

COMPUTER TECHNOLOGY CURRICULUM STANDARDS

- Knows the characteristics and uses of computer hardware and operating systems.
- Knows the characteristics and uses of computer software applications.
- Understands the nature of technological design.
- Understands the nature and operation of computers and associated technologies.
- Understands the nature and uses of different forms of technology.

WEB PAGE DESIGN

Course: Web Design

Grade: 10, 11, 12

Length Of Course: First Semester

Prerequisite: Desktop Publishing or Office I

CURRICULUM BENCHMARKS:

1. Knows of significant advances in computers and peripherals.
2. Uses a variety of input devices.
3. Knows how to import, export, and merge data stored in different formats.
4. Knows how to import and export text, data, and graphics between software programs.
5. Identifies some advanced features of software products.
6. Uses desktop publishing software to create a variety of publications.
7. Knows that an optimal solution to a design problems is more likely to be found when the process followed is systematic and repetitive.
8. Evaluate a designed solution and its consequences based on the needs or criteria the solution was design to meet.
9. Knows that since there is not such thing as a perfect design, trade-offs of one criterion for another must occur to find an optimized solution.
10. Knows that a design involves different design factors.

COURSE DESCRIPTION:

This course will develop an fundamental understanding of how Internet web design can be used in business by designing web sites. The students will have an understanding of how the Internet functions. Students will create an individual web site and work within a team to develop a club/organization or teacher web site for the school.

WHAT STUDENTS ARE EXPECTED TO DO:

1. Use class time effectively.
2. Complete all assignments and tests by the due date.
3. Follow instructions given by the teacher.
4. Complete makeup work within the time specified in the student handbook.
5. Be courteous to everyone, including classmates.
6. Be prepared for class.
7. Use all equipment properly.

EVALUATION:

Students will demonstrate an understanding of planning and designing a web site as measured by meeting deadlines and/or using this knowledge to complete assigned projects.

DESKTOP PUBLISHING

Course: Desktop Publishing

Grade: 9, 10, 11, 12

Length Of Course: First or Second Semester (Meets 2 of every 3 days during semester)

Prerequisite: Office I helpful, but not required

CURRICULUM BENCHMARKS:

1. Knows of significant advances in computers and peripherals.
2. Uses a variety of input devices.
3. Knows how to import, export, and merge data stored in different formats.
4. Knows how to import and export text, data, and graphics between software programs.
5. Identifies some advanced features of desktop publishing software.
6. Uses desktop publishing software to create a variety of publications.
7. Knows that an optimal solution to a design problems is more likely to be found when the process followed is systematic and repetitive.
8. Evaluate a designed solution and its consequences based on the needs or criteria the solution was designed to meet.
9. Understands a perfect design does not exist; however, trade-offs of one criterion for another must occur to find an optimized solution.
10. Knows that a design involves different design factors and elements.

COURSE DESCRIPTION:

This course will delve into how desktop publishing is accomplished. Students will receive instruction using computers and software commonly used for personal use, post secondary training, or business positions (Microsoft Office Publisher). Students will learn how to balance layouts used in advertising and magazine publications. One quarter of the semester will

engage students in a business simulation to plan, design, and create documents which business or industry organizations commonly need to create in the early life of the company or organization.

WHAT STUDENTS ARE EXPECTED TO DO:

1. Use class time effectively.
2. Complete all assignments and tests by the due date.
3. Follow instructions given by the teacher.
4. Complete makeup work within the time specified in the student handbook.
5. Be courteous to everyone, including classmates.
6. Be prepared for class.
7. Use all equipment properly.

EVALUATION:

Students will demonstrate mastery of Microsoft Office Publisher and the planning and creating of common or frequently used documents as measured by meeting deadlines and/or using this knowledge to complete assigned work/projects. Students will need to demonstrate their ability to work within teams to accomplish the teams efforts in creating the business simulation's required documents.

OFFICE I

Subject: Introduction to Office 2007 (Word & PowerPoint)

Grades: 9, 10, 11, 12

Length of Course: First or Second Semester

Prerequisite: None

CURRICULUM BENCHMARKS:

1. Knows of significant advances in computers and software.
2. Uses a variety of input devices.
3. Knows how to import, export, and merge data stored in different formats.
4. Knows how to import and export text, data, and graphics between software programs.
5. Identifies some advanced features of Microsoft Office software.
6. Knows that an optimal solution to a design problems is more likely to be found when the process followed is systematic and repetitive.
7. Evaluate a designed solution and its consequences based on the needs or criteria the solution was design to meet.
8. Understands a perfect design does not exist; however, trade-offs of one criterion for another must occur to find an optimized solution.
9. Knows that a design involves different design factors and elements.

COURSE DESCRIPTION:

This course is an introduction to Microsoft Office 2007 Word and Power Point applications. Students will learn some basic and intermediate functionality of the Word and PowerPoint applications to create letters, memos, and presentations. Students may need to locate information from the Internet to integrate into their projects. The student will be able to use the instruction for personal use, post-secondary training or business positions. A unit covering the importance and creation of a resume will coincide with the Word portion of the course to help students understand the purpose of a resume on having their own resume started.

WHAT STUDENTS ARE EXPECTED TO DO:

1. Use class time effectively
2. Complete all assignments and tests by the due date.
3. Follow instructions given by the teacher.
4. Complete makeup work within the time specified in the student handbook.
5. Be courteous to everyone, including classmates.
6. Be prepared for class
7. Use all equipment properly.

EVALUATION:

The students are to demonstrate mastery of the course materials as measured by meeting deadlines and/or using knowledge to complete assigned work/projects and assessed through grading rubrics.

OFFICE II

Subject: Introduction to Office 2007 (Excel & Access)

Grades: 9, 10, 11, 12

Length of Course: Second Semester

Prerequisite: Office I (can be concurrently enrolled) & Algebra I or permission from Instructor

CURRICULUM BENCHMARKS:

1. Knows of significant advances in computers and software.
2. Knows how to import, export, and merge data stored in different formats.
3. Knows how to import and export text, data, and graphics between software programs.
4. Identifies some advanced features of Microsoft Office Excel and Access software.
5. Knows that an optimal solution to a design problems is more likely to be found when the process followed is systematic and repetitive.

6. Evaluate a designed solution and its consequences based on the needs or criteria the solution was design to meet.
7. Understands a perfect design does not exist; however, trade-offs of one criterion for another must occur to find an optimized solution.
8. Knows that a design involves different design factors and elements.
9. Understand fundamental and intermediate functionalities of spreadsheets and databases, which are two common elements used in the business and technology industries

COURSE DESCRIPTION:

This course is an introduction to Microsoft Office 2007 Excel and Access applications. Students will learn some basic and intermediate functionality of the Excel and Access applications to create finance-type spreadsheets and information databases. Students may need to locate information from the Internet to integrate into their projects. The student will be able to use the instruction for personal use, post-secondary training or business positions.

WHAT STUDENTS ARE EXPECTED TO DO:

1. Use class time effectively
2. Complete all assignments and tests by the due date.
3. Follow instructions given by the teacher.
4. Complete makeup work within the time specified in the student handbook.
5. Be courteous to everyone, including classmates.
6. Be prepared for class
7. Use all equipment properly.

EVALUATION:

The students are to demonstrate mastery of the course materials as measured by meeting deadlines and/or using knowledge to complete assigned work/projects as assessed through grading rubrics.

COMPUTER REPAIR

Subject: A+ Computer Systems

Grades: 9-12

Length of Course: One Semester

Prerequisite: None

WITCC credit available for this course

CURRICULUM BENCHMARKS:

1. Knows limitations and trade-offs of various types of hardware.
2. Identifies malfunctions and problems in hardware.
3. Knows features and uses of current and emerging technology related to computing.
4. Knows that an optimal solution to a design problem is more likely to be found when the process followed is systematic and repetitive.
5. Proposes designs and uses models, simulations, and other tests to choose an optimal solution.
6. Implements a proposed solution.
7. Evaluates a designed solution and its consequences based on the needs or criteria the solution was design to meet.
8. Knows that since there is no such thing as a perfect design, trade-offs of one criterion for another must occur to find an optimized solution.
9. Knows that a design involves different design factors.
10. Knows that understanding how things work and designing solutions to problems of almost any kind can be facilitated by systems thinking, which employs mathematical modeling and simulation.
11. Knows that in defining a system, it is important to specify its boundaries and subsystems, indicate its relation to other systems, and identify what its input and its output are expected to be.
12. Knows how feedback can be used to help monitor, control, and stabilize the operation of a system.

COURSE DESCRIPTION:

This course is designed to familiarize the student with the components and operating system of the basic PC and to help them understand how each component functions. Students that are successful with this course will be able to identify all of the components of a PC, build a fully functioning system, and trouble shoot many problems associated with PC's. This course provides a good foundation for taking the A+ Certification class.

WHAT STUDENTS ARE EXPECTED TO DO:

1. Use class time effectively.
2. Complete all assignments and tests by the due date.
3. Follow instructions given by the teacher.
4. Complete make-up work within the time specified in the student handbook.
5. Be courteous to everyone, including classmates.
6. Be prepared for class.
7. Use all equipment properly.

EVALUATION:

The students are to demonstrate mastery of the course materials as measured by written application tests and/or projects

ANIMATION

Course: Animation

Grade: 10, 11, 12

Length of Course: First or Second Semester

Prerequisite: Web Design, and/or Advanced Web Design (can take concurrently with either)

CURRICULUM BENCHMARKS:

1. Knows of significant advances in computers, peripherals, and animation software.
2. Knows how to import, export, merge, and sequence data/images stored in various formats.
3. Knows how to import and export text, data, and graphics between software applications.
4. Identifies advanced features of software applications.
5. Uses various software applications to create animated images, motions of images, and incorporate into web site pages or as stand-alone animations or videos.
6. Knows that an optimal solution to design issues is more likely found when the process followed is sequential, systematic, and repetitive.
7. Evaluate a designed solution and its potential consequences based on the needs or criteria the solution was designed to meet.
8. Knows because a perfect design does not always exist, trade-offs of one criterion for another must occur to find and optimized solution.
9. Knows a design involves different design factors and elements.
10. Understands taking existing work and finding alternate, sometimes better, ways to modify in order to produce a higher quality result.
11. Works productively both individually and as a team regardless of feelings or opinions of others to achieve goals.
12. Communicates effectively and clearly with teachers and peers to understand and convey messages/information.

COURSE DESCRIPTION:

This course will use the information learned in Web Design and Advanced Web Design as a foundation to further knowledge and understanding of web site design and animation. Students enrolled this course will learn basic and intermediate skills of the Flash application. Students will create new animations and movies, which may be incorporated into existing web sites.

WHAT STUDENTS ARE EXPECTED TO DO:

1. Use class time effectively.
2. Complete all assignments, projects, and exams by due date.
3. Follow instructions given by the instructor
4. Complete makeup work within the time specified in the student handbook.
5. Be courteous to everyone, including classmates.

6. Be prepared for class.
7. Use all equipment properly.

EVALUATION:

Students will demonstrate an fundamental understanding of planning and creating Flash animations as measured by meeting deadlines and/or using this knowledge to complete assigned projects individually and/or working productively in groups to meet set goals.

ADVANCED WEB PAGE DESIGN

Course: Advanced Web Design

Grade: 10, 11, 12

Length of Course: Second Semester

Prerequisite: Web Design

CURRICULUM BENCHMARKS:

1. Knows of significant advances in computers, peripherals, and software.
2. Uses a variety of input devices.
3. Knows how to import, export, and merge data stored in various formats.
4. Knows how to import and export text, data, and graphics between software applications.
5. Identifies advanced features of software applications.
6. Uses various software applications to construct and edit web site pages.
7. Knows that an optimal solution to design issues is more likely found when the process followed is systematic and repetitive.
8. Evaluate a designed solution and its potential consequences based on the needs or criteria the solution was designed to meet.
9. Knows because a perfect design does not always exist, trade-offs of one criterion for another must occur to find and optimized solution.
10. Knows a design involves different design factors.
11. Understands taking existing work and finding alternate, sometimes better, ways to modify in order to produce a higher quality result.
12. Works productively both individually and as a team regardless of feelings or opinions of others to achieve goals.
13. Communicates effectively and clearly with teachers and peers to understand and convey messages/information.

COURSE DESCRIPTION:

This course will take the information learned in Web Design and further knowledge and understanding of web site design and editing through Microsoft Expression Web. Students will

edit existing Hinton Community School web sites and construct a web site for other school departments.

WHAT STUDENTS ARE EXPECTED TO DO:

1. Use class time effectively.
2. Complete all assignments, projects, and exams by due date.
3. Follow instructions given by the instructor
4. Complete makeup work within the time specified in the student handbook.
5. Be courteous to everyone, including classmates.
6. Be prepared for class.
7. Use all equipment properly.

EVALUATION:

Students will demonstrate an advanced understanding of planning and designing websites as measured by meeting deadlines and/or using this knowledge to complete assigned projects individually and/or working productively in groups to meet set goals. Students will also have a fundamental understanding of the JavaScript programming language.