

VALOR CHRISTIAN HIGH SCHOOL

INFLUENCE THROUGH EXCELLENCE

TECHNOLOGY AND ELECTIVES

TECHNOLOGY

TEC 115/125

Computer Networking and Hardware

This course will provide an introduction to the terminology, concepts and basic operations of local area network systems. Some of the topics covered will include: installation, resource usage, hardware devices and drivers, system performance and reliability, and trouble shooting. Also, this course covers the building, upgrading and servicing of personal computers running the Microsoft Windows operating system. Special emphasis is placed on troubleshooting, repairing hardware and software malfunctions, preventative maintenance, and best user practices.

Grade: 10,11,12; **Prerequisites:** None; **Term:** Semester; **Credit:** .5

TEC 145

Computer Programming

This course exposes students to Visual Basic, an object oriented programming environment. Best practices will be especially emphasized and other topics include: variables, input and output principles, control statements, subroutines, and graphics in a Windows environment. Students need strong math skills to succeed in this course.

Grade: 10,11,12; **Prerequisites:** None; **Term:** Semester; **Credit:** .5

TEC 155

iPad and iPhone Application Development

This course is an introduction to software development for the Apple iOS 4 platform. Students will develop projects consisting of innovative iPhone, iPod Touch, and iPad applications. Students will become familiar with the native object-oriented programming language used for development, Objective-C, as well as the design patterns necessary to carry out development of applications for iPhone, iPod Touch, and iPad. This includes proper Objective-C syntax, defining classes, and proper object-oriented techniques such as abstraction and inheritance. Common design patterns, such as the Model-View-Controller and Delegate patterns, will be discussed as a foundation needed to comprehend and take full advantage of the core objects used in the iOS Software Development Kit (SDK). Finally, we will dive into the vast library that makes up the SDK, and become familiar with many of the most commonly used APIs that are necessary for great iPhone, iPod Touch, and iPad applications. Throughout the course, we will discuss the theory of what makes a "great" application, such as proper design considerations, usability, and acceptable performance characteristics. Most of these guidelines are outlined by Apple, and many are required in order to meet the standards necessary to publish to the App Store, and as such, are just as important to an application as the code that drives it.

Grade: 10,11,12; **Prerequisites:** None; **Term:** Semester; **Credit:** .5

TEC 135

Web Design

This course provides training in all aspects of website design. Students will help maintain portions of the Valor website. Tasks will include page design, writing, proofing, editing, layout, and JavaScript animation. Students will create other websites as well using HTML editing tools and Content Management Systems to create informational user friendly websites. Advanced students will prepare portfolios and focus on a specialty such as page management, animation, online video, digital photography or design.

Grade: 9,10,11,12; **Prerequisites:** None; **Term:** Semester; **Credit:** .5

TEC 240

Web Design II

The Web Design II course is intended to build on the foundation established in Web Design I, as students further refine their technical ability in Dreamweaver, Photoshop and Flash, and expand their ability to create effective web design. In addition to project based applications, the class will assist in maintaining, updating and the creation of graphics for the Valor website.

Grade: 10,11,12; **Prerequisites:** Web Design I, or permission of instructor; **Term:** Full Year; **Credit:** 1.0

GRA/TEC 410

Applied Media: Graphic Design and Web Design III/IV

This course takes skills learned in Graphic Design and Web Design I and II and applies them in a variety of real life applications. Half of the course is focused directly serving others through our creative gifts, while the other half is focused on commercial applications of graphic and web design. On the service side, the class will partner with a local public service organization, helping to create an awareness campaign. On the commercial side, students will learn fundamentals of marketing as they develop design related products sold through the *Valor Media* website. The site will be a delivery portal for Christ centered media, such as a teen focused video series, fine art prints, calendars, posters, greeting cards and worship media tools. The class meets concurrently with *Applied Media Photography* and *Applied Media Video*, so that the groups can work collectively to provide complete solutions in both service and commercial applications. The class emphasizes group decision-making and creative brainstorming, and takes a round table collaborative approach to applying student skills in a significant manner.

Grade: 11,12; **Prerequisites:** 93% or higher average in Graphic Design and Web Design II, or permission of the instructor **Term:** Full Year; **Credit:** 1.0; **Fee required:** See Valor website for details.

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ELECTIVES

ELE 105

Valor Sports Network

This elective course engages students by exploring the world of sports media within Valor athletics using a project-based learning model. Project-based learning is "a systematic teaching method that engages students in learning essential knowledge and life-enhancing skills through an extended, student-influenced inquiry process structured around complex, authentic questions and carefully designed products and tasks." (pbl-online.org) Students will engage in sports-related projects around writing, broadcasting, photography, videography, event staffing, and marketing, learning the processes, problems, solutions, and techniques necessary to create an excellent media network with the unique privilege of supporting a single entity – the Valor athletic department. The goal of the Valor Sports Network is to promote Valor Athletics exclusively. Course will be limited to 25-30 students in year one.

Grade: All; **Prerequisites:** None; **Term:** Semester; **Credit:** .5

ELE 110

Journalism

Journalism is a two semester course designed to expand the writing ability of the student and give practical experience through the production of the Valor school newspaper. The course will examine legal rights, journalistic ethics and issues affecting those involved in writing and reporting the news. This course requires extensive reading and writing in terms of current events and news articles. Students will receive a general overview on the power of mass media both historically, present day and what is likely in the future. Students will take on specific roles as participants on the Editorial Board. Through newspaper production they will learn to collaborate effectively, apply newspaper design techniques, and understand the business involved in production.

Grade: 10-12 ; **Prerequisites:** English 9; **Term:** Full Year; **Credit:** 1.0

ELE 210

Linguistics

This course is an introduction to linguistics, which is the scientific study of language. This class will cover basic concepts in linguistic structure, language development and the effect of language on society. Students will examine the basic components of all languages including phonetics, phonology, morphology, syntax, semantics, and pragmatics. They will apply these concepts to the broader field of language change over time as well as how language influences a variety of cultures and societies and their interactions with each other. Finally, students will learn how to utilize these linguistic concepts in their own lives within the relationships that they cultivate with family and friends as well as people that they encounter in mission settings.

Grade: 10,11,12; **Prerequisites:** None; **Term:** Semester; **Credit:** .5

ELE 345

Christian Fantasy Literature

This course will examine the theory, development, and artistry of Christian Fantasy Literature. The authors are those of the so-called "Christian Renaissance" of the late 19th and early 20th Centuries in Britain—specifically, George MacDonald, C.S. Lewis, Charles Williams and J.R.R. Tolkien. These writers articulated their own clear, purposeful, and scholarly approaches to imaginative literature. Their Christian world-view and understanding of the function of the imagination in belief inspired their writings. The course entails an in depth study of the writers' theories and craft as well the development and success of "modern mythologies."

Grade: 11,12; **Prerequisites:** English 9 and English 10
Term: Full Year; **Credit:** 1.0