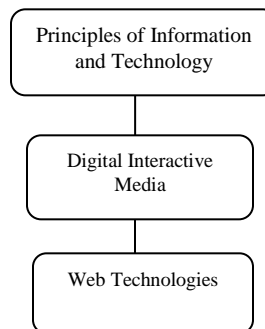


Career and Technology Education

The Career and Technology courses have gone through a revision at the state level. It is recommended, but not required, that students enroll in the “principles” courses for career clusters for which they hold an interest. Please refer to the flow-charts below which outline recommended Programs of Study.

Information Technology Cluster Courses



7670 Principles of Information Technology
Credit: 0.5

Grades: 9-12

Prerequisite: None

Students develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment. The student applies design and web publishing techniques.

6741 Digital and Interactive Media
Credit: 1.0

Grades: 9-12

Recommended Prerequisite: Principles of Information Technology

Through the study of digital and interactive media and its application in information technology, students will analyze and assess current and emerging technologies, while designing and creating multimedia projects that address customer needs and resolve a problem. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society. Students enhance reading, writing, computing, communication, and critical thinking and apply them to the information technology environment.

7674 Web Technologies
Credit: 1.0

Grades: 9-12

Recommended Prerequisite: Principles of Information Technology

Through the study of web technologies and design, students learn to make informed decisions and apply the decisions to the field of information technology. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society. Students enhance reading, writing, computing, communication, and critical thinking and apply them to the information technology environment.

7671 Research in IT Solutions I
Credit: 3.0

Grades: 11-12

Prerequisite: Application and Testing

This course is Year 1 of the Information Technology and Security Academy. An approved application is required. This course is taught off-site at the St. Philips Southwest Campus.

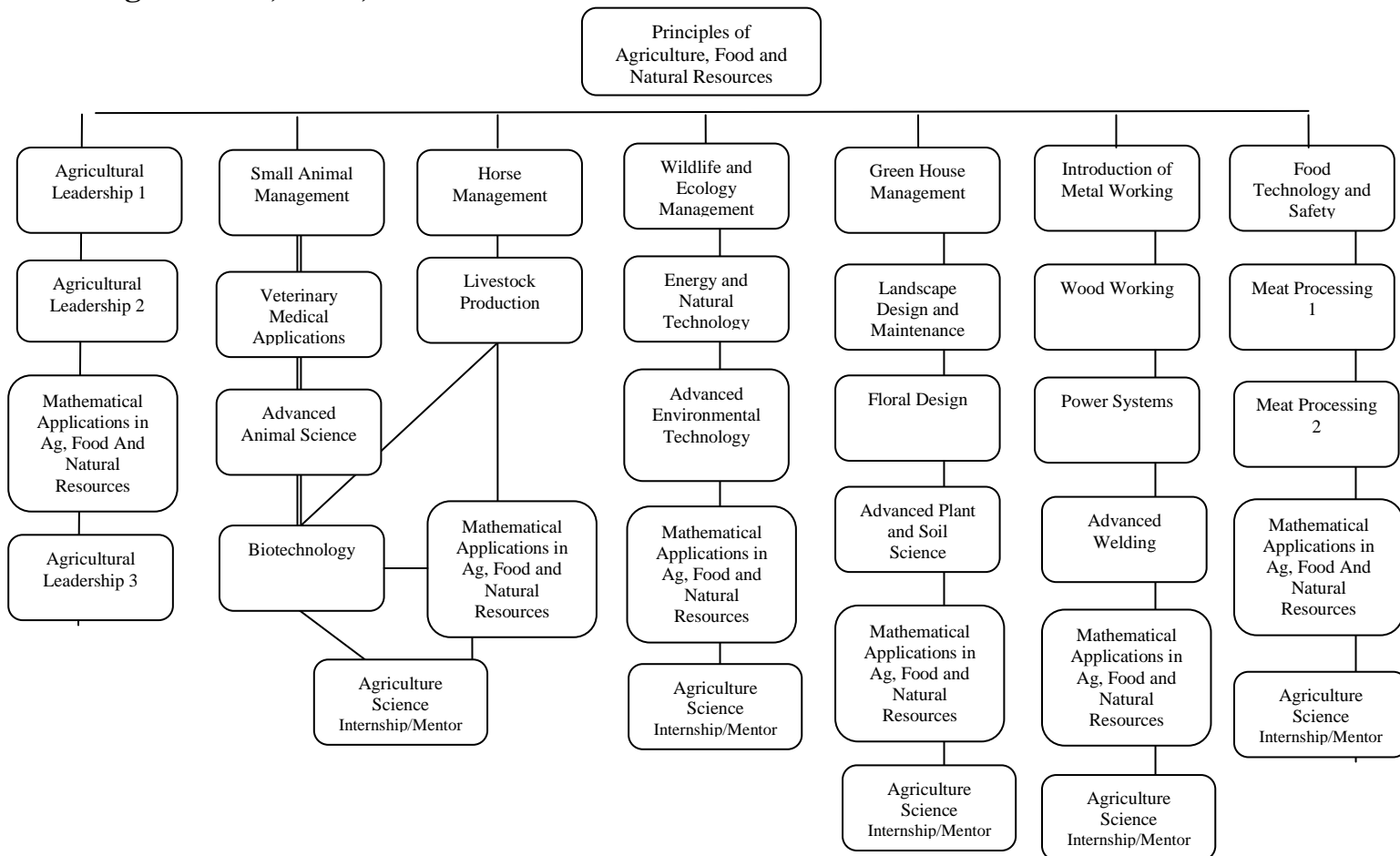
7673 Research in IT Solutions II
Credit:3.0

Grades: 12

Prerequisite: Research in IT Solutions I

This course is Year 2 of the Information Technology and Security Academy. An approved application is required.
This course is taught off-site at the St. Philips Southwest Campus.

Agriculture, Food, and Natural Resources Cluster Courses



7211 Principles of Agriculture, Food and Natural Resources
Credit:1.0

Grades: 9-12

Prerequisite: None

Be a part of the world's most important industry! This is a basic class that will allow you to find your area of interest in animal, plant, food, or mechanical systems. Students will learn about global agriculture, career development, leadership, communications, personal finance, mechanized agriculture, and project programs. Other topics covered will include soils, plants, shop construction and animal science. This is where your FFA career begins!

7221 Floral Design
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Flowers, Balloons, and More. This is a basic floral design course that will provide you with hands on skills in

arranging flowers and the "book smarts" to make a competitive arrangement. This course meets the criteria for a fine arts credit.

7222 *Landscape Design and Maintenance*
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Design, grow, and care for landscapes. You will have hands on experiences to enrich your knowledge of plants and designing. You will work in the greenhouse, on campus and in the classroom.

7223 *Greenhouse Management*
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Greenhouse, plants and more plants. Spend a fun and exciting time learning about plants and how to grow, manage and market them.

7229 *Advanced Plant & Soil Science*
Credit:1.0

Grades: 10-12

Prerequisite: Greenhouse Management

Sunlight, Soil and Plants. Gain more knowledge of the industry and find yourself growing and testing your skills of plant production in the school greenhouse. Students are encouraged to do a Science Fair Project.

7237 *Horse Management*
Credit: 0.5

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

So horses are your love? This is the class for you. A whole course devoted to the study of horses. We will focus on breeds, feeding, health, training, and careers dealing with horses. This is a must for anyone interested in trying out for the Horse Judging Team.

7236 *Livestock Production*
Credit: 0.5

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Does anyone want to be a veterinarian? Spend the semester devoted to learning and studying large animals. You think you might want to have a goat, lamb, or pig? Take this class and learn everything you ever wanted to know. This is a fun class that just focuses on livestock.

7240 *Wildlife and Ecology Management*
Credit: 1.0

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Hunting, fishing, and the great outdoors! You'll love learning about our country's greatest natural asset.....our wildlife. You will go through the Texas Parks and Wildlife programs for Hunter Education, Boater Education, and Angler Education. You will also learn vital management skills to maintain our wildlife.

7244 *Advanced Environmental Technology*
Credit:1.0

Grades: 11-12

Prerequisite: Wildlife and Ecology Management

Want to look deeper into solving the world's environmental issues? This course examines the interrelatedness of environmental issues and production agriculture. Students evaluate sustainable resources and green technologies which will provide environmental benefits.

Instruction is designed to allow for the application of science and technology to measure environmental impacts resulting from production agriculture through field and laboratory experiences.

7255 *Small Animal Management*
Credit:0.5

Grades: 10-12

Prerequisite: None

Do you love furry little kittens and floppy eared dogs with wet noses? Take a class that every animal lover can really learn something from. Learn about small animals including dogs, cats, lizards, snakes, birds, and much more. Examine health issues, section, training, breeding, and social issues.

7215 *Veterinary Medical Applications*
Credit: 1.0

Grades: 11-12

Prerequisite: Small Animal Management

This course provides training in the veterinary assistant field. It includes topics such as animal handling and restraint, health and safety, sanitation, surgical preparation, anatomy, physiology, medical terminology, infectious diseases, instrument and equipment identification, vaccine preparation and injection techniques, laws and ethics, and veterinary office procedures. The following is part of the instruction: reinforcement of basic communication skills, utilizing listening skills to follow directions, practicing basic math skills as applied to a medical setting, and reading to gain information and to perform assignments and tasks as directed.

7238 *Food Technology and Safety*
Credit: 0.5

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Ever wonder how jerky or ice cream is made? Here's a class where you will learn the basics of food production. We will focus on the steps to take a raw food product to a product that consumers will purchase. Know how to tell a T-Bone from a rib eye? If not you will learn the basics of retail meat identification along with the methods to fabricate and process them. Other topics include milk and ice cream processing, fruit and vegetable processing, as well as food safety and sanitation principles.

7264 *Biotechnology*
Credit:1.0

Grades: 11-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Students will explore molecular biology and its application to the real world by integrating biological principles to animal and plants with biotechnology. A variety of hands on skills to utilize biotechnology principles will be used.

7265 *Meats Processing I*
Credit:2.0

Grades:11-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Want to work in the meat or food processing industry? This lab oriented course will develop technical skills in processing, preparing, and packaging of meat, fish and poultry. This class will emphasize equipment care and sanitation, HACCP development, government regulations, meat quality, identification, grading, fabrication, preparation and preservation, and merchandising.

7273 *Meats Processing II*
Credit:2.0

Grades: 12

Prerequisite: Meats Processing I

This class is for second year students to continue developing their meat and food processing skills. Students will explore food safety and quality to a deeper level while serving as a supervisor for beginning students.

7225 *Energy & Natural Resources Technology*
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Do you ever wonder what all the fuss is about going green? Enroll in the class and learn what's going on in the business of global energy and natural resources technology. Topics such as global warming and alternative energy resources will be covered.

7226 Floral Design DC
Credit:1.0

Grades: 11-12

Prerequisite: Application and Accuplacer Testing

Flowers, Balloons, and More. This is a basic floral design course that will provide you with hands-on skills in arranging flowers and the “book smarts” to make a competitive arrangement. This course can be taken for dual high school and college credit through Palo Alto College provided all college admission requirements are met.

7233 Power Systems
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Have you ever wondered how an engine works? In this course, you will gain insight to the internal workings of an engine, how to rebuild an engine, study mechanical theory, and many other facets of the transportation industry. The OSHA 10-hr. safety certification is also available.

7231 Introduction to Metal Working
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

This hands-on course will give a brief look at oxy/fuel welding and cutting, Arc Welding, MIG Welding, soldering, brazing, and metal fabrication. Small projects will be built. In addition to this course; safety, tool/fastener identification, electrical, plumbing, and fence building will be incorporated. The OSHA 10-hr. safety certification is available.

7232 Advanced Welding
Credit:2.0

Grades: 11-12

Prerequisite: Introduction to Metal Working

Have you ever wondered what welding has to offer you? This two period course will give an in-depth coverage of METAL FABRICATION & WELDING. Students will gain a greater understanding of what the welding industry has to offer. Opportunities to participate in professional student organizations, contests for student projects/ welding ability, and industry certifications are available in this course. Certifications may include: AWS Welding Certification, NCCER safety in construction, and OSHA 10-hr. certification. Dual Credit may be made possible through St. Philip's College.

7235 Woodworking
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

This hands-on course will give a brief look at building structures and how wood products can be fabricated. Students will learn how to set up a level concrete slab, how to build basic roof designs, and have the opportunity to use the many wood working tools in the shop. In addition to this course students will learn basic safety, tool/fastener identification, and each student will be able to build their own wood working project. The OSHA 10-hr. safety certification is available.

7251 Agricultural Leadership Development I
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

This class is designed for those students wanting to take their leadership and career development to another level. Students can earn speech credit by completing this class. Students will develop leadership and communication skills in the fall by competing on leadership development teams. During the spring students will continue developing their critical thinking skills, communication skills and problem solving skills by competing on career development event teams. FFA membership and team participation is required.

7252 *Agricultural Leadership Development II*
Credit:1.0

Grades: 11-12

Prerequisite: Agricultural Leadership Development I

This class is designed for those students wanting to continue taking their leadership and career development to another level. Students will develop leadership and communication skills in the fall by competing on leadership development teams. During the spring, students will continue developing their critical thinking skills, communication skills and problem solving skills by competing on career development event teams. FFA membership and team participation is required.

7253 *Agricultural Leadership Development III*
Credit:2.0

Grades: 12

Prerequisite: Agricultural Leadership Development I or II

This practicum is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as independent student, internships, assistantships, mentorships or laboratories.

7258 *Advanced Animal Science*
Credit:1.0

Grades: 11-12

Prerequisite: Biology and Chemistry

Seniors in the Animal Science Systems, here could be your 4th science. This course will prepare students for careers in the field of animal science. The course examines how man and animal interrelate. Students must have taken Horse Management, Small Animal Care, Livestock Production or Vet Tech prior to Advanced Animal Science.

7271 *Agricultural Science Internship/Mentorship*
Credit:2.0

Grades: 11-12

Prerequisite: Application

This practicum is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as independent student, internships, assistantships, mentorships or laboratories.

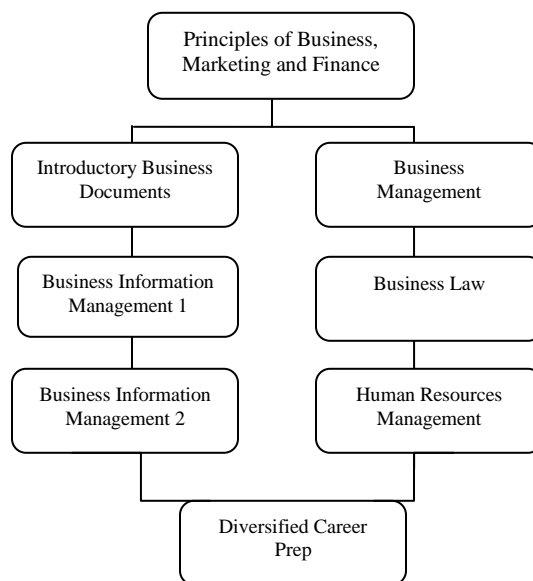
7281 *Mathematical Applications in Agriculture, Food & Natural Resources*
Credit:1.0

Grades: 11-12

Prerequisite: Algebra I and Geometry

Love math? Want to find out how math is really used in the real world. Students in this class will apply knowledge and skills related to mathematics, including algebra, geometry, and data analysis in the context of agriculture, food, and natural resources. To prepare for success, students are afforded opportunities to reinforce, apply, and transfer their knowledge and skills related to mathematics in a variety of contexts.

Business, Management and Administration Cluster Courses



6613 Principles of Business, Marketing and Finance
Credit:0.5

Grades: 9-12

Prerequisite: None

This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business, marketing, and finance.

7331 Business Information Management I
Credit:1.0

Grades: 9-12

Recommended Prerequisite: Principles of Business, Marketing and Finance

Business Information Management I prepares students to apply technology skills to personal and workplace business situations. The course focuses on database, spreadsheet, and presentation management technologies. Students complete the course with an intermediate skill level in spreadsheet and database applications.

7332 Business Information Management II
Credit:1.0

Grades: 10-12

Prerequisite: Business Information Management I

This course provides advanced technology skills necessary for success in the workplace. This course focuses on the computer as a tool to solve business problems. BIM II prepares the students to master the objectives of the MCAS certification test. The MCAS certification exam recognizes individuals who have achieved a certain level of mastery in Word, Excel, & Access. Passing this exam may waive an introduction to a computer course at a university. The final product for the class will be a multimedia presentation.

7311 Introductory Business Documents
Credit:0.5

Grades: 9-12

Recommended Prerequisite: Principles of Business, Marketing and Finance

This course is designed to further develop the skills necessary for personal and professional development in relation to technology. The course focuses on the computer as a tool to solve business problems. The student will learn the basics in word processing, calculating keypad, and introductory PowerPoint.

7312 Business Law
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Business, Marketing and Finance

An introductory course on business law covering such topics as: contracts, ethics, employment law, credit, banking, partnerships, bankruptcy, and more. The course includes computer applications, electronic issues, and legal research,

with an introduction to personal law topics that interest students. We will follow a young entrepreneur's business start-up and experience law in action.

7313 Business Management
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Business, Marketing and Finance

A practical course combining skills needed to manage and operate a successful business. Topics include: Finance, Marketing, Communications, Human Resources, and many more. Profiles of business leaders, ethical and global issues, challenges in the business world, computer applications, and real-life scenarios are included throughout the course.

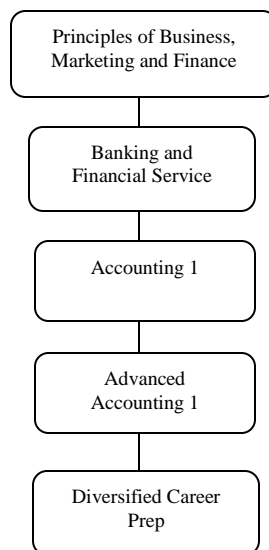
7314 Human Resources Management
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Business, Marketing and Finance

This course will introduce students to the rapidly evolving business environment as it relates to human resource management. The course will center itself on skills and concepts of recruiting, selecting, training, development and compensation of employees. This course is designed to prepare students to become competent managers, employees and entrepreneurs. Students will study legal, managerial, financial, ethical and international strands of business to make good human resource decisions.

Finance Cluster Courses



6613 Principles of Business, Marketing and Finance
Credit:0.5

Grades: 9-12

Prerequisite: None

This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business, marketing, and finance.

6721 Accounting
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Business, Marketing and Finance

"The Language of Business", this course provides an introduction to standard business accounting. Whether you want to be an accounting major, work after school in an accounting-related job, work in a non-accounting job, or want to learn how to take care of your personal finances, this class is for you. Regardless of your career field, employers want people who have these skills: problem solving, critical thinking, understanding of business/profit motive, organization/accuracy/integrity, and use of technology- all skills that are essential in the high school accounting classroom.

6722 *Advanced Accounting*
Credit:1.0

Grades: 11-12

Prerequisite: Accounting 1

Advanced Accounting reinforces basic accounting principles through topics on partnerships and corporations. Students learn the material in “real-life” simulations and through automated accounting software. Other topics of study include: business ethics, career choices, accounting and business practices in the global community, and multicultural awareness.

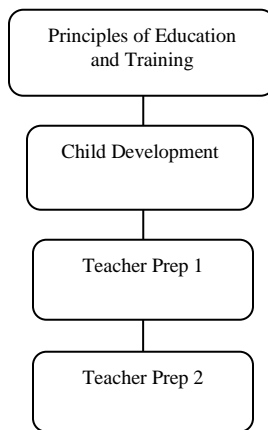
7315 *Banking and Financial Systems*
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Business, Marketing and Finance

This course introduces banking and financial concepts, principles and procedures; emphasizes the role of money in the modern economy; recognizes the economic theories and financial forces that influence international business; and compares consumer financial transactions with government transactions.

Education and Training Cluster Courses



7161 *Principles of Education and Training*
Credit:0.5

Grades:9-12

Prerequisite: None

This course is designed to introduce learners to the various careers available within the education and training career cluster. Students use self-knowledge and educational and career information to analyze various careers within the education and training career cluster. Students will also gain an understanding of the basic knowledge and skills essential to careers within the education and training career cluster.

7162 *Child Development*
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Education and Training

This technical laboratory course addresses knowledge and skills related to child growth and development from prenatal through school-age children, equipping students with child development skills. Students use these skills to promote the well-being and healthy development of children and investigate careers related to the education of children.

7174 Teaching Preparation I
Credit:2.0

Grades: 11-12

Recommended Prerequisite: Principles of Education and Training

This course provides curriculum foundational employment training in the area of teacher assistant for grades PK-8. Students will intern in a classroom setting for the school year. Students are provided opportunities to explore careers in education. Course content includes leadership concepts and skills; employability skills; information on careers in education; and child growth and development related to children PK through eighth grade. This course requires students to go to their assigned school on four days out of the week, with classroom instruction one day per week. Students must have personal transportation.

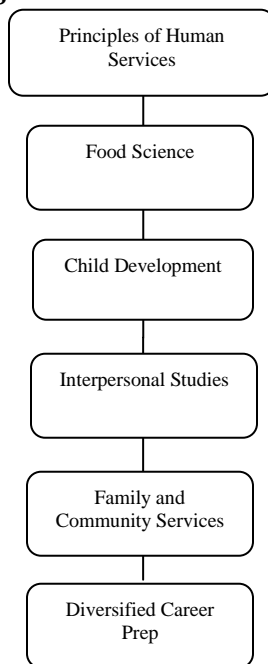
7175 Teaching Preparation II
Credit:2.0

Grade :12

Prerequisite: Teaching Preparation I

This course provides curriculum foundational employment training in the area of teacher assistant for grades PK-8. Students will intern in a classroom setting for the school year. Students are provided opportunities to explore careers in education. Course content includes leadership concepts and skills; employability skills; information on careers in education; and child growth and development related to children PK through eighth grade. This course requires students to go to their assigned school on four days out of the week, with classroom instruction one day per week. Students must have personal transportation.

Human Services Cluster Courses



7101 Principles of Human Services
Credit:0.5

Grades: 9-12

Prerequisite: None

This laboratory course will enable students to investigate careers in the human services career cluster, including counseling and mental health, early childhood development, and family and community. Each student is expected to complete the knowledge and skills essential for success in high-skill, high-wage, or high-demand human services careers.

7111 Interpersonal Studies
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Human Services

This course examines how the relationships between individuals and among family members significantly affect the quality of life. Students use knowledge and skills in family studies and human development to enhance personal development, foster quality relationships, promote wellness of family members, manage multiple adult roles, and pursue careers related to counseling and mental health services. Students are encouraged to join Family, Career, Community Leaders of America, which focuses on family, leadership skills, individual careers, and current teen issues.

7122 Fashion Design
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Human Services

This technical laboratory course focuses on apparel from the perspective of personal decision making related to apparel, the apparel industry, and career preparation. Topics include: an understanding of fashion and the textile and apparel industries, managing the apparel dollar, apparel repair and alteration, and wardrobe planning, care and maintenance. Quality apparel construction is addressed as it relates to consumer decision making and career preparation for the apparel industry.

7131 Family and Community Services
Credit:1.0

Grades:10-12

Recommended Prerequisite: Principles of Human Services

The laboratory based course is designed to involve students in realistic and meaningful community based activities through direct service experiences. Students are provided opportunities to interact and provide services in individuals, families, and the community through community or volunteer services. Emphasis is placed on developing and enhancing organizational and leadership skills and characteristics. FCCLA officers, project managers and members participate in extended learning experiences as FCCLA members. Students are encouraged to join Family, Career, Community Leaders of America, which focuses on family, leadership skills, individual careers, and current teen issues.

7141 Food Science
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Human Services

This technical laboratory course concentrates on nutrition, food choices, and food management skills for individuals and the family throughout the life cycle. Meal etiquette, career options, and techniques for managing multiple family, community, and wage-earner roles are part of the content.

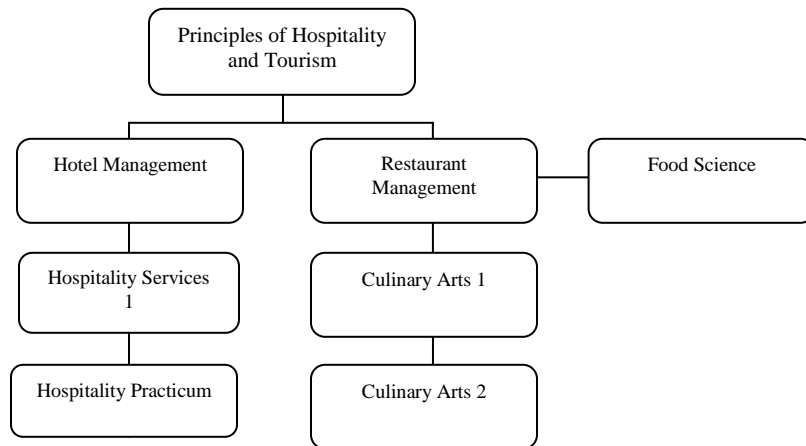
7151 Interior Design
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Human Services

This is a technical course that addresses psychological, physiological, and sociological needs of individuals by enhancing the environment in which they live and work. Individuals use knowledge and skills related to interior and exterior environments, constructions and furnishings to make wise consumer decisions, increase productivity, and compete in industry.

Hospitality and Tourism Cluster Courses



7551 Principles of Hospitality and Tourism
Credit:0.5

Grades: 9-12

Prerequisite: None

The hospitality and tourism industry encompasses lodging; travel and tourism; recreation, amusements, attractions and resorts; and restaurants and food beverage service. Students use knowledge and skills that meet industry standards to function effectively in various positions within this industry.

7553 Hotel Management
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Hospitality and Tourism

This course focuses on the knowledge and skills needed to pursue staff and management positions available in the hotel industry. This in-depth study of the lodging industry includes departments within a hotel such as front desk, food and beverage, housekeeping, maintenance, human resources, and accounting. Students are encouraged to join Family, Career, Community Leaders of America, which focuses on family, leadership skills, individual careers, and current teen issues.

7558 Restaurant Management
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Hospitality and Tourism

This course will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant.

7561 Hospitality Services
Credit:1.0

Grades:10-12

Recommended Prerequisite: Principles of Hospitality and Tourism

This course provides occupationally-specific training designed to develop knowledge and skills for employment in the multifaceted hospitality services industry. Emphasized are career options in the industry; managing multiple family, community, and career roles; business procedures; laws; industry technology applications; safety; sanitation; customer relations; and other knowledge and skills for employment in lodging operations and food and beverage operations. Content includes an orientation to supportive operations such as sales and marketing, quantity food production, human resources, accounting, security, and engineering.

7562 Hospitality Practicum
Credit:2.0

Grades: 11-12

Prerequisite: Hospitality Services

This course provides occupationally-specific training designed to develop knowledge and skills for employment in the multifaceted hospitality services industry. Emphasized are career options in the industry; managing multiple family, community, and career roles; business procedures; laws; industry technology applications; safety; sanitation; customer relations; and other knowledge and skills for employment in lodging operations and food and beverage operations. Content includes an orientation to supportive operations such as sales and marketing, quantity food production, human resources, accounting, security, and engineering.

7563 Culinary Arts 1
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Hospitality and Tourism

This course begins with the student studying safety and sanitation by pursuing the national ServSafe certificate. Instruction includes operation and management of food service establishments, marketing strategies, quantity food production skills, food presentation and service techniques. The fundamentals and principles of the art of cooking and the science of baking are also covered. Legal considerations, customer service, career options, food safety, and managing multiple family, community, and career roles are contained in the content.

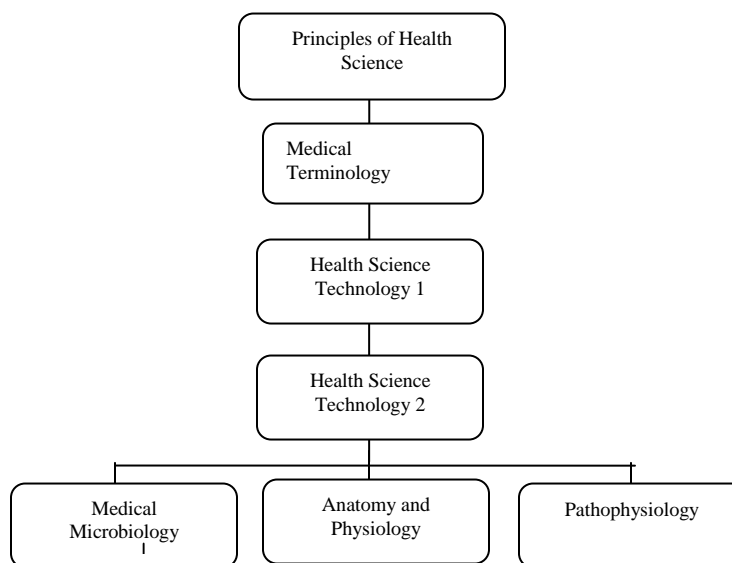
7564 Culinary Arts 2
Credit: 2.0

Grades: 11-12

Prerequisite: Culinary Arts 1

This course teaches employability skills, which include job-specific skills, job interview techniques, communication skills, resume writing skills, financial and budget activities, and human relations. This practicum course is relevant and rigorous, supports student application of academic standards, and effectively prepares students for college and career success.

Health Science Cluster Courses



7401 Principles of Health Science
Credit:0.5

Grades: 9-12

Prerequisite: None

The Principles of Health Science course provides an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the health care industry.

7402 Health Science Technology I
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Health Science

A course designed to develop health-care specific knowledge and skills in effective communication, ethical and legal responsibilities, client care, safety, first aid, and CPR. This course prepares the student for the transition to clinical or work-based experiences in health care. The abstinence education program entitled “Worth the Wait” is included as part of this course. (Parent permission required)

7411 Health Science Technology II
Credit:2.0

Grades: 11-12

Prerequisite: Health Science Technology I and Application

A course designed to provide for the development of multi-occupational knowledge and skills related to a wide variety of health careers. Students will have hands-on experiences for continued knowledge and skill development. Students will have the opportunity to earn Nursing Assistant certification through the TX Department of Aging and Disability Services. They may also begin the coursework to prepare for Pharmacy Technician certification. The course may be taught by different methodologies, such as pre-employment laboratory, clinical rotation, or cooperative education.

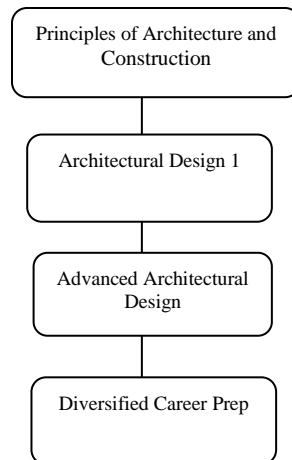
7421 Medical Terminology
Credit:0.5

Grades: 10-12

Recommended Prerequisite: Principles of Health Science

A course designed to develop a working knowledge of the language of medicine. Students acquire word-building skills by learning prefixed, suffixes, roots and abbreviations. By relating terms to body systems, students identify proper use of the word in a medical environment. Knowledge of medical terminology enhances the student’s ability to successfully secure employment or pursue advanced education in health care.

Architecture and Construction Cluster Courses



7512 *Principles of Architecture and Construction*
Credit:0.5

Grades: 9-12

Prerequisite: None

Principles of Architecture and Construction provide an entry level overview to the various fields of architecture and construction technology. This course will provide the necessary tools to be successful if you choose a pathway in the architecture and construction industry. This is an introductory class that features hand and computer drafting drawings, with basic model building skills and current construction terminology.

7521 *Architectural Design*
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Architecture and Construction

Students gain knowledge and skills specific to those needed to enter a career in architecture and construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, and landscape architecture. Architectural design includes the knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for commercial or residential architectural purposes.

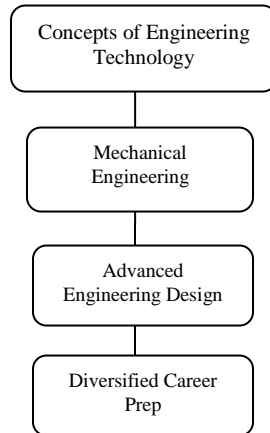
7522 *Advanced Architectural Design*
Credit:2.0

Grades: 11-12

Prerequisite: Architectural Design

This course expands the knowledge gained in the Architectural Design course and provides opportunities for real life, hands-on experiences.

Science, Technology, Engineering and Math Cluster Courses



7515 *Concepts of Engineering and Technology*
Credit:0.5

Grades: 9-12

Prerequisite: None

This course provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will use a variety of computer hardware and software applications to complete assignments and projects. Upon completing this course, students will have an understanding of the various fields and will be able to make informed decisions regarding a coherent sequence of subsequent courses. Further, students will have worked on a design team to develop a product or system. Students will use multiple software applications to prepare and present course assignments.

7524 *Mechanical Engineering*
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Concepts of Engineering and Technology

An entry-level course designed to provide training for entry level drafting careers. First year emphasis on orthographic, isometric, oblique, lettering, dimensioning, and line development through the use of hand drafting and computer aided design for the production of drawings for mechanical applications. Current software used are West Point Bridge and AutoDesk Inventor for engineers.

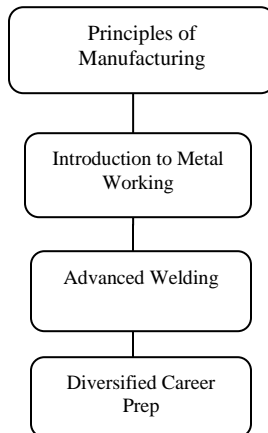
7525 *Advanced Engineering Design*
Credit:2.0

Grades: 11-12

Prerequisite: Mechanical Engineering

An advanced course designed to provide training for students who plan on attending college and considering a career in engineering. First and second year emphasis on model building skills, advanced orthographic, isometric, oblique, lettering, dimensioning, and line development through the use of hand drafting and computer aided design. Current software used are West Point Bridge and AutoDesk Inventor for engineers.

Manufacturing Cluster Courses



7830 Principles of Manufacturing
Credit:0.5

Grades: 9-12

Prerequisite: None

This is an introductory course for students interested in pursuing coursework and/or a career in manufacturing.

7231 Introduction to Metal Working
Credit:1.0

Grades: 10-12

Recommended Prerequisite: Principles of Manufacturing

This hands-on course will give a brief look at building structures and how wood products can be fabricated. Students will learn how to set up a level concrete slab, how to build basic roof designs, and have the opportunity to use the many wood working tools in the shop. In addition to this course students will learn basic safety, tool/fastener identification, and each student will be able to build their own wood working project. The OSHA 10-hr. safety certification is available.

7232 Advanced Welding
Credit:2.0

Grades: 11-12

Prerequisite: Introduction to Metal Working

Have you ever wondered what welding has to offer you? This two period course will give an in-depth coverage of METAL FABRICATION & WELDING. Students will gain a greater understanding of what the welding industry has to offer. Opportunities to participate in professional student organizations, contests for student projects/ welding ability, and industry certifications are available in this course. Certifications may include: AWS Welding Certification, NCCER safety in construction, and OSHA 10-hr. certification. Dual Credit may be possible through St. Philip's College.

7833 Advanced Precision Metal Manufacturing
Credit:3.0

Grades: 11-12

Prerequisite: Application and Accuplacer Testing

This course is Year 1 of the Advanced Technology and Manufacturing Academy. An approved application is required. This course is taught off-site at the St. Philips Southwest Campus.

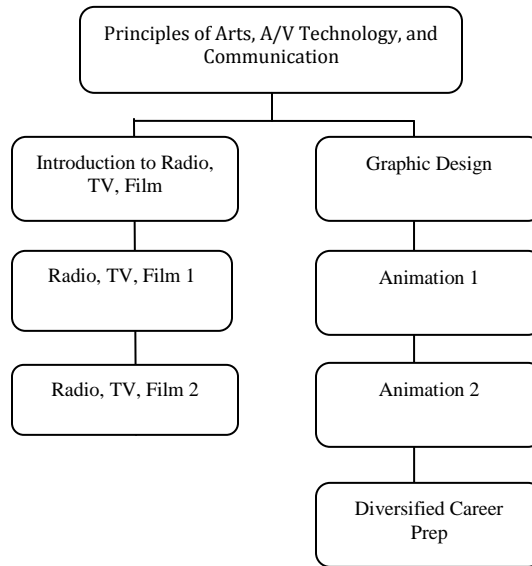
7834 Manufacturing Engineering
Credit:3.0

Grades: 12

Prerequisite: Advanced Precision Metal Manufacturing

This course is Year 2 of the Advanced Technology and Manufacturing Academy. An approved application is required. This course is taught off-site at the St. Philips Southwest Campus.

Arts, A/V Technology and Communication Cluster Courses



7721 Principles of Arts, Audio Video Technology, and Communications
Credit:0.5

Grades: 9-12

Prerequisite: None

Careers in the Arts, Audio/Video Technologies and Communication start with the principles class as the prerequisite for Animation, Radio-TV-Film and Graphic Design. Students will work with technology applications and gain an academic foundation and a proficiency in oral and written communication. It will provide students with a fundamental understanding of multifaceted career opportunities.

7531 Graphic and Design Illustration
Credit:1.0

Grades:10-12

Recommendation Prerequisite: Principles of Arts, AV Technology and Communication

This course is an introduction to skills required for a career in graphic design and illustration. Students will develop knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications careers. Students will develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design.

7532 Animation
Credit:1.0

Grades:10-12

Recommendation Prerequisite: Principles of Arts, AV Technology and Communication

This course is designed for students who want a career in Animation. Students will design projects using various software packages and PCs. Students will develop an understanding of depth and dimension as well as spatial relations.

7533 Advanced Animation
Credit:2.0

Grades:11-12

Prerequisite: Animation

The advanced animation course will use 3D modeling and various computer software packages to complete animation projects. Students will work on advance motion development of objects with the various tools.

7722 Introduction to Radio, TV and Film
Credit:1.0

Grades: 10-12

Recommendation Prerequisite: Principles of Arts, AV Technology and Communication

This is the introductory course for careers in audio and video technologies. Students will understand the industry and fully understand pre-production development. Pre-production development will include script writing, using various cameras and audio recording devices and film projects. Laws and guidelines that affect the broadcast industry will be discussed.

7723 Radio, TV, and Film I
Credit:2.0

Grades: 11-12

Prerequisite: Intro to Radio, TV and Film

Students will work with audio and video technologies to create movies and television broadcast production projects. Students will work on advance audio and video techniques such as music production and television broadcasting. Students will perfect roles in film and television production.

7724 Radio, TV, and Film II
Credit:2.0

Grade: 12

Prerequisite: Radio, TV and Film I

Students will work in a non-school broadcast environment either at a television or radio station. Students will test for certification accreditation in the course work.

Transportation, Distribution, and Logistics Cluster Courses **Off Site St. Phillips or St. Phillips Southwest Campus**

7641 Automotive Technology
Credit:2.0

Grades: 11-12

Prerequisite: Application and Accuplacer

This course is at St. Philip's College. An approved application is required. Transportation is not provided.

7642 Advanced Auto Technology
Credit:2.0

Grades: 12

Prerequisite: Year 1 of Auto Tech

This course is at St. Philip's College. An approved application is required. Transportation is not provided.

7651 Practicum in Transportation, Distribution, and Logistics I
Credit:3.0

Grades:11-12

Prerequisite: Application and Accuplacer

This course is Year 1 of the Alamo Area Aerospace Academy. An approved application is required.

7652 Advanced Aircraft Technology
Credit:3.0

Grades: 12

Prerequisite: Year 1 of Alamo Area Aerospace Academy

This course is Year 2 of the Alamo Area Aerospace Academy. An approved application is required.

Career Preparation Courses

8010 *Problems and Solutions I*

Grades: 9-12

Credit:0.5

Prerequisite: None

This course provides an opportunity for students to participate in career exploration and preparation.

9010 *Vocational Adjustment Cooperative Class*

Grades: 10-12

Credit:1.0

Prerequisite: Recommended by ARD Committee

The students will learn the skills needed to gain and maintain employment. The class will teach the student how to complete job applications, prepare resumes, and go through the interview process. The student will learn to interpret paycheck data, maintain checking and savings accounts, and develop a personal budget.

9011 *VAC Work Release*

Grades: 10-12

Credits: 1.0-8.0

Prerequisite: Recommended by ARD Committee

This Special Education elective is designed for the upper level student who is employed off campus. The V.A.C. instructor will monitor job performance routinely during each semester. The student will earn from 1-8 credits per year as determined by the ARD Committee.

8004/8009 *DCP Diversified Career Preparation I and II*

Grades:10-12

Credit:2.0-3.0

Prerequisite: Application

This work-based instructional arrangement develops essential knowledge and skills through classroom technical instruction and on-the-job training in an approved career and technology-specific training area. Students will receive general employability skills as a group; however each student will have an individual training plan that will address their job specific knowledge and skills. Approved training sponsors will employ each student. The training sponsor will assist the teacher in providing the necessary skills and knowledge for the student's specific work training. The recommended prerequisite is two semesters of training in a career and technology area prior to or during this course of study.