Course Title: Accounting
Course Provider: Aventa
DESE Code #: 034310
Number of Semesters: Two
Per Semester Cost: $299.00

Prerequisites:
None

Course Description:
Through this course, students will gain a foundation in the skills needed for college accounting courses, office work, and managing their own small businesses. These skills are necessary for any student planning to major in Business in college. In this Introduction to accounting, students who have never had prior accounting training are given an overview of the three forms of accounting: financial, cost, and management accounting. The course helps build an appreciation for the role of accounting in managing a profitable business. It covers the basic concepts, conventions and rules of the double entry system. It introduces techniques to analyze ratios from the balance sheet. The concept of ethics, integrity, and confidentiality and rigor are woven through all the chapters.

Course Objectives:
After completing this course, the student will be able to:

- Post journals, prepare ledgers, and trial balance
- Prepare final accounts
- Reconcile between cash book and bank statements
- Apply accounting rules and principles to accounts of sole proprietorship, partnerships, and public corporations
- Analyze balance sheets using ratio analysis, measure financial health of the entity, make meaningful recommendations to improve the health
- Post payroll accounting information
- Describe the role of ethics in accounting

Course Syllabus/Outline:
Semester 1
Course Overview

- Course Introduction
- Getting Started
- Excelling on the Accounting Exam

Introduction to Accounting

- You and the World of Accounting
- The World of Business and Accounting

The Basic Accounting Cycle

- Business Transactions and the Accounting Equation
- Transaction that Affect Assets, Liabilities, and Owner's Capital
- Transactions that Affect Revenue, Expenses and Withdrawals

Application of the Basic Accounting Cycle

- Recording Transactions in a General Journal
- Posting Journal Entries to General Ledger Accounts
- The Six Column Work Sheet
- Financial Statements for a Sole Proprietorship
- Completing the Accounting Cycle for a Sole Proprietorship
- Cash Control and Banking Activities

Accounting for a Payroll System

- Payroll Accounting

- Payroll Liabilities and Tax Records

Semester 2

The Accounting Cycle in a Merchandising Corporation

- Accounting for Sales and Cash Receipts
- Accounting for Purchases and Cash Payments
- Special Journals: Sales and Cash Receipts
- Special Journals: Purchases and Cash Payments

Application of the Accounting Cycle in a Merchandising Corporation

- Adjustments and the Ten-Column Work Sheet
- Financial Statements for a Corporation
- Completing the Accounting Cycle for a Merchandising Corporation
- Accounting for Publicly Held Corporations

Accounting for Special Procedures

- Cash Funds
- Plant Assets and Depreciation
- Uncollectible Accounts Receivable
- Inventories
- Notes Payable and Receivable

Additional Accounting Topics

- Introduction to Partnerships
- Financial Statements and Liquidation of a Partnership
- Ethics in Accounting

Special notes from evaluation team:

Course Title: Career Planning
Course Provider: Aventa
DESE Code #: 096802
Number of Semesters: One
Per Semester Cost: $299.00

Prerequisites:
None

Course Description:
In this half-credit course, students will use an informative interactive process to explore career and life options that fit their individual interests, needs, and skills. Students begin with a thorough examination of their own interests, aptitudes, achievements, and personality styles. Then, they explore potential career matches, examining job market information, conducting informational interviews, and plotting training and educational paths. Along the way, students learn to craft effective resumes and letters, and to handle job interview situations.

Course Objectives:
After completing this course, students will be able to:

- Summarize the career-planning process
- Describe societal and workplace trends that affect career planning
- Describe his or her personal interests, aptitudes, and lifestyle goals
- Locate, analyze, and apply career information
- Identify personal attributes applicable to careers of interest
- Identify the skills and knowledge needed for careers of interest and how to obtain them
- Create an entrepreneurial business plan
- Explain the process of finding and getting a job
- Demonstrate productive work habits and attitudes
- Explain the important of lifelong learning and career planning

Course Syllabus/Outline:
Course Introduction

- Introduction to Career Planning
- Getting Started
- Research Paper/Portfolio

Getting to Know Yourself

- Getting to Know Yourself – Introduction
- Why Plan My Career?
- What Do I Like to Do?

The World of Work

- The World of Work – Introduction
- What Kind of Worker Am I?
- Where Do I See Myself?

Getting to Know the Job Market

- Getting to Know the Job Market – Introduction
- What Kind of Jobs are Available?
- Which Available Jobs are Right for Me?

Getting a Job

- Getting and Keeping a Job – Introduction
- How Do I Apply for Jobs?
- What Happens During the Selection Process?

Keeping a Job

- Keeping a Job – Introduction

- How Can I Keep a Job I Like?
- What About the Next Job (and the one after that)?

Special notes from evaluation team:
Only for 11th and 12th graders.

Course Title: Digital Photography
Course Provider: Aventa
DESE Code #: 024130
Number of Semesters: One
Per Semester Cost: $299.00

Prerequisites:
None

Course Description:
In the digital photography and graphic design lessons, students begin by learning general photographic concepts. Then composition skills are added to photographs and image-editing techniques are practiced. Students learn how to use layers, crop images, color and lighting concepts, hue and saturation, and exposures and special effects. Graphic design, artistic elements, and software skills are taught while producing graphic images. The concept of design as a manner of visual communication is carried throughout. Students build a portfolio of work and explore the fields of photography, graphic arts, advertising, and illustration.

Course Objectives:
After completing the course, students will be able to:

- Better Understand the planning and organization of a website
- Understand elements of design and HTML
- Explain copyright and fair use doctrines and how they apply to website creation
- Use WYSIWIG editor and other online tools to create a website

Required Text:
Digital Camera; GIMP (Freeware)

Course Syllabus/Outline:
Photo Essentials

- Working with Color and Shape
- Drawing with GIMP
- Creating Special Effects
- Combing Images
- Experimenting with Type Effects
- Building Your Portfolio

Special notes from evaluation team:
High school course only

Course Title: Digital Video Production
Course Provider: Aventa
DESE Code #: 105432
Number of Semesters: One
Per Semester Cost: $299.00

Prerequisites:
None

Course Description:
This course introduces students to all aspects of digital video, from story-boarding scenes and creating shot lists to editing a finished, professional-quality product. Throughout this project-based course, students will demonstrate mastery of the key learning objectives by recording, capturing and editing their own videos. This is a hands-on course that provides a solid foundation for further study in this exciting field.

Required Text:
Microsoft Windows Movie maker (pre-installed on all Windows-based computers). Any video camcorder capable of connecting to a computer (either through USB or Firewire).

Course Syllabus/Outline:
Lab 1: Importing with Windows Movie Maker
- Importing video into a project
- Opening Windows Movie Maker
- Creating and saving a new project
- Capturing video from the camera
- Importing video into a project

Lab 2: Editing with Windows Movie Maker
- Using the storyboard/timeline
- Adding clips to a project
- Arranging clips
- Splitting clips
- Combining clips
- Trimming clips

Lab 3: Adding Transitions and Text FX
- Using video FX
- Adding transitions
- Using text screens
- Adding text screens

Lab 4: Adding Sound and FX
- Adding audio
- Importing audio files
- Adding audio
- Using audio levels
- Adjusting audio levels
- Saving the movie

Lab 5: Saving and Sharing Movies
- Saving movies for the Web, e-mail or a CD
- Saving a movie to a computer
- Saving a movie to a CD
- Saving a movie to the Web
- Saving and sending a movie

Special notes from evaluation team:
Students must purchase a digital video camera, have a windows-based operating system and have windows movie maker. Students must also have Adobe acrobat reader, java script, and most current flash player and a windows-based file zip utility.

Course Title: Flash Animation
Course Provider: Aventa
DESE Code #: 034352
Number of Semesters: One
Per Semester Cost: $299.00

Prerequisites:
None

Course Description:
This course is for anyone who wants to create animations and interactive movies like the ones used on the coolest Web sites. Participants learn how to use Flash 8-the world's most popular animation software-to create engaging, interactive movies for the Web. Beginning with classic animation techniques, participants learn how to move objects around the careen and change their appearance. From there, it's on to creating movies complete with original artwork. By the end of the course, participants have learned how to build interactivity into their movies and publish them to the Web. This course is a great introduction to the world of Web animation.

Required Text:
Flash 8 Basic

Course Syllabus/Outline:
- Workshop Titles
- Your First Animation
- Building Interactive Buttons
- Classic Animation Techniques
- Creating Your First Flash Movie
- Using the Drawing Tools
- Drawing and Animating a Movie
- Working with Motion Guides
- Building an Interactive Movie
- Publishing Your Movies
- Additional Projects

Some Sample Projects
- Follow the Bouncing Ball: Learn how to add motion to an object and change it's appearance by squashing and stretching it as it moves.
- Exploding Volcano: Create an exploding volcano animation that is activated when the user presses a button.
- Building a Preloader: Design and build a "preloader" animation that tells people that your movie is preparing to play.

Special notes from evaluation team:
Requires CS4 or FLASH program to be purchased

Course Title: Game Design
Course Provider: Aventa
DESE Code #: 034355
Number of Semesters: One
Per Semester Cost: $299.00

Prerequisites:
None

Course Description:
This course will introduce students to the basic skills necessary for game design. They will study the various games in the industry and analyze their approach in terms design and development. The student will explore the processes and art of making game elements like story, levels, sound, user interfaces, and levels. This analysis will include an orientation to the gaming market and innovative techniques' impact on it. Finally, the student will merge all these elements into a functional prototype showing their understanding of the game design process.

Course Objectives:
After completing the course, students will be able to:

- Explain the different types of games
- Build analytical thinking towards usage of game elements
- Develop game play innovation principles
- Express ideas clearly in writing
- Integrate storytelling and game play elements
- Develop a visually appealing user interface
- Design sound for ambience and to announce special events in a game
- Create fictional realities in games
- Portray an idea in an industry-acceptable manager
- Interpret and apply data from original game design documents
- Build the aesthetics of interactive systems

Required Software:
Blender-Freeware
Trackmania Nations-Freeware
Multimedia Fusion Developer-Demo

Course Syllabus/Outline:
UNIT I: Course Overview - Introduction to Game Design
Section 1 - History
Section 2 - Player Elements
Section 3 - Genres
UNIT II: Game Elements
Section 1 - Elements of Game Play
Section 2 - Setting Goals
Section 3 - Platform
Section 4 - Game Generations
Section 5 - Player Modes
UNIT III: Creating Content
Section 1 - The Story
Section 2 - Defining Characters
Section 3 - Development
UNIT IV: Game Play
Section 1 - Theory
Section 2 - Rules

Section 3 - Levels
UNIT V: Interface
Section 1 - Features
Section 2 - Types
Section 3 - Platform Specific
Section 4 - Genre Specific
UNIT VI: Audio
Section 1 - Sound Effects
Section 2 - Music
Section 3 - Putting it all Together

Special notes from evaluation team:
Requires access to gaming sites (appropriate) but may be blocked by school filter. Must have ability to download programs to hard drive. DEFINITELY NOT AN “EASY” COURSE.

Course Title: Java Programming
Course Provider: Aventa
DESE Code #: 034355
Number of Semesters: One
Per Semester Cost: $299.00

Prerequisites:
Programming I – or understanding of version control and general software development, Basic Computer Fundamentals

Course Description:
This introductory-level course presents the understanding of JAVA and how to build a stand-alone application (such as a countdown clock or leap year indicator). This course is designed for first-time learners who have very little programming background except that introduced in Programming I: VB.NET. The student will also learn the techniques of JAVA, how JAVA can be used in cross-platform programming, and the robustness of the JAVA program. At the end of the course students will be able to write basic programs using JAVA and could pursue further instruction in any programming language.

Course Objectives:
After completing this course, students will be able to:

- Understand the evolution of JAVA
- Write basic JAVA programs
- Compile and run their own program
- Understand variables and operator usage in a JAVA program
- Grasp the key concepts of OOPS
- Implement Inheritance in JAVA program
- Handle custom and system errors
- Work with arrays (single, two, multi)
- Use threads in JAVA program
- Understand GUI (Graphic User Interface) using JAVA 1.6
- Handle stings effectively

Required Text:
JDK 1.5 or higher version

Course Syllabus/Outline:
UNIT I: Introducing JAVA

- Introducing JAVA
- Getting Started with JAVA

UNIT II: Micro

- Basic Language Elements
- JAVA Operators
- JAVA Control Statements
- JAVA Access Modifiers
- Unit Exercise

UNIT III: Arrays

- Creating and Using Array
- Programming with Array
- Dynamic Array
- Arraylist
- Searching and Sorting
- Multi-Dimensional Array
- Unit Exercise

UNIT IV: Macro

- Introduction to Classes and Object
- JAVA Constructors
- JAVA Class Inheritance
- JAVA Object Casting
- Abstract Class and Interface
- Overloading and Overriding
- Nesting Classes
- Unit Exercise

UNIT V: String, String Buffer, String Builder

- String Class
- String Buffer Classes
- JAVA String Builder
- Unit Exercise

Unit VI: Exception Handling, Assertions

- JAVA Exception Handling
- Assertions
- JA VA Thread
- Unit Exercise

UNIT VII: GUI Introduction

- GUI Introduction
- Mouse Event, Timer, Keyboard Event
- Layout
- Menu and Layout
- Unit Exercise

Special notes from evaluation team:
Rigorous course

Course Title: VB.Net Programming
Course Provider: Aventa
DESE Code #: 034355
Number of Semesters: One
Per Semester Cost: $299.00

Prerequisites:
Knowledge of Computer Fundamentals

Course Description:
This course presents basic programming and teaches the essential concepts of VisualBasic.net (VB.NET). As an introduction to VB.NET, students will see the basic uses of the programming language, its similarities to the English language (and others), and its flexibility as a programming language. The course helps participants understand the processes involved in software development and object-oriented programming. This is an introductory course that could lead to careers such as software engineer, developer, or game designer. The course participants will also complete a series of hands-on projects covering built in data types, operators, control structures, classes, and objects.

Course Objectives:
After completing this course, students will be able to:

- Grasp the fundamentals of a programming language and know the basic differences between programming languages
- Apply the processes involved in Software Development
- Program logics and different platforms to build effective software
- Choose the architecture based on the problem to be solved
- Apply the power of .Net technologies and reason why it is popular today
- Differentiate between the types of applications supported by .Net
- Build, compile, and execute a VB.NET program
- Apply techniques to develop error-free software

Required Text:
Visual Studio 2008 Express Edition

Course Syllabus/Outline:
UNIT I: Course Overview

- Course Introduction
- Getting Started
- Best Programming Practice

UNIT II: Software Development and Architecture

- Systems Development Life Cycle (SDLC)
- Alternatives to S DLC
- Program Flow
- Architecture

UNIT III: Fundamentals

- Structure of Languages
- Data Type
- Variables and Constants
- Operators
- Statements
- Building and Compiling a VB.NET Program
- Unit Exercise

UNIT IV: Framework and Objects

- Inside the .NET Framework

- Applications
- Object Oriented Programming

UNIT V: Arraylist, Collections, Stacks and Queues

- Collections Classes and Interfaces
- Hash Table
- Queue and Stack
- Unit Exercise

Unit VI: Error Handling in VB.NET

- Exception Classes
- Structured Exception Handling
- Multi-Level Error Handling
- Application Error Logging
- Unit Exercise

UNIT VII: Delegates and Events

- Delegates
- Events
- Threading
- Unit Exercise

Special notes from evaluation team:

Course Title: AP Computer Science
Course Provider: Aventa
DESE Code #: 991105
Number of Semesters: Two
Per Semester Cost: $438.00

Prerequisites:

- Knowledge of mathematics at the Algebra II level and experience in problem solving. A student in either AP Computer Science course should be comfortable with functions and the concepts found in the uses of functional notation, such as $f(x) = x + 2$ and $f(x) = g(h(x))$.
- Some previous programming experience is also important and necessary for students to have before attempting this Computer Science Advance Placement A course. This course is equivalent to a first year university or college level course and the content is covered quickly. An introductory course in C++, Pascal, Visual Basic, Java or similar course would be sufficient. HTML is not considered a programming language and would not give the students enough of a background to be successful.
- A basic understanding of networks.
- Knowledge of the responsible use of computer systems, including system reliability, privacy, legal issues, intellectual property, and social and ethical ramifications of computer use.

Course Description:
Computer Science A emphasizes object-oriented programming methodology with a concentration on problem solving and algorithm development and is the equivalent of a first-semester college-level course in Computer Science. It also includes the study of data structures, design, and abstraction, but these topics are not covered to the extent that they are in Computer Science AB.

Technology Requirements:
Students should have access to a computer system that represents relatively recent technology (PIII). Each student in the course should have a minimum of 4 hours per week alone on a computer throughout the academic year. Schools need to have Java software already installed on their machines before the course starts and enough memory in their lab machines (128 MB) so that students will be able to compile and run Java program efficiently.

Course Syllabus/Outline:
This course is designed to prepare students for the AP exam, and the course content prepares students to be able to:

- Design and implement computer-based solutions to problems in a variety of application areas
- Use and implement well-known algorithms and data structures
- Develop and select appropriate algorithms and data structures to solve problems
- Code fluently in an object-oriented paradigm using the programming language Java
- Be familiar with and be able to use standard Java library classes from the AP Java subset
- Read and understand a large program consisting of several classes and interacting objects
- Read and understand a description of the design and development process leading to such a program (an example of such a program is the AP Marine Biology Simulation Case Study)
- Identify the major hardware and software components of a computer system, their relationship to one another, and the roles of these components within the system
- Recognize the ethical and social implications of computer use

Special notes from evaluation team:

Course Title: Web Design (semester only)
Course Provider: Aventa
DESE Code #: 034393
Number of Semesters: One
Per Semester Cost: $299.00

Prerequisites:
None

Course Description:
This one-semester course introduces students to the mechanics and elements of web design. Students will learn the key elements of design and HTML, the concepts of planning and organizing websites, and documentation and copyright issues associated with website design. Students will progress through the course, engaging in a variety of project-based assessments to evaluate their understanding.

Course Objectives:
After completing the course, students will be able to:

- Better Understand the planning and organization of a website
- Understand elements of design and HTML
- Explain copyright and fair use doctrines and how they apply to website creation
- Use WYSIWIG editor and other online tools to create a website

Required Text:
NVu (web design software)

Course Syllabus/Outline:

- Planning and Organizing a Website
- Elements of Design and HTML
- Documentation and Copyright
- Using WYSIWIG Editor
- Other Online Tools

Special notes from evaluation team:
Total HTML

Course Title: Web Design I (year course)
Course Provider: Florida Virtual
DESE Code #: 034393
Number of Semesters: Two
Per Semester Cost: $375.00

Prerequisites:
Computing for College and Careers or Business Systems and Technology

Course Description:
The World Wide Web is not just for spectators. It's for people who can create effective, eye-catching websites of their own. It's for people like you who take this course and design web pages that get attention.

In this course, you'll become a Web Design Intern for a virtual company called Education Designs. You'll learn what goes on under the hood including: Internet basics, HTML, and the file structure of a well-organized web site. You'll learn how to create visually interesting web pages with clear text, complimentary colors, visual assets, and appealing designs. You'll also learn how to navigate the Internet to fill your website with useful and well-researched information.

Your web pages will have to be good because they may appear as information sources for other online courses. The Internet can be a powerful way to reach anyone, anywhere - as long as you have the right skills and a little imagination.

Course Syllabus/Outline:
Segment 1

- Decision Making
- Research
- Naming Conventions
- Directory Structures
- Copyright and Ethics
- Netiquette
- Adobe/Macromedia Dreamweaver Installation
- Adobe/Macromedia Dreamweaver Tutorial
- Browser Tutorial
- E-mail Tutorial
- Using Color Effectively
- Exploring Good/Bad Web Design
- Accessibility Issues
- Index pages
- HTML Tutorials
- Basic HTML Coding
- Converting .txt files to .html
- Validating Web Sites
- Downloading WinZip
- WinZip (or ZipIt)
- Absolute and Relative Values
- Handling Images and Links
- Online Resumes

Segment 2

- Evaluating Web Site Criteria and Resources
- Adobe/Macromedia Fireworks Tutorials

- Installing Adobe/Macromedia Fireworks
- Creating and Editing Images
- Creating Buttons
- Optimizing and Resizing Graphics
- Distinguishing Professional Sites from Amateur Sites
- Fine Points Review
- Creating Outlines
- Creating a WebQuest Project

Special notes from evaluation team:

Course Title: Web Design II (year course)
Course Provider: Florida Virtual
DESE Code #: 034393
Number of Semesters: Two
Per Semester Cost: $375.00

Prerequisites:
Computers for College and Career & Web Design I

Course Description:
A well-designed skyscraper is an impressive sight. A well-designed website is also an impressive site of another kind - the kind that reveals the advanced skills of an expert designer. This course takes you through the entire construction process from planning, to creating the structure, to adding the final special touches.

In this course, you will learn how to create a storyboard or blueprint for your website. You will learn about website navigation, style sheets, graphic creation, digital image optimization, security, and server hosting. You will also learn how to work in teams, with specific tasks assigned to individual team members. You will use Adobe CS3 products for website creation and management.

The purpose of this course is to equip you to be a master architect, contractor, and manager of a valuable property. Property that communicates a message in an impressive way.

Course Syllabus/Outline:
Segment 1

- Website Marketing Discussion & Audience Discussion
- Defining Website Objectives for Blueprint
- Web Design Blueprints & Storyboards
- Researching Web Hosting Options
- Copyright Laws
- Researching & Gathering Materials
- Comparison of WYSIWYG/HTML Editors
- Mastery of Basic HTML Tags
- Installation of Abode Dreamweaver
- Become familiar with the Dreamweaver workspace
- Create a Website using Dreamweaver
- Setup Sites in Dreamweaver
- Using Dreamweaver to add Image Placeholders, set Page Titles, add Images, and set Background Colors.
- File Naming Conventions
- Using the File Transfer Protocol (FTP) to Transfer Pages and Images to the Web Server
- Uses of Meta Tags
- Using Cascading Style Sheets (CSS)
- Creating and Applying Style Sheets
- Designing Webpages using Tables
- Formatting Text

Segment 2

- Discover how people with disabilities or limitations use the Web.
- Understand the importance of Web page accessibility.
- Test Website for accessibility
- Use Dreamweaver accessibility tools.
- Determine appropriate use of alternate tags and long description tags.

- Apply alternate tags and long description tags to Web pages.
- Explore use of site reader, such as JAWS.
- Examine and employ techniques for building navigation
- Explore issues of scalability
- How to solicit user feedback
- Use of Templates
- Use of Frames
- Advanced uses of CSS
- Develop critical thinking skills when using electronic resources
- Identify appropriate and inappropriate uses of images on Web pages.
- Differentiate between different image types and determine the best use of each image type.
- Define hot linking and explain why hot linking should be avoided.
- Define image editors and identify the purpose of image editors.
- Installing Abode Fireworks
- Review the basics of using a photo editor.
- Crop and resize images.
- Save image files in the appropriate format.
- Optimize images correctly.
- Using Masking
- Create original image and add to webpage.
- Uses of Rollovers and Hotspots
- Building Animation
- Adding Video and Audio

Special notes from evaluation team: