Agriculture & Natural Resources

Animal Science Pathway

- **Agriculture Science – G700 (Voc. Ed. Level 01)**

Agriculture Science is offered to first year agriculture students who are interested in agriculture and possibly studying agriculture in a college or university. It has been designed to provide students with a unique perspective of agriculture and its impact on American society. It also provides students with critical thinking and leadership development skills via the Future Farmers of America (FFA), as well as foundation skills and knowledge in the seven program areas of agriculture. The Agriculture Science course is designed to be both academically challenging and demanding. Students will be expected to not only acquire knowledge, but also to organize, analyze, evaluate, predict, problem solve, and apply this knowledge. The student must be able to read and comprehend a variety of materials, demonstrate writing skills that convey ideas in written and visual form, speak with clarity, meaning and confidence, exhibit creativity, use technology in research and accessing information, appreciate and respect individual and cultural differences, and demonstrate the ability to work collaboratively.

- **Agriculture Projects – G704 (180 hours) (Voc. Ed. Level 01)**

Students enrolled in this course will be involved in the Supervised Agriculture Experience Project (SAEP) and Future Farmers of America (FFA) Leadership. Students will concentrate on the development of agricultural projects, record keeping (both paper book and electronic record book), leadership, judging contests, and field days. Students will have full advantage of opportunities for awards and scholarships through FFA and other affiliations offering awards. Participation in the Orange County Fair, contests, Farm Fest and other FFA leadership projects will be included.

- **Animal Care I – O700 (180 hours) (Voc. Ed. Level 02)**

This course provides students with classroom instruction in the animal care field. Essential employability skills include career opportunities in the animal care field, plus personal and interpersonal skills, career development and employment literacy. The course includes content area instruction in: animal handling and restraint, medical/scientific terminology, immunology / physiology, sanitation, safety, nutrition/health, domestic/exotic breeds and species, genetics, cellular biology, animal behavior, conservation/ecology, evolution and animal traits, scientific theory and general animal husbandry. Course meets California science standards and high school students may use this class towards graduation credit. Students may continue in Animal Care II for an internship experience.

- **Agriculture Biology – G705 (Voc. Ed. Level 02)**

Agriculture Science is offered to first year agriculture students who are interested in agriculture and possibly studying agriculture in a college or university. It has been designed to provide students with a unique perspective of agriculture and its impact on American society. It also provides students with critical thinking and leadership development skills via the Future Farmers of America (FFA), as well as foundation skills and knowledge in the seven program areas of agriculture. The Agriculture Science course is designed to be both academically challenging and demanding. Students will be expected to not only acquire knowledge, but also to organize, analyze, evaluate, predict, problem solve, and apply this knowledge. The student must be able to read and comprehend a variety of materials, demonstrate writing skills that convey ideas in written and visual form, speak with clarity, meaning and confidence, exhibit creativity, use technology in research and accessing information, appreciate and respect individual and cultural differences, and demonstrate the ability to work collaboratively.

- **Animal Care II – O701 (180 hours) (Voc. Ed. Level 02)**

This course combines classroom instruction and community classroom internship for those students who would like to enter or expand their skills in the animal care field. Students will select a focus area for internship training: zoo/nature center, veterinary, kennel, pet store, groomer or stable. Those students who obtain related employment are eligible for expanded CCTE hours to attain higher level proficiencies. Students will concentrate on higher level thinking skills and expand their knowledge of: ecology and conservation, animal health and safety, animal behavioral concepts and operant condition techniques. Students will learn canine CPR and first aid, practice public speaking and develop a working portfolio. Students will explore further into career choices with field trips and in-classroom speakers. Students will be required to present a research presentation on an endangered species as a final project.

- **Veterinary Science – G702 (180 hours) (Voc. Ed. Level 03)**

Students will acquire an understanding of advanced animal principles. The combination of science projects, lab experience and academic research enables students to become knowledgeable in the field of veterinary science. This course prepares students for post-secondary level education, leading to careers in animal science, biology, zoology, and/or veterinary science.

Agriculture & Natural Resources

Ornamental Horticulture Pathway

- **Agriculture Science – G700 (Voc. Ed. Level 01)**

Agriculture Science is offered to first year agriculture students who are interested in agriculture and possibly studying agriculture in a college or university. It has been designed to provide students with a unique perspective of agriculture and its impact on American society. It also provides students with critical thinking and leadership development skills via the Future Farmers of America (FFA), as well as foundation skills and knowledge in the seven program areas of agriculture. The Agriculture Science course is designed to be both academically challenging and demanding. Students will be expected to not only acquire knowledge, but also to organize, analyze, evaluate, predict, problem solve, and apply this knowledge. The student must be able to read and comprehend a variety of materials, demonstrate writing skills that convey ideas in written and visual form, speak with clarity, meaning and confidence, exhibit creativity, use technology in research and accessing information, appreciate and respect individual and cultural differences, and demonstrate the ability to work collaboratively.

- **Art & History of Floral Design – G703 (Voc. Ed. Level 02)**

This course is designed to allow students to apply an artistic approach to floral art. The course emphasizes the necessary knowledge and skills to provide the student with a perceptual base leading to understanding artistic perception, creative expression, historical and cultural context(s); aesthetic valuing and connections, relations, applications of the visual arts. Students will derive meaning from artworks through analysis, interpretation, and judgment. Students will connect and apply what is learned in floral art to other art forms, subjects, and post-secondary education experiences.

- **Agriculture Biology – G705 (Voc. Ed. Level 02)**

Agriculture Science is offered to first year agriculture students who are interested in agriculture and possibly studying agriculture in a college or university. It has been designed to provide students with a unique perspective of agriculture and its impact on American society. It also provides students with critical thinking and leadership development skills via the Future Farmers of America (FFA), as well as foundation skills and knowledge in the seven program areas of agriculture. The Agriculture Science course is designed to be both academically challenging and demanding. Students will be expected to not only acquire knowledge, but also to organize, analyze, evaluate, predict, problem solve, and apply this knowledge. The student must be able to read and comprehend a variety of materials, demonstrate writing skills that convey ideas in written and visual form, speak with clarity, meaning and confidence, exhibit creativity, use technology in research and accessing information, appreciate and respect individual and cultural differences, and demonstrate the ability to work collaboratively.

Arts, Media & Entertainment

Graphic Design Pathway

- **STEM Action Lab – O606 (Middle School)** **(Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Focus Arts, Media, Entertainment – O727** **(Voc. Ed. Level 01)**

This course explores various careers in the Arts, Media and Entertainment Industry Sector and prepares the students for entry level jobs in the field. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life. Instruction includes an in-depth focus and hands-on practical experiences in the areas of Graphics & Design, Animation, Video/Media, Performing Arts and Production.

- **Career Plus STEM Lab – O605** **(Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Art of Graphic Design I – O942 UC-f** **(Voc. Ed. Level 02)**

This course introduces students to the art of graphic design. Students learn about the history and development of this art form, explore cultural influences and examine its role in societies from different parts of the world. Study of the aesthetics of art and graphic design will allow students to develop perception and analysis skills that they can employ to critically examine their own work and the work of others. Students will demonstrate their knowledge of the elements of art and principles of design while developing and refining their creative skills utilizing a variety of media including digital. This course is approved for UC Fine Arts credit.

- **Art of Graphic Design II – O952 UC-f** **(Voc. Ed. Level 03)**

Building on the skills learned in The Art of Graphic Design I, students will develop 2D and 3D visual communications of increasing sophistication and complexity. They will learn to critically observe their visual environment, solve design problems, and influence behavior through the use of graphic art. Through directed projects, they will explore the relationship of graphic imagery to the cultural, political, and psychological dynamics of information exchange. Students will understand, through their own research, the contributors, innovations, and breakthrough technologies that have shaped graphic art in the 20th century. Emphasis will be placed on the development of written reflections and critiques in a journal and the development of high-quality graphic art images for their portfolio and presentation.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Arts, Media & Entertainment

Animation Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Storytelling through Graphic Novels – A780 (Voc. Ed. Level 01)**

This course is an introductory critical thinking class covering the fundamentals of storytelling, story structure, and character development. Students will study and apply aspects of graphic novels including visual literacy, design elements and basic principles of cartooning. The content covered in this class serves as a foundation for the Art of Animation 1 course.

- **Art of Animation I – O945 UC-f (Voc. Ed. Level 02)**

This course is designed to teach students the basics of animation. Students learn how to plot, script, storyboard, present, and create animations using the principles of animation and basic techniques including staging, timing, mechanics and kinetics. Drawing skills, life drawing, storytelling, mechanics of motion and animation camera techniques will be an integral part of the course. The format of classroom instruction will be lecture, demonstration, individual and team-based projects, presentations and hands-on classroom work.

- **Art of Animation II – O944 (Voc. Ed. Level 02)**

This course is designed to broaden and refine the skills and techniques presented in The Art of Animation I and to add advanced computer animation, production and performance skills. The format of classroom instruction will be lecture, demonstration, individual and team-based projects, presentations and hands-on classroom work.

- **Art of Animation III – O941 (Voc. Ed. Level 02)**

This course is designed to broaden and refine the skills and techniques presented in The Art of Animation I & II and to apply advanced computer animation, production and performance skills in the production of an animated film. Students will work both independently and cooperatively with others on individual and group projects in a production-like environment.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Arts, Media & Entertainment

Digital Photography Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Focus Arts, Media, Entertainment – O727 (Voc. Ed. Level 01)**

This course explores various careers in the Arts, Media and Entertainment Industry Sector and prepares the students for entry level jobs in the field. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life. Instruction includes an in-depth focus and hands-on practical experiences in the areas of Graphics & Design, Animation, Video/Media, Performing Arts and Production.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Art of Digital Photography – O748 UC-f (Voc. Ed. Level 02)**

This course provides an introduction to the art and appreciation of digital photography. Students will explore the basic elements of composition and the principles of design including light, movement, and color theory. Combining training in camera operation and image editing with artistic theory, students will learn to visually communicate their ideas and creativity.

- **Photography II – A762 (Voc. Ed. Level 03)**

Photography II is a year-long lecture and lab course designed for those students who have successfully completed a year of photography and desire an in-depth study of the skills and techniques developed in Photography I. Photography II will emphasize further critical thinking skills required for artistic expression, expand on students' visual vocabulary in photography, and continue to explore contemporary attitudes and issues in the photographic arts. The curriculum is designed to follow the California Visual and Performing Arts Standards at grade levels 11 and 12, at the advanced level.

- **Yearbook Production CD-ROM – X708 (Voc. Ed. Level 03)**

Integrating many skills, class members will produce a finished product of the CD-ROM Video Yearbook which will be sold for that school year. The course will incorporate language skills, photographic skills, video-graphy skills, and new skills idiosyncratic to the production nature of a CD-ROM product. Students will hold various editorial functions as the staff of the CD-ROM Yearbook, in keeping with their experience, training, and input toward the final product.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Arts, Media & Entertainment

Video Game Design Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Focus Arts, Media, Entertainment – O727 (Voc. Ed. Level 01)**

This course explores various careers in the Arts, Media and Entertainment Industry Sector and Prepares the students for entry level jobs in the field. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life. Instruction includes an in-depth focus and hands-on practical experiences in the areas of Graphics & Design, Animation, Video/Media, Performing Arts and Production.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Video Game Design I – O622 (Voc. Ed. Level 02)**

This is an introductory course into the growing field of Video Game Design. Students will learn the basic concepts of game design, together with a study of the technologies, tools and languages. Instruction will include hands-on experiences with 2D & 3D modeling and animation.

- **Video Game Design II –O620 (Voc. Ed. Level 03)**

This is the second course in the Video Game Design program. Instruction includes the study of 2D & 3D game design concepts, technologies and programming, including 3D modeling, animation, scripting and production. Students will create a professional portfolio while developing intermediate skills and knowledge in game design, concept development, storyboarding, character development, and user interfaces.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Arts, Media & Entertainment

Video Production Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Focus Arts, Media, Entertainment – O727 (Voc. Ed. Level 01)**

This course explores various careers in the Arts, Media and Entertainment Industry Sector and prepares the students for entry level jobs in the field. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life. Instruction includes an in-depth focus and hands-on practical experiences in the areas of Graphics & Design, Animation, Video/Media, Performing Arts and Production.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Video Production I – O946 (Voc. Ed. Level 02)**

This course is designed to provide students with the skills necessary to gain entry-level employment at a cable studio, video production company or to begin working independently as a self-employed videographer. The course will also provide the student with the foundation skills needed to enroll in further Television/Video Production classes. Essential employability skills include personal, interpersonal and communication skills, plus career development and employment literacy. Content area skills include video production theory and operation of equipment. Instruction focuses on hands-on skill development. Internship experience is optional, available to interested students with time availability.

- **Video Production II – O947 (Voc. Ed. Level 03)**

This course builds on the introductory skills learned in Video Production I. Essential employability skills focus on enhancing work-related personal and interpersonal skills. Career development focuses on career goals in the video production industry. Students continue to develop writing, shooting and editing skills in a video production studio. They are also introduced to the complexities of remote location shooting procedures. Interested students can serve on production crews or at internship sites for additional real world experience.

- **Video Production III – O948 (Voc. Ed. Level 03)**

This course is designed to provide students the experience of working within the framework of a professional video production company. Students will learn all aspects of a professional video project by experiencing the organizational aspects of a professional team and the marketing of a finished project. Upon successful completion of this course, students will have developed a "demo" tape that will highlight the work completed, plus biographical information which will help them find employment or acceptance into college-level programs. Internship opportunities and leadership roles on classroom projects will further develop their video production competencies.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Arts, Media & Entertainment

Performing Arts (Dance) Pathway

- **Professional Dance I – O707 (Voc. Ed. Level 01)**

Professional Dance is for the student with previous dance experience who would like to explore and prepare for careers in the dance pathway. Students will learn the physical conditioning and preparation needed to prepare for post-secondary education and/or entry employment. Dance technique will be perfected in a variety of disciplines through a traditional dance class format and through showcase performances.

- **Professional Dance II – O709 (Voc. Ed. Level 02)**

This is the second course in the Professional Dance sequence. Students continue to perfect their dance technique in a variety of disciplines while building choreographic and production skills.

- **Professional Dance III – O706 (Voc. Ed. Level 03)**

This is the capstone course in the Professional Dance sequence. Students continue to improve and refine their dance, compositional and performance techniques. Students expand the depth and artistry of their performances by exploring characterization and the development of personal style and professional presence. Instruction involves techniques and preparation for educational and professional auditions.

- **Art of Dance Composition – O715 UC-f (Voc. Ed. Level 03)**

This course will develop student's ability to translate emotional and dramatic content into personal dance performances of an increasingly complex range of combinations and variations. Students will recognize and enhance their personal movement style and individual creative process in order to develop choreographic phrases. Observation, discussion, and writing skills relevant to interpretation and evaluation of choreography will be refined. Through research, analysis, and demonstration, students will develop a deeper understanding of the history and cultures of dance forms and well known choreographers. An in-class showing, a final showcase performance of personally choreographed dances, and a personal dance portfolio will serve to provide measures of student achievement

Finance & Business

Business (Financial Services) Pathway

- **Career Focus Business – O726 (Voc. Ed. Level 01)**

This course explores various careers in the Business and Service Industries and prepares the students for entry level jobs in the field. Instruction includes an introduction to Business, Entrepreneurship, Customer Service and Financial Planning as well as hands-on practical experiences in the areas of Business Administration, Sales & Marketing and Hospitality. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Principles of Business – O824 (Voc. Ed. Level 02)**

Principles of business is a year-long course divided into two semesters that introduces students to the basic fundamentals of business through projects, case studies, and a variety of activities. Students learn about various careers and tasks involved in the daily operation of a business. Career and business categories include the areas of accounting, business communication, business ethics, economics, entrepreneurship, finance, human resources, information technology, international business, management, and marketing.

- **Accounting w/Quickbooks – O623 (Voc. Ed. Level 02)**

Accounting I is a comprehensive, self-contained, fully-computer integrated one-year course which gives an overview of the complete accounting process using both manual entry and industry-standard accounting software. Students will learn basic accounting principles and skills to seek entry-level employment and pursue advanced accounting education. Students in this course will learn how to prepare accounting records for businesses using QuickBooks. Students will create a new business and set up company files. Students will gain hands-on experience in processing customer transactions, vendor transactions, bank reconciliations, reports, and they will learn how to customize QuickBooks.

- **Business Economics & Finance – O730 UC-g (Voc. Ed. Level 03)**

This course provides instruction in the fundamental micro and macro-economic principles as they relate to business financial activities and outcomes. Students will gain an understanding of how business and the local, national, and international economy interact to produce a profit or loss. Economic, financial, and accounting concepts taught in this course will enable students to understand key elements involved in planning and managing business financial success.

- **Technology Certification for Business – O630 (Voc. Ed. Level 03)**

Communications and Technology Skills for Business introduces students to the principles and elements of effective communication and their importance as a professional in today's global society. Students will develop and apply language and writing skills while composing and creating authentic business communications and presentations. Instruction includes the use of current business software applications together with the skills, knowledge and attitudes necessary for success in the workplace.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Finance & Business

International Business Pathway

- **Career Focus Business – O726 (Voc. Ed. Level 01)**

This course explores various careers in the Business and Service Industries and prepares the students for entry level jobs in the field. Instruction includes an introduction to Business, Entrepreneurship, Customer Service and Financial Planning as well as hands-on practical experiences in the areas of Business Administration, Sales & Marketing and Hospitality. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life.

- **Principles of Business – O824 (Voc. Ed. Level 02)**

Principles of business is a year-long course divided into two semesters that introduces students to the basic fundamentals of business through projects, case studies, and a variety of activities. Students learn about various careers and tasks involved in the daily operation of a business. Career and business categories include the areas of accounting, business communication, business ethics, economics, entrepreneurship, finance, human resources, information technology, international business, management, and marketing.

- **Intnt'l Business / Global Marketing – O627/O628 (Voc. Ed. Level 02)**

International Business provides an introduction and overview of international business with a global perspective on international trade. Career preparation/foundation skills include personal, interpersonal, critical thinking and technology skills. Academic integration supports the content area skills of internal and external environments, channels of distribution, finance, communication and travel.

- **Internet Web Design & Development – O749 (Voc. Ed. Level 02)**

This course is designed to provide students with classroom and laboratory experience in current and emerging networking and web design technology that will empower them to enter employment and/or further education and training in the computer networking field. The processes of designing and maintaining a Web site will be covered as the student develops personal web pages.

- **Business Economics & Finance – O730 UC-g (Voc. Ed. Level 03)**

This course provides instruction in the fundamental micro and macro-economic principles as they relate to business financial activities and outcomes. Students will gain an understanding of how business and the local, national, and international economy interact to produce a profit or loss. Economic, financial, and accounting concepts taught in this course will enable students to understand key elements involved in planning and managing business financial success.

- **Marketing & Society – O912 (Voc. Ed. Level 03)**

This course will give students a fundamental understanding of the relationship between marketing and popular culture. Marketing techniques, the elements of persuasion, and the effect on societal behavior will be studied. Particular focus will be given to the marketing strategies employed and the positive /negative effects of those strategies. Examples of topics included are marketing to children, minorities, and green, political and charitable marketing. Complex ethical issues in marketing and marketing's contribution to stereotypes, representation of gender, materialism, and over-consumption will be studied. Students will also reflect and respond to the creation and expansion of markets via global marketing techniques, their positive and negative impacts on society, and corporate social responsibility.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Education, Child Development, Family Svcs

Education Pathway

- **Career Focus Education – O753 (Voc. Ed. Level 01)**

This course explores careers in the field of Education and Family Services through experiential learning and observation. Students will learn the opportunities for post-secondary education and the requirements to work in each career field. Students will be prepared to take more advanced classes in the Education, Child Development, and Family Services pathways.

- **Careers in Education I – O721 (Voc. Ed. Level 02)**

Careers in Education I is a one semester course that provides training to students interested in a career in teaching about the role of the teacher and the art of K – 8 instruction. Students will gain insight into the responsibilities of a teacher, child growth and development, safety, principles of effective instruction and assessment. It will prepare students for entry into college or university teacher training programs.
This is the first course in the Education Careers Pathway and offers students weekly observations at a local elementary school. It will prepare students for the second course, Careers in Education II, where they participate in a teaching assistant assignment at a local elementary school. As teacher assistants, they will tutor elementary students in literacy, writing, and math topics.

- **Child Development – O751 UC-g (Voc. Ed. Level 03)**

This course introduces students to the history, philosophy and major theories of child growth and development. Students will study the physical, emotional and cognitive aspects of development from conception to early adolescence. Instruction includes the biological, hereditary and environmental influences on development together with methods of supporting and promoting optimum healthy growth.

- **Professional Internship (Education) – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Engineering & Design

Engineering Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **3D Computer Aided Design – O762 (Voc. Ed. Level 02)**

3D Computer Aided Design is a one year Engineering Pathway course designed to prepare students for industry certification on 3D drafting software. The course introduces students to the fundamentals of 2D drafting and sketching. Students will master 3D modeling including sketching, assembly, and rapid prototyping in a variety of project-based applications. This course provides the student with an understanding of the engineering development process from concept through design to the final product. Upon completion of the course students will take the SOLIDWORKS® CSWA certification exam.

- **Pre Engineering & Design – O738 (Voc. Ed. Level 02)**

Students will receive an introduction to the engineering design process and how it is used to solve technological problems. They will learn about sources of power, and materials and processes used in manufacturing systems. They will create hand drawn and computer generated sketches of original engineering designs. Students will apply mathematical and scientific concepts in their lab projects. Career and educational pathways in civil, mechanical, electrical and aerospace engineering will be explored.

- **SolidWorks Certification Preparation – O635 (Voc. Ed. Level 02)**

Students will review Solidworks topics in order to prepare for the CSWA certification exam. They will apply their knowledge of fundamental engineering and design principles and practices to review Solidworks concepts. These concepts will cover basic parts, assemblies and drawings. The Solidworks CSWA certification is an industry standard and recognized certification. Through successful completion of this class, students will be prepared to take the certification exam. *Note: The exam is not given as a part of this class.*

- **Engineering & Design – O739 (Voc. Ed. Level 03)**

Students will study mechanical, civil, structural, electrical, and environmental engineering topics. Engineering problems will be analyzed and students will exhibit solutions through sketches, CAD drawings, and rapid prototype models. Scientific and mathematical concepts will be used to explain observations and solutions. Research, report writing, and oral presentations will be fundamental to the course. Engineering-related careers and educational pathways will also be explored.

Fashion & Interior Design

Fashion Design & Merchandising Pathway

- **Fashion Design & Merchandising I – O632 (Middle School) (Voc. Ed. Level 01)**

Students will study the fundamentals of fashion theory and the evolution of the fashion industry. They will apply the principles and elements of artistic design and color theory as they conceptualize original design ideas in order to develop fashion sketches. Using patterns, as well as an understanding of textiles, they will construct garments in preparation for a fashion showcase.

- **Fashion Design & Merchandising II – O639 (Middle School) (Voc. Ed. Level 02)**

In this course, students will build upon their skills in hand sketching to create more detailed original renderings that reflect their personal style. Using these sketches, they will create patterns to construct their garments. Students will also be introduced to electronic sketching and illustration and produce original designs. Students will acquire a broad overview of the fashion industry and know the basics of promoting a fashion line, retail merchandising, and visual merchandising techniques. Students will also analyze career paths within the textile and apparel design industry.

Health Science & Medical Technology

Patient Care Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Focus Medical – O728 (Voc. Ed. Level 01)**

This course explores various careers in the Business and Service Industries and prepares the students for entry level jobs in the field. Instruction includes an introduction to Business, Entrepreneurship, Customer Service and Financial Planning as well as hands-on practical experiences in the areas of Business Administration, Sales & Marketing and Hospitality. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Medical Terminology & Human Anatomy – O765 Sem. (Voc. Ed. Level 01)**

This is a core class for students entering the medical/healthcare field. The course provides students with introductory information about the healthcare industry, and provides instruction in medical terminology, human anatomy and physiology, body systems and the standard precautions for infection control.

- **Medical Core – O806 (Voc. Ed. Level 02)**

This course introduces students to diverse occupations in the medical/health field and to standards required of workers in the field. Medical Core I includes instruction in the ethical and legal responsibilities of the health care worker, safety, medical terminology, human anatomy and physiology, body systems and mechanics, standard precautions and health and fitness. Also included are health care delivery systems, regulatory agencies, research, current technology, and socio-economic issues affecting health care. Students explore career opportunities in therapeutic, diagnostic, and supportive areas. This course includes National Healthcare Foundation Standards.

- **Body Systems and Disorders – O614 (Voc. Ed. Level 02)**

This class covers human anatomy and physiology, normal body system functions and diseases and disorders of those systems. You will study standards required of health workers, including ethical and legal responsibilities, safety, HIPAA (Health Insurance Portability and Accountability Act) rules, infection control, body mechanics, transporting duties, and advanced terminology. You will learn about health care delivery systems, regulatory agencies, research, current technology, and socioeconomic issues affecting health care. This course meets the UC College-preparatory Elective "g" requirement for admission.

- **Hospital Occupations Internship (HOI) – O777 – (180 hours)**

This competency based course provides students with basic knowledge and skills required for a variety of entry level positions within the Support Services department of a hospital . The class includes an internship in one or more of the Course Content Areas listed. Integrated throughout the course are Essential Employability Skills, including the development of a portfolio. The course is designed for the student who is looking for an entry-level position or who wishes to explore various occupations within a hospital setting.

Health Science & Medical Technology

Sports Medicine Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Focus Medical – O728 (Voc. Ed. Level 01)**

This course explores various careers in the Business and Service Industries and prepares the students for entry level jobs in the field. Instruction includes an introduction to Business, Entrepreneurship, Customer Service and Financial Planning as well as hands-on practical experiences in the areas of Business Administration, Sales & Marketing and Hospitality. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Medical Terminology & Human Anatomy – O765 Sem. (Voc. Ed. Level 01)**

This is a core class for students entering the medical/healthcare field. The course provides students with introductory information about the healthcare industry, and provides instruction in medical terminology, human anatomy and physiology, body systems and the standard precautions for infection control.

- **Medical Core – O806 (Voc. Ed. Level 02)**

This course introduces students to diverse occupations in the medical/health field and to standards required of workers in the field. Medical Core I includes instruction in the ethical and legal responsibilities of the health care worker, safety, medical terminology, human anatomy and physiology, body systems and mechanics, standard precautions and health and fitness. Also included are health care delivery systems, regulatory agencies, research, current technology, and socio-economic issues affecting health care. Students explore career opportunities in therapeutic, diagnostic, and supportive areas. This course includes National Healthcare Foundation Standards.

- **Body Systems and Disorders – O614 (Voc. Ed. Level 02)**

This class covers human anatomy and physiology, normal body system functions and diseases and disorders of those systems. You will study standards required of health workers, including ethical and legal responsibilities, safety, HIPAA (Health Insurance Portability and Accountability Act) rules, infection control, body mechanics, transporting duties, and advanced terminology. You will learn about health care delivery systems, regulatory agencies, research, current technology, and socioeconomic issues affecting health care. This course meets the UC College-preparatory Elective "g" requirement for admission.

- **Emergency Medical Responder (EMR) – O796 Sem (Voc. Ed. Level 02)**

This class will teach students to provide immediate care to an ill or injured person and train them to assist emergency medical service (EMS) providers. Instructional content area skills include the history of health care, EMS overview, CPR and first aid skills, patient assessment, legal and ethical issues, triage and emergency responsibilities. Essential employability skill instruction in personal and interpersonal skills, employment literacy and industry focus will prepare students for the workplace. Completion of this class will provide a strong background useful in lifeguard positions, fire service, sports medicine, ski patrol, medical facilities and in preparation for the EMT class.

- **Sports Medicine UC – O803 UC-g (Voc. Ed. Level 02)**

This is a year-long course in Health Science that prepares students for the field of Sports Medicine. Students study anatomy, physiology and bodily systems and apply their knowledge within the area of Sports Medicine. Students will expand on their understanding of the scientific foundations in the evaluation, assessment and care of injuries, as well as preventative techniques and wellness.

- **Sports Medicine II – O804 Sem. (Voc. Ed. Level 03)**

This competency-based course prepares students for entry-level positions in the sports medicine industry. Included in the course is advanced preparation in the care, prevention and rehabilitation of athletic injuries that combines classroom instruction and placement in a sports medicine internship site.

Health Science & Medical Technology

Emergency Response Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Focus Medical – O728 (Voc. Ed. Level 01)**

This course explores various careers in the Business and Service Industries and prepares the students for entry level jobs in the field. Instruction includes an introduction to Business, Entrepreneurship, Customer Service and Financial Planning as well as hands-on practical experiences in the areas of Business Administration, Sales & Marketing and Hospitality. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Medical Terminology & Human Anatomy – O765 Sem. (Voc. Ed. Level 01)**

This is a core class for students entering the medical/healthcare field. The course provides students with introductory information about the healthcare industry, and provides instruction in medical terminology, human anatomy and physiology, body systems and the standard precautions for infection control.

- **Medical Core – O806 (Voc. Ed. Level 02)**

This course introduces students to diverse occupations in the medical/health field and to standards required of workers in the field. Medical Core I includes instruction in the ethical and legal responsibilities of the health care worker, safety, medical terminology, human anatomy and physiology, body systems and mechanics, standard precautions and health and fitness. Also included are health care delivery systems, regulatory agencies, research, current technology, and socio-economic issues affecting health care. Students explore career opportunities in therapeutic, diagnostic, and supportive areas. This course includes National Healthcare Foundation Standards.

- **Emergency Medical Responder (EMR) – O796 Sem (Voc. Ed. Level 02)**

This class will teach students to provide immediate care to an ill or injured person and train them to assist emergency medical service (EMS) providers. Instructional content area skills include the history of health care, EMS overview, CPR and first aid skills, patient assessment, legal and ethical issues, triage and emergency responsibilities. Essential employability skill instruction in personal and interpersonal skills, employment literacy and industry focus will prepare students for the workplace. Completion of this class will provide a strong background useful in lifeguard positions, fire service, sports medicine, ski patrol, medical facilities and in preparation for the EMT class.

- **Emergency Medical Technician (EMT) – O764 (Voc. Ed. Level 03)**

The Emergency Medical Technician (EMT) class prepares students to take the National EMT certification exam, and the OCEMS Accreditation. Content area skills focus on patient assessment, EMT skills, trauma, medical, environmental, obstetric, and pediatric emergencies. Physical skills training, participation in simulation activities and CPR preparation are included. Supervised clinical experiences include an emergency room observation and an ambulance ride-along event. Program completers work as ambulance attendants, emergency room attendants and in other areas of pre-hospital care. Essential employability skills include personal, interpersonal, and communication skills, plus career development and employment literacy.

Hospitality, Tourism & Recreation

Culinary Arts Pathway

- **Career Focus Hospitality Services – New (Voc Ed. Level 01)**

This course provides students with an overview of the diverse career opportunities in culinary, lodging, travel, tourism, and recreation. Students will learn the requirements and opportunities for post-secondary study and develop a personal educational preparation and career plan. Topics include hospitality development and trends; foodservice operations and management; the hotel and lodging industry; the diverse segments of travel and tourism; and careers in leisure, recreation and entertainment. The course also covers aspects of hospitality management, such as business structures and operations; human resources; accounting practices; legal and safety issues; and marketing, sales, and service.

- **Culinary Arts – O631 (Voc. Ed. Level 01)**

This is the foundation course for the Culinary Arts pathway. Students will learn about the Food Service and Hospitality Industry and explore a variety careers while learning and developing basic nutritional and food preparation skills.

- **Principles of Baking – O637 Sem (Voc. Ed. Level 02)**

This is an elective course in the Culinary Arts Pathway. Students will be introduced to basic baking skills, principles and techniques. They will also learn safe food handling practices, and obtain skills in culinary science and math. This course will focus on the preparation of breads, pastries, sauces, pies, cookies, and cakes as well as decoration and presentation.

- **Specialty Foods – O636 Sem (Voc. Ed. Level 02)**

This is an elective course in the Culinary Arts Pathway. Specialty Foods introduces the student to the contributions that various ethnic groups have made to American and International cookery. The culinary student will become familiar with the geography, food history, customs, common ingredients and preparation techniques of regions in the United States as well as from countries all over the world. The student will develop skills in kitchen organization, teamwork and equipment use. The core content standards and concepts of safe food handling and culinary science and math will also be taught and practiced.

- **Garde-Manager – O612 Sem (Voc. Ed. Level 02)**

This is an elective course in the Culinary Arts Pathway. Topics of study and application will include basic Garde Manger techniques and fundamental principles of the cold kitchen. Students will plan, prepare, and present cold kitchen items such as hors d'oevres, pates, canapés, buffet salads and cold dressings. This course will instruct students in quality food preparation, presentation and buffet work. An introduction to fruit and vegetable carving will also be covered. The core content standards and concepts of safe food handling and culinary science and math will also be taught and practiced.

- **Event Catering – O613 (Voc. Ed. Level 03)**

This course provides students with an introduction into the Food Service and Hospitality Industry. Instruction includes industry regulations and safe food handling along with the basics of food preparation and service. Students will learn the basic elements of private catering and event planning.

- **ServSafe Certification Preparation – New**

This is the third Course in the Culinary Arts Pathway. Students who take this course will be prepared to take the ServSafe Certification Exam. This certification is widely recognized as a professional certification in the Food Service industry, administered by the National Restaurant Association Educational Foundation. If a student receives an A or B in this course and elects to take the ServSafe Exam, they are eligible to receive articulation credit at local community colleges in their Culinary Arts programs. *(Note that the ServSafe exam is not administered, offered or paid for by the district, school or CTEp).*

Information Communication Technology

Information Support & Services Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Tech Squad – O650 (Middle/High School) (Voc. Ed. Level 01)**

In this course, students will develop expertise in help desk operations and technology troubleshooting. Through participation in the nationally recognized program, Mouse Squad, and successful completion of this course, students will receive Mouse Squad certification. Mouse Squad provides students with opportunities to develop 21st century skills and apply them as they solve technical problems faced by their schools. The program, modeled on industry-standard help desks in business and industry, prepares and supports participants in the cultivation of technical and leadership skills needed for success in all work environments.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Exploring Computer Science – O651 UC-g (Voc. Ed. Level 01)**

Course Description: This is the first course in the Information and Computer Technology (ICT) Sector Pathways. Students are introduced to the foundations of Computer Science using an inquiry-based, hands-on approach to understand and solving real world computing problems. Instruction includes the areas of Human Computer Interaction, Problem Solving, Web Design, Programming, Data Analysis and Robotics. Emphasis is placed on the creative, collaborative, interdisciplinary and problem-solving nature of computing. Upon completing the course, students will be prepared to pursue more advanced courses in the Pathway, and to further their exploration of college and careers in the ICT Industry. NOTE: This course follows the National Course outline developed by UCLA and LAUSD.

- **ICT Essentials I – O608 (Voc. Ed. Level 02)**

This course is part of the Information Support and Services pathway, with specific focus on the implementation and support of computer services and software. Instruction prepares students for careers and industry certification in the Information and Communication Technologies area, as well as equips them to pursue post-secondary education and advancement in the field. ICT Essentials I concentrates on computer hardware, with a focus on architecture, central processing units, memory systems, operating system basics, hardware and an introduction to network cards.

- **Internet Web Design & Development – O749 (Voc. Ed. Level 02)**

This course is designed to provide students with classroom and laboratory experience in current and emerging networking and web design technology that will empower them to enter employment and/or further education and training in the computer networking field. The processes of designing and maintaining a Web site will be covered as the student develops personal web pages.

- **Technology Certification for Business – O630 (Voc. Ed. Level 03)**

In this course, students will develop expertise in Microsoft Office applications. Students learn the different tasks involved in the daily operation of a business, and use the appropriate software and systems to complete these tasks. Technology Certification for Business provides students with opportunities to develop 21st century skills and as well as equips them to pursue post-secondary education and advancement in the field. Technology Certification for Business concentrates on Microsoft Office PowerPoint, Excel, Word, and Access. Instruction includes those areas and skills included on the Microsoft Office Specialist (MOS) Certification exam.

- **AP Computer Science Principles – New**

AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to creative aspects of programming, using abstractions and algorithms, working with large data sets, understandings of the Internet and issues of cybersecurity, and impacts of computing that affect different populations. AP Computer Science Principles will give students the opportunity to use current technologies to solve problems and create meaningful computational artifacts. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. The AP Computer Science Principles Curriculum Framework focuses on the innovative aspects of computing as well as the computational thinking practices that help students see how computing is relevant to many areas of their everyday lives.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Information Communication Technology

Robotics Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Tech Squad – O650 (Middle/High School) (Voc. Ed. Level 01)**

In this course, students will develop expertise in help desk operations and technology troubleshooting. Through participation in the nationally recognized program, Mouse Squad, and successful completion of this course, students will receive Mouse Squad certification. Mouse Squad provides students with opportunities to develop 21st century skills and apply them as they solve technical problems faced by their schools. The program, modeled on industry-standard help desks in business and industry, prepares and supports participants in the cultivation of technical and leadership skills needed for success in all work environments.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Exploring Computer Science – O651 (Voc. Ed. Level 01)**

Course Description: This is the first course in the Information and Computer Technology (ICT) Sector Pathways. Students are introduced to the foundations of Computer Science using an inquiry-based, hands-on approach to understand and solving real world computing problems. Instruction includes the areas of Human Computer Interaction, Problem Solving, Web Design, Programming, Data Analysis and Robotics. Emphasis is placed on the creative, collaborative, interdisciplinary and problem-solving nature of computing. Upon completing the course, students will be prepared to pursue more advanced courses in the Pathway, and to further their exploration of college and careers in the ICT Industry. NOTE: This course follows the National Course outline developed by UCLA and LAUSD.

- **C-STEM – O652 (Middle/High School) UC-g (Voc. Ed. Level 02)**

This course provides a formal development of the algebraic skills and concepts using interactive computing, computer programming in C/C++, and hands-on robotics. This integrated math curriculum meets both Algebra I course requirements and CTE standards. This course is meant to be an engaging support class for students concurrently taking algebra 1 or Integrated Mathematics 1. Robotics involves a variety of math and engineering concepts. Integrating robotics into the Algebra curriculum helps make abstract ideas concrete and allows students to apply mathematical concepts to real world problems. Students will study, analyze, and modify existing C/C+ programs and develop their own programs that will integrate computing and robotics with major Algebra I concepts including operations with real numbers, linear equations and inequalities, relations and functions, polynomials, quadratic equations, system of linear equations with two variables, algebraic fractions, and nonlinear equations. Through hands-on robotics projects, students develop algebraic thinking, problem solving, effective communication, and team work skills.

- **Robotics I – O716 (Voc. Ed. Level 02)**

This is an introductory course in the field of robotics. Students will explore the interaction of science and technology and learn how these concepts are applied in engineering, control systems and automation. Students will use inquiry, research, and design methods to solve problems, and construct robotic devices using industry-standard systems software and technology.

- **Robotics II – O717 (Voc. Ed. Level 03)**

This is the second course in the Robotics sequence of courses. Students will continue to explore the interaction of science and technology and learn how more advanced concepts are applied in engineering, control systems and automation. Students will use inquiry, research, and design methods to solve problems, and construct robotic devices using industry-standard systems software and technology.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Information Communication Technology

Video Game Design Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Tech / Mouse Squad – O650 (Middle School) (Voc. Ed. Level 01)**

In this course, students will develop expertise in help desk operations and technology troubleshooting. Through participation in the nationally recognized program, Mouse Squad, and successful completion of this course, students will receive Mouse Squad certification. Mouse Squad provides students with opportunities to develop 21st century skills and apply them as they solve technical problems faced by their schools. The program, modeled on industry-standard help desks in business and industry, prepares and supports participants in the cultivation of technical and leadership skills needed for success in all work environments.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Exploring Computer Science – O651 (Voc. Ed. Level 01)**

Course Description: This is the first course in the Information and Computer Technology (ICT) Sector Pathways. Students are introduced to the foundations of Computer Science using an inquiry-based, hands-on approach to understand and solving real world computing problems. Instruction includes the areas of Human Computer Interaction, Problem Solving, Web Design, Programming, Data Analysis and Robotics. Emphasis is placed on the creative, collaborative, interdisciplinary and problem-solving nature of computing. Upon completing the course, students will be prepared to pursue more advanced courses in the Pathway, and to further their exploration of college and careers in the ICT Industry. NOTE: This course follows the National Course outline developed by UCLA and LAUSD.

- **Video Game Design I – O622 (Voc. Ed. Level 02)**

This is an introductory course into the growing field of Video Game Design. Students will learn the basic concepts of game design, together with a study of the technologies, tools and languages. Instruction will include hands-on experiences with 2D & 3D modeling and animation.

- **Video Game Design II – O620 (Voc. Ed. Level 03)**

This is the second course in the Video Game Design program. Instruction includes the study of 2D & 3D game design concepts, technologies and programming, including 3D modeling, animation, scripting and production. Students will create a professional portfolio while developing intermediate skills and knowledge in game design, concept development, storyboarding, character development, and user interfaces.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Manufacturing & Product Development

Product Design Pathway

- **STEM Action Lab – O606 (Middle School)** **(Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Product Design Studio I – O617** **(Voc. Ed. Level 01)**

Students will learn to think as product designers through project based learning, presentations, discussions, and critiques. They will gain experience in generating innovative product concepts that conform to a set of design criteria. Students will receive instruction in hand sketching and sculpting in various materials in order to create a variety of product prototypes from their sketches. They will utilize various hand and machine tools to complete their prototypes. To support the design process, students will present their concepts in design briefs, hand sketches, and 3-D form studies in various materials.

- **Career Plus STEM Lab – O605** **(Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **3D Computer Aided Design – O762** **(Voc. Ed. Level 02)**

Students will review and refine their basic skills in Computer Aided Drafting and learn how to apply them in the area of 3-D Drafting and Design. Students will receive instruction in 3-D software, including sketching, assembly, and rapid prototyping and will apply these skills in a variety of project-based applications. This course provides the student with an understanding of the development process from concept through design to the final product prototype. Students will develop a solid foundation of drafting skills and techniques that will enable them to draw and design using CAD software. They will learn fundamental concepts of creating, editing, dimensioning, viewing and plotting 2D drawings. 3D modeling concepts will also be introduced and students will produce a portfolio of selected projects for presentation to teachers, peers and community professionals. This is an introductory course in the pathway that prepares students for future study in careers related to various fields of engineering and design.

- **Product Design Studio II – O618 (Voc. Ed. Level 03)**

This course will provide students with further practice in developing design briefs and products that respond to product design challenges through project-based learning. Students will work in teams to coordinate their ideas, proposals, new product prototypes, and presentations. Increased emphasis in this course will be given to innovation, ergonomics, sustainability, universal design, usability, manufacturability, materials, and aesthetic appeal. Students will improve their skills in hand sketching and sculpting in various materials in order to fabricate prototypes. They will also prepare detailed drawings and illustrations using computer aided design techniques. Grading will be based on teamwork skills, the design process outcomes, presentations, and critiques.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Marketing, Sales & Service

Entrepreneurship Pathway

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Marketing I – O910 (Voc. Ed. Level 01)**

Students will understand how a new product or service concept is successfully developed and brought to market through research, brand integration and product promotion. Using real-life examples, students will explore concepts in international, direct response, and e-marketing. Additionally, they will be introduced to specialty marketing segments such as: sports, travel/tourism, and hospitality marketing.

- **Entrepreneurship I – O744 (Voc. Ed. Level 02)**

This course provides students with the information needed to start a business operation. Students will learn how to identify a business opportunity, understand business legal structures, small business budgeting, record keeping methods, staffing, marketing and promotion. Instruction will include an introduction to the elements of a Business Plan including Marketing and Technology.

- **Entrepreneurship II – O752 (Voc. Ed. Level 03)**

This second course in the Entrepreneurship pathway broadens the student's knowledge and understanding and increases their skills in the areas of entrepreneurship and business operations. Students will use their skills to identify a business opportunity and develop Business, Marketing and Technology Plans, incorporating the areas of business legal structures, small business budgeting, record keeping methods, staffing, marketing and promotion. Additionally, training will include selecting a business location and monitoring growth and results.

- **International Business / Global Marketing – O627/O628 (Voc. Ed. Level 02)**

International Business provides an introduction and overview of international business with a global perspective on international trade. Career preparation/foundation skills include personal, interpersonal, critical thinking and technology skills. Academic integration supports the content area skills of internal and external environments, channels of distribution, finance, communication and travel.

- **Marketing & Society – O912 UC-g (Voc. Ed. Level 03)**

This course will give students a fundamental understanding of the relationship between marketing and popular culture. Marketing techniques, the elements of persuasion, and the effect on societal behavior will be studied. Particular focus will be given to the marketing strategies employed and the positive/negative effects of those strategies. Examples of topics included are marketing to children, minorities, and green, political and charitable marketing. Complex ethical issues in marketing and marketing's contribution to stereotypes, representation of gender, materialism, and over-consumption will be studied. Students will also reflect and respond to the creation and expansion of markets via global marketing techniques, their positive and negative impacts on society, and corporate social responsibility.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Public Service

Public Safety Pathway

- **STEM Action Lab – O606 (Middle School)** **(Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Focus Protective Services – O729** **(Voc. Ed. Level 01)**

This course explores various careers in the Protective Services and prepares the students for entry level jobs in the field. Instruction includes an introduction to First Responder, EMT, Fire Service and Police/Criminal Justice topics as well as hands-on practical experiences in these areas. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life.

- **Career Plus STEM Lab – O605** **(Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Criminal Justice/Criminal Procedures – O924** **(Voc. Ed. Level 02)**

Students will investigate the qualifications and requirements for various law enforcement occupations and learn the nature, history and philosophy of law enforcement. Other content area skills include constitutional law, policing issues and trends, court systems, trials, corrections and general aspects of law enforcement.

- **Crime Scene Investigation (CSI) – O927** **(Voc. Ed. Level 02)**

In this course, students are introduced to the theory and practical application of forensic science. The course will emphasize the methods and protocol for the collection, preservation and analysis of evidence. Students will investigate latent fingerprints, fibers and textile evidence and biological evidence. Communication skills, report writing, presentation skills, and the application of scientific concepts are emphasized throughout the course. Students will become aware of the opportunities and requirements for a career in forensic science and law enforcement. In this course, students will further their study of the forensic science concepts taught in Crime Scene Investigation I. Included will be an introduction to crime scene photography, and the securing and analysis of DNA, impression, ballistics, and computer evidence in a criminal investigation. Students will be introduced to case studies in order to understand how crime scene investigators use evidence to solve crimes.

- **Law & Order I – O929 (Voc. Ed. Level 02)**

Students will be introduced to due process and the principles of our judicial system. Students learn the step-by-step process of initiating or defending a lawsuit and will undertake the analyses, preparation and presentation of both civil and criminal trial proceedings. Instruction will include the contents and preparation of a variety of legal documents and statutory filing procedures.

- **Professional Internship – O745 (Voc. Ed. Level 03)**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

Public Service

Emergency Response Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Focus Protective Services – O729 (Voc. Ed. Level 01)**

This course explores various careers in the Protective Services and prepares the students for entry level jobs in the field. Instruction includes an introduction to First Responder, EMT, Fire Service and Police/Criminal Justice topics as well as hands-on practical experiences in these areas. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Fire Science – O922 Sem (Voc. Ed. Level 03)**

In the Fire Science course, students will learn the history of the Fire Service and how it shapes present fire service policy and procedure. Students will learn manipulative skills including ladders, self-contained breathing apparatus, rescue techniques, ropes and knots, and hose evolutions. Essential employment skills include personal, interpersonal and communication skills. Students are encouraged to continue study in the ROP Fire Service class.

- **Fire Technology – O920 Sem (Voc. Ed. Level 03)**

In the Fire Service course, students will learn present trends in the fire service. Students will learn how to obtain employment in fire suppression, fire prevention careers, and emergency communications. Students will learn manipulative skills including hose evaluations, rescue techniques, ventilation and ladders. Essential employment skills include written test preparation, oral interview, and physical fitness manipulative tests. Students are encouraged to continue study in a Fire Science program through a local community college. College credit is awarded for successful completion of the Fire Service Course.

Transportation

Automotive Pathway

- **STEM Action Lab – O606 (Middle School) (Voc. Ed. Level 01)**

STEM Action Labs is a one year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Automotive & Transportation Technology I – O710 (Voc. Ed. Level 01)**

This is the first course in the 3-course sequence that prepares students for the Maintenance and Light Repair (MLR) ASE Student Certification test. The MLR certification requires students to perform the most common maintenance and light repair services. Students will be introduced to automotive technology concepts in the classroom and be provided lab-based hands-on maintenance and repair experience.

- **Automotive & Transportation Technology II – O712 (Voc. Ed. Level 02)**

This is the second course in the 3-course sequence that prepares students for the Maintenance and Light Repair (MLR) ASE Student Certification test. Students will demonstrate mastery of more complex tasks and build upon knowledge previously learned. Students will be prepared by the end of the course to begin internships in Automotive and Transportation Technology –ASE- III.

- **Automotive & Transportation Technology III – O714(Voc. Ed. Lvl 03)**

This is the third course in the 3-course sequence that prepares students for the Maintenance and Light Repair (MLR) ASE Student Certification test. Classroom instruction will be combined with an internship at a local repair facility. The internship will provide students with the required hands-on hours for the MLR certification and the experience to seek employment in the automotive industry or to seek post-secondary automotive education.

Transportation

Aviation Pathway

- **Career Plus STEM Lab – O605 (Voc. Ed. Level 01)**

Career Plus STEM Lab is a one year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system.

- **Career Focus Aviation (Voc. Ed. Level 01)**

This course explores various careers in the aviation and aeronautical industries and prepares students for upper level courses in this pathway. Instruction includes a study of the development of aircraft and the aviation/aeronautical industries. Through a project-based learning approach, students will learn about the scientific and mathematical principles of flight and aerodynamics. Students will learn the requirements and opportunities for careers and post-secondary education in aviation and aeronautics. They will develop a personal career/life plan while also practicing valuable foundation skills in technical reading and writing, public speaking and technology.

- **Aviation I – O719 (Voc. Ed. Level 02)**

Students in this course will learn the principles of private pilot flight and navigation. The concepts taught will cover the first half of the FAA Private Pilot Knowledge Test. Topics will include the principles of flight and aerodynamics, aircraft structure, controls/instruments and systems. Through the use of flight simulators, the techniques of piloting and navigation will be demonstrated and practiced. Physics and geometry concepts are taught and applied to aircraft design, flight control, and navigation. This is part one of a two part sequence that covers ground school only. It provides eligibility to sit for the Private Pilot Knowledge test. Students wishing to be eligible to sit for this test would need to complete both Part I and II. The required flight hours for the private pilot's license are not part of these courses.

- **Aviation II – O722 (Voc. Ed. Level 03)**

Students in this course will learn the principles of private pilot flight and navigation. The concepts taught will cover the second half of the FAA Private Pilot Knowledge Test. Topics will include the principles of flight and aerodynamics, aircraft structure, controls/instruments and systems. Through the use of flight simulators, the techniques of piloting and navigation will be demonstrated and practiced. Physics and geometry concepts are taught and applied to aircraft design, flight control, and navigation. Aviation II is the second course in the Part 1 "ground school" only course that provides eligibility to sit for the Private Pilot Knowledge test. The required flight hours for the private pilot's license are not part of these courses.