

CAREER TECHNICAL EDUCATION (CTE) PATHWAYS

Career Technical Education (CTE) graduates, those students who complete an approved CTE pathway, with high school diplomas and related postsecondary skills, are prepared for careers in fields that are growing or in high-demand. CTE provides relevant academic and technical coursework leading to industry-recognized credentials and helps students compete when applying for college entrance.

According to the Monterey County Workforce Investment Board there is a high demand for jobs in the following occupations: **Tourism and Hospitality** (event planners/managers, cooks, caterers), **Education** (teachers, especially in Math, Science, and Special Education), **Agriculture** (mechanics, technology, managers, food science), and **Health and Medical Technology** (medical/dental assistants, LVN/nurses, home health aides).

Education, Child Development, and Family Services

Industry Sector Remember how a teacher influenced your life? With a large number of employees predicted to retire from education, child development and family services in the next decade, a wealth of career opportunities will be available. If you enjoy teaching children from preschool to high school, or you want to be a college professor, this sector is for you. The Education Pathway prepares students for professional or support positions, pre-kindergarten through grade twelve. Students study human development, positive guidance and counseling techniques, age and grade appropriate learning strategies, and instructional design. The Consumer Services pathway will help students learn employment and management skills that include business structure, consumer rights and responsibilities, energy, environment and resource management, product testing and demonstration, and consumer communications. Careers include Financial Planners, Product and Development Researchers, and Public Relations and Customer Service Representative.

Education Pathway and Consumer Education Pathway

57440 Introductory Course for Service Industries (Hospitality, Education, and Therapeutic Services Pathway)

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 9 -12 Credits: 10 (Year-long course)

Prerequisites: None

This introductory course for Service Industries is focused on providing a strong foundation for the Hospitality, Education, and Patient Care pathways. Instruction in the content areas of child development and guidance; consumer education; family and human development; education; food and nutrition; individual and family health; and leadership is designed to prepare students with the knowledge, skills and attitudes to function effectively as family members; leaders, workers, and citizens. This course also covers the history and development of the medical profession, healthcare organization, and medical specialties, as well as skills that qualify students to work as assistants in both front and back medical offices and clinics. This class will also assist students in identifying aptitudes in health careers, and also learn medical terminology, patient care skills, and medical instruments. Job shadowing may be performed in local hospitals or medical offices. CPR and First Aid

certifications will be gained in this course.

57445 Child Development in Education

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 9 -12 Credits: 10 (Year-long course)

Prerequisites: Introductory Course for Service Industries

This concentration course prepares students to understand children's physical, mental, emotional, and social growth and development as well as provide for their care and guidance. It will also provide provides a study of research theories in human growth and development. This course provides a solid foundation for any career that involves working with children, including childcare and education. Instruction will be provided in establishing positive learning environments, social interaction, and communication skills. Topics to be explored include prenatal development, inherited characteristics, health and safety, guidance and discipline, cultural diversity, child abuse and neglect, changes and crises, and children with special needs. This course is highly recommended for students interested in careers in education.

57450 Careers in Education

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 10-12 Credits: 10 (Year-long course)

Prerequisites: Completion of Child Development in Education

This course is designed to prepare students for professional or learning support positions in education, pre-kindergarten through grade twelve. Students study human development, standards, regulations and codes, positive guidance and counseling techniques, age-appropriate and grade-appropriate learning strategies, learning theories, and standards-based curriculum and instructional design, and professionalism. Students can apply and practice their knowledge and skills in a variety of settings.

Hartnell Principles and Practices of Teaching Young Children ECE-1 (Fall Semester) Meets Electives requirement. CSU transferable credit course.

Grades:11-12 Credits: 5 semester long course (weighted)

An examination of the underlying theoretical principles of developmentally appropriate practice in early care and education. Emphasis on the role of the early childhood educator, the importance of teacher-child relationship, and effective teaching strategies and environmental design for supporting development in young children. This course includes a review of the historical roots of early childhood programs and the evolution of the professional practices promoting advocacy, ethics, and professional identity.

Health Science and Medical Technology Industry Sector

Health care is one of the fastest growing career sectors and requires professional level preparation. This pathway focuses on Therapeutic Services that assists patients in overcoming disease, illness or injury.

Occupations include Physical Therapy Aide, Medical Assistant, Licensed Vocational Nurse, Certified Nursing Assistant, Pharmacist, Physical Therapist, and Physician Assistant. Skill sets needed include critical thinking, problem solving, communication, biology, physics, math, and chemistry.

Therapeutic Services Pathway

57440 Introductory Course for Service Industries (Hospitality, Education, and Therapeutic Services Pathway)

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 9 -12 Credits: 10 (Year-long course)

Prerequisites: None

This introductory course for Service Industries is focused on providing a strong foundation for the Hospitality, Education, and Patient Care pathways. Instruction in the content areas of child development and guidance; consumer education; family and human development; education; food and nutrition; individual and family health; and leadership is designed to prepare students with the knowledge, skills and attitudes to function effectively as family members; leaders, workers, and citizens. This course also covers the history and development of the medical profession, healthcare organization, and medical specialties, as well as skills that qualify students to work as assistants in both front and back medical offices and clinics. This class will also assist students in identifying aptitudes in health careers, and also learn medical terminology, patient care skills, and medical instruments. Job shadowing may be performed in local hospitals or medical offices. CPR and First Aid certifications will be gained in this course.

57310 Foundations to Medical Careers

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 10 -12 Credits: 10 (Year-long course)

Prerequisites: Completion of Introductory Course for Services Industries

This course is an introduction to the nursing profession, its responsibilities and its legal and ethical issues in nursing practice. The class will cover basic concepts and nursing care in the following areas: medical-surgical, pediatric, mental health and maternal-newborn. Students will learn pharmacology to include drug preparation, dosages and administration. Common nursing procedures such as: venipuncture, IV skills, wound care, and urinary catheterization are taught. Job shadowing is performed in local hospitals or medical offices.

57980 Hartnell Medical Terminology HES-80 (Fall Semester)

Grades: 11 - 12 Credits: 5 (Semester long course) UC/CSU: (Will fulfill college elective credit)

Prerequisites: None

This course introduces the foundations of medical word-building principles as essential tools for effective communication in the health services industry.

57982 Hartnell Introduction to Public Health HES-1 (Spring Semester)

Grades: 11 - 12 Credits: 5 (Semester long course) UC/CSU: (Will fulfill college elective credit)
Prerequisites: Successful completion of Hartnell Medical Terminology

This course provides an introduction to the discipline of public health and an overview of terminologies and basic concepts of public health, public health professions, institutions, and public health disciplines. Areas of public health such as epidemiology, prevention and control of diseases in the community, analysis of social determinants of health, health disparities, community health promotion programming, environmental health and safety, and healthcare policy will be covered.

57330 Certified Nurse Assistant/Health Aide (CNA)

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement

Grades: 10 -12 Credits: 10 Double period, year-long course)
Prerequisites: Student must be 16 years of age to take state certification exam.

This program is designed to meet the criteria for State Certification as a Certified Nursing Assistant/Home Health Aide. Students learn basic nursing skills and practice them both in class and in the long-term nursing care setting. Extra hours outside of the classroom are necessary to be eligible for State Certification. This class is a registered/licensed nursing prerequisite for local colleges. Uniform required. Guaranteed employment in industry upon completion.

Hospitality, Tourism, and Recreation IndustrySector

If you enjoy working with different people on a day-to-day basis and you have a passion for cooking, travel, sports or nutrition, the following career pathway will give you the education and experience necessary. The Food Service and Hospitality pathway prepares students for a wide range of careers in restaurants, hotels, clubs, schools, resorts, hospitals, and institutions.

Food Service and Hospitality Pathway

57440 Introductory Course for Service Industries (Hospitality, Education, and Therapeutic Services Pathway)

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.
Grades: 9 -12 Credits: 10 (Year-long course)
Prerequisites: None

This introductory course for Service Industries is focused on providing a strong foundation for the Hospitality, Education, and Patient Care pathways. Instruction in the content areas of child development and guidance; consumer education; family and human development; education; food and nutrition; individual and family health; and leadership is designed to prepare students with the knowledge, skills and attitudes to function effectively as family members; leaders, workers, and citizens. This course also covers the history and development of the medical profession, healthcare organization, and medical specialties, as well as skills that qualify students to work as assistants in both front and back medical offices and clinics. This class will also assist students in identifying aptitudes in health careers, and also learn medical terminology, patient care skills, and medical instruments. Job shadowing may be performed in local hospitals or medical offices. CPR and First Aid certifications will be gained in this course.

57400 Beginning Culinary

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 9 -12 Credits: 10 (Year-long course)

Prerequisites: Completion of Introductory Course for Service Industries

This concentration course expands on the comprehensive core and prepares students to understand the scientific principles of nutrition, the relationship of nutrition to health and well-being, and careers related to food and nutrition. Instruction includes nutrition and health, safety and emergencies, food safety and sanitation, meal management, food preparation, food purchasing, food in culture, the science of food and nutrition, food costs and production, and food technology. Instruction will include preparation of meats, fruits, vegetables, as well as baked goods and pastries. This course provides a solid background for a wide range of careers in food science, dietetics and nutrition, as well as food service and hospitality.

57420 Advanced Culinary and Hospitality

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 10 -12 Credits: 10 (Year-long course)

Prerequisites: Student must have earned a grade of C or higher in Beginning Culinary.

A capstone course that prepares individuals with the skills, attitudes and knowledge needed for employment in food and beverage production and preparation occupations. Instruction includes such topics as customer relations; industry awareness; sanitation and food handling; nutrition; standardized recipes and measurements; tools, utensils, appliances and equipment; and operational procedures. Students develop skills to select and use proper equipment, supplies and procedures to produce a variety of food products to be sold or served; plan menus and arrange for equipment, decorations, entertainment, transportation and storage of food. Culinary instruction will include advanced knife skills, food styling and plating, and advanced cooking methods, including international foods. Students may also pursue their Serv Safe certification.

Public Service Industry Sector

This sector provides a foundation for students interested in being involved in their community and helping their fellow citizens to make improvements in the communities they serve. The Public Services pathway primarily addresses public order, fire protection, and emergency medical services. Many of these careers help to protect people from danger and ensure their health and safety. These careers include: Police Officers, Sheriff Deputies, California Highway Patrol, Fire Fighters, Emergency Medical Technicians, Forensics, and Animal Control.

Protective Services Pathway

57600 Introduction to Public Service: First Responders-Fire,

Police, EMT Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 9 -12 Credits: 10 (Year-long course)

Prerequisites: None

This course introduces theories, principles, and techniques used in occupations that fall under the heading of Public Safety including police, corrections, and homeland security, as well as an outline of the Emergency Medical System, assessment skills, and pathophysiology of common neurological, respiratory, and cardiac related emergencies. The course is also a training course for emergency medical technicians performing as ambulance attendants. It covers techniques of emergency medical care presently considered within the responsibilities of the emergency medical technician, and emphasizes the development of student skills in recognition of symptoms of illnesses and injuries and proper procedures of emergency care. Policies, procedures, and skills needed in services that provide for the safety and security of people and property and prevention of theft and damage are included. First Responder medical aid will also be a part of the course to provide the students with the knowledge and skills necessary to adequately assess and provide care for victims at the scene of injury.

57610 Fire Science, Behavior, Combustion and Technology

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 10-12 Credits: 10 (Year-long course)

Prerequisites: Successful completion of Introduction to Public Service/First Responder/Fire and Police with a grade of "B" or higher (per MPC requirements).

This course is a Monterey Peninsula College (MPC) concurrent enrollment course (FPCT 2 Fire Academy) for students interested in a career in Fire Science.

This course is designed to prepare individuals for fighting fires and related tasks. Students will learn about fire protection organizations, use and handling of firefighting equipment and apparatuses, fire protection and safety, fire behavior and extinguishment methods, rescue and ventilation operations, fire control, and salvage and overhaul of structures. Wild land firefighting will also be taught in conjunction with other fire fighter concepts and competencies. Practical experience will be gained through live fire and simulated exercises. This course prepares individuals to function as fire control, prevention, and safety specialists. It includes instruction in structural design and materials; meteorological factors impinging on fire situations; the chemistry of combustion; techniques for coping with fires; and procedures for handling hazardous materials (such as petroleum products and other volatile, explosive, or corrosive materials) either routinely or in an accident situation. Instruction includes methods for inspection of equipment and its proper use and for inspection of public and private property for safety conditions.

57620 Fire Cadet

UC/CSU non approved course. Graduation credit only. Meets Elective requirement.

Grades: 11-12 Credits: 10 (Year-long course)

Prerequisites: Student must have received a grade of C or higher in Fire Science, Behavior, Combustion, and Technology

This course prepares individuals to fight fires and control the outbreak of fires. It includes instruction in fire department organization; the use of water and other materials in firefighting and the use of equipment such as extinguishers, pumps, hoses, ropes, ladders, gas masks, hydrants, and standpipe and sprinkler systems. Instruction includes methods of entry and rescue; salvage practices and equipment; and fire and arson inspection and investigation techniques. This course articulates with MPC Fire Academy.

57605 Administration of Justice

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 10-12 Credits: 10 (Year-long course)

Prerequisites: Successful completion of Introduction to Public Service: First Responders-Fire, Police, EMT with a grade of "C" or higher.

This course describes the theories, principles, and techniques used in the development, administration, and management of institutions whose purpose is the incarceration, behavior modification, rehabilitation, and return to society of legal offenders.

57615 Advanced Criminal Justice

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 11-12 Credits: 10 (Year-long course)

Prerequisites: Successful completion of Administration of Justice with a grade of "C" or higher. This course provides an introduction to the criminal justice system, focusing on state and federal laws designed to safeguard the public. Also included are analysis of civil rights guarantees, an introduction to the state and federal court system and an overview of the role of law enforcement personnel within the justice system. Students are introduced to the academic, personal, physical and psychological prerequisites for a career in law enforcement and the shared mission of local, state, federal and international safety agencies in safeguarding the public and property.

57625 Restorative Justice: Impacting Campus and Community through Serv. Learning

UC/CSU approved course Meets G-Elective Requirement.

Grades: 11-12 Credits: 10 (Year-long course)

Prerequisites: Successful completion of Administration to Justice with a grade of "C" or higher.

Restorative Justice: Impacting Campus and Community Through Service Learning is an upper level college preparatory elective course integrated with the Public Services CTE sector. In this course, students will examine the roles of social workers, mediators, advocates, and law enforcement officers as peacekeepers and problem solvers in society. Students will begin with an introspective look at themselves and inner workings of the human brain as it pertains to conflict and conflict resolution and then utilize this knowledge as they explore the ideology that drives careers in various fields of public service. Throughout the course, students will develop a deeper understanding of the specific requirements and physical and emotional demands that are unique to these career fields. Students ultimately apply the knowledge they gain throughout the course by participating in service learning projects that require them to move beyond the classroom in their outreach efforts.

Hartnell Introduction to Administration of Justice ADJ-1 (Fall Semester) Meets Electives requirement. UC and CSU transferable credit course.

Grades: 11-12 Credits: 5 semester long course (weighted)

Provides an overview of the American criminal justice system and the various subsystems. Focuses on the roles and role expectations of criminal justice agencies in their interrelationships in society and

emphasized the concepts of criminal law and its effect on policing, crime causation, the Constitution and its effect on law enforcement, punishment and rehabilitation. Also discusses ethics, education and training for professionalism in the social system.

Hartnell Community Relations and the Justice System ADJ-2

(Spring Semester) Meets Electives requirement. UC and CSU transferable credit course.
Grades: 11-12 Credits: 5 semester long course (weighted)

A theoretical and conceptual overview of multicultural issues, including those relating to ethnicity, race relations, gender, age and sexual preference. The course focuses on cultural/ethnic groups in California and their relationship with law enforcement and justice administration, including courts and corrections. Explores the interaction of the criminal justice agents and the community; theoretical and conceptual overview of multicultural issues affecting human relations; effects of prejudice, bias, and discrimination; awareness of individual and cultural differences affecting human interaction and peacekeeping strategies in a diverse society.

57630 Emergency Medical Technician

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 11-12 Credits: 10 (Year-long course)

Prerequisites: Successful completion with a grade of "C" or higher of Administration of Justice or Fire, Science, Behavior, Combustion and Technology.

Students learn the techniques of emergency medical care designed to meet the State of California Requirements for certification of EMT-1 (ambulance) personnel. Emergency Medical Technician Basic Training is designed to meet the Department of Transportation, National Registry of EMTs, and State of California requirements for certification as a EMT Basic (Ambulance) crew member. CPR certification will be provided by a healthcare provider. (Prerequisite to the Basic Fire Academy)

57650 Sports Medicine - Kinesiology

UC/CSU approved course. Meets Laboratory Science or G-Elective Requirement.

Grades: 11-12 Credits: 10 (year-long course) UC/CSU: (fulfills D or G requirement) Prerequisites: Grade of "C" or higher in Foundation to Medical Careers

This course meets the UC requirement for laboratory science. This competency based course is designed for all students seeking a career in the healthcare field. The course will focus on the concepts and principles of structure, functions, and systems of the human body. Students will gain an understanding of the anatomical and physiological principles that govern the human body. This course focuses on lab methods, critical thinking, communication and the technological skills needed to advance as a science major or Kinesiology student in the UC system.

57660 Sports Medicine - Athletics

UC/CSU approved course. Meets G-Elective Requirement.

Grades: 11-12 Credits: 10 (year-long course) UC/CSU: (fulfills G requirement) Prerequisites:

Grade of "C" or higher in Sports Medicine - Kinesiology

This course meets the UC requirement for elective and is the capstone class of the Sports Medicine Pathway. This course provides instruction in advanced topics related to the field of sports medicine. Advanced anatomy, cell and tissue structure and response to injury, body systems, exercise physiology, therapeutic modalities, therapeutic exercise, pharmacology, kinesiology, and taping principles will be integrated with the prevention, treatment, and rehabilitation of athletic injuries. In addition, ethic and legal issues related to professions in health industries will be addressed.

Information Technology Sector

Information technology careers involve the design, development, support and management of hardware, software, multimedia and systems integration services. You can take the skills learned in these pathways and apply them to any sector in our economy. The Media Support and Services pathway uses digital media to communicate with existing and potential customers. Careers include creating, designing, and producing multimedia products and services to include e business websites or computer enhanced visual media. The Information Support and Services pathway prepares students for careers that involve the implementation of computer services and software. The Programming and Systems Development pathway prepares students for careers that involve the design, development, and implementation of computer systems and software to include operating systems, programming language, and software development.

Media Support and Services Pathway

57998 21st Century Skills

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grade: 9 Credits: 5 credits (one semester course). All 9th grade students required to take this course along with Health.

Prerequisites: None

This course is required and designed for 9th grade students for the current and future world of work, learning, technology, community, as well as self and social awareness. With a focus on technology and college and careers, this course provides equity and accessibility to multiple Career Technical Education pathways and allows students to gain exposure to the opportunities within CTE, explore site based CTE courses while also creating foundations for success in these areas. It is meant to enrich and assist students as they learn to become effective team members, citizens of the community, self directed life- long learners, effective researchers, effective communicators and proficient with technology, and adaptable to change in an ever expanding world.

57040 Multimedia Art

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 10 -12 Credits: 10 (Year-long course)

Prerequisites: 21st Century Skills or equivalent course

In Multimedia Art, students will learn the elements of art and principles of design as applied to various forms of media and a series of projects to learn the Photoshop tool and learn the artistic concepts students need to produce art. In the second semester, students will expand their knowledge through a series of projects to learn the Illustrator tools to become critical and creative in analyzing media and

creating multimedia projects. Additionally, the projects created will help students to develop skills in graphic design, photography, and web design.

57041 Multimedia Production

Non UC/CSU approved course. Graduation credit only. Meets Elective Requirement.

Grades: 10 -12 Credits: 10 (Year-long course)

Prerequisites: Successful completion with a "C" or higher of Multimedia Art

This is a hands-on course in computer graphics design and production techniques for video and business applications. Students produce special interest videos, cartoon animations, and every student must participate in a video taping of a live school event as part of a production team.

57043 Web Design

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 10 -12 Credits: 5 (one semester)

Prerequisites: Successful completion with a "C" or higher in Multimedia Art

Students will learn to design personal webpages using graphic editors, tools, and programs. The final project is a public service web design site project. Students will design websites with multimedia content, study advanced Flash, streaming audio and video, and integrate Photoshop techniques. Students may also study CGI, C++, JavaScript and/or PERL programming. Adobe Certified Expert certification may be granted upon successful completion.

Information and Support Services Pathway

57998 21st Century Skills

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grade: 9 Credits: 5 credits (one semester). All 9th grade students required to take one semester along with Health. Prerequisites: None

This course is required and designed for 9th grade students for the current and future world of work, learning, technology, community, as well as self and social awareness. With a focus on technology and college and careers, this course provides equity and accessibility to multiple Career Technical Education pathways and allows students to gain exposure to the opportunities within CTE, explore site based CTE courses while also creating foundations for success in these areas. It is meant to enrich and assist students as they learn to become effective team members, citizens of the community, self directed life- long learners, effective researchers, effective communicators and proficient with technology, and adaptable to change in an ever expanding world.

57000 Beginning Computer Applications

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 10-12 Credits: 10 (Year-long course)

Prerequisites: 21st Century Skills or equivalent course

This course is project-based designed to provide students with hands-on use of spreadsheets, word processing and presentation applications while studying computer concepts such as cloud computing and the Internet. The effective use of technology and internet resources are used to further develop teamwork, communication and presentation skills in a variety of formats. These applications may be taught through a wide variety of units of study which may include topics like: Internet Safety, Career Exploration, and Financial Literacy.

57010 Advanced Computer Applications

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 10-12 Credits: 10 (Year-long course)

Prerequisites: Successful completion with a "C" or higher Beginning Computer Applications

This course continues to build on the skills learned in Beginning Computer Applications. Students will become proficient in the use of spreadsheets, word processing and presentation applications, including cloud and Internet-based applications. Successful completion of this course may lead to Microsoft Office Specialist certification, an industry-recognized certification valued by potential employers.

Programming and Systems Development Pathway

57998 21st Century Skills

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grade: 9 Credits: 5 credits (one semester). All 9th grade students required to take one semester along with Health. Prerequisites: None

This course is required and designed for 9th grade students for the current and future world of work, learning, technology, community, as well as self and social awareness. With a focus on technology and college and careers, this course provides equity and accessibility to multiple Career Technical Education pathways and allows students to gain exposure to the opportunities within CTE, explore site based CTE courses while also creating foundations for success in these areas. It is meant to enrich and assist students as they learn to become effective team members, citizens of the community, self directed life- long learners, effective researchers, effective communicators and proficient with technology, and adaptable to change in an ever expanding world.

57015 Introduction to Computer Science

Non UC/CSU approved course. Graduation credit only. Meets Elective requirement.

Grades: 10 -12 Credits: 10 (Year-long course)

Prerequisites: 21st Century Skills or equivalent course

The course is designed to focus on the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve particular problems. Students computational thinking practices of algorithm development, problem solving, and programming will be developed. Interface design, limits of computers, and societal and ethical issues will be introduced. In-depth understanding of how the content of their course connects to careers in the Information and Communication Technology sector and careers in Science, Technology, Engineering, and Mathematics