

# **ELECTIVE COURSE DESCRIPTIONS**

## **ADVANCED COMPUTER PROGRAMMING**

*Students expand their knowledge and skills in structured programming techniques and concepts by addressing more complex problems and developing comprehensive programming solutions. Students analyze the social responsibility of business and industry regarding the significant issues relating to environment, ethics, health, safety, and diversity in society and in the workplace as it relates to computer programming. Students apply technical skills to address business applications of emerging technologies, up to and including creating applications for mobile devices. **PREREQUISITE: Computer Programming***

## **ADVANCED GRAPHIC DESIGN & ILLUSTRATION**

*This advanced CTE course focuses primarily on digital imaging and vector graphics while also emphasizing creativity and enhanced design principles. The class uses cutting-edge software for problem solving through real-world projects that focus on logo creation, product packaging, custom page layouts, original typography, communication skills, and broadcast or print media with a real-world emphasis on web portfolio creation.*

**PREREQUISITE: Graphic Design & Illustration**

## **COMMUNICATION APPLICATIONS/PROFESSIONAL COMMUNICATIONS**

*Communication is a vital skill for every segment of the workforce. Whether you find yourself speaking in front of a courtroom, a classroom full of students, interviewing for a job, or running for Congress, the skills you begin to learn in this class will help you live a professional life. The course focused heavily on understanding the act of communication and its best practices in the work force. The mechanics of communication will be leveled against the physical act of speaking to peers in an intelligent, polished manner. By the end of the course, students will be capable of presenting his/herself effectively in front of an audience. 1.0 or 0.5 credits awarded.*

## **COMPUTER PROGRAMMING**

*Students acquire knowledge of structured programming techniques and concepts appropriate to developing executable programs and creating appropriate documentation. Students analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as it relates to computer programming. Students apply technical skills to address business applications of emerging technologies.*

## **COMPUTER SCIENCE I**

*Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results. Students will leave this course with a deeper appreciation for and understanding of computer science, technology, software, hardware, internet research, and the use of technology in the classroom. **NOTE: Computer Science I & II can fulfill a student's language other than English graduation requirement.***

## **COMPUTER SCIENCE II**

*Students will show advanced knowledge of programming through appropriate trace recursion in program design comparing invariant, iterative, and recursive algorithms and manipulate data structures using string processing. Use notation for language definition such as syntax diagrams or Backus-Naur forms; identify, describe, and use sequential/non-sequential files; multidimensional arrays and arrays of records; and quadratic sort algorithms such as selection, bubble, or insertion, and more efficient algorithms including merge, shell, and quick sorts.*

*Students will create robust programs with increased emphasis on design, style, clarity of expression and documentation for ease of maintenance, program expansion, reliability, and validity; apply methods for computing iterative approximations and statistical algorithms. They will define and develop code using the concepts of abstract data types including stacks, queues, linked lists, trees, graphs, and information hiding. To show final understanding students will develop software to solve a school or community problem such as customer relations, design, modular programming, documentation, validation, marketing, or support; and research advanced computer science concepts such as applied artificial intelligence, expert systems, robotics, depth-first/breadth-first and heuristic search strategies, multitasking operating systems, or computer architecture, such as reduced instruction set computer (RISC) and complex instruction set computer (CISC).*

**NOTE: Computer Science I & II can fulfill a student's language other than English graduation requirement.**

**PREREQUISITE: Computer Science I**

## **COUNSELING & MENTAL HEALTH**

*This is the third level course in the Human Services track and is recommended for students in Grades 10-12. In this class students model the knowledge and skills necessary to pursue a counseling and mental health career.*

*This is a homework intensive course where we study high level information in the medical field as well as discuss more mature subject matter within Psychology. Students will apply knowledge of ethical and legal responsibilities, limitations, and the implications of their actions. They will also expand on professional integrity, ethical and legal responsibilities in the Human Services field. There is an emphasis on human psychology so be aware that some of the content covered is for a more mature audience. **PREREQUISITE:***

***Interpersonal Studies***

## **DANCE I, II, III & IV**

*The dance elective provides instruction in a variety of dance styles with the goal of increased fitness and wellness for students in grades 7-12. Students will perform daily warm-up routines followed by choreography in modern, jazz, lyric ballet, ballroom, group dance, and other genres. Students adjust to their own level, so no experience is required. 1.0 or 0.5 credits awarded.*

## **GRAPHIC DESIGN & ILLUSTRATION**

*Graphic Design and Illustration introduces students to the foundation of typography, design and illustration to create logos, brochures, posters, websites and other visual media appropriate to the commercial art industry.*

*Students gain an understanding of business and occupational competencies that are applicable to future career opportunities. 1.0 or 0.5 credits awarded.*

## **INDEPENDENT STUDY IN JOURNALISM**

*In addition to all of the TEKS for Yearbook I-III, students take on more responsibility for the design of the annual yearbook. Administrative tasks, including research for graphics from primary and secondary sources, allow fourth-year Yearbook students to master, understand and apply press law and journalistic ethics, including copyright law, the fair use exemption, and the ownership of intellectual property. **PREREQUISITE: Yearbook I,***

***II, & III***

## **INDEPENDENT STUDY IN EVOLVING & EMERGING TECHNOLOGIES (0.5 - SPRING)**

*Be inspired to drive change on a global scale. Engage with emerging technologies in a variety of ways. In this interactive course, our goal is to create a unique, student-driven project, centered environment to study new technological innovation. To accomplish this, we will spend the semester discovering a wide variety of technical developments and blending digital and professional means to present our learnings.*

*Second semester course in combination with Web Communications*

## **INDEPENDENT STUDY IN SPEECH COMMUNICATION**

*For the serious-minded competitor, an Independent Study in Speech will allow students an opportunity to create their own performances and orations for use in a competitive environment. Whether students have an interest in acting, debate, or public speaking, there are few careers that do not benefit from experience in this field. Students will be asked to attend local speech competitions with their work to test their mettle against the area's finest. **PREREQUISITE: Public Speaking I, II & III OR Oral Interpretation I, II & III***

## **INTERPERSONAL STUDIES**

*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. 1.0 or 0.5 credits awarded.*

## **ORAL INTERPRETATION I, II & III**

*Oral Interpretation is the performance of literature, like acting or storytelling. Students will explore three genres of performance: monologue, dramatic reading, and duet scenes. Through these performances, students will learn critical lessons about the evaluation of literature, character development, and appeals to empathy through stagecraft. Students should expect to read complex literature, analyze it in careful detail, and make choices for performance. The different levels of interpretation will require progressively more from students in both performance and character choice. 1.0 or 0.5 credits awarded. Oral Interpretation I, II & III represent the first, second & third year of taking the course, respectively. **PREREQUISITE: Oral Interpretation I for Oral Interpretation II, Oral Interpretation II for Oral Interpretation III***

## **PERSONAL FINANCIAL LITERACY (0.5 – FALL)**

*Personal Financial Literacy will develop citizens who have the knowledge and skills to make sound, informed financial decisions that will allow them to lead financially secure lifestyles and understand personal financial responsibility. Students will apply critical-thinking and problem-solving skills to analyze decisions involving earning, spending, saving and investing, credit and insurance. This course emphasizes skills to plan and protect savings for college and post-secondary education and training. In this course, the student will learn to take responsibility for personal financial decisions, develop a plan for spending and saving, and explain how investing builds wealth and helps meet financial goals. First semester course in combination with Securities and Investments.*

## **PRACTICUM IN GRAPHIC DESIGN & ILLUSTRATION**

*This advanced CTE course focuses primarily on vector and digital graphics for real-world production. Students will routinely work with business clients or compete in local, state, and national competitions to display and create original and cutting-edge content. **PREREQUISITE: Advanced Graphic Design & Illustration***

## **PRACTICUM IN HUMAN SERVICES**

*Practicum in Human Services provides occupational specific training and focuses on the development of consumer services, early childhood development and services, counseling and mental health services, family and community services careers and personal care services. Content for Practicum in Human Services is designed to meet the occupational preparation needs and interests of students and skills for communication, critical thinking, problem solving, information technology, ethical and legal responsibilities, leadership, teamwork and entrepreneurship. Instruction is based in class and through interviews and discussions with industry professionals. **PREREQUISITE: Principles of Human Services & Counseling and Mental Health***

## **PRINCIPLES OF ARTS, A/V TECHNOLOGY AND COMMUNICATIONS**

*In this course, students will investigate careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the Arts, Audio/Video Technology, and Communications career cluster require, in addition to creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities. 1.0 or 0.5 credits awarded.*

## **PRINCIPLES OF HUMAN SERVICES**

*This laboratory course will enable students to investigate careers in the human services career cluster, including counseling and mental health, early childhood development, family and community, and personal care services. Each student is expected to complete the knowledge and skills essential for success in high-skill, high-wage, or high-demand human services careers. For more information, go to <http://cte.sfasu.edu/c/human-services/principles-of-human-services/> 1.0 or 0.5 credits awarded.*

## **PRINCIPLES OF INFORMATION TECHNOLOGY**

*In this course, students will develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The students will enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment. The student will investigate careers pertaining to design, development, support and management of hardware, software, multimedia and systems integration services. 1.0 or 0.5 credits awarded.*

## **PUBLIC SPEAKING I, II & III**

*Public Speaking is quite possibly the oldest art form, practiced by the honored Cicero and Socrates. The class will break down this necessary skill in three areas: limited preparatory speaking, platform address, and debate. Students will be required to speak, constantly, as the class expects the participants to craft arguments and respond to others. The class will cover everything from research skills to proper speaking etiquette and professional dress. 1.0 or 0.5 credits awarded. Public Speaking I, II & III represent the first, second & third year of taking the course, respectively. **PREREQUISITE: Public Speaking I for Public Speaking II, Public Speaking II for Public Speaking III***

## **RESEARCH IN IT SOLUTIONS**

*In Research in IT Solutions, students gain advanced knowledge and skills in the application, design, production, implementation, maintenance, evaluation, and assessment of products, services, and technology concepts and standards are essential to prepare students for success in a technology-driven society. The critical thinking, information technology experience, and product development are conducted in a classroom setting with as career preparation and also using industry mentors. The class uses advanced programming techniques, creates a portfolio of work, interacts with multiple IT professionals, and prepares students for work in the information technology industry. **PREREQUISITE: Advanced Computer Programming***

## **SECURITIES AND INVESTMENTS (0.5 – SPRING)**

*Students will explore the investment world, learning to manage investment funds through a variety of investment transactions to build wealth. Students will discover real estate, securities and investments products and their benefits, including the nature of stocks, dividends, stock splits, options strategies, hedge funds, futures, bonds, mutual funds, venture capital, a variety of real estate options. Students will explore careers and determine client needs and wants and respond through planned, personalized communication to influence purchase decisions and enhance future sales and investment opportunities. Second semester course in combination with Personal Financial Literacy.*

## **THEATRE I & II**

*Theater is an introduction into the background, development, and enjoyment of performance art. In Theater, we improvise scenes with minimal props, we practice and perform monologues, duets, and complete scenes; we also practice directing our peers and taking direction. We will also experience performances from all over the world, and then transition to Renaissance and Modern plays. In order to perform effectively, Theater students will also learn to make costumes, props, and will design sets. 1.0 or 0.5 credits awarded.*

***PREREQUISITE: Theatre I for Theatre II***

## **WEB COMMUNICATIONS (0.5 - FALL)**

*This social media course will revolve around different aspects of social media and how it is used in our society today. Web Communications introduces students to the fundamentals of effective communication in today's society. Students develop a deeper understanding of self, specifically an awareness of their own communication and leadership styles. Students learn the etiquette of communicating in an online world using modern technology such as learning management system social networks, and other Internet and Web 2.0 tools to address different audiences and settings. Technology is used to extend the student's oral and written communication and enhance critical thinking to address real-world contemporary issues. Instruction will emphasize skill development in oral & technology based presentations, desktop publishing, research, and intense study of the effectiveness of social media and the influence it has on societies today. There are six different strands to the curriculum: Historical perspective; Social media writing process; Engagement; Social media writing structure; Media analysis; Law and Ethics.*

*First semester course in combination with Independent Study in Evolving & Emerging Technologies*

## **YEARBOOK I, II & III**

*At Star, Yearbook is not just a class- it's a business. You will learn how to create the book electronically, take pictures, organize material and activities for the entire school, and sell and market the Chaparral Star Academy yearbook. In the end, we will be responsible for documenting the year's amazing memories for the entire school. Yearbook I, II & III represent the first, second & third year of taking the course, respectively.*

***PREREQUISITE: Yearbook I for Yearbook II, Yearbook II for Yearbook III***