade level	12
Prerequisite	CTE Business & Cosmetology 3
Credit	2.0

This is the fourth course in the CTE Business & Cosmetology 4 program sequence.

The Cosmetology profession offers a wide range of opportunities. As part of the training a learner must pass a written and practical exam required by the state of Rhode Island before he/she can become licensed. The training period requires that the learner log 1200 hours that need to be completed during the four year term that they are in the Business & Cosmetology program. During Cosmetology 4 the learners will engage in theory review and practical review in all areas of study. Seniors will prepare for the mock state board written and practical exams, as well as preparing for their Senior Presentation. Students will resume building community

relationships and internships in preparation for employment. Students will also engage in Work Based Learning hours working in the PCTA Salon servicing the public.

Persons trained in sectors such as business, accounting, and personal finance will find that their skills are highly marketable. Students will master basic business principles and procedures in this pathway. The courses offered will emphasize the concepts of accounting and finance, including personal finance, taxes, and economics, as well as entrepreneurship, business ownership, and marketing. By the completion of this pathway, students will become certified in Quickbooks, EverFi, and Small Business and Entrepreneurship. Students will also earn postsecondary credits, see respective subject's syllabus. This course provides students with 20 work-based learning hours.

Industry credentials: Career Essentials Advanced, S/P2 Safety in Cosmetology Certificate Barbicide Certification, Engage in Skills USA Competition, Skills Connect, Keratin Certified Professional Licensure

Course Name	CTE-EEP FIN230 FINANCE (2.0)
School(s)	PCTA
Course Number/SCED Code	241
Grade level	12
Prerequisite	
Credit	2.0

For EEP College Credit and to receive Certification students must complete all work at a minimum of C and achieve a C or better each quarter and for a final course grade. Final grades will be submitted one week prior to end of year.

In Personal Finance students examine the importance of understanding the math of finance and managing money.

Guided by the six steps in financial planning, students learn the fundamentals for financial success in such areas as planning, money management, budgeting, banking, financial institutions, credit, identity theft and consumer rights and investing.

Students will understand how to invest in the stock market and other financial vehicles and develop strategies to meet their long-term goals as part of their financial plan.

Students are required to take one of the following certification exams at the beginning, mid and end of year.
 Industry credentials:

- Precision/YouScience-General Financial Literacy or Business Math & Personal Finance
- NOCTI-Personal Finance Foundations 1088 or Financial Pathways 1121 or Ask Finance 8354
- ASK-Concepts of Finance

INDUSTRY CLUSTER: EDUCATION, TRAINING & HUMAN SERVICES

Teacher Academy

Course Name	CTE Teacher Academy 1
School(s)	JSEC/MOUNT PLEASANT
Course Number/SCED Code	4851
Grade level	9-10
Prerequisite	CTE Enrollment
Credit	1.0

This is the first course in the CTE Teacher Academy program sequence.

Created with support from the National Education Association (NEA) and the American Federation of Teachers (AFT), the EdRising Academy curriculum emphasizes fundamental teaching practices that are critical for high school students to develop as they take their first steps on the path to becoming accomplished professionals. The curriculum showcases teaching as a complex and rewarding profession and inspires students to pursue it as a career.

Educators Rising Standards are as follows:

Standard 1: Understanding the Profession	Standard 5: Implementing Instruction
Standard 2: Learning About Standards	Standard 6: Using Assessments and Data
Standard 3: Building Content Knowledge	Standard 7: Engaging in Reflective Practice
Standard 4: Engaging in Responsive Planning	

Industry Credentials: Career Essentials Fundamentals

Work Based Learning Hours: Mount Pleasant High School - 10 hours
 JSEC - 20 hours

Course Name	CTE Teacher Academy 2

School(s)	JSEC/MOUNT PLEASANT
Course Number/SCED Code	4852
Grade level	10-11
Prerequisite	CTE Teacher Academy 1
Credit	1.0

This is the second course in the CTE Teacher Academy program sequence.

Created with support from the National Education Association (NEA) and the American Federation of Teachers (AFT), the EdRising Academy curriculum emphasizes fundamental teaching practices that are critical for high school students to develop as they take their first steps on the path to becoming accomplished professionals. The curriculum showcases teaching as a complex and rewarding profession and inspires students to pursue it as a career.

Educators Rising Standards are as follows:

Standard 1: Understanding the Profession   Standard 5: Implementing Instruction

Standard 2: Learning About Standards   Standard 6: Using Assessments and Data

Standard 3: Building Content Knowledge   Standard 7: Engaging in Reflective Practice

Standard 4: Engaging in Responsive
Planning

Industry Credentials: Child care and First Aid Certificate.

**Work Based Learning Hours: Mount Pleasant High School - 20 hours
                                   JSEC - 20 hours**

Course Name	CTE Teacher Academy 3
School(s)	JSEC/MOUNT PLEASANT
Course Number/SCED Code	4853
Grade level	11-12
Prerequisite	CTE Teacher Academy 2
Credit	1.0

This is the third course in the CTE Teacher Academy program sequence.

Created with support from the National Education Association (NEA) and the American Federation of Teachers (AFT), the EdRising Academy curriculum emphasizes fundamental teaching practices that are critical for high school students to develop as they take their first steps on the path to becoming accomplished professionals. The curriculum showcases teaching as a complex and rewarding profession and inspires students to pursue it as a career.

Educators Rising Standards are as follows:

Standard 1: Understanding the Profession

Standard 5: Implementing Instruction

Standard 2: Learning About Standards

Standard 6: Using Assessments and Data

Standard 3: Building Content Knowledge

Standard 7: Engaging in Reflective Practice

Standard 4: Engaging in Responsive Planning

Industry Credentials: OSHA 10, Para Pro.

Work Based Learning Hours: Mount Pleasant High School - 30 hours
JSEC - 20 hours

Students also will take Dual enrollment courses their Junior and Senior year.

Course Name	CTE Teacher Academy 4
School(s)	JSEC/MOUNT PLEASANT
Course Number/SCED Code	4854/ 23012
Grade level	12
Prerequisite	CTE Teacher Academy 3
Credit	1.0

Description
Educators Rising Standards are as follows:

Standard 1: Understanding the Profession

Standard 5: Implementing Instruction

Standard 2: Learning About Standards

Standard 6: Using Assessments and Data

Standard 3: Building Content Knowledge

Standard 7: Engaging in Reflective Practice

Standard 4: Engaging in Responsive

Planning

Industry Credentials:

Work Based Learning Hours: Mount Pleasant High School - 40 hours
JSEC - 20 hours

INDUSTRY CLUSTER:ENVIRONMENTAL & LIFE SCIENCES

BioTechnology/BioMedical

Course Name	CTE PLTW PRINCIPLES OF BIOMEDICAL SCIENCE
School(s)	JSEC
Course Number/SCED Code	364/ 14252
Grade level	9-11
Prerequisite	N/A
Credit	1.0

This is the first course in the CTE BioMedical Pathway.

In this course, students explore concepts of biology and medicine as they take on roles of different medical professionals to solve real-world problems. Over the course of the year, students are challenged in various scenarios including investigating a crime scene to solve a mystery, diagnosing and proposing treatment to patients in a family medical practice, to tracking down and containing a medical outbreak at a local hospital, stabilizing a patient during an emergency, and collaborating with others to design solutions to local and global medical problems.

Course Name	CTE PLTW HUMAN BODY SYSTEMS
School(s)	JSEC
Course Number/SCED Code	365/14252
Grade level	10-12
Prerequisite	CTE PLTW PRINCIPLES OF BIOMEDICAL SCIENCE
Credit	1.0

This is the second course in the CTE BioMedical Pathway.

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis in the body. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor

body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases.

Students have the opportunity to also become certified in OSHA-10 during their sophomore year.

Industry Credentials: Career Essentials Fundamentals

Course Name	CTE PLTW MEDICAL INTERVENTIONS
School(s)	JSEC
Course Number/SCED Code	372/14252
Grade level	11-12
Prerequisite	CTE PLTW HUMAN BODY SYSTEMS
Credit	1.0

This is the third course in the CTE BioMedical Pathway.

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

Industry Credentials: CPR/AED/First Aid

Course Name	CTE PLTW BIOMEDICAL INNOVATIONS
School(s)	JSEC
Course Number/SCED Code	373/14252
Grade level	12
Prerequisite	CTE PLTW MEDICAL INTERVENTIONS
Credit	1.0

This is the fourth course in the CTE BioMedical Pathway.

In the final course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public

health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent project with a mentor or advisor from a university, medical facility, or research institution.

Industry Credentials: Career Essentials Advanced

Course Name	EEP URI BIOTECHNOLOGY BCH-190
School(s)	JSEC
Course Number/SCED Code	374/14252
Grade level	12
Prerequisite	CTE PLTW MEDICAL INTERVENTIONS
Credit	1.0

This college-level course is in the CTE Biomedical program sequence.

This course examines the implications of biotechnology to the world economy, politics, careers, ecology, social concerns and ethics. Topics include:
- Agricultural biotechnology-GMOs in food, where agriculture comes from, organic agriculture e
- Pharmaceutical biotechnology - history of drugs used by humans, small molecule drugs, vaccines, antibodies, personalized pharmacy
- Medical biotechnology-stem cells, gene therapy, tissue engineering, nanotechnology
- Pandemic flu and biological weapons dual-use knowledge
- Cancer biology
- Emergent Technologies
- Forensics

Industry Credentials:

INDUSTRY CLUSTER:HEALTHCARE

<u>Healthcare</u>

Course Name	CTE Healthcare 1
School(s)	Alvarez
Course Number/SCED Code	8927
Grade level	9
Prerequisite	none
Credit	0.5
This is the first course in the CTE Healthcare program sequence. This course provides a comprehensive overview of the health field. Topics include the characteristics of health care workers, ethical and legal considerations in health care and selected content common to all health programs. Also, students will investigate the relationship between social injustice—the fundamental cause of health inequities—and everyday public health practice. Healthcare professionals from our community will regularly visit the class to expose students to a variety of healthcare careers. Upon completion, students should know the roles and responsibilities of different members/functional units of the healthcare team; information on related job and educational opportunities; needs and roles of health providers in rural and urban settings. **Industry Credentials:**	

<u>Healthcare</u>

Course Name	CTE Healthcare 2
School(s)	Alvarez
Course Number/SCED Code	8928
Grade level	9/10
Prerequisite	CTE Healthcare 1
Credit	0.5
This is the second course in the CTE Healthcare program sequence. The course provides the study of medical terminology to introduce students to the language of medicine. Topics include an understanding of basic elements, rules of building and analyzing medical words, and medical terms associated with the body as a whole. Utilizing a	

systems-approach, the student will define, interpret, and pronounce medical terms relating to structure and function, diagnostic, symptomatic and surgical. Literal definitions and spelling are stressed. Upon completion, students should be able to pronounce, spell, and define accepted medical terms.

Industry Credentials:

Course Name	CTE Healthcare 3
School(s)	Alvarez
Course Number/SCED Code	8929
Grade level	10
Prerequisite	CTE Healthcare 1
Credit	0.5

This is the third course in the CTE Healthcare program sequence.

Industry Credentials:

Course Name	Anatomy & Physiology
School(s)	Alvarez
Course Number/SCED Code	TBD
Grade level	11
Prerequisite	Intro to Health Careers and Intro to Medical Terminology
Credit	0.5

This is the fourth course in the CTE Healthcare program sequence.

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization; anatomical terminology, study of cells and tissues, exploration of functional systems (skeletal, muscular, circulatory, respiratory, digestive, reproductive, nervous, and so on), and may dissect mammals. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships
Industry Credentials:

INDUSTRY CLUSTER:HOSPITALITY & TOURISM

Culinary Arts

Course Name	CTE Culinary Arts 1
School(s)	PCTA
Course Number/SCED Code	8870
Grade level	9
Prerequisite	none
Credit	1.0

This is the first course in the CTE Culinary Arts 1 program sequence.

This course is designed to give first year Culinary Arts students an introduction to the foodservice industry based on safety, sanitation, food identification, presentation and basic bakery skills.

Students will develop necessary kitchen skills such as good hygiene, health habits, mise en place, knife skills, time management and how to follow standardized recipes. Students will also develop an understanding of how academic skills in mathematics, economics and written and oral communication skills are integral components of success in these fields.

Students will earn the ServSafe Workplace Safety: Sexual harassment prevention for restaurants and unconscious bias in restaurants certifications. They will engage in 10 work-based learning hours by participating in weekly Culinary Arts laboratory activities in the kitchen.

Industry Credentials: none

Course Name	CTE Culinary Arts 2
School(s)	PCTA
Course Number/SCED Code	8871
Grade level	10
Prerequisite	CTE Culinary Arts 1
Credit	1.0

This is the second course in the CTE Culinary Arts 2 program sequence.

This course is designed for second-year students to improve their skills in how the foodservice industry implements safety, sanitation, food preparation, presentation and basic bakery skills.

Students will develop the following skills by focusing on food preparation, changing recipe yields, preventing cross-contamination, and an understanding of how academic skills in mathematics, economics and written and oral communication skills are integral components of success in these fields. There are 10 work-based learning hours embedded within this course.

Industry Credentials: Career Essentials Fundamentals, ServSafe Food Allergen

Course Name	CTE Culinary Arts 3
School(s)	PCTA
Course Number/SCED Code	8872
Grade level	11
Prerequisite	CTE Culinary Arts 2
Credit	2.0

This is the third course in the CTE Culinary Arts 3 program sequence.

This course is designed to give third year culinary students the experience of running a restaurant, both front and back of the house.

Students will learn the skills of menu planning and development, writing accurate menu descriptions, researching menus, changing recipe yield, dining room set up and service. Through these activities, students will gain an understanding of how academic skills in mathematics, economics and written and oral communication skills are integral components of successfully running a restaurant.

Students will earn the ServSafe Food Handler and ProStart Levels 1 certifications. They will engage in 40 work-based learning hours by participating in weekly on-site culinary lab activities and at local internship sites.

Industry Credentials:

Course Name	CTE Culinary Arts 4
School(s)	PCTA
Course Number/SCED Code	8873

Grade level	12
Prerequisite	CTE Culinary Arts 3
Credit	2.0

This is the fourth course in the CTE Culinary Arts 4 program sequence.

This course is designed to give fourth year culinary students the opportunity of developing their culinary skills in-house or through an internship opportunity.

Students will develop the skills of menu planning and execution for an a la carte restaurant, and catered events while taking on management roles in both front and back of the house positions. They will have an understanding of how academic skills in mathematics, economics and written and oral communication skills are integral components of success in the food service industry.

Students will earn the ServSafe Alcohol Service and Pro-Start Level 2 certifications; they also have the option to earn ServSafe Food Manager certification. Students will engage in work-based learning hours by hands-on experiences running PCTA's student-run cafe and through local internship opportunities. After successfully completing the four-course sequence, students will receive the American Culinary Federation (ACF) certificate of completion.

Industry Credentials: Career Essentials Advanced, ServSafe food handling, Prostart

Baking & Pastry Arts

Course Name	CTE Baking & Pastry Arts 1
School(s)	PCTA
Course Number/SCED Code	8120
Grade level	9
Prerequisite	none
Credit	1.0

This is the first course in the CTE Baking & Pastry Arts program sequence.

In this course students will learn the basics of baking, sanitation, safety along with principles, cooking methods, and other various components of the bake shop. Students will spend 50% of their time in shop and in theory. Students will go on line and use e-textbooks such as the new on-baking 3rd edition and 1st year foundations of restaurant management and culinary arts. Students can go online at home or to a library to review assignments 24 hours a day. Students will go into shop and learn how to make from scratch breads, muffins, cookies, and other various baked goods. All of our items we make are sold in our bake shop and used on our dessert menu in

our restaurant.

Industry Credentials: Sevsafe workplace

Course Name	CTE Baking & Pastry Arts 2
School(s)	PCTA
Course Number/SCED Code	8121
Grade level	10
Prerequisite	CTE Baking & Pastry Arts 1
Credit	1.0

This is the second course in the CTE Baking & Pastry Arts program sequence.

In this course students will learn the basics of baking , sanitation ,safety along with principles, cooking methods, and other various components of the bake shop. Students will spend 50% of their time in shop and in theory. Students will go on line and use Etext books such as the new on-baking 3rd editon and 1st year foundations of restaurant management and culinary arts. Students can go online at home or to a library to review assignments 24 hours a day. Students will go into shop and learn how to make from scratch breads, muffins, cookies, and other various baked goods. All of our items

Industry Credentials: Career Essentials Fundamentals

Course Name	CTE Baking & Pastry Arts 3
School(s)	PCTA
Course Number/SCED Code	8122
Grade level	11
Prerequisite	CTE Baking & Pastry Arts 2
Credit	2.0

This is the third course in the CTE Baking & Pastry Arts program sequence.

In this course students will learn advanced baking, Serv-Safe Certification course, 2 nd Year foundations of restaurant management and culinary arts course, Continue with On-baking 3rd edition text. Students will have access to on line Etext books for on-baking and 2nd year

foundations course. They can get access 24 hours a day from home, school, library etc… Students will spend 35% of their time in theory and 65% in shop. Students are also given a quarter project which is worth 10% of their yearly grade. Shop is worth 30% and theory is worth 60% of their grade. Their main focus is to apply the theory that they learn and apply it to the shop application. Students in shop will prepare more advanced baking items such as pies, tortes, advanced breads, cake decorating, soufflés, plated desserts, basic candy making etc… All of our items are made from scratch and sold in our bake shop and restaurant.

Industry Credentials: Servsafe handler, Prostart year 1

Course Name	CTE Baking & Pastry Arts 4
School(s)	PCTA
Course Number/SCED Code	8123
Grade level	12
Prerequisite	CTE Baking & Pastry Arts 3
Credit	2.0

This is the fourth course in the CTE Baking & Pastry Arts program sequence.

In this course students will learn advanced baking, Serv-Safe Certification course, , Continue with On-baking 3rd edition text. Students will spend 50% of their time in theory and 50% in shop. In shop students will Students are also given a quarter project which is worth 10% of their yearly grade. Shop is worth 40% and theory is worth 50% of their grade. Their main focus is to apply the theory that they learn to the shop application. Students in shop will prepare more advanced baking such as pies, tortes, advanced breads, cake decorating, soufflés, plated desserts, basic candy making etc… All of our items are made from scratch and sold in our bake shop and restaurant. There are 40 work based hours embedded in this course.

Industry Credentials: Career Essentials Advanced, Servsafe manager

INDUSTRY CLUSTER: INFORMATION TECHNOLOGY

CS4RI Pathway

Course Name	CS4RI COMPUTER SCIENCE DISCOVERIES
School(s)	E-CUBED, JSEC, CENTRAL, MOUNT PLEASANT
Course Number/SCED Code	8895 / 10021
Grade level	9
Prerequisite	none
Credit	1.0

This is the introductory year in the CS4RI program sequence.

Computer Science Discoveries is an introductory computer science course for 6 - 10th grade students. The course explores computer science by covering topics such as problem solving, programming, physical computing, user centered design, and data, while inspiring students as they build their own websites, apps, animations, games, and physical computing systems. (Districts/schools should highlight the length of course and which modules are covered in their description.)

Course Name	CS4RI URI INTRO TO DATA & COMPUTING SCIENCE
School(s)	CENTRAL, MOUNT PLEASANT, JSEC, PCTA, ALVAREZ CLASSICAL
Course Number/SCED Code	8894/ 10012
Grade level	10-11
Prerequisite	
Credit	1.0

This is the first course in a three course CS4RI sequence.

One semester course for all students that introduces computer programming in an engaging, fun, creative way and provides the computational thinking skills of programming, algorithm development, simulation and data analysis that can be used in other classes. This course can earn students (who elect to do so) 4 URI college credits through the URI CS Concurrent Enrollment Program.

Course Name	CS4RI WORK BASED LEARNING
School(s)	CENTRAL, PCTA, ALVAREZ
Course Number/SCED Code	311 /10198
Grade level	9-12
Prerequisite	
Credit	0.5

This course is part of the CS4RI program sequence.

This one-semester academic course teaches the students about the software development process used in industry including units on CS Workplace; Ideation (coming up with software product ideas and validating them); Design (user experience and user interface design); Implementation (coding and version control); and Testing (software metrics, analytics, A/B testing). Students work in teams with an Industry Mentor to follow the process to create a website for a community organization, for an existing business, or as a start-up company. The course provides students with a rigorous, relevant, interactive and integrated project aligned to the Governor's Workforce Board's (GWB) recommendations for standards of quality.

Course Name	AP COMPUTER SCIENCE PRINCIPLES
School(s)	CENTRAL, MOUNT PLEASANT, JSEC, PCTA & ALVAREZ
Course Number/SCED Code	8651 / 10019
Grade level	11
Prerequisite	CS4RI URI INTRO TO DATA & COMPUTING SCIENCE
Credit	1.0

This is the second course in a three course CS4RI sequence.

Following the College Board's suggested curriculum designed to parallel college-level computer science principles courses, AP Computer Science Principles courses introduce students to the fundamental ideas of computer science and how to apply computational thinking across multiple disciplines. These courses teach students to apply creative designs and innovative solutions when developing computational artifacts. These courses cover such topics as abstraction, communication of information using data, algorithms, programming, and the Internet, global impact. This course can earn students AP college credit and/or 4 URI college credits through the URI CS Concurrent Enrollment Program.

Course Name	CE PLTW-Cybersecurity
School(s)	PCTA, JSEC
Course Number/SCED Code	9584
Grade level	12
Prerequisite	----
Credit	

This is the fourth course in the P-TECH program sequence.

Whether seeking a career in the growing field of cybersecurity or learning to defend their own personal data or a company's data, students in Cybersecurity establish an ethical code of conduct while learning to defend data in today's complex cyberworld.

Course Name	CTE Information Technology Productivity
School(s)	JSEC, E-Cubed & …
Course Number/SCED Code	9565/ 10004
Grade level	11-12
Prerequisite	CS4RI URI Intro to Data & Computing; AP Comp Sci Principles
Credit	1.0

This is an elective course for students in Information Technology pathways.

The goal of this course is to prepare students for all Microsoft Office certifications including Microsoft Word, Excel, Powerpoint, Outlook and Access. Students will learn how to use the Microsoft suite to create documents, spreadsheets, presentations and databases. Students will be able to present text, data and information to multiple audiences for a variety of purposes. Students will prepare to take the MOS exams in each of these 5 areas over the course of the year. These certifications will authentically evaluate student's productively skills and provide industry validation.

Students will complete and present a project for an industry partner. Not only will this be an opportunity for students to demonstrate their proficiency in productivity tools but this will provide Work Based Learning hours.

Industry credentials: Microsoft Word, Microsoft Excel, Microsoft Powerpoint, Microsoft Access

Course Name	CTE Information Technology Support & Services
School(s)	PCTA
Course Number/SCED Code	TBD
Grade level	12
Prerequisite	
Credit	2

INDUSTRY CLUSTER: LAW, PUBLIC SAFETY & GOVERNMENT

Law, Public Safety & Security

Course Name	*Career development/exploratory*
School(s)	*CENTRAL*
Course Number/SCED Code	*3801 SM*
Grade level	*9*
Prerequisite	*none*
Credit	*0.5*

This semester-long course is designed to provide all freshmen the opportunity to explore the various CTE pathways offered at Central High School. At the completion of the class, students can choose what pathway they would like to pursue their sophomore year. Students will develop skills and understandings in the areas of civics and government, law and public safety, forensics and first aid, computer and data science and visual communication/graphic design that will serve as a foundation for the skills and understandings they will need for their chosen CTE pathway. Students will have the opportunity to earn various first aid credentials, such as CPR and will engage in work based learning by hearing from and presenting to industry experts. The curriculum for this class is being developed by Central's own CTE teachers.

Course Name	CTE Forensics
School(s)	CENTRAL
Course Number/SCED Code	5258
Grade level	10
Prerequisite	CTE enrollment
Credit	1.0

This is the second course in the CTE Law & Public Safety program sequence.

This inquiry based lab science course designed to challenge students with topics such as fingerprinting, DNA analysis, blood typing and spattering, trajectories (for ballistics as well as blood spattering) comparative anatomy, and chemical analysis of drugs, poisons, and trace evidence, and the dynamics of Physics. Students will learn about the careers involved with Forensic Science and will play mock roles as experts in the field to solve crimes. They will learn teamwork in solving the mock crimes and have a chance to change their roles as the year

progresses. The students will all be given the tools to interpret data and techniques involved for both chemical and biological analysis of evidence. Student proficiency will be measured by a variety of assessments including, but not limited to, unit tests, lab reports, and projects which will require students to demonstrate their full understanding of the concepts under study.

Course Name	CTE Introduction to Criminal Justice
School(s)	CENTRAL
Course Number/SCED Code	5255
Grade level	11
Prerequisite	Forensics
Credit	1.0

This is the third course in the CTE Law & Public Safety program sequence.

An overview of the American criminal justice system. Discusses in detail the individual components of the criminal justice system, including the police, the courts, and corrections. Designed not only to provide basic understanding of our legal system, but also to provoke thinking on key legal and criminal justice issues such as the death penalty and mandatory sentencing laws.

Students earning a final grade of B in this course are eligible for 3 credits at Roger Williams University.

Course Name	CTE Law in Contemporary Society
School(s)	CENTRAL
Course Number/SCED Code	5257
Grade level	12
Prerequisite	CTE Introduction to Criminal Justice
Credit	1.0

This is the fourth course in the CTE Law & Public Safety program sequence.

Emphasizes comprehensive understanding of the role of law in today's world, including an overview of American legal institutions, federal, state, and local; the fundamental distinctions between civil and criminal law, common law and statutory law, substantive and procedural

law, trial and appellate courts; quasi-judicial agencies and administrative law, current sources of law, and the U.S. Constitution.

Students earning a final grade of B in this course are eligible for 3 credits at Roger Williams University.

Course Name	CTE Firefighter 1
School(s)	CENTRAL
Course Number/SCED Code	8031
Grade level	11
Prerequisite	
Credit	0.5

Course Name	CTE Firefighter 2
School(s)	CENTRAL
Course Number/SCED Code	8032
Grade level	12
Prerequisite	
Credit	0.5

EMT

Course Name	CTE EMT CERTIFICATION

School(s)	CENTRAL
Course Number/SCED Code	7205
Grade level	12
Prerequisite	CTE Enrollment in Law & Public Safety at Central
Credit	0.5

This is a capstone senior year course for students in the Central Law & Public Safety programs.
This course will consist of required EMT coursework and CPR, First Aid, and AED Certification. Upon completion of this course, students will be eligible to take the National Registry of Emergency Medical Technicians Examination. Students are eligible to take the EMT Exam and participate in clinical experience once reaching 18 years of age. As part of this course,

JROTC

Course Name	CTE JROTC Leadership 1
School(s)	HOPE
Course Number/SCED Code	7201/09051
Grade level	9-10
Prerequisite	none
Credit	1.0

This is the first course in the CTE Army Junior Reserve Officers' Training Corps (JROTC) program sequence.

This course supports 22 lessons designed for first-year Cadets. Because the central focus of the JROTC program is to help develop strong leaders and model citizens, first year Cadets are introduced to content that will help the inner leader begin to emerge. Cadets study leadership theory and application, foundations for success, communication/study skills, citizenship, military customs and courtesies, physical training, drill, map reading, and the history and the objective of JROTC.

Course Name	CTE JROTC Leadership 2
School(s)	HOPE
Course Number/SCED Code	7202/09052
Grade level	10-11
Prerequisite	CTE JROTC LEADERSHIP 1
Credit	1.0

This is the first course in the CTE Army Junior Reserve Officers' Training Corps (JROTC) program sequence.

This course continues to emphasize American symbols, customs and traditions and the history and purpose of Army JROTC.

Cadets are also introduced to Personal Finance by way of the National Endowment of Financial Education (NEFE) high school financial planning program. This program guides Cadets to develop a financial plan which involves budgeting, investing, using credit wisely, and keeping money safe and secure and the value of insurance.

Second semester studies include wellness, fitness and first aid, drug awareness, ethical values and principles of good citizenship in American history and Government. Cadets also demonstrate knowledge of drill, map reading and physical training, focusing on various methods of instruction.

Course Name	CTE JROTC LEADERSHIP 3
School(s)	HOPE
Course Number/SCED Code	7203/09053
Grade level	11-12
Prerequisite	CTE JROTC LEADERSHIP 2
Credit	1.0

This is the third course in the CTE Army Junior Reserve Officers' Training Corps (JROTC) program sequence.

Cadets are introduced to the communication process and the principles of writing, speaking, and listening. Cadets will be able to describe and practice the basic principles necessary for preparing and presenting effective oral communications, and will have numerous

opportunities to present information/ideas orally and in writing. Cadets will explore career planning and develop a career and/or college preparation plan as well as developing enhanced social responsibility skills.

Also included in the third year of study are; leadership strategies, foundations of success, managing conflict, career planning, financial planning, citizenship in American history and government with continued practical work in leadership, drill, technology awareness, and methods of instruction, map reading and physical training.

Course Name	CTE JROTC LEADERSHIP 4
School(s)	HOPE
Course Number/SCED Code	7204/09054
Grade level	12
Prerequisite	CTE JROTC LEADERSHIP 3
Credit	1.0

This is the fourth course in the CTE Army Junior Reserve Officers' Training Corps (JROTC) program sequence.

Cadets are given opportunities to demonstrate leadership potential as a role model, coach, and counselor for younger cadets. They will learn management skills and act as an assistant instructor. Cadets will study service to the Nation and financial planning, continue practical work in drill, technology awareness, physical training and command and staff principles.

Cadets will continue to explore career planning by further developing their individualized career and/or college preparation plan.

INDUSTRY CLUSTER: SCIENCE, TECHNOLOGY & ENGINEERING

There is a different sequence and track of Pre-Engineering courses at Mount Pleasant & PCTA

MOUNT PLEASANT Grade 9

Course Name	CTE PLTW Automation & Robotics
School(s)	Mount Pleasant High School
Course Number/SCED Code	9560
Grade level	9
Prerequisite	none
Credit	.5
In this gateway CTE course, students trace the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use the VEX Robotics® platform to design, build, and program real-world objects such as traffic lights, toll booths, and robotic arms.	

Course Name	CTE PLTW Design & Modeling
School(s)	Mount Pleasant High School
Course Number/SCED Code	9559
Grade level	9
Prerequisite	none
Credit	.5
In this second CTE gateway course, students discover the design process and develop an understanding of the influence of creativity and innovation in their lives. They are then challenged and empowered to use and apply what they've learned throughout the unit to design a therapeutic toy for a child who has cerebral palsy.	

Course Name	PLTW Engineering Essentials
School	MOUNT PLEASANT
Course Number/SCED Code	9580

Grade level	9
Prerequisite	CTE Enrollment
Credit	0.5

Engineering Essentials offers a multidisciplinary approach to teaching and learning foundational concepts of engineering practice, providing students opportunities to explore the breadth of engineering career opportunities and experiences and solve engaging and challenging real-world problems. By inspiring and empowering students with an understanding of engineering and career opportunities, Engineering Essentials broadens participation in engineering education and the engineering profession.

MOUNT PLEASANT Grade 10

Course Name	CTE PLTW Introduction to Engineering Design
School(s)	MOUNT PLEASANT
Course Number/SCED Code	9581/ 21017
Grade level	10
Prerequisite	CTE PLTW Engineering Essentials
Credit	1.0

This is the second course in the CTE Pre-Engineering program sequence.

In this Project Lead the Way course, students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3-D modeling software and use an engineering notebook to document their work.

Students also have the opportunity to concurrently take ENG 118 (three credits) at New England Institute of Technology or ES1310 (three credits) at Worcester Polytechnic Institute.

MOUNT PLEASANT Grade 11

Course Name School	CTE PLTW Principles of Engineering
School(s)	MOUNT PLEASANT
Course Number/SCED Code	9572
Grade level	11

Prerequisite	CTE PLTW Introduction to Engineering Design
Credit	1.0

This is the second course in the CTE Advanced Manufacturing program sequence.

In this Project Lead the Way course, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

MOUNT PLEASANT Grade 12

Course Name	CTE PLTW Computer Integrated Manufacturing
School(s)	MOUNT PLEASANT
Course Number/SCED Code	9582
Grade level	12
Prerequisite	CTE PLTW Principles of Engineering
Credit	1.0

This is the third course in the CTE Advanced Manufacturing program sequence.

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the career opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation.

Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

Students also have the opportunity to concurrently take MCT125 (four credits) at New England Institute of Technology or ME1800 (three credits) at Worcester Polytechnic Institute

Course Name	CTE PLTW Engineering Design & Development
School(s)	MOUNT PLEASANT
Course Number/SCED Code	9583 / 21025

Grade level	12
Prerequisite	Computer Integrated Manufacturing
Credit	1.0

This is the fourth course in the CTE Pre-Engineering program sequence.

The knowledge and skills students acquire throughout PLTW Engineering come together in EDD as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of practicing engineers. Students apply the professional skills they have developed to document a design process, and they complete EDD ready to take on any post-secondary program or career.

Students also have the opportunity to concurrently take MCT125 (three credits) at New England Institute of Technology

Students have the opportunity to also become certified in OSHA-10 & Solidworks during their senior year.

PCTA Grade 9

Course Name	CTE PRE-ENGINEERING 1
School(s)	PCTA
Course Number/SCED Code	8850/21005
Grade level	9-10
Prerequisite	CTE Enrollment
Credit	1.0

This is the first course in the CTE Pre-Engineering program sequence.

Students will get an understanding of what they will learn within the pre-engineering program. They will be introduced to what an engineer does and all the different types of engineers. They will learn to use Sketch-up and begin to utilize Solid Works, Autocad, and 3-D printing with the major topics covered including ethics in engineering, graphical communication, and the engineering design process.

PCTA Grade 10

Course Name	CTE PLTW Introduction to Engineering Design
School(s)	PCTA
Course Number/SCED Code	9581/ 21017
Grade level	10
Prerequisite	CTE Pre-Engineering 1
Credit	1.0

This is the second course in the CTE Pre-Engineering program sequence.

In this Project Lead the Way course, students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3-D modeling software and use an engineering notebook to document their work.

PCTA Grade 11

Course Name	CTE PLTW Computer Integrated Manufacturing
School(s)	PCTA
Course Number/SCED Code	9582/ 21022
Grade level	11
Prerequisite	
Credit	1.0

This is the third course in the CTE Pre-Engineering program sequence.

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the career opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation.

PCTA Grade 12

Course Name	CTE PLTW Engineering Design & Development
School(s)	PCTA
Course Number/SCED Code	9583 / 21025
Grade level	12
Prerequisite	Computer Integrated Manufacturing
Credit	1.0

This is the fourth course in the CTE Pre-Engineering program sequence.

The knowledge and skills students acquire throughout PLTW Engineering come together in EDD as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of practicing engineers. Students apply the professional skills they have developed to document a design process, and they complete EDD ready to take on any post-secondary program or career.

Students also have the opportunity to concurrently take MCT125 (three credits) at New England Institute of Technology

Students have the opportunity to also become certified in OSHA-10 & Solidworks during their senior year.

INDUSTRY CLUSTER: TRANSPORTATION, DISTRIBUTION & LOGISTICS

Auto

Course Name	CTE Automotive 1
School(s)	PCTA
Course Number/SCED Code	8810
Grade level	9
Prerequisite	none
Credit	1.0

 This is the first course in the CTE Automotive 1 program sequence.

Automotive Technology is designed to develop basic cognitive and performance skills for the automotive repair Industry and to prepare students to enter an associate's degree program in automotive technology or gain entry-level employment. Students will study in all eight areas of ASE Certification; Brakes, Engines, Steering & Suspension, Electrical, Engine performance, HVAC, Automatic Transmission and Manual Transmission according to the 2018 NATEF standards.

Industry credentials: Lift certification, Alldata CAIS and KEX tire repair certification

Course Name	CTE Automotive 2
School(s)	PCTA
Course Number/SCED Code	8811
Grade level	10
Prerequisite	CTE Automotive 1
Credit	1.0

 This is the second course in the CTE Automotive program sequence.

Automotive Technology is designed to develop basic cognitive and performance skills for the automotive repair Industry and to prepare students to enter an associate's degree program in automotive technology or gain entry-level employment. Students will study in all eight areas of ASE Certification; Brakes, Engines, Steering & Suspension, Electrical, Engine performance,

HVAC, Automatic Transmission and Manual Transmission according to the 2018 NATEF standards.

Industry Credentials:HUNTER tire changer, balancer and alignment certification.

Course Name	CTE Automotive 3
School(s)	PCTA
Course Number/SCED Code	8812
Grade level	11
Prerequisite	CTE Automotive 2
Credit	2.0

This is the third course in the CTE Automotive program sequence.

Automotive Technology is designed to develop basic cognitive and performance skills for the automotive repair Industry and to prepare students to enter an associate's degree program in automotive technology or gain entry-level employment. Students will study in all eight areas of ASE Certification; Brakes, Engines, Steering & Suspension, Electrical, Engine performance, HVAC, Automatic Transmission and Manual Transmission according to the 2018 NATEF standards.

Industry Credentials: ASE Mlr certification

Course Name	CTE Automotive 4
School(s)	PCTA
Course Number/SCED Code	8813
Grade level	12
Prerequisite	CTE Automotive 3
Credit	2.0

This is the fourth course in the CTE Automotive program sequence.

Automotive Technology is designed to develop basic cognitive and performance skills for the automotive repair Industry and to prepare students to enter an associate's degree program in

automotive technology or gain entry-level employment. Students will study in all eight areas of ASE Certification; Brakes, Engines, Steering & Suspension, Electrical, Engine performance, HVAC, Automatic Transmission and Manual Transmission according to the 2018 NATEF standards.

Industry Credentials:ASE MLR certification