#### **Course of Study Information Page**

#### Course Title: ICT (Information and Communication Technology) Digital Media #0453

Rationale: As our business and technology world becomes vastly more graphic oriented, the study of Digital Media will equip students with the technological and design skills necessary to effectively compete and communicate within the classroom environment, the work-force business environment, and those who are college-bound.

Course Description: This course is designed for students that have already mastered the skills taught in the foundations course. More than half of America's young people graduate from high school unprepared to find or hold a job. Digital Media is designed for those students who are college-bound, interested in career fields that require a working knowledge of effective technology, or ready to join the workforce. Students are given the skills necessary to read, write, and compute as they carry out instruction. Listening and oral communication skills are emphasized as students interact with other members of a team. Accepting job responsibilities and applying the ability to know how to learn and be willing to learn in order to keep competitive with our ever-changing digital world, along with the teamwork necessary to complete a task, enhance presentations with technical, graphic and design skills, are a cornerstone of this course. The focus of this course is the graphic design skills, along with technical and business principles, that students will gain as they select a product for their business and effectively promote it.

How Does This Course Align With or Meet State and District Content Standards? Standards are attached to each section.

Length of Course:	One Year (36-40 weeks)
Grade Level:	9-12
Credit:	10 credits Elective
	Vocational
Prerequisites:	ICT Foundations – grade of "C" or better or teacher approval
Department(s):	Business Technology
District Sites:	EDHS, ORHS, PHS, UMHS
Board of Trustees Adoption Date:	January 15, 2008
Textbook(s)/Instructional Materials:	
Date Adopted by the Board of Trustees:	

### Course Title: ICT Digital media

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Department: Business Technology Course Title: ICT Digital Media

UNIT # 1 –Planning and Development:

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
Define company and product Conduct an Internet Search Identify the products that would meet the interests of customers. Identify how to build customer loyalty	<ul> <li>Identify a business: <ul> <li>Who are my customers?</li> <li>Where are my customers?</li> <li>What do my customers want?</li> <li>When do my customers buy?</li> <li>Why do my customers buy?</li> </ul> </li> <li>Create a table in Excel and identify the URL of each website.</li> <li>Conduct an internet search for three companies that sell the product that you want to sell along with their target audience</li> <li>Identify the businesses, the product they sell and a table of URL's, include in your table: <ul> <li>average age</li> <li>gender</li> <li>location</li> </ul> </li> <li>Research Nielson's Net Ratings Web Site, and look at the top 10 banners for the current week</li> <li>pick three that you liked and state your decision making</li> </ul> <li>2. font, colors used, composition, and how much did overall design influence your decision</li>
Identifying huginees and staduct	
Identifying business and product	<ul> <li>Apply the same criteria of evaluating other businesses, to the identification of student business         <ol> <li>solidify their decision by answering the previous set of customer identification questions</li> </ol> </li> </ul>

# 3. Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information. Students:

- a. Plan strategies to guide inquiry.
- b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- d. Process data and report results.
- 4. Critical Thinking, Problem-Solving & Decision-Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:
  - a) Identify and define authentic problems and significant questions for investigation.
  - b) Plan and manage activities to develop a solution or complete a project.
  - c) Collect and analyze data to identify solutions and/or make informed decisions.
  - d) Use multiple processes and diverse perspectives to explore alternative solutions.
- 6. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations. Students:
  - a. Understand and use technology systems.
  - b. Select and use applications effectively and productively.
  - c. Troubleshoot systems and applications.
  - d. Transfer current knowledge to learning of new technologies.

#### **Content Area Standards**

The students will achieve the following content standards:

# **1.0** Academics: Students understand the academic content required for entry into postsecondary education and employment in the Information Technology sector.

- 1.2 Science: (Science Standard)
  - 1.a Select and use appropriate tools and technology, such as spreadsheet and charts, to perform tests, collect data, analyze relationships, and display data.
  - 1.d Formulate explanations by using logic and evidence.
- 2.1 Reading:

2.6 Demonstrate use of sophisticated learning tools by following technical directions (e.g., those found with graphic calculators and specialized software programs and in access guides to World Wide Web sites on the Internet).

- 2.7 Critique the logic of functional documents by examining the sequence of information and procedures in anticipation of possible reader misunderstandings.
- 2.3 Written and Oral English Language Conventions:
  - 1.4 Produce legible work that shows accurate spelling and correct use of the conventions of punctuation and capitalization.

4.0 Technology: Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments.

4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.

<ul> <li>5.0 Problem Solving and Critical Thinking: Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, problem-solving techniques:</li> <li>5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.</li> <li>5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.</li> <li>5.3 Use critical thinking skills to make informed decisions and solve problems.</li> </ul>
<ul> <li>6.0 Health and Safety: Students understand health and safety policies, regulations, and practices, including the use of equipment and handling of hazardous materials:</li> <li>6.3 Understand the environmental and ergonomic risks associated with the sue of business equipment and the financial impact of an unsafe work environment.</li> </ul>
<ul> <li>7.0 Responsibility and Flexibility: Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings:</li> <li>7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.</li> <li>7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.</li> <li>7.3 Understand the need to adapt to varied roles and responsibilities.</li> <li>7.4 Understand that individual actions can affect the larger community.</li> </ul>
<ul> <li>9.0 Leadership and Teamwork: Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution:</li> <li>9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.</li> <li>9.3 Understand how to organize and structure work individually and in teams of effective performance and the attainment of goals.</li> <li>9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and the attitudes and feelings of others.</li> </ul>
11.0 Demonstration and Application: Students demonstrate and apply the concepts

Pathway Standards:

A10.0 Students understand and implement database management systems:

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A10.1 Know the variety of data types that are stored in database management systems.

B4.0 Students apply technical and interpersonal skills and knowledge to support the user:

B4.2 Know the available resources for identifying and resolving problems.

contained in the foundation and pathway standards.

- 1. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:
  - a. Apply existing knowledge to generate new ideas, products, or processes.
  - b. Create original works as a means of personal or group expression.
  - c. Use models and simulations to explore complex systems and issues.
  - d. Identify trends and forecast possibilities.
- 4. Critical Thinking, Problem-Solving & Decision-Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:
  - a. Identify and define authentic problems and significant questions for investigation.
  - b. Plan and manage activities to develop a solution or complete a project.
  - c. Collect and analyze data to identify solutions and/or make informed decisions.
  - d. Use multiple processes and diverse perspectives to explore alternative solutions.

#### **Content Area Standards**

The students will achieve the following content standards:

2.0 Communications: Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts.

- 2.1 Reading (Reading Standard)
  - 2.1 Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how authors use the features to achieve their purposes
  - 2.2 Prepare a bibliography of reference materials for a report using a variety of consumer, workplace, and public documents.
  - 2.4 Synthesize the content from several sources or works by a single author dealing with a single issue; paraphrase the ideas and connect them to other sources and related topics to demonstrate comprehension.
- 2.2 Writing (Writing Standard)
  - 1.7 Use appropriate conventions for documentation in the text, notes, and bibliographies by adhering to those in style manuals
  - 1.8 Design and publish documents by using advanced publishing software and graphic programs
  - 2.3.d Include visual aids by employing appropriate technology to organize and record information on charts, maps and graphs.
  - 2.5 Write business letters, job applications and résumés:
    - a. Provide clear and purposeful information and address the intended audience appropriately
    - b. Use appropriate vocabulary, tone and style to take into account the nature of the relationship with, and the knowledge and interests of, the recipients.
    - c. Highlight central ideas or images.
    - d. Follow a conventional style with page formats, fonts, and spacing that contribute to the documents' readability and impact.
- 2.3 Written and Oral English Language Conventions:
  - 1.4 Produce legible work that shows accurate spelling and correct use of the conventions of punctuations and capitalization
  - 1.5 Reflect appropriate manuscript requirements, including title page presentation, pagination, spacing and margins, and integrations of source and support material with appropriate citations.

3.0 Career Planning and Management: Students understand how to make effective decisions, use career information, and manage personal career plans:

3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio.

4.0 Technology: Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments.

4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.

5.0 Problem Solving and Critical Thinking: Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, problem-solving techniques:

- 5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.
- 5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.
- 5.3 Use critical thinking skills to make informed decisions and solve problems.

6.0 Health and Safety: Students understand health and safety policies, regulations, and practices, including the use of equipment and handling of hazardous materials:

6.3 Understand the environmental and ergonomic risks associated with the sue of business equipment and the financial impact of an unsafe work environment.

7.0 Responsibility and Flexibility: Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings:

- 7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.
- 7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.
- 7.3 Understand the need to adapt to varied roles and responsibilities.
- 7.4 Understand that individual actions can affect the larger community.

9.0 Leadership and Teamwork: Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution:

- 9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.
- 9.3 Understand how to organize and structure work individually and in teams of effective performance and the attainment of goals.
- 9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and the attitudes and feelings of others.

11.0 Demonstration and Application: Students demonstrate and apply the concepts contained in the foundation and pathway standards.

Department: Business Technology Course Title: ICT Digital Media

#### UNIT #2: Business Design Fundamentals

GOAL: Develop design principals to be used in creating effective business communication	GOAL: Develor	p design principals to	be used in creating	effective business	communication.
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OBJECTIVES	SUGGESTED ACTIVITIES
	Sociel D Activities
The student will:	
Understand layout and composition in designing a business ad, logo, letterhead and webpage	<ul> <li>Evaluate websites, yearbooks, magazine ads</li> <li>Using grid theory and the rule of thirds</li> <li>Rule of thirds</li> <li>Asymmetry and Symmetry</li> </ul>
Understand the use of color in designing a business ad, logo, letterhead and webpage	Students will create an excel spreadsheet comparing and contrasting different websites and their color associations
	1. Identify effectiveness as to the particular business identity
	<ol> <li>Find a web site for each color association and analyze the effectiveness.</li> </ol>
	Students will find web pages and evaluate the color schemes used and effectiveness in selling products
Understand the use of texture in designing a business ad, logo, letterhead and webpage	Students will design a business ad, logo and letterhead using the following concepts:
	<ul> <li>Introduce points, pixels, lines, shapes, light and shadow used in Photoshop.</li> </ul>
	Students will research different styles of texture used in business ads – students will explore different types of textures used in ads such as:
	<ul> <li>Styles of textures such as whimsical cartoon, high gloss, nostalgic</li> </ul>

Understand the use of typography in designing a business ad, logo, letterhead and	<ul> <li>Students will research business ads and discuss font families.</li> </ul>
webpage	<ul> <li>Through demonstration students explore the different fonts and font families used in business and their effectiveness.</li> </ul>
	<ul> <li>Students will experiment with different font types and choose the correct font for different businesses.</li> </ul>
	<ol> <li>In fireworks, create three different businesses – restaurant, sporting goods and t-shirt shop</li> </ol>
	2. create and chose, three different fonts for each of the above business
Understand the use of imagery in designing a business ad, logo, letterhead and webpage	<ul> <li>Students will research the consequences of not using Royalty-free images (copyright issues)</li> </ul>
	<ul> <li>Students will create logos and letterheads to impress future business employers</li> </ul>
	<ul> <li>Students will use creative cropping to effectively create impressive images and fonts.</li> </ul>
	<ul> <li>Students will research the use of different file formats – intro jpeg, giff, ping, tiff</li> </ul>
	<ul> <li>Students will learn simple concepts of Photoshop.</li> </ul>

- 3. Research and Information Fluency: Students apply digital tools to gather, evalutate, and use information. Students:
  - a. Plan strategies to guide inquiry.
  - b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
  - c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
  - d. Process data and report results.
- 4. Critical Thinking, Problem-Solving & Decision-Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:
  - a. Identify and define authentic problems and significant questions for investigation.
  - b. Plan and manage activities to develop a solution or complete a project.
  - c. Collect and analyze data to identify solutions and/or make informed decisions.
  - d. Use multiple processes and diverse perspectives to explore alternative solutions.
- 5. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:
  - a. Advocate and practice safe, legal, and responsible use of information and technology.
  - b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
  - c. Demonstrate personal responsibility for lifelong learning.
  - d. Exhibit leadership for digital citizenship.

Contant Area Standarda	
Content Area Standards	
The students will achieve the following content standards:	
2.0 Communications: Students understand the principles of e multimedia communication in a variety of formats and contex 2.1 Reading (Reading Standard)	
2.1 Analyze the structure and format of functional workplace graphics and headers, and explain how authors use the purposes	e features to achieve their
2.2 Prepare a bibliography of reference materials for a rep consumer, workplace, and public documents.	
<ul><li>2.3 Generate relevant questions about readings on issues</li><li>2.4 Synthesize the content from several sources or works with a single issue; paraphrase the ideas and connect related topics to demonstrate comprehension.</li></ul>	by a single author dealing
2.6 Demonstrate use of sophisticated learning tools by foll (e.g., those found with graphic calculators and speciali in access guides to World Wide Web sites on the Intern	zed software programs and
2.7 Critique the logic of functional documents by examining information and procedures in anticipation of possible in the statement of the sta	g the sequence of
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1.4 Produce legible work that shows accurate spelling and conventions of punctuations and capitalization	correct use of the
<ol> <li>1.5 Reflect appropriate manuscript requirements, including pagination, spacing and margins, and integrations of se with appropriate citations.</li> </ol>	
4.0 Technology: Students know how to use contemporary an resources in diverse and changing personal, community, and	
4.2 Understand the use of technological resources to gain acc produce information, products, and services.	ess to, manipulate, and
5.0 Problem Solving and Critical Thinking: Students understa alternative solutions by using critical and creative thinking sl reasoning, analytical thinking, problem-solving techniques:	
5.1 Apply appropriate problem-solving strategies and critical the issues and tasks.	ninking skills to work-related
5.2 Understand the systematic problem-solving models that in outcome, and feedback components.	
5.3 Use critical thinking skills to make informed decisions and	•
8.0 Ethics and Legal Responsibilities: Students understand p legal behavior consistent with applicable laws, regulations, a	nd organizational norms:
8.3 Understand the role of personal integrity and ethical behave	vior in the workplace.

10.0 Technical Knowledge and Skills: Students understand the essential knowledge and skills common to all pathways in the Information Technology sector.

- 10.1 Know how to use a variety of business- and industry-standard software and hardware, including major proprietary and open standards.
- 10.5 Use technology and electronic media to manage the work flow and to provide feedback.
- 10.6 Understand the interrelationships between hardware components and supportive software.
- 10.7 Analyze the functions, features, and limitations of different operating systems, environments, applications, and utilities.

### Pathway Standards:

A8.0-Students understand the importance of reading, writing, and comprehending documentation in a technical environment:

A8.3 Analyze the effectiveness of online information resources to support collaborative tasks, research, publications, communications, and increased productivity.

B2.0-Students understand the effective use of communication software to access and transmit information:

B2.3 Use multiple online search techniques and resources to acquire information. B2.4 Know the appropriate ways to validate and cite Internet resources.

Department: Business Technology Course Title: ICT Digital Media

UNIT # 3: Business Office Design/Creating a Business Identity

GOAL: Communicate using industry standard software as business tools are created

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
Create a business card for business	<ul> <li>Students will use InDesign to create a business card layout</li> </ul>
Create a logo for their business using vector tools	<ul> <li>Students will create a logo for their business and place it on the business card using Illustrator</li> </ul>
Import Photos for business card	<ul> <li>Students will use Photoshop to edit images for business cards</li> </ul>
Create business letterhead	<ul> <li>Students will create a business card and stationary layout using in InDesign</li> </ul>
Create a business envelope	<ul> <li>Students will create a business envelope using InDesign</li> </ul>
Create a tri-fold brochure with text and images	<ul> <li>Students will create a brochure using InDesign, images are created and manipulated in Photoshop while the brochure will be created in InDesign</li> </ul>
	<ul> <li>Students will insert a table from Word into their brochure.</li> </ul>

- 1. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:
  - a. Apply existing knowledge to generate new ideas, products, or processes.
  - b. Create original works as a means of personal or group expression.
  - c. Use models and simulations to explore complex systems and issues.
  - d. Identify trends and forecast possibilities.

2. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- a. Interact, collaborate and publish with peers, experts, or others employing a variety of digital environments or media.
- b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- d. Contribute to project teams to produce original works or solve problems.
- 4. Critical Thinking, Problem-Solving & Decision-Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:
  - a. Identify and define authentic problems and significant questions for investigation.
  - b. Plan and manage activities to develop a solution or complete a project.
  - c. Collect and analyze data to identify solutions and/or make informed decisions.
  - d. Use multiple processes and diverse perspectives to explore alternative solutions.

#### Content Area Standards

The students will achieve the following content standards:

# 2.0 Communications: Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts.

#### 2.2 Writing

- Writing Strategies for 11<sup>th</sup> and 12<sup>th</sup>
  - 1.6 Develop presentations by using clear research questions and creative and critical research strategies
- 2.6 Deliver multimedia presentations
  - a. Combine text, images and sound and draw information from many sources.
  - b. Select an appropriate medium for each element of the presentation.
  - c. Use the selected media skillfully, editing appropriately, and monitoring for quality.
- 2.4 Listening and Speaking
  - 1.7 Use props, visual aids, graphs and electronic media to enhance the appeal and accuracy of presentation.
  - 2.6 Deliver descriptive presentations:
    - c. Use effective, factual descriptions of appearance, concrete images, shifting perspectives and vantages points, and sensory details.
  - 2.7 Deliver multimedia presentations:
    - a. Combine text, images and sound by incorporating information from a wide range of media, including films, newspapers, magazines, CD ROMs, online information, television, videos and electronic media generated images.
    - b. Select an appropriate medium for each element of the presentation.
    - c. Use the selected media skillfully, editing appropriately, and monitoring for quality.

4.0 Technology: Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments.

4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.

5.0 Problem Solving and Critical Thinking: Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, problem-solving techniques:

- 5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.
- 5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.
- 5.3 Use critical thinking skills to make informed decisions and solve problems.

10.0 Technical Knowledge and Skills: Students understand the essential knowledge and skills common to all pathways in the Information Technology sector.

10.6 Understand the interrelationships between hardware components and supportive software.

Pathway Standards:

#### A7.0 Students understand software applications:

A7.1 Know common industry standard software and its applications.

A7.2 Evaluate the effectiveness of software to solve specific problems.

A7.5 Know current and emerging industry standard technology and trends.

# B3.0 Students understand the use of different types of peripherals and hardware appropriate to media and technology:

- B3.1 Understand the appropriate peripherals and hardware needed to achieve maximum productivity for various projects.
- B3.2 Know how to identify and integrate various types of peripherals and hardware to meet project requirements.
- B3.3 Use various types of audio and video equipment as appropriate for different products.
- B3.4 Understand the types of media storage and the use of appropriate file formats and know how to convert data between media and file formats.

B4.0 Students apply technical and interpersonal skills and knowledge to support the user:

B4.2 Know the available resources for identifying and resolving problems.

B5.0 Students understand and apply knowledge of effective web page design and management:

B5.4 Know the tools needed to enable multimedia capabilities for web sites.

Department: Business Technology Course Title: ICT Digital Media

#### UNIT # 4 – Digital Advertising

GOAL: Effective digital communication to support and enhance advertising with a clear message and eye-catching graphics.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
Understand the different advertising appeals Evaluate a given list of products and identify	<ul> <li>Students will be given a list of business products and choose an effective advertising appeal that will have the</li> </ul>
to whom they appeal	greatest impact on the potential customer
Identify good advertising slogans and the characteristics that identify the slogan	<ul> <li>Students will recall past slogans and try to identify the brand name they identify with.</li> </ul>
Examine advertising and product packaging	<ul> <li>Students will create an advertising slogan for their business</li> </ul>
	<ul> <li>Students will bring in two different packages that advertise the same product and evaluate the effectiveness of the packaging</li> </ul>
Create a Newsletter	<ul> <li>Create a business newsletter promoting their business and its product using InDesign</li> </ul>
Create a flyer using one of the advertising techniques you have learned	<ul> <li>Create a flyer ad for your business using InDesign or Illustrator</li> </ul>
Create a webpage: choosing and modifying a layout	<ul> <li>Design a single webpage with instructor guidance</li> </ul>
<ul> <li>understand page design</li> <li>create navigation</li> <li>use style sheets</li> <li>preview in a browser</li> </ul>	<ul> <li>Students will then create a single webpage for their business and product using Dreamweaver</li> </ul>
AT	

- 3. Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information. Students:
  - c. Plan strategies to guide inquiry.
  - d. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
  - e. Process data and report results.
- 4. Critical Thinking, Problem-Solving & Decision-Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:
  - e) Identify and define authentic problems and significant questions for investigation.
  - f) Plan and manage activities to develop a solution or complete a project.
  - g) Collect and analyze data to identify solutions and/or make informed decisions.
  - h) Use multiple processes and diverse perspectives to explore alternative solutions.
- 6. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations. Students:
  - e. Understand and use technology systems.
  - f. Select and use applications effectively and productively.
  - g. Troubleshoot systems and applications.
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B4.0 Students apply technical and interpersonal skills and knowledge to support the user:

B4.2 Know the available resources for identifying and resolving problems.

contained in the foundation and pathway standards.

Department: Business Technology Course Title: ICT Digital Media

UNIT # 5: Data Manipulation

GOAL: Develop visual aids to inform, enlighten, clarify, compare and demonstrate data

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
Create a business database	Create an employee table and product table
	<ul> <li>Produce a report with an image, company logo, and background image</li> </ul>
Create a spreadsheet for their business using visual aids	<ul> <li>Create a spreadsheet of business costs implementing the following visual aids:</li> <li>Line graphs</li> <li>Bar graphs</li> <li>Pictograms</li> <li>Pie Charts</li> <li>Flow Charts</li> </ul>

- 1. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:
  - e. Apply existing knowledge to generate new ideas, products, or processes.
  - f. Create original works as a means of personal or group expression.
  - g. Use models and simulations to explore complex systems and issues.
  - h. Identify trends and forecast possibilities.

2. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- c. Interact, collaborate and publish with peers, experts, or others employing a variety of digital environments or media.
- d. Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- e. Contribute to project teams to produce original works or solve problems.
- 4. Critical Thinking, Problem-Solving & Decision-Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:
  - e. Identify and define authentic problems and significant questions for investigation.
  - f. Plan and manage activities to develop a solution or complete a project.
  - g. Collect and analyze data to identify solutions and/or make informed decisions.
  - h. Use multiple processes and diverse perspectives to explore alternative solutions.

#### Content Area Standards

The students will achieve the following content standards:

2.0 Communications: Students understand the principles of effective oral, written, and multimedia communication in a variety of formats and contexts.

- 2.2 Writing
  - Writing Strategies for 11th and 12th
    - 1.6 Develop presentations by using clear research questions and creative and critical research strategies
  - 2.6 Deliver multimedia presentations
    - a. Combine text, images and sound and draw information from many sources.
    - b. Select an appropriate medium for each element of the presentation.
    - c. Use the selected media skillfully, editing appropriately, and monitoring for quality.
- 2.4 Listening and Speaking
  - 1.7 Use props, visual aids, graphs and electronic media to enhance the appeal and accuracy of presentation.
  - 2.6 Deliver descriptive presentations:
    - d. Use effective, factual descriptions of appearance, concrete images, shifting perspectives and vantages points, and sensory details.
  - 2.7 Deliver multimedia presentations:
    - a. Combine text, images and sound by incorporating information from a wide range of media, including films, newspapers, magazines, CD ROMs, online information, television, videos and electronic media generated images.
    - b. Select an appropriate medium for each element of the presentation.
    - c. Use the selected media skillfully, editing appropriately, and monitoring for quality.

4.0 Technology: Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments.

4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.

5.0 Problem Solving and Critical Thinking: Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, problem-solving techniques:

- 5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.
- 5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.
- 5.3 Use critical thinking skills to make informed decisions and solve problems.

10.0 Technical Knowledge and Skills: Students understand the essential knowledge and skills common to all pathways in the Information Technology sector.

10.6 Understand the interrelationships between hardware components and supportive software.

Pathway Standards:

#### A7.0 Students understand software applications:

A7.1 Know common industry standard software and its applications.

A7.2 Evaluate the effectiveness of software to solve specific problems.

A7.5 Know current and emerging industry standard technology and trends.

# B3.0 Students understand the use of different types of peripherals and hardware appropriate to media and technology:

- B3.1 Understand the appropriate peripherals and hardware needed to achieve maximum productivity for various projects.
- B3.2 Know how to identify and integrate various types of peripherals and hardware to meet project requirements.
- B3.3 Use various types of audio and video equipment as appropriate for different products.
- B3.4 Understand the types of media storage and the use of appropriate file formats and know how to convert data between media and file formats.

B4.0 Students apply technical and interpersonal skills and knowledge to support the user:

B4.2 Know the available resources for identifying and resolving problems.

B5.0 Students understand and apply knowledge of effective web page design and management:

B5.4 Know the tools needed to enable multimedia capabilities for web sites.

Department: Business Technology Course Title: ICT Digital Media

UNIT # 6 – Professional Digital Media Career Opportunities

GOAL: Students will identify and describe careers using digital media

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
Research career opportunities using digital media	<ul> <li>Internet search trade publications for part time jobs, hourly wages, and education required – compare and contrast with five different job experiences in a spreadsheet:</li> </ul>
	Part time, hourly wage, full time with high school diploma, four year college required with a specific major, job with no previous experience
	<ul> <li>Develop a networking database that includes 25 potential companies and addresses</li> </ul>
Research local business community for guest speaker	<ul> <li>Engage in guest speakers from the professional/business community</li> </ul>
Organize a Business Trip	<ul> <li>Research and gather information about their suppliers</li> </ul>
	<ul> <li>Create a table of suppliers</li> </ul>
	<ul> <li>Create a spreadsheet expense report</li> </ul>
	<ul> <li>Create a multi-media presentation about trip goals, budget, and destination</li> </ul>

- 3. Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information. Students:
  - e. Plan strategies to guide inquiry.
  - f. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
  - f. Process data and report results.
- 4. Critical Thinking, Problem-Solving & Decision-Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:
  - i) Identify and define authentic problems and significant questions for investigation.
  - j) Plan and manage activities to develop a solution or complete a project.
  - k) Collect and analyze data to identify solutions and/or make informed decisions.
  - I) Use multiple processes and diverse perspectives to explore alternative solutions.
- 6. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations. Students:
  - i. Understand and use technology systems.
  - j. Select and use applications effectively and productively.
  - k. Troubleshoot systems and applications.
  - I. Transfer current knowledge to learning of new technologies.

#### Content Area Standards

The students will achieve the following content standards:

**1.0** Academics: Students understand the academic content required for entry into postsecondary education and employment in the Information Technology sector.

- 1.2 Science: (Science Standard)
  - 1.a Select and use appropriate tools and technology, such as spreadsheet and charts, to perform tests, collect data, analyze relationships, and display data.
  - 1.d Formulate explanations by using logic and evidence.
- 2.1 Reading:
  - 2.6 Demonstrate use of sophisticated learning tools by following technical directions (e.g., those found with graphic calculators and specialized software programs and in access guides to World Wide Web sites on the Internet).
  - 2.7 Critique the logic of functional documents by examining the sequence of information and procedures in anticipation of possible reader misunderstandings.
- 2.3 Written and Oral English Language Conventions:
  - 1.4 Produce legible work that shows accurate spelling and correct use of the conventions of punctuation and capitalization.

4.0 Technology: Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments.

4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.

<ul> <li>5.0 Problem Solving and Critical Thinking: Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, problem-solving techniques:</li> <li>5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.</li> <li>5.2 Understand the systematic problem-solving models that incorporate input, process, outcome, and feedback components.</li> <li>5.3 Use critical thinking skills to make informed decisions and solve problems.</li> </ul>
<ul> <li>6.0 Health and Safety: Students understand health and safety policies, regulations, and practices, including the use of equipment and handling of hazardous materials:</li> <li>6.3 Understand the environmental and ergonomic risks associated with the sue of business equipment and the financial impact of an unsafe work environment.</li> </ul>
<ul> <li>7.0 Responsibility and Flexibility: Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings:</li> <li>7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.</li> <li>7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.</li> <li>7.3 Understand the need to adapt to varied roles and responsibilities.</li> <li>7.4 Understand that individual actions can affect the larger community.</li> </ul>
<ul> <li>9.0 Leadership and Teamwork: Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution:</li> <li>9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.</li> <li>9.3 Understand how to organize and structure work individually and in teams of effective performance and the attainment of goals.</li> <li>9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and the attitudes and feelings of others.</li> </ul>
11.0 Demonstration and Application: Students demonstrate and apply the concepts

contained in the foundation and pathway standards.

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#### **Pathway Standards:**

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Department: Business Technology Course Title: ICT Digital Media

#### UNIT # 7 – Teamwork

GOAL: Gain the skills necessary to work effectively and productively as a team

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
Understand the characteristics of a successful working team	<ul> <li>Research teams that are successful and be able to communicate the reasons why</li> </ul>
Understand advantages of working in teams	<ul> <li>Explain negative team experience and conclude positive changes to enhance a more effective team experience</li> </ul>
	<ul> <li>Identify team roles as students explore and discern arising situations and develop strategies for successful team experience</li> </ul>
Understand problem solving steps	<ul> <li>Form a team and define the problem – analyze the problem, brainstorm and evaluate alternatives</li> </ul>
Use techniques to solve problems	<ul> <li>Students organize business teams</li> </ul>

- 3. Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information. Students:
  - g. Plan strategies to guide inquiry.
  - h. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
  - g. Process data and report results.
- 4. Critical Thinking, Problem-Solving & Decision-Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:
  - m) Identify and define authentic problems and significant questions for investigation.
  - n) Plan and manage activities to develop a solution or complete a project.
  - o) Collect and analyze data to identify solutions and/or make informed decisions.
  - p) Use multiple processes and diverse perspectives to explore alternative solutions.
- 6. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations. Students:
  - m. Understand and use technology systems.
  - n. Select and use applications effectively and productively.
  - o. Troubleshoot systems and applications.
  - p. Transfer current knowledge to learning of new technologies.

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Department: Business Technology Course Title: ICT Digital Media

UNIT # 8 – Final Project

GOAL: Students will apply the skills learned throughout the first semester to successfully develop and promote a product.

SUGGESTED ACTIVITIES
<ul> <li>Brainstorm and organize teams, along with identifying team roles</li> </ul>
<ul> <li>Viewing product websites</li> </ul>
<ul> <li>Create logo, letterhead, business cards, advertisement, brochures, and opening invitation</li> </ul>
<ul> <li>Using Dreamweaver, students will create an online business site</li> </ul>
<ul> <li>Create a cash flow statement and a balance sheet with visual aids</li> </ul>
<ul> <li>Create a business plan presentation</li> </ul>
<ul> <li>Develop a business calendar</li> </ul>

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