EL DORADO UNION HIGH SCHOOL DISTRICT
EDUCATIONAL SERVICES
Course of Study Information Page

COURSE TITLE
ICT (Informational and Communication Technology) Foundations

DISTRICT COURSE NUMBER	4-DIGIT STATE COURSE CODE (COMPLETED BY SILT)
#0451	**2450**

Rationale:	This course provides a foundation level comprehensive survey of industry standard practices in Information and Communication Technology, including Microsoft Office programs and Google Apps for Education, to prepare students for success in an ever-changing technological world. Course content is facilitated through exploration and mastery of global web research, documentation and word processing, file establishment and organization, data management and maintenance, career investigation and planning, technology usage and efficiency, mixed media applications, multi-media software and hardware, spreadsheet creation and implementation.
Course Description that will be in the Course Directory:	Information and Communications Technology (ICT) Foundations has been designed to prepare students to employ critical thinking and problem solving skills in a variety of real world scenarios. The overarching objective of the course is to expose students to an array of programs, applications, and technology and provide the groundwork for success throughout a student's educational career. Students will engage in a host of hands-on activities designed to enhance technological efficiency and promote a positive future in the digital world. ICT Foundations will provide students with tools necessary to be a well-qualified participant in today's perpetually changing global economy. After completing ICT Foundations students will have fulfilled the El Dorado Union High School District Technology Requirement needed for graduation and be able to select from a variety of courses within the ICT pathway.
How Does this Course align with or meet State and District content standards?	Standards are attached to each section.
Core Subjects:	*Select up to two that apply:* ☐ Arts ☐ Civics and Government ☒ Not Core Subject ☐ Economics ☐ History ☐ English ☐ Mathematics ☐ Foreign Language ☐ Reading / Language Arts ☐ Geography ☐ Science

CDE CALPADS Course Descriptors: (See Page 2 for Definitions)	CTE TECH PREP COURSE INDICATORS ☐ Tech Prep (32) (Higher Ed) ☐ Tech Prep & ROP(33) (Higher Ed) ☐ ROP (30) ☒ N/A	CTE COURSE CONTENT CODE ☐ CTE Introductory (01) ☐ CTE Concentrator (02) ☐ CTE Completer (03) ☐ Voc Subject ____ ☒ N/A	INSTRUCTIONAL LEVEL CODE ☐ Remedial (35) ☐ Honors UC-Certified (39) ☐ Honors Non UC-Certified (34) ☐ College (40) ☒ N/A

Length of Course:	☐ Year ☒ Semester
Grade Level(s):	☒ 9 ☒ 10 ☒ 11 ☒ 12

Credit:	☒ Number of credits: **5** ☐ Meets graduation requirements (subject ____) ☐ Request for UC "a–g" requirements CSU/UC requirement ____	☐ College Prep
Prerequisites:	None	

Department(s):	Business
District Sites:	EDHS, ORHS, PHS, UMHS
Board of Trustees COS Adoption Date:	6/14/2016
Textbooks / Instructional Materials:	Marquee Series Office Basic Edition, EMC, Rutkosky & Sequin, 2011 Basic Edition, ISBN: 978-0-76384-445-5 w/CD
Funding Source:	General Fund
Board of Trustees Textbook Adoption Date:	May 8, 2012

Definitions

CALPADS	California Longitudinal Pupil Achievement Data System
CTE Technical Prep	A course within a CTE technical career pathway or program that has been articulated with a postsecondary education or through an apprenticeship program of at least 2 years following secondary instruction.
Instructional Level Code	Represents a nonstandard instructional level at which the content of a specific course is either above or below a 'standard' course instructional level. These levels may be identified by the actual level of instruction or identified by equating the course content and level of instruction with a state or nationally recognized advanced course of study, such as IB or AP.
Instructional Level Honors, UC Certified	Includes all AP courses.
Instructional Level Honors, non UC Certified	Requires Board approval.
Instructional Level College	Includes ACE courses. Equivalent to college course and content, but not an AP course. Not related to section, but to course.

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Course Title: ICT Foundations (#0451)

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Department: **Business**

Course Title: **ICT Foundations**   Course Number: **#0451**

Unit Title: **Unit 1: Data Management and Maintenance**

Content Area Standards (Please identify the source): List content standards students will master in this unit.

GOAL: Students will understand and learn the skills necessary to utilize a database application to obtain specific information and interpret results. Exploration of Microsoft Access and Google Forms will support this goal.

Information and Communication Technology Pathway Standards:
1. C8.0 Develop databases.
    a.   C8.1 Describe the critical function of databases in modern organizations.
    b.   C8.2 Identify and use the basic structures of databases, fields, records, tables, and views.
    c.   C8.3 Identify and explain the types of relationships between tables (one-to-one, one-to-many, many-to-many) and use methods to establish these relationships, including primary keys, foreign keys, and indexes.
    d.   C8.4 Use data modeling techniques to create databases based upon business needs.
    e.   C8.5 Use queries to extract and manipulate data (select queries, action queries).
    f.   C8.6 Develop databases that are properly normalized using appropriate schemas.
    g.   C8.7 Export and import data to and from other applications and a database recognizing the limitations and challenges inherent in the process.
    h.   C8.8 Analyze and display data to assist with decision making using methods like cross tabulations, graphs, and charts.

ISTE Standards:
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.

Unit Outline: A detailed descriptive summary of all topics covered in the unit. Explain what the students will learn, know and be able to do.

Understand and identify databases such as Aeries, Internet, phones, DMV, and libraries.
Create a database introducing a table that includes fields, data types, size, and description. Then students will add in records using the table or form.
Understand the significance of a Primary key/unique identifier.
Create objects in a database such as forms, reports and queries.
State the purpose of a query, run a query, print a query, close and clear a query.
Demonstrate the ability to sort and query a table to obtain specific information.
Save a query.
Create a report using a table and access layout tools to print a report.
Save a report.
Create a form using the form wizard to add records to a database.
Save a form.

Instructional Strategies: Indicate how the Instructional Strategies support the delivery of the curriculum and the course goals. Indicate how assignments support the Anchor Standards.

Create databases relevant to their life as a student or databases from the Office book.
Examples of databases:
- Favorites: tables include TV Shows, Music, Cars, and Friends.
- College, sports and statistics data
- Plant database that supports Science curriculum
- Naviance for career exploration

Using the databases listed above, students query teacher selected information such as:
- Names
- Numbers using expressions
- Multiple criteria queries
- Sort order

Using the databases listed above, students will create multiple reports based on selected criteria. Example reports include:
- Favorites: tables include TV Shows, Music, Cars, and Friends
- College, sports, and statistics data
- Plant database that supports Science curriculum

Using the databases listed above, students will create multiple forms based on selected criteria. Example forms include:
- TV Shows, Music, Cars, and Friends
- College, sports and statistics data
- Plant database that supports
- Science curriculum

Assessments: Describe the Formative and Summative assessments that will be used to demonstrate learning and mastery of the standards.

Formative:
- Database Projects Using Microsoft Access
- Form Projects Using Google Forms
- Teacher Observations

Summative:
- Database Competency Test Using Microsoft Access

Interventions: Describe methods used to support students who fail to master unit Formative and Summative assessments.
- Students may access additional remedial sessions made available by the teacher and the business department.
- Students can get one-on-one instructions to review key concepts.
- Students will to be able to retake Database Competency Test.

EDUCATIONAL SERVICES

Department: **Business**

Course Title: **ICT Foundations**   Course Number: **#0451**

Unit Title: **Unit 2: Documentation and Word Processing**

Content Area Standards (Please identify the source): List content standards students will master in this unit.

 GOAL: Students will understand and create a variety of correctly formatted documents used in education, business, and personal situations. This goal is accomplished through the use of Microsoft Word and Google Docs.

Business Knowledge and Performance Anchor Standards:
  4.0 Technology Use existing and emerging technology to investigate, research, and produce products and services, including new information, as required in the Business and Finance sector workplace environment. (Direct alignment with WS 11-12.6).
  4.1 Use electronic reference materials to gather information and produce products and services.
  4.2 Employ Web-based communications responsibly and effectively to explore complex systems and issues.
  4.3 Use information and communication technologies to synthesize, summarize, compare, and contrast information from multiple sources.
  4.4 Discern the quality and value of information collected using digital technologies, and recognize bias and intent of the associated sources.

ISTE 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.

Unit Outline: A detailed descriptive summary of all topics covered in the unit. Explain what the students will learn, know and be able to do.

Understand the basic skills and protocols of e-mail.
Identify the components of a business letter and create business letters using e-mail and traditional hard copy.
Create a business letter using sample templates, insert a line break, and enter data into a word document.
Gain an understanding of major research paper format styles (currently MLA and APA) and how to correctly format a document to successfully meet such standards.
Change margins settings, adjust line spacing, use a header to number pages, indent paragraphs, add a footnote, count the words, insert a manual page break, create hanging indents, create hyperlink for works cited, find and replace text, find a synonym, utilize reference tools, check spelling and grammar.
Understand the uses of brochures, flyers and how to create brochures, flyers for both business and academic applications in Google Docs and Word.
Specific subject area using text, graphics (including resizing) and enhancements that contributes to the documents readability and impact.
In both Word and Google Docs, save a document, change font size and text, align paragraphs, adjust line spacing,

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insert graphics, utilize colored text, borders, and shading, bulleted lists, create a table, resize graphics and print a document.

Instructional Strategies: Indicate how the Instructional Strategies support the delivery of the curriculum and the course goals. Indicate how assignments support the Anchor Standards.

Write a business letter following a conventional style with page formats, fonts, and spacing that contribute to the documents readability and impact.
- Options for a business letter include a letter to the principal about a school subject, letter of inquiry, letter of complaint, or a scholarship letter.
- Students send e-mail using proper protocols to request information from a company.

Use appropriate formatting tools and conventions for documentation in text, notes, and works cited by using MLA rules in Google Docs and Word applications.
Examples:
- Students will apply MLA format rules to complete a research paper on a STEM career.
- Students will apply MLA format rules to complete a research paper on a college of their choice.

Design and create a 3-fold brochure or flyer on an appropriate subject.
Examples:
- School safety
- Public service announcement
- Career exploration
- Product research

Assessments: Describe the Formative and Summative assessments that will be used to demonstrate learning and mastery of the standards.

Formative:
- Document Projects Using Microsoft Word
- Document Projects Using Google Docs
- Teacher Observations

Summative:
- Document Competency Test Using Microsoft Word or Google Docs

Interventions: Describe methods used to support students who fail to master unit Formative and Summative assessments.

- Students may access additional remedial sessions made available by the teacher and the business department.
- Students can get one-on-one instructions to review key concepts.
- Students will to be able to retake Document Competency Test.

EDUCATIONAL SERVICES

Department: **Business**

Course Title: **ICT Foundations**   Course Number: **#0451**

Unit Title: **Unit 3: File Establishment and Organization**

Content Area Standards (Please identify the source): List content standards students will master in this unit.

GOAL: Students will demonstrate a sound understanding of technology concepts, systems and operations. This goal will focus on student use of Google Apps for Education: Google Drive, G-mail and Calendar, in addition to Microsoft Windows to facilitate file creation and maintenance.

Information and Communication Technologies Pathway Standards:
   A2.0 Acquire, install, and implement software and systems.
   A2.1 Identify and list the criteria and processes for evaluating the functions of information systems.
   A2.2 Investigate, evaluate, select, and use major types of software, services, and vendors.
   A2.4 Define and use appropriate naming conventions and file management strategies.

ICTE Standards:
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.

Unit Outline: A detailed descriptive summary of all topics covered in the unit. Explain what the students will learn, know and be able to do.

Gain an introduction to the history of computers, internet, and digital applications.
Understand and Utilize the Operating Systems.
Create & Organize new folders.
Organize, identify files and folders.
Understand and save graphic extensions such as: jpg, gifs and png.
Use hierarchical structure which includes subfolders and expanding and collapsing folders.
Copy and delete a group of files.
Understand the use of various storage devices ie. CDs, DVDs and flash drives.
For Google Platform:
Understand and utilize Google Drive.
Create & Organize new folders.
Organize, identify files and folders.
Computer Hardware
Troubleshoot systems, applications and hardware.
Identify components of a computer ie. Motherboard, processor, hard drive, RAM, CD-ROM, DVD-ROM, Storage drives, monitor, keyboard, mouse, video/sound cards.
Use of electronic media:

School Log-in
Google Platform (email, Drive, Apps)
Aeries Student-based log-in
Digital Citizenship & Responsibility:
Online site such as EverFi
Use of cellular devices:
    Etiquette for cellular communication
    Applications (apps)
    Calendar organization

Instructional Strategies: Indicate how the Instructional Strategies support the delivery of the curriculum and the course goals. Indicate how assignments support the Anchor Standards.

- Learn the history using lecture, notes and YouTube videos.
- Create and organize folders for their school work using a variety of applications.
- Rename files to organize into a set of folders.
- Retrieve a set of documents and use skills such as copy, paste, cut, resize images (discussing image resolution).
- Practice saving to a server, the cloud and other devices.
- Discuss and understand the depth of file or folder properties.
- Discuss various storage devices.
- To share documents on Google Docs
- Adjust visibility settings
- Collaborative creating and editing of documents
- Use of comments and notifications features
- Using Google classroom as a student, including adding a class, viewing and submitting assignments
- Opening/saving/converting documents in (and transferring between) Google Docs and Office applications.

Practice troubleshooting when a computer problem arises.
Example:
- Troubleshooting problems with plugs, cables, peripherals.
- Practice setting monitor resolution.
- Isolate computer problems; troubleshoot nature of problem and evaluate error messages.
- Draw and identify main computer components using Paint or Fireworks.
- Common Craft website to view concise explanations of technology related videos.

Access accounts:
- Log-in with username and password
- Save log-in information to cell phone or planner
- For school such as syllabus, homework and assignments.
- Aeries (student gradebook)

Certificate of completion in Digital Citizenship & Responsibility:
- The Future of Technology and You
- Welcome to Ignition
- Choosing a Computer
- Wireless Communications
- The Viral World
- Internet Resources and Credibility
- Creating Multimedia Products
- Digital Relationships and respect

Cell Phone policy in class room as well as lesson on appropriate use in school, personal and business settings
Activity on appropriate texting and etiquette
New applications we use or App of the day
Use of Outlook or cell phone calendar(s)

Assessments: Describe the Formative and Summative assessments that will be used to demonstrate learning and mastery of the standards.

Formative:
- File Management Projects Using School Drive
- File Management Projects Using Google Drive
- Teacher-Student Interaction Using G-mail and Document Sharing
- Teacher Observations

Summative:
- File Management Competency Test Using School Drive or Google Drive

Interventions: Describe methods used to support students who fail to master unit Formative and Summative assessments.

- Students may access additional remedial sessions made available by the teacher and the business department.
- Students can get one-on-one instructions to review key concepts.
- Students will to be able to retake File Management Competency Test.

EDUCATIONAL SERVICES

Department: **Business**

Course Title: **ICT Foundations**   Course Number: **#0451**

Unit Title: **Unit 4: Global Web Research**

Content Area Standards (Please identify the source): List content standards students will master in this unit.

GOAL: Students will use the internet to search and access reliable information, evaluate online resources and practice internet safety while understanding the value and consequences of practicing digital citizenship.

Information and Communication Technologies Knowledge and Performance Anchor Standards:
   4.0 Technology Use existing and emerging technology, to investigate, research, and produce products and services, including new information, as required in the Information and Communication Technologies sector workplace environment. (Direct alignment with WS 11-12.6).
   4.1 Use electronic reference materials to gather information and produce products and services.
   4.2 Employ technology based communications responsibly and effectively to explore.

ICTE Standards:
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.
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.

Unit Outline: A detailed descriptive summary of all topics covered in the unit. Explain what the students will learn, know and be able to do.

Understand the elements of Digital Citizenship: Internet Safety, Privacy and Security, Relationship & Communication, Cyberbullying and Digital Drama, Digital Footprints and Reputation, Self-Image and Identity, Creative Credit and Copyright, and Informative Literacy.
Learn to make smart, responsible, and respectful decisions when using technology and to help them understand the ethical consequences behind the decisions they make online.
Learn the benefits of sharing information online and the potential risks of sharing inappropriate information.
Learn about the dynamics of online cruelty and how it affects all of the people involved.
Understand posting online becomes part of a public online presence known as a digital footprint and can be seen by other such as potential employers, colleges, and parents.
Understand appropriate and inappropriate uses of technology.

Protect privacy, respect copyright and avoid plagiarism
Utilize browsers and search engines to explore resources on the Internet, in addition to Google Apps for Education.
Learn to recognize some of the dangers on the Internet, how to keep their identities secure and how to brand themselves in a positive way for the future.
Learn to find and evaluate accurate and reliable information on the Internet.
Understand the use and concept of URLs, browsers, web sites.
Acquire the tools needed to utilize the Internet efficiently and effectively.

Instructional Strategies: Indicate how the Instructional Strategies support the delivery of the curriculum and the course goals. Indicate how assignments support the Anchor Standards.

Example activities:
- Teacher presentations
- Elelments of Digital Citizenship
- Student research
- Recognizing online predators
- Cyber bullying awareness
- Digital Footprint (branding for the future; too much information)
- Recognize inappropriate images/information
- How to create a positive online footprint in preparation for college and career
- Interactive internet safety games such as the Missing Game.
- Create a Cyber Safety media presentation using current software.

Learn to use tools that allow them to access and recognize which sites are accurate and reliable.
- Students will evaluate web sites using rubrics.
- Use effective advanced Internet search techniques
- Power Searching
- A Google a Day

Practice using tools such as:
- Google Apps
- Google Earth
- Google Maps
- Google Engine Lite

Assessments: Describe the Formative and Summative assessments that will be used to demonstrate learning and mastery of the standards.

Formative:
- Projects, Activities and Presentations
- Teacher Observations

Summative:
- Internet Competency Test

Interventions: Describe methods used to support students who fail to master unit Formative and Summative assessments.

- Students may access additional remedial sessions made available by the teacher and the business department.
- Students can get one-on-one instructions to review key concepts.
- Students will to be able to retake Internet Competency Test.

EDUCATIONAL SERVICES

Department: **Business**

Course Title: **ICT Foundations**   Course Number: **#0451**

Unit Title: **Unit 5: Mixed Media Applications**

Content Area Standards (Please identify the source): List content standards students will master in this unit.

GOAL: Students will use digital media to learn industry standard software. Students will be able to communicate and work collaboratively as they access resources provided to problem solve and critically think through culminating projects. This goal will be reinforced through use of Adobe Creative Suite.

Arts, Media, and Entertainment Pathway Standards:
   A2.0 Apply artistic skills and processes to solve a variety of industry-relevant problems in a variety of traditional and electronic media.
   A2.1 Demonstrate skill in the manipulation of digital imagery (either still or video) in an industry-relevant application.
   A2.2 Demonstrate personal style and advanced proficiency in communicating an idea, theme, or emotion in an industry-relevant artistic product.
   A2.3 Apply refined observation and drawing skills to solve an industry-relevant problem. A2.4 Use visual metaphors in creating an artistic product.
   A2.5 Compile a portfolio of multiple original two- and three-dimensional works of art that reflect technical skills in an industry-relevant application.
   A2.6 Create an artistic product that involves the effective use of the elements of art and the principles of design.
   A2.7 Create original works of art of increasing complexity and skill in a variety of media that reflect their feelings and points of view.
   A2.8 Plan and create artistic products that reflect complex ideas, such as distortion, color theory, arbitrary color, scale, expressive content, and real versus virtual.
   A2.9 Create a multimedia work of art that demonstrates knowledge of media and technology skills.

ISTE 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.
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:
   b.   Interact, collaborate and publish with peers, experts, or others employing a variety of digital environments or media.
   c.   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:
   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.

Unit Outline: A detailed descriptive summary of all topics covered in the unit. Explain what the students will learn, know and be able to do.

Apply Digital Imaging skills and tools to enhance images for all applications.
Use Adobe Photoshop and Fireworks interface, toolbars and menus to edit images.
Understand how a digital camera works
Capture, upload and manage images when using digital cameras.
Learn to create web pages using Notepad.
Learn to create web pages using HTML and CSS.
Create a short video using the school's current video editing software.
Learn to shoot, edit, modify, add transitions, music and text to video using video editing tools.
Create a short animation in Flash or the school's current animation software.
Use interface, toolbars, and menus to create short animations.

Instructional Strategies: Indicate how the Instructional Strategies support the delivery of the curriculum and the course goals. Indicate how assignments support the Anchor Standards.

Learn to utilize basic photo editing software, examples include:
- Feather, Fade, Images in shapes and customizing text in Fireworks.
- Color, cropping, use of text in a photo editing software.
- Create a Movie Poster in Photoshop
- Create a personal web page banner in Fireworks

Learn to import into appropriate software.
- Students will use a camera or mobile phone to capture images using different camera angles
- Students edit images in editing software
- Students create a Character poster in Fireworks or Photoshop using their edited images

Use html to create and design a web page.
- Students will adjust images in Fireworks or Photoshop
- Students will create a banner
- Students will create a resume using html and CSS code.

Use the application to create student led movies.
- Students will capture videos based on a school event.
- Students will use video and editing software to create a short movie.

Create animated objects using the following concepts:
- Move an object
- Change a shape
- Change a shape's color
- Fade in and out

Assessments: Describe the Formative and Summative assessments that will be used to demonstrate learning and mastery of the standards.

Formative:
- Projects Using Adobe Creative Suite
- Teacher Observations

Interventions: Describe methods used to support students who fail to master unit Formative and Summative assessments.

- Students may access additional remedial sessions made available by the teacher and the business department.
- Students can get one-on-one instructions to review key concepts.

EDUCATIONAL SERVICES

Department: **Business**

Course Title: **ICT Foundations**   Course Number: **#0451**

Unit Title: **Unit 6: Multimedia Software and Hardware**

Content Area Standards (Please identify the source): List content standards students will master in this unit.

GOAL: Students will use a variety of digital media to communicate and work collaboratively to support individual learning and contribute to the learning of others.

Arts, Media, and Entertainment Pathway Standards:
  A2.0 Apply artistic skills and processes to solve a variety of industry-relevant problems in a variety of traditional and electronic media.
  A2.1 Demonstrate skill in the manipulation of digital imagery (either still or video) in an industry-relevant application.
  A2.2 Demonstrate personal style and advanced proficiency in communicating an idea, theme, or emotion in an industry-relevant artistic product.
  A2.3 Apply refined observation and drawing skills to solve an industry-relevant problem. A2.4 Use visual metaphors in creating an artistic product.
  A2.5 Compile a portfolio of multiple original two- and three-dimensional works of art that reflect technical skills in an industry-relevant application.
  A2.6 Create an artistic product that involves the effective use of the elements of art and the principles of design.
  A2.7 Create original works of art of increasing complexity and skill in a variety of media that reflect their feelings and points of view.
  A2.8 Plan and create artistic products that reflect complex ideas, such as distortion, color theory, arbitrary color, scale, expressive content, and real versus virtual.
  A2.9 Create a multimedia work of art that demonstrates knowledge of media and technology skills.

ISTE 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.
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:
  b. Interact, collaborate and publish with peers, experts, or others employing a variety of digital environments or media.
  c. 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:
  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.

Unit Outline: A detailed descriptive summary of all topics covered in the unit. Explain what the students will learn, know and be able to do.

Create and edit a presentation in multiple applications to promote skill acquisition.
Learn Microsoft PowerPoint, Prezi, Google Slides or other programs.
Use animations, formatted text, transition, timing, design template, and title slide.
Incorporate design elements that are creative attractive and readable.
Demonstrate elements of effective presentations.

For schools with extended course time:

Understand how a digital camera works.
Capture, upload and manage images and video using cameras.
Learn to edit, modify, put in transitions, add music and text to video.
Apply digital imaging skills and tools to enhance images for all applications.
Use the digital imaging software toolbars and menus to edit and format images.
Create a short animation.
Use Flash interface, toolbars, and menus to create short animations.
Learn to create web pages using Notepad.
Learn to create web pages using HTML and CSS.
Learn simple programming in Visual Basic.

Instructional Strategies: Indicate how the Instructional Strategies support the delivery of the curriculum and the course goals. Indicate how assignments support the Anchor Standards.

Examples may include:
- Create a presentation on colleges.
- Create a presentation on careers using information from Naviance.
- Create a Public Service Announcement.
- Insert sounds, voice over, video, and embedded Flash.

For schools with extend course time:

- Create a short movie using video software.
- Create a storyboard.
- Create a composition shoot.
- Import, edit and save videos.
- Students will capture and create a movie based on a school event.

Learn to utilize basic digital editing software, examples include:
Fireworks, Photoshop etc.
- Feather, fade images in shapes and customizing text.
- Color, crop and animate.

Create animated objects using the following Flash concepts:
- Shape tween
- Motion tween
- Motion Guide
- Fade in and out
- Masking

Use html to create and design a web page.
- Students will create a resume using html and CSS code.

Create a simple application using Visual Basics language.
- Students will create a simple animation using Visual Basic.

Assessments: Describe the Formative and Summative assessments that will be used to demonstrate learning and mastery of the standards.

Formative:
- Presentation Projects Using Microsoft PowerPoint
- Presentation Projects Using Google Slides
- Multimedia Projects with Texts, Sounds, Graphics and Video Using Multiple Applications
- Teacher Observations

Summative:

• Presentation Competency Test Using Microsoft PowerPoint or Google Slides

Interventions: Describe methods used to support students who fail to master unit Formative and Summative assessments.
• Students may access additional remedial sessions made available by the teacher and the business department.
• Students can get one-on-one instructions to review key concepts.
• Students will to be able to retake Presentation Competency Test.

EDUCATIONAL SERVICES

Department: **Business**

Course Title: **ICT Foundations**   Course Number: **#0451**

Unit Title: **Unit 7: Spreadsheet Creation and Implementation**

Content Area Standards (Please identify the source): List content standards students will master in this unit.

GOAL: Students will understand and learn the basic skills used in creating and formatting spreadsheets and creating charts to analyze data. Students will improve technical reading skills by following detailed directions. This goal is accomplished through use of Microsoft Excel and Google Sheets.

Business and Finance Anchor Standards:
   10.3 Construct projects and products specific to the Business and Finance sector requirements and
          expectations.
   10.5 Interpret financial data, analyze results, and make sensible business decisions to promote a financially
          reliable business.

ICTE Standards:
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.

Unit Outline: A detailed descriptive summary of all topics covered in the unit. Explain what the students will learn, know and be able to do.

Create spreadsheets, including formulas and functions to analyze data in both Excel and Google Sheets.
Enter labels, values, formulas and functions.
Edit cell entries, copy and move cell entries.
Use the Name function to define a cell or range of cells.
Understand relative and absolute cell references.
Sort entries for effectiveness.
Select print options.
Access and share spreadsheets via the Cloud (Electronic Storage)
Create and format viable charts that visually represent the data and its outcome.
Plan and create a chart.
Move and resize a chart.
Format a chart changing design and layout.
Create a pie chart.
Format spreadsheets.
Change font and font size, attributes and alignment, adjust column width, insert and delete rows,
Apply colors, patterns, borders, conditional formatting.

Instructional Strategies: Indicate how the Instructional Strategies support the delivery of the curriculum and the course goals. Indicate how assignments support the Anchor Standards.

Collect data and create a spreadsheet on cost of college, salary statement components and student fitness results that include:
- Formulas
- Functions: =Sum, =Average, =Min, =Max, =Count
- Formatting numbers: Percentages, Currency, and General numbers
- Formatting background & font for clarity.
- Merging and formatting cells
- Spreadsheet design

Create a chart on cost of college, pay check components and student fitness results that include:
- Bar, line, column or pie style
- Adjusting the formatting of X & Y axis
- Formatting data labels and legend for clarity.
- Adjust and format titles.
- Format chart for readability.

Using the above spreadsheets.

Students will creatively format a spreadsheet using borders, background color, font size and font color, and inserting images.

Assessments: Describe the Formative and Summative assessments that will be used to demonstrate learning and mastery of the standards.

Formative:
- Spreadsheet Projects Using Microsoft Excel
- Spreadsheet Projects Using Google Sheets
- Teacher Observations

Summative:
- Competency Test Using Microsoft Excel or Google Sheets

Interventions: Describe methods used to support students who fail to master unit Formative and Summative assessments.
- Students may access additional remedial sessions made available by the teacher and the buiness department.
- Students can get one-on-one instructions to review key concepts.
- Students will to be able to retake Spreadsheet Competency Test.

EDUCATIONAL SERVICES

Department: **Business**

Course Title: **ICT Foundations**   Course Number: **#0451**

Unit Title: **Unit 8: Career Investigation and Planning**

Content Area Standards (Please identify the source): List content standards students will master in this unit.

GOAL: Students will identify, explore, and catalog potential post-secondary schooling options and career paths. This unit will equip students with the tools to navigate educational requirements of future career selections. Naviance career planner, Web browsers, Google Apps for Education and Microsoft Office can be utilized to support this goal.

Business and Finance Anchor Standards:
   3.0 Career Planning and Management Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans. (Direct alignment with SLS 11-12.2).
   3.1 Identify personal interests, aptitudes, information, and skills necessary for informed career decision making.
   3.2 Evaluate personal character traits such as trust, respect, and responsibility and understand the impact they can have on career success.
   3.3 Explore how information and communication technologies are used in career planning and decision making.
   3.4 Research the scope of career opportunities available and the requirements for education, training, certification, and licensure.
   3.5 Integrate changing employment trends, societal needs, and economic conditions into career planning.

ICTE Standards:
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.

Unit Outline: A detailed descriptive summary of all topics covered in the unit. Explain what the students will learn, know and be able to do.

Set secondary, post-secondary, and career goals related to their interests.
Be able to determine necessary secondary and post-secondary educational requirements needed to attain personal future education and career goals.
Identify, locate, and complete documents pertaining to future employment and post-secondary education admissions.
Gain the tools and understanding to successfully access and search online databases for future career planning.
Determine the wages and demand for America's top 100 occupations and discern employment trends related to the current economy.
Identify potential scholarship, internship, and apprenticeship opportunities available that pertain to future education and career goals.

Instructional Strategies: Indicate how the Instructional Strategies support the delivery of the curriculum and the course goals. Indicate how assignments support the Anchor Standards.

- Use a variety of career assessment tools, such as Science/Technology/Engineering/Math (STEM) type assessment, WhoDoUWant2B (California Sponsored Career Planning platform) and Naviance to help them identify potential future careers and subsequent educational requirements.
- Regularly use Aeries.net to reconcile their online transcripts with future goals and keep track of completed requirements.
- Develop a portfolio of post-secondary education options and revisit this document to make additions or deletions based on emerging interests.
- Use online resources to research the types of documents normally required to gain employment.
- Create an "employment portfolio" including a cover letter, resume, and letter(s) of recommendation.
- Use internet search strategies and online databases to research available employment opportunities and post-secondary education requirements that support their career interests.
- Learn and apply the skills needed to complete a job application and documents necessary to a post-secondary education application.
- Search their school library database and utilize Naviance (college and career readiness solution).
- Research and document college information.
- Use online resources to research career options in a variety of fields, including Career Technical Education pathways.
- Use a desired lifestyle vs. employment compatibility calculator to assess if their career selection will support their preferred lifestyle. Use resources such as Naviance and California Career Zone in conjunction with the Career Center on their campus to research scholarships, internships, and apprenticeships to facilitate the development of a list of viable opportunities, including requirements and deadlines.

Assessments: Describe the Formative and Summative assessments that will be used to demonstrate learning and mastery of the standards.

Formative:
- Projects, Activities, Presentations and Reports
- Employment Portfolio
- Teacher Observations

Interventions: Describe methods used to support students who fail to master unit Formative and Summative assessments.

- Students may access additional remedial sessions made available by the teacher and the business department.
- Students can get one-on-one instructions to review key concepts.