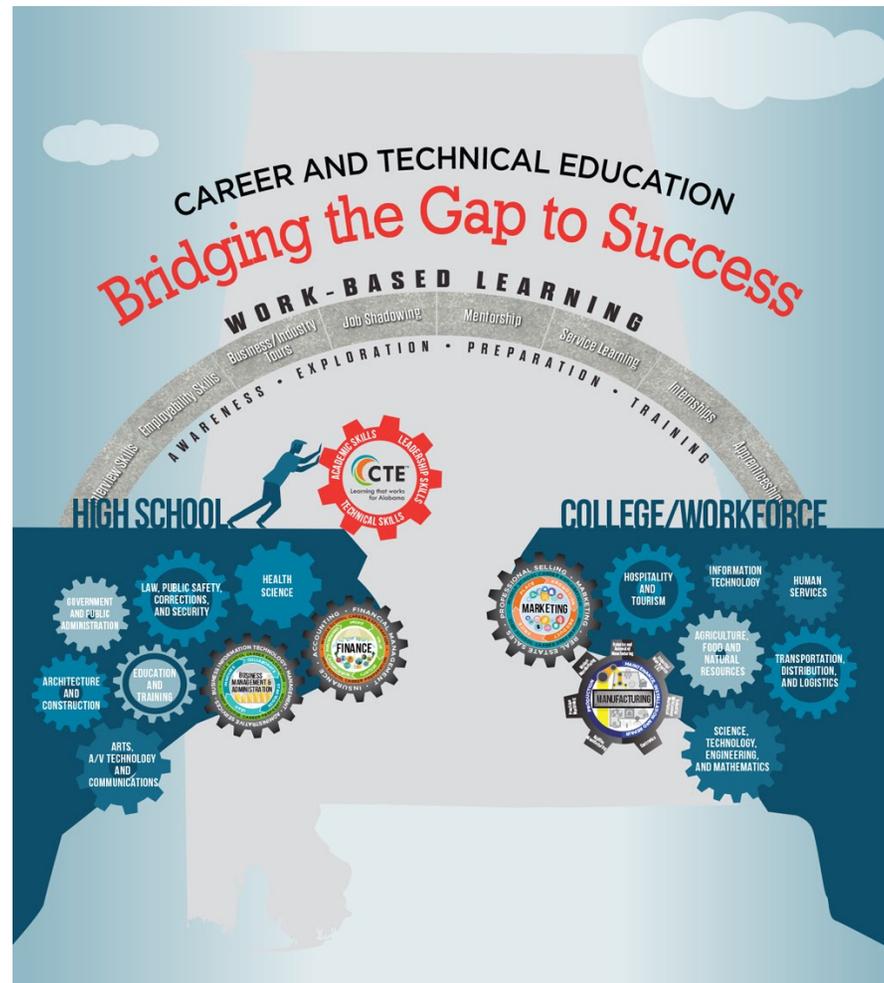


# Alabama Course of Study Career and Technical Education



**BMA**

2021

Eric G. Mackey, State Superintendent of Education  
Alabama State Department of Education



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*Alabama Course of Study: Career and Technical Education*  
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# **Alabama Course of Study**

## **Business Management and Administration**



**Eric G. Mackey**  
**State Superintendent of Education**

**STATE SUPERINTENDENT OF EDUCATION'S  
MESSAGE**

Dear Alabama Educator:

The 2021 *Alabama Course of Study: Career and Technical Education, Business Management and Administration* presents standards designed to prepare students for the career and technical demands of the future, both in the workplace and in the post-secondary education setting.

This document contains a challenging set of standards designed to promote students' engagement and career interests in Business Management and Administration fields. I encourage each system to use the document in developing local curriculum guides that determine how local school students will achieve and even exceed these standards.

The 2021 *Alabama Course of Study: Career and Technical Education, Business Management and Administration* was developed by educators and business and community leaders to provide a foundation for building quality business management and administration programs across the state. Implementing the content of this document through appropriate instruction will promote students' exploration and enhance preparation for further study and careers in a variety of business management and administration fields.

**Eric G. Mackey**  
**State Superintendent of Education**

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# Alabama Course of Study

## Business Management and Administration

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# **Alabama Course of Study Business Management and Administration**

## **PREFACE**

The 2021 *Alabama Course of Study: Career and Technical Education, Business Management and Administration* provides the framework for Grades 6-12 business management and administration programs in Alabama’s public schools. Content standards in this document are minimum and required (*Code of Alabama*, 1975, §16-35-4). They are fundamental and specific, but not exhaustive. Business Management and Administration education courses are organized by pathways, which are aligned with national standards. When developing local curriculum, school systems may include additional content standards to reflect local needs and philosophies. Systems are encouraged to add implementation guidelines, resources, and activities based upon the content standards in the Business Management and Administration Course of Study.

The 2020-2021 Alabama Career and Technical Education Course of Study Committee and Task Force conducted extensive research during the development of the Business Management and Administration Course of Study, analyzing career and technical education standards and curricula from other states, previous versions of Alabama’s career and technical education courses of study, and national standards. The Committee and Task Force also reviewed information from professional journals and Internet sites, listened to and read comments from interested individuals and industry groups throughout the state, considered suggestions from independent reviewers, sought input from advisory councils, and thoroughly discussed each issue and standard among themselves. The Committee and Task Force reached consensus and developed what members believe to be the best Business Management and Administration Course of Study for students in Alabama’s public schools.

# **Alabama Course of Study Business Management and Administration ACKNOWLEDGMENTS**

This document was developed by the Business Management and Administration Committee and Task Force of the 2020-2021 Alabama Career and Technical Education Course of Study Committee and Task Force, composed of middle school, high school, and college educators appointed by the Alabama State Board of Education and business and professional persons appointed by the Governor (*Code of Alabama*, 1975, §16-35-1). The Committee and Task Force began work in February of 2020 and submitted the document to the Alabama State Board of Education for adoption at the March 2021 meeting.

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# **Alabama Course of Study**

## **Business Management and Administration**

### **GENERAL INTRODUCTION**

Alabama’s Career and Technical Education programs empower students with the workplace-readiness skills necessary for success in the twenty-first century. As a result, students become productive citizens who are prepared with the necessary knowledge and skills for postsecondary education and employment. Career and Technical Education provides opportunities for students to combine core academic content with rigorous and relevant technical knowledge and skills.

The *Alabama Course of Study: Career and Technical Education* is intended for all students in Grades 6-12. Alabama’s Career and Technical Education programs promote students’ career awareness through engaging career exploration and development activities. Career and Technical Education programs focus on providing students with the knowledge and skills that reinforce attainment of academic core content through hands-on experiential learning. These programs are organized into the sixteen national career clusters identified by the United States Department of Education, which arrange instruction into groups of similar occupations. Within the sixteen national career clusters, separate course content standards have been developed for more than fifty career pathways.

Alabama’s Career and Technical Education programs are designed to keep abreast of the rapid changes in business and industry and be responsive to current and future workforce demands. Rigor in each course of study is derived from both core academic content and industry-specific knowledge and skills required for students to achieve, maintain, and advance in employment in a particular career pathway. The level of academic and workplace rigor determines the degree to which each Alabama Career and Technical Education program prepares students for high-skill, high-wage, and in-demand careers. For each Career and Technical Education program, industry-recognized credentials of value and certifications have been established that validate the rigor of the curriculum to students, parents, and members of business and industry. In addition, articulation agreements are developed in partnership with the Alabama Community College System to allow for a seamless transition for students to further their education.

Alabama’s growing economy has created the demand for more highly-skilled workers. Alabama’s Career and Technical Education programs, through the implementation of each career cluster’s course of study, equip students with the employability skills and technical knowledge necessary to meet current and future workforce demands by preparing them for lifelong learning.

**Alabama Course of Study  
Business Management and Administration  
CONCEPTUAL FRAMEWORK**



# **Alabama Course of Study**

## **Business Management and Administration**

### **CONCEPTUAL FRAMEWORK**

The conceptual framework is a graphic representation of the Business Management and Administration Cluster. The outer circle of the gear encompasses each of the three pathways in the cluster, Administrative Services, Business Information Technology, and Management.

Just inside the outer circle, the green ring of the gear introduces middle school students to a career exploration level and guides them toward high school career preparation in the Business Management and Administration pathways.

The teal innermost ring represents four business management and administration concepts, Innovate, Collaborate, Strategize, and Lead. Business Management and Administration is directing the operations of an organization. It includes all aspects of overseeing and supervising business operations. From the point of view of management and leadership, Business Management and Administration also covers a broad range of areas in business.

“Business Management and Administration” is at the center of the graphic because it is at the center of every successful business. The bar graph represents the importance of using data to make wise business decisions and the necessity for communicating information in concise and understandable ways. Because professionals in every field need innovation, collaboration, strategies, and leadership, Business Management and Administration is an integral part of Career and Technical Education.

# **POSITION STATEMENTS**

## **BUSINESS MANAGEMENT AND ADMINISTRATION**

The Business Management and Administration program of Career and Technical Education focuses on preparing students for employment in careers that relate to planning, managing, organizing, directing, and evaluating business functions essential to efficient and productive business operations. Certain fundamental understandings which support the Business Management and Administration program must be embraced by schools and school districts in order to provide students with the best possible experiences in the classroom and in the field. These position statements summarize the requirements for an effective Business Management and Administration program.

### **Classroom and Laboratory Environment**

The effective Business Management and Administration classroom should be a safe environment which is fully equipped with current and emerging technologies, supplies, and materials needed for instruction, where students can increase their skills. As in other pathways in Career and Technical Education, Business Management and Administration instruction cannot be confined within the four walls of a traditional classroom. Students and teachers should have access to laboratory environments on campus and in the community where students can experience practical, real-world circumstances in the Business Management and Administration field.

### **Technology, Equipment, and Facilities**

Classroom technology must be readily available, efficiently maintained, and routinely upgraded according to a regular schedule. Students and teachers utilize equipment to conduct a variety of classroom instruction and learning activities. Using up-to-date technology enhances the learning environment and prepares students for future career opportunities. In addition, students should have ready access to other classroom supplies and materials (such as textbooks, reference materials, and software) in classroom libraries, research areas, and materials centers to support instruction and credentialing. Sufficient funds must be allocated to provide and maintain the technology and materials necessary for a superior career and technical education program.

## **Safety**

The safety of students and instructors is a prime consideration in every learning environment. Creating and implementing a written safety plan is an essential part of designing, carrying out, and evaluating each career and technical education program. An effective plan may include federal, state, local, school, and program guidelines. Care must be taken to ensure that students are in safe environments both on and off campus. Students are required to pass safety tests with one hundred percent accuracy. Safety includes not only physical and emotional well-being but also digital and online security.

## **Professional Development**

Because both technology and instructional methods continue to evolve, it is essential for teachers to participate in professional development and technical training opportunities to stay abreast of innovations pertaining to their content area and the workplaces in which their students will be employed. Teachers who continually expand their pedagogical knowledge and skills are able to adjust the learning environment to reflect current and emerging trends in teaching methods and to address their students' varied learning styles. Regular program assessment by students, administrators, business and industry personnel, and the educators themselves guides professional development, which in turn enhances the instructional program.

## **Administrative Support**

Full support from district and local administrators is essential in providing the necessary components of a Business Management and Administration program. Administrators should recruit highly qualified teachers who possess appropriate credentials and secure funding for professional development activities and industry certification for those teachers. Administrators must also provide time for professional development and for planning for the integration of academic content areas into the Business Management and Administration Cluster. Administrators should actively promote the Business Management and Administration program within the school and in the community.

## **Instructional Model**

The Business Management and Administration Course of Study is designed to address the challenges of a changing, technological, diverse, and global society in which students must apply knowledge, skills, and ideas to solve problems and make decisions. The Business Management and Administration curriculum designed by each local education agency should be project-based, process-oriented, and work-based so that students can develop their abilities to collaborate, analyze, communicate, manage, and lead.

The content standards contained in this document require students to use innovative, critical-thinking skills. Teachers should utilize the course of study to identify the issue or concern addressed in a specific content standard and then use the local curriculum guide to plan appropriate learning experiences. Teachers must understand that there are differences among standards, curriculum, and resources. The Business Management and Administration Content Standards delineate what students are expected to know or be able to do at the end of each course. A curriculum is a sequence of tasks, activities, and assessments that teachers enact to support students in learning the standards while drawing on a textbook or other resources when appropriate.

Academic core content should be integrated into the Business Management and Administration program. To achieve the solution to a given problem, students must possess an adequate foundation in reading, writing, speaking, listening, viewing, and presenting; knowledge and skills in mathematics, science, and social studies; and knowledge of current and emerging technologies.

The Business Management and Administration program should also integrate workplace demands and employability skills, incorporating various instructional strategies to accommodate students' learning styles and interests. A variety of assessments should be used to evaluate individual students' interests, aptitudes, and abilities.

When individual needs have been determined for students in special populations, a support service program should be planned cooperatively by Business Management and Administration instructors and other appropriate personnel, because Individual Education Programs are most effective when developed in conjunction with students' career and technical education instructors. Courses and equipment may be tailored to ensure equal access to the full range of learning experiences and skill development in the Business Management and Administration program.

## **Career and Technical Student Organizations (CTSOs)**

Nationally affiliated Career and Technical Student Organizations such as DECA, Inc. and FBLA-PBL, Inc., are an integral part of classroom instruction in each career and technical education program. DECA and FBLA make a positive difference in the lives of students by developing their potential for leadership, personal growth, and career success through business, finance, and marketing education. The purpose of these organizations is to help students develop an understanding of all aspects of industry and technology while learning teamwork and leadership skills. The importance of CTSOs is indicated by their inclusion in the foundational standards to be taught in every Business Management and Administration course. Goals of student organizations include:

- developing individual potential;
- developing effective leadership and citizenship skills through social, economic, scholastic, and civic activities;
- increasing knowledge and understanding of an ever-changing society;

- assisting in the exploration of occupational choices and the development of essential workplace skills;
- participating in career development events; and
- serving the school and community through community service projects.

## **Business-Industry-School Relationships**

The very nature of Business Management and Administration requires a close relationship between the school and the business community. Some aspects of this relationship are specified by state and federal laws and regulations, while others are determined by the desires, interests, and willingness of school personnel and business leaders in the local community. The relationship between schools and businesses can be immensely beneficial to all parties involved.

## **Student Work Experience**

As students begin to plan careers, they must have opportunities to visit, tour, and work at local industries and businesses. Real-world experiences such as cooperative education, internships, apprenticeships, and job shadowing contribute to the work-based, service-based, and project-based learning that enhances classroom instruction. An additional benefit comes from continual feedback from students and supervisors, who evaluate the program to facilitate changes that satisfy industry needs.

## **Advisory Councils and Partnerships**

In accordance with Alabama State Department of Education guidelines, each Career and Technical Education program has an advisory council made up of representatives of the local business community that provides professional, real-world input regarding equipment needs, curriculum emphases, technical updates, and problem-solving. This link to business and industry may also provide external support by supplying equipment, resource materials, or qualified speakers. Community partners may provide program sponsors, judges for student career development events, financial support, scholarships, field trip sites, and other program needs.

## **Community Involvement and Service**

There are many ways for Business Management and Administration students and teachers to become involved with community service projects, providing benefits for students and their communities. Local organizations such as civic clubs, professional educational groups, youth organizations, and community adult education programs are valuable resources for Business Management and Administration programs. Open houses, tours, and

presentations allow families and other interested citizens to become more informed about Business Management and Administration and more involved in the education environment.

## **Postsecondary and Higher Education Credit**

Postsecondary and higher education articulation is a significant element in a student’s career cluster. Secondary and postsecondary instructors must communicate on a regular basis to ensure a smooth transition for students and to ensure students are aware of articulation opportunities. Articulation may occur through program alignment with postsecondary programs, early college enrollment, or dual enrollment programs.

Students benefit in a variety of ways when cooperation exists between secondary and postsecondary institutions. One of the benefits is the earning of postsecondary credit in conjunction with work completed while the student is still in secondary school. Postsecondary teachers offer additional benefits by serving as guest speakers, donating equipment, sharing expertise through professional development activities, and addressing other needs appropriate for the school community.

Dual Enrollment for Dual Credit is an enrichment opportunity allowing eligible high school students to earn high school and college credits for courses taken through an Alabama Community College System (ACCS) institution or an Alabama college or university while still enrolled in high school. Articulated credit is awarded when a student enrolls and satisfactorily completes work in a postsecondary institution that has an articulation agreement with that student’s participating school.

# **DIRECTIONS FOR INTERPRETING STANDARDS**

The 2021 *Alabama Course of Study: Business Management and Administration* is organized around the following elements: foundational standards, topics, and content standards.

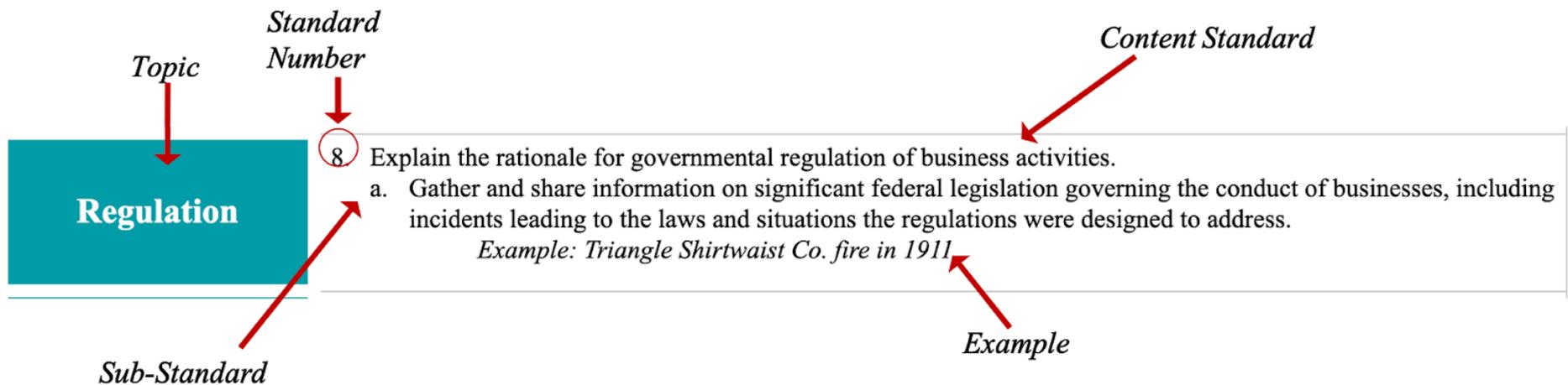
**Foundational standards** are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership and take advantage of the opportunities afforded by Career and Technical Student Organizations, and learn and practice essential digital skills.

Related content standards are grouped under **Topics**. In the example below, the topic is “Regulation.” Standards from different topics may be closely related.

**Content Standards** contain the minimum required content and define what students should know or be able to do at the conclusion of a course. Some have **sub-standards**, indicated with a, b, c, d..., which are extensions of the content standards and are also required. Some standards are followed by italicized **examples**, which present options that might prove useful in instruction of the standard. Examples are not intended to be exhaustive lists and are not required to be taught. When “including” appears in standards, it should be construed as “including but not limited to.” The items listed must be taught; others may also be included in instruction.

Local education agencies (LEAs) may add standards to meet local needs and incorporate local resources. Each content standard completes the stem “*Students will...*”

The course of study does not dictate curriculum, teaching methods, or sequence; the order in which standards are listed within a course or grade is not intended to convey the order for instruction. Even though one topic may be listed before another, the first topic does not have to be taught before the second. A teacher may choose to teach the second topic before the first, to teach both at the same time to highlight connections, or to select a different topic that leads to students reaching the standards for both topics. Each local education agency should create its own curriculum and pacing guide based on the Course of Study. The standards in each course are to be used as a minimal framework and should encourage innovation.



# **CLUSTER OVERVIEW**

## **BUSINESS MANAGEMENT AND ADMINISTRATION**

The Business Management and Administration Cluster contains three pathways -- Administrative Services, Business Information Technology, and Management. Courses include specific content standards that describe what students should know and be able to do at the end of each course. It is recommended that a student complete a foundation course (Career Preparedness, Business Software Applications I, or Business Essentials) in his/her chosen pathway. This cluster offers opportunities for middle and junior high school students to benefit from the study of Business Management and Administration as early as sixth grade.

This cluster prepares learners for careers in planning, organizing, directing, managing, and evaluating the business functions that are essential to efficient and productive business operations. The use of technology is also an important component of the Business Management and Administration cluster. Career opportunities in this cluster are available in every sector of the economy and require specific skills in organization, time management, customer service, and communication. Rigorous instruction is provided to equip learners with knowledge and skills for college and career readiness.

Business Management and Administration classrooms and laboratories provide safe and appropriate settings for student exploration and learning. The engaging, structured environment encourages teamwork, stimulates students' creativity, and fosters the essential skills needed for future employment. Students who progress through the cluster may opt to take advantage of the capstone courses: Career Pathways Project in Business Management and Administration, CTE Lab in Business Management and Administration, and/or Work-based Learning. The Business Management and Administration Cluster also offers opportunities for students to earn national credentials.

Students in the Business Management and Administration program affiliate with DECA and/or FBLA-PBL, the co-curricular Career and Technical Student Organizations (CTSOs). These organizations enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and access opportunities for personal and professional growth. The importance of CTOSs is indicated by their inclusion in the foundational standards to be taught in every Business Management and Administration course. DECA and FBLA-PBL provide numerous opportunities for students to develop business competencies and leadership skills. Teachers are encouraged to adapt and use DECA and FBLA-PBL resources.

Course of Study standards represent the minimum required content and are not intended to be the course curriculum. LEAs and local schools should use these standards to create a curriculum that utilizes available resources to meet the specific needs and interests of the local community. All Career and Technical Education courses emphasize the application of knowledge and skills to solve practical problems.

# CONTENT STANDARDS: MIDDLE SCHOOL COURSES

Business Skills Development	
<b>Course Duration (to be determined by LEA)</b>	6 weeks (24 hours) OR 9 weeks (35 hours) OR 1 semester (70 hours) OR 1 year (140 hours)
<b>Grade Levels</b>	7-8
<b>Prerequisites</b>	

**Business Skills Development** focuses on development of business communication and etiquette skills, diversity awareness, and awareness of resources for career development. This course will examine professional skills needed in the workplace. Emphasis will be placed on each of the five individual soft skills (communication, enthusiasm/attitude, teamwork, networking, and problem-solving/critical thinking) within a broad framework. The course encourages professionalism, which may look slightly different in various settings although its core elements are always the same.

Business Skills Development may be offered as a component of a course rotation allowing students to explore different areas of interest. All content standards must be addressed regardless of the duration of the course. The depth of the content standards will be determined by the course duration.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.

2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## BUSINESS SKILLS DEVELOPMENT CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Career Explorations

1. Utilize a variety of career awareness and research resources to determine career opportunities, job responsibilities, required training or education, and credentialing or license requirements for a selected career within the 16 Career Clusters.  
*Examples: the state-provided career planning system, on-line blog reports, web quests, personal interest inventories and assessments, job search queries, professional interviews, internships, apprenticeships*
2. Explore and complete self-assessments that highlight their own work values and aptitudes.
3. Develop a career plan for a specific career.

### Business Communication

4. Demonstrate verbal communication, written communication, business etiquette, and interpersonal skills needed in the workplace.
5. Apply conflict management strategies to resolve workplace conflict.  
*Examples: role plays, active listening techniques*

	<p>6. Create business communications related to employment. <i>Examples: resume, letter of application, letter of resignation</i></p> <p>7. Explain the purpose of a business interview. a. Demonstrate appropriate dress and behavior for an employment interview.</p>
<p><b>Interpersonal and Professional Growth</b></p>	<p>8. Identify and describe professional skills that are needed in the workplace. <i>Examples: core elements/overall professionalism in various settings including work ethic, netiquette, teamwork, networking, critical thinking, researching, strategizing, data analysis, problem-solving, decision-making</i></p> <p>9. Apply resource management skills. <i>Examples: time management, organizational skills, personnel relationships management</i></p> <p>10. Demonstrate organizational skills for handling important information and materials. <i>Example: ability to locate, organize, use, analyze, interpret, and communicate information</i></p> <p>11. Display personal qualities that contribute to effective relationships, professional growth, and career success. <i>Examples: confidence, enthusiasm, positive attitude, initiative, integrity, willingness to learn, self-discipline, responsibility, ability to work with others, flexibility, open-mindedness</i></p> <p>12. Compare and contrast business and personal ethics.</p>
<p><b>Leadership</b></p>	<p>13. Gather and share information on effective leadership styles and the qualities of a good leader. a. Identify the skills needed for effective leadership.</p> <p>14. Demonstrate personal traits associated with teamwork and good leadership.</p> <p>15. Gather and share information on parliamentary procedure and its importance in the workplace.</p>
<p><b>Digital Citizenship</b></p>	<p>16. Explain how the use of social media and other technology has the potential to damage one’s future career prospects.</p>

**Computer  
Hardware  
and Software**

17. Demonstrate proper maintenance and techniques when using hardware and software, including file management, backing up files, having a backup plan when technology fails, and troubleshooting systems and applications.
18. Use technology systems and operations in a business environment.
  - a. Utilize various hardware and software to produce business-related publications.  
*Examples: letters, memos, minutes, agendas, web pages, podcasts, fliers, business cards, mailing labels, advertisements*

**Personal  
and Business  
Finance**

19. Compare and contrast types of personal and business banking services.
20. Create a personal budget based upon possible future employment, including projected income and expenditures.
21. Create financial records fundamental to business.  
*Examples: bank account reconciliations, payroll, taxes, invoices, purchase orders*

## Career Explorations

<b>Course Duration (to be determined by LEA)</b>	6 weeks (24 hours) OR 9 weeks (35 hours) OR 1 semester (70 hours) OR 1 year (140 hours)
<b>Grade Levels</b>	6-8
<b>Prerequisites</b>	

**Career Explorations** is designed to provide opportunities for students to explore career opportunities and become aware of the importance of basic technology, work ethics, communication skills, the value of work, leadership skills, and basic employability skills. Students will begin investigating career paths to match their interests and abilities, which builds the foundation for future course selection and postsecondary options.

Career Explorations may be offered as a component of a course rotation allowing students to explore different areas of interest. All content standards must be addressed regardless of the duration of the course. The depth of the content standards will be determined by the course duration.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

### Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.

4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## CAREER EXPLORATIONS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Technology

1. Demonstrate basic hardware and software technology skills in using digital devices.  
*Examples: using a personal computer, managing files, using the Internet, using application programs*

### Work Ethics

2. Explain personal and societal benefits of participating in the workforce.

### Communication Skills

3. Deliver workplace presentations that utilize eye contact, clear enunciation, and visual aids during presentations to enhance and sustain listeners’ attention and interest.
  - a. Identify, select, and prepare support materials to accompany a workplace presentation, including tables, charts, and technology.
4. Utilize active listening skills to obtain, clarify, and summarize information in the workplace.
5. Summarize written materials from various career resources clearly, succinctly, and accurately.

### Employability Skills

6. Demonstrate positive work behaviors and personal qualities, including willingness to acquire new knowledge and skills, integrity in a work situation, and willingness to follow rules and procedures.
7. Describe employment skills needed for obtaining and maintaining a job.  
*Examples: punctuality, communication, attention to detail*

**Leadership**

- 8. Demonstrate interpersonal skills, including teamwork, conflict management, problem-solving, and networking.
- 9. Research and demonstrate leadership skills for creating an environment that fosters mutual trust and respect.

**Career Opportunities**

- 10. Locate resources to determine job and career opportunities related to fields covered in the Alabama Career and Technical Education Clusters.
  - a. Describe each of the Alabama Career and Technical Education Clusters.
- 11. Identify employment opportunities to match personal interests and aptitudes.
- 12. Create a personal plan of study to meet career goals and objectives and cite resources used to create the plan.

Digital Media Skills Development	
<b>Course Duration (to be determined by LEA)</b>	6 weeks (24 hours) OR 9 weeks (35 hours) OR 1 semester (70 hours) OR 1 year (140 hours)
<b>Grade Level</b>	8
<b>Prerequisites</b>	

**Digital Media Skills Development** provides a creative, hands-on environment in which students engage to develop a variety of skills involved in multimedia presentations and video editing. Students use basic computer components, multimedia components, and video editing components to communicate information through the use of technology. This course will provide opportunities to explore and demonstrate business-related skills such as teamwork and interpersonal skills while completing their projects.

Digital Media Skills Development may be offered as a component of a course rotation allowing students to explore different areas of interest. All content standards must be addressed regardless of the duration of the course. The depth of the content standards will be determined by the course duration.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

<b>Foundational Standards</b>	<ol style="list-style-type: none"> <li>1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.</li> <li>2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.</li> </ol>
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3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## DIGITAL MEDIA SKILLS DEVELOPMENT CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Basic Skills

1. Demonstrate basic technology skills and proper use of basic computer components.  
*Examples: manage files; use the Internet, application programs, hardware, operating systems, software*

### Presentation Software

2. Design and create multimedia presentations using a variety of components.  
*Examples: selected theme, bulleted text, graphics, charts, graphs, video, animation, transitions*
3. Demonstrate procedures for creating, saving, retrieving, and delivering multimedia presentations.
4. Utilize software to create presentations in file formats that allow the presentations to be transported and shared with an audience.

### Communication Skills

5. Demonstrate oral presentation skills that sustain listeners’ attention and interest, including eye contact, clear enunciation, and use of visual aids.
6. Develop support materials to accompany a presentation, including tables and charts.

- 7. Apply active listening skills to obtain and clarify information.
- 8. Summarize written materials from various career sources clearly, concisely, and accurately.

**Video**

- 9. Design, create, and edit video components.  
*Examples: trim, slow, add photos*
- 10. Demonstrate procedures for combining videos, adding text, and applying 3D effects.
- 11. Utilize file formats to export or share video projects.

**Work Ethic**

- 12. Explain the personal and societal benefits of work.

Digital Technology	
<b>Course Duration (to be determined by LEA)</b>	6 weeks (24 hours) OR 9 weeks (35 hours) OR 1 semester (70 hours) OR 1 year (140 hours)
<b>Grade Levels</b>	6-8
<b>Prerequisites</b>	

**Digital Technology** is designed for students who want to master basic skills in the areas of word processing, database management, spreadsheet applications, multimedia presentations, and Internet research. Reading, mathematics, and communication skills are reinforced throughout this course.

Digital Technology may be offered as a component of a course rotation allowing students to explore different areas of interest. All content standards must be addressed regardless of the duration of the course. The depth of the content standards will be determined by the course duration.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

<b>Foundational Standards</b>	<ol style="list-style-type: none"> <li>1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.</li> <li>2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.</li> <li>3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.</li> </ol>
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4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## DIGITAL TECHNOLOGY CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Computer Basics

1. Exhibit proper use of basic computer components, including hardware, operating systems, software, file management, network functions, hardware maintenance, and problem-solving.  
*Examples: changing printer cartridge, replenishing paper, scanning disk, defragmenting disk, clearing paper jam*
2. Describe types and purposes of computer systems.
  - a. Outline the history of computing.

### Software Application

3. Demonstrate data input techniques with speed and accuracy.  
*Examples: touch method, voice recognition*
4. Utilize word processing skills, including creating page layouts, proofreading, editing, printing, and saving.
5. Use spreadsheet software to create, save, open, edit, and print a workbook or worksheet.
  - a. Utilize formulas for problem-solving.
  - b. Create charts to interpret spreadsheet data.
6. Create a database file.  
*Examples: tables, reports, forms, queries*

	<p>7. Demonstrate procedures for creating, saving, retrieving, and delivering multimedia presentations.</p> <p>8. Demonstrate uses of the Internet in business. <i>Examples: purchasing, research and development, publicity, communication, selling</i></p>
<p><b>Career Opportunities</b></p>	<p>9. Research career and entrepreneurial opportunities, responsibilities, and educational and credentialing requirements in high-demand, entry-level information technology positions and identify opportunities for career advancement to upper-level positions in the field.</p> <p>a. Utilize research and local Workforce Development data to select one high-demand entry-level information technology position of particular interest and identify education and training needed to advance to upper-level positions in the profession.</p> <p>b. Prepare and present a slide presentation outlining progression from an entry-level information technology position to upper-level positions in the profession. <i>Examples: wages, education/training, travel, correspondence, advertisement</i></p>
<p><b>Technology</b></p>	<p>10. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.</p> <p>11. Analyze the impact of information technology on society. <i>Examples: mobility, time saving, cost efficiency, innovation, ease of access to information, communication</i></p>
<p><b>Ethics</b></p>	<p>12. Describe ethical considerations resulting from technological advances. <i>Examples: hacking risks, privacy concerns, restricted sites, copyright, intellectual property rights</i></p> <p>13. Describe positive, safe, legal, and ethical behavior when using technology. <i>Examples: social interactions online, networked devices, email, music, video</i></p>
<p><b>Computational Thinking</b></p>	<p>14. Collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making. <i>Examples: technology trends, online search term data, shopping trends</i></p>

# Entrepreneurship and Financial Skills Development

<b>Course Duration (to be determined by LEA)</b>	6 weeks (24 hours) OR 9 weeks (35 hours) OR 1 semester (70 hours) OR 1 year (140 hours)
<b>Grade Level</b>	8
<b>Prerequisites</b>	

**Entrepreneurship and Financial Skills Development** is designed to teach students how to think and act as entrepreneurs. Standards in this course focus on skills needed to start and operate a business while in school. The course builds on academic skills by integrating inquiry-based learning and business tools that enable students to plan, create, develop, and pilot small businesses in a safe campus environment. Students who manage and operate a small business may have the opportunity to bring their products directly to the consumer via the local marketplace or present the venture to potential investors for financing. Concepts and skills are reinforced by a strong emphasis on hands-on experiences. Applications to society, individuals, and research are included.

Entrepreneurship and Financial Skills Development may be offered as a component of a course rotation allowing students to explore different areas of interest. All content standards must be addressed regardless of the duration of the course. The depth of the content standards will be determined by the course duration.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.

3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## ENTREPRENEURSHIP AND FINANCIAL SKILLS DEVELOPMENT CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Entrepreneurship

1. Research and share information on the role of entrepreneurship within the economy.
  - a. Differentiate among *entrepreneurship*, *entrepreneur*, and *intrapreneur*.
  - b. Describe the characteristics and risks of entrepreneurship.
  - c. Research and share information about entrepreneurship trends.
2. Describe how economic concepts are applied to the decision-making process in an entrepreneurial venture.
  - a. Explain the determinants of supply and demand.
  - b. Explain how a given economic environment might influence decision-making by entrepreneurs.  
*Examples: competition, market size, exchange and interest rates, unemployment rate*
  - c. Describe ethical and social responsibilities faced by entrepreneurs.
3. Identify methods to determine the wants and needs of customers.
  - a. Distinguish between businesses that produce a product and those that provide a service.

4. Describe the aspects of interpersonal relationships in organizations.
  - a. Explain factors that affect business relations.  
*Examples: communication, honesty*
  - b. Identify ways to improve interpersonal relationships and manage conflicts.
5. Research and describe traits and behaviors associated with entrepreneurial success.  
*Example: Research and write a brief biography of two or more successful entrepreneurs, highlighting the personal characteristics that helped them to succeed in business.*
  - a. Gather, evaluate, and share information on the ways mentors can benefit entrepreneurs.
  - b. Gather and share information regarding agencies and government programs which encourage or support small businesses.  
*Examples: chambers of commerce, Small Business Administration*

## Business Operations

6. Manage and operate an actual or simulated business.
  - a. Determine a basic marketing strategy and estimate how pricing will affect the strategy.
  - b. Complete paperwork required for a successful business.  
*Examples: invoices, receipts, payroll*
7. Research, develop, and present a business plan.
  - a. Identify and describe the parts of a business plan.
  - b. Explain why it is important for an entrepreneur to have a business plan.

## Financial Concepts

8. Enumerate start-up costs for a new or expanding business and identify possible sources of funding.  
*Examples: savings, outside investments, loans, grants*
9. Explain financial concepts and tools used by entrepreneurs in making business decisions.
  - a. Identify and explain the components of common financial documents.  
*Examples: balance sheets, income statements, cash flow statements*
  - b. Explain terms and concepts associated with starting and running a business.  
*Examples: fixed costs, variable costs, break-even point, profit*

**E-commerce  
Opportunities**

10. Describe financial challenges encountered by small business owners.  
*Examples: managing cash flow, budgeting, securing funding, handling unforeseen expenses, managing debt, making marketing decisions*
  - a. Describe advantages and disadvantages of various types of funding for small businesses.  
*Examples: personal loans, commercial loans, personal savings, sponsorships*
11. Research and share information about ways entrepreneurs can effectively utilize the Internet.
  - a. Identify business opportunities afforded by the Internet which are not available in other venues.
  - b. Describe the advantages and disadvantages of using the Internet to do business.
  - c. Evaluate a variety of websites in terms of functionality, attractiveness, and customer usability.

# Exploring Business Management and Administration, Finance, and Marketing Clusters

<b>Course Duration (to be determined by LEA)</b>	6 weeks (24 hours) OR 9 weeks (35 hours) OR 1 semester (70 hours) OR 1 year (140 hours)
<b>Grade Levels</b>	6-7
<b>Prerequisites</b>	

**Exploring Business Management and Administration, Finance, and Marketing Clusters** is an exploratory course designed to introduce students to pathways in the Business Management and Administration, Finance, and Marketing Clusters. This course is designed to be most effective in a project-based environment. Students will explore foundational concepts, terminology, and skills needed to find and progress in a career field of their choice.

Exploring Business Management and Administration, Finance, and Marketing Clusters may be offered as a component of a course rotation allowing students to explore different areas of interest. All content standards must be addressed regardless of the duration of the course. The depth of the content standards will be determined by the course duration.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## EXPLORING BUSINESS MANAGEMENT AND ADMINISTRATION, FINANCE, AND MARKETING CLUSTERS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

## Exploring Business Careers

1. List the Alabama career pathways in the Business Management and Administration Cluster.
  - a. Describe the Business Management and Administration Cluster and explain what someone in the field might do.
  - b. Describe one career from each pathway in the Alabama Career and Technical Education Business Management and Administration Cluster.
  - c. Research and create a visual presentation outlining the educational requirements and salaries for an entry-level, mid-level, and upper management position within the business field.

**Exploring  
Marketing Careers**

2. List the Alabama career pathways in the Marketing Cluster.
  - a. Describe the Marketing Cluster and explain what someone in the marketing field might do.
  - b. Describe one career from each pathway in the Alabama Career and Technical Education Marketing Cluster.
  - c. Research and create a visual presentation outlining the educational requirements and salaries for an entry-level, mid-level, and upper management position within the marketing field.

**Exploring  
Finance Careers**

3. List the Alabama career pathways in the Finance Cluster.
  - a. Describe the Finance Cluster and explain what someone in the finance field might do.
  - b. Describe one career from each pathway in the Alabama Career and Technical Education Finance Cluster.
  - c. Research and create a visual presentation outlining the educational requirements and salaries for an entry-level, mid-level, and upper management position within the finance field.

**Job Search**

4. Explain the process of finding and applying for jobs in business management and administration, marketing, and finance.
  - a. Explain where business management and administration, finance, or marketing jobs may be found.
  - b. List the documents needed to apply for different job and career opportunities.
  - c. Create a personal career plan which leads to meeting requirements for a mid-level position in business management and administration, marketing, or finance.

**Employability  
Skills**

5. List and describe skills needed for posted positions in business management and administration, marketing, and finance.
  - a. Discuss how a person can demonstrate soft skills needed for career success.
  - b. Describe a scenario to illustrate a strong work ethic.
  - c. Assess personal strengths and weaknesses that would impact successful employment.

**Stress and Time  
Management**

6. Discuss the relationship between time management and stress.
  - a. Determine the effects of good and poor time management and their corresponding stress levels, then develop strategies to continue or overcome the effects.
  - b. Utilize a plan to implement effective time management skills.

## Leadership

7. Explore the Career and Technical Student Organizations (CTSOs) available in Alabama relating to business management and administration, finance, and marketing and describe how they enhance the skills and knowledge needed in the business management and administration, finance, and marketing fields.
  - a. List the goals of the selected CTSOs.
  - b. Research the history of the selected CTSOs.
  - c. Describe the student leadership positions available at the local and state levels in the selected CTSOs.
  - d. Research and prepare an entry for a CTSO competitive event at the local and state levels.
  - e. Describe local, state, and national CTSO programs, events, and conferences.
  - f. Utilize research to create and present a recruitment video for the selected CTSO that describes interesting facts, benefits of membership, and leadership, educational and service opportunities available.

# Introduction to Business Management and Administration, Finance, and Marketing Career Clusters

<b>Course Duration (to be determined by LEA)</b>	6 weeks (24 hours) OR 9 weeks (35 hours) OR 1 semester (70 hours) OR 1 year (140 hours)
<b>Grade Level</b>	8
<b>Prerequisites</b>	

**Introduction to Business Management and Administration, Finance, and Marketing Career Clusters** introduces students to specializations within the three career fields. The course will emphasize knowledge and skills necessary in fundamental business activities, as well as knowledge of business processes, professional development, and entrepreneurship. Technology will be used to synthesize and share business information. Employability skills, ethics, and international business processes will be addressed.

Introduction to Business Management and Administration, Finance, and Marketing Career Clusters may be offered as a component of a course rotation allowing students to explore different areas of interest. All content standards must be addressed regardless of the duration of the course. The depth of the content standards will be determined by the course duration.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## INTRODUCTION TO BUSINESS MANAGEMENT AND ADMINISTRATION, FINANCE, AND MARKETING CLUSTERS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Business Career Cluster

1. Relate business functions to business models, business strategies, and organizational goal achievement.
  - a. Explain why businesses and organizations exist and their roles in society, and describe types of business models.
  - b. Describe business changes that occur in response to the external environment in which businesses operate.
  - c. Describe types of business activities and the differences in implementation that occur in large and small businesses.

*Examples: accounting, finance, human resources management, information management, marketing, operations, sales, strategic management*
  - d. Gather and share information on forces that are driving business changes.

*Examples: globalization, consumer demand, government policies, political climate, diversity, spending trends, industry structure changes*
  - e. Identify ways organizations are adapting to today’s business environment.

*Examples: proactive management, competitive aggression, market orientation*

### Finance Career Cluster

2. Describe the need for and role of accounting and finance, and explain how they interact with and impact other business activities or functions.

*Examples: verifying information, guiding decisions, ensuring the financial well-being of a business*

  - a. Create, analyze and interpret financial documents.

*Examples: budgets, income statements*
  - b. Review and summarize types of insurance needed by businesses and explain how insurance coverage can reduce financial risk.

**Marketing  
Career Cluster**

3. Describe principles of marketing, marketing functions, and the factors that influence marketing decisions.
  - a. Describe marketing's role and function in business and its contributions to overall business strategy.
  - b. Explain factors that motivate customers, clients, and businesses to buy and actions employees can take to achieve the company's desired results.
  - c. Describe connections between company actions and results.  
*Examples: influencing consumer behavior, gaining market share*
  - d. Prepare a short marketing plan for a local business to increase customer base and expand its product line.

**Entrepreneurship**

4. Gather and share information about the key factors of entrepreneurship and its importance in the economy.
  - a. Describe the impact of small businesses on local, state, and national economies.
  - b. Explain the possibilities of risks and rewards for entrepreneurs.
  - c. Engage in activities related to small business ownership.  
*Examples: marketing campaign, sales campaign, customer service, finance/accounting, human resources*

**Professional  
Development**

5. Identify and utilize steps of the career planning process to help prepare for employment in the business, finance, and marketing industries.
  - a. Gather, evaluate, and share information about selected careers in business, finance, and marketing, including necessary skills, employment opportunities, and employers' expectations.
  - b. Gather and share information on the role of professional organizations in advancing careers in business, finance, and marketing.

**Employability  
Skills**

6. Develop career awareness and employability skills needed for gaining and maintaining employment in diverse business settings.
  - a. Identify the scope of career opportunities and the requirements for education, training, certification, licensure and experience.
  - b. Develop a career plan that reflects career interests, pathways, and secondary and postsecondary options.
  - c. Develop strategies for self-promotion in the hiring process.  
*Examples: filling out job applications, resume writing, interview skills, portfolio development*
  - d. Explain the importance of work ethic, accountability, and responsibility and demonstrate associated behaviors in fulfilling personal, community, and workplace roles.

## Business Ethics and Law

7. Analyze how professional, ethical, and legal behavior contributes to continuous improvement in business performance and regulatory compliance.
  - a. Analyze how regulatory compliance affects business operations and organizational performance.
  - b. Access and implement protocols and practices necessary to maintain a clean, safe, and healthy work environment.
  - c. Describe consumer rights and responsibilities, services provided by consumer protection agencies, and consumer protection laws.
  - d. Identify potential conflicts of interest between personal, organizational, and professional ethical standards.

## International Business

8. Relate factors impacting international business to internal business operations, practices, and strategies.
  - a. Describe the global environment in which businesses operate and explain how the international environment impacts a business's overall global strategy.
  - b. Explain the nature of global legal systems and legal approaches available to resolve disputes in global markets.

*Examples: lawsuits, arbitration, collaborative law, mediation, negotiation, facilitation, avoidance*
  - c. Explain regulations governing bribery and foreign monetary payments.
  - d. Describe customs regulations and their impact on global business, trade barriers, and the government agencies that facilitate trade.
9. Explain the importance of currency exchange rates and describe how they affect international business.

# Introduction to Programming

<b>Course Duration (to be determined by LEA)</b>	6 weeks (24 hours) OR 9 weeks (35 hours) OR 1 semester (70 hours) OR 1 year (140 hours)
<b>Grade Levels</b>	7-8
<b>Prerequisites</b>	

**Introduction to Programming** provides an understanding of basic computer programming concepts and logic. Programming will be introduced through a variety of projects and object-based programming activities and applications. Business-related skills such as teamwork and interpersonal skills will be a part of this course.

Introduction to Programming may be offered as a component of a course rotation allowing students to explore different areas of interest. All content standards must be addressed regardless of the duration of the course. The depth of the content standards will be determined by the course duration.

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Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.

4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## INTRODUCTION TO PROGRAMMING CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Programming and Development

1. Research differences and similarities among various programming languages.
2. Construct digital projects using a variety of object-based or language-based programming tools.
3. Gather information about opportunities and roles on software development teams.
4. List classifications of computerized entertainment and give examples of each type.
5. Gather and share information on end user and creative perspective of software development.
6. Demonstrate problem-solving and analytical skills while using the design process and correcting programming mistakes.

### Web Design

7. Demonstrate how websites and web browsers interact with one another on the Internet.
8. Create a business web page.

## Customer Service and Leadership

9. Demonstrate different ways in which communication can be used within the workplace.
  - a. Describe the different types of skills employees should use with customers.  
*Examples: verbal communication, body language, conflict resolution, respect*
10. Describe important aspects of large-scale software design processes and implementation.
11. Describe processes involved in global economy and supply chain implementation of software.
12. Explain the importance of audience and equity when designing a program.

## Career Opportunities

13. Gather information on career and entrepreneurial opportunities in the field of computer programming.  
*Examples: responsibilities, education, credentialing requirements*

## Computational Thinking

14. Demonstrate comprehension of programming logic.  
*Examples: conditionals, sequencing, iterations, simple loops*
15. Create an algorithm with variables using pseudocode then translate to a programming language.  
*Example: flowchart to block coding*
16. Design a function to simplify a task and explain how abstraction was used in the design process.

## Digital Culture

17. Identify methods that businesses and their employees can use to secure data on line.
18. Evaluate the different modes of social engineering and determine how they affect society.  
*Examples: phishing, hoaxes, spoofing, baiting*
19. Promote positive, safe, legal, and ethical behavior online.  
*Example: Create a brochure to advocate good digital citizenship.*
20. Describe the impact of data permanence on personal and professional digital identity.
21. Analyze current events, and compare and contrast the scope, emphases, and biases of information available from digital sources across the globe.



- 22. Examine the role of censorship and bias in society and global culture.
- 23. Explain the importance of using assistive technologies to produce a product.
- 24. Contrast the positive and negative impacts of artificial intelligence in industry.

**Systems  
and Modeling**

- 25. Explain networks and specific set-ups needed for a business environment.
- 26. Determine effective cyber security methods for protecting a company.  
*Examples: password requirements, encryption, building security*
- 27. Diagram a model that represents a system inside a company.  
*Examples: supply and demand, a new business model, company organizational chart*
- 28. Create a simulation to test a model.

# CONTENT STANDARDS: HIGH SCHOOL COURSES

## Business and Consumer Mathematics

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	10-12
<b>Prerequisites</b>	

**Business and Consumer Mathematics** is designed to build upon previous knowledge and skills to solve a variety of arithmetic problems that are commonly found in personal and business financial situations. Students develop the skills necessary to solve mathematical problems, analyze and interpret data, and use data to make sound decisions in business and personal financial situations. Topics include taxation, savings and investments, credit management, cash management, and financial statements.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

### Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.

5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## BUSINESS AND CONSUMER MATHEMATICS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Consumer Credit

1. Assess the costs associated with making major purchases.  
*Examples: automobile, appliance, house, furniture*
  - a. Calculate sales tax and compute total price with sales tax.
  - b. Compute total purchase price with interest and finance charges added.
  - c. Use data-informed decision-making to identify the costs of obtaining a loan and select the least expensive option.
  - d. Discuss repayment requirements and compute finance charges for single payment loans.
  - e. Calculate and explain installment loan costs.  
*Examples: amount financed, installment price, finance charge, installment payment*
  - f. Compare costs of leasing and buying large-ticket items.
2. Research terms and conditions for at least two major credit cards, compute the costs of financing a purchase over various time periods, and list and describe the advantages and disadvantages of using each card.
  - a. Find and explain the estimated annual percentage rate (APR) for a credit card, using a table.
  - b. Determine which credit card is more economical by calculating and explaining the finance charges and new balance using the average daily balance method.
  - c. Locate and use amortization tables to determine payment, interest, and balance for loans with a variety of interest rates and repayment times.
  - d. Compare and contrast annual and monthly percentage rates for credit cards and loans.
  - e. Compare and contrast the benefits of using a credit card or paying cash for a purchase for both the purchaser and the business.

3. Determine the impact of credit ratings on the cost of goods and services purchased on credit.
  - a. Calculate the components of a monthly mortgage payment including down payment, principal, interest, taxes, and insurance (PITI) and discuss what percentage of a person's income should be set aside for a home purchase.
  - b. Prepare a partial amortization schedule of a mortgage using varying credit ratings.
  - c. Compare the total interest paid on a 15-year and a 30-year mortgage at various credit ratings.
  - d. Compare and contrast interest-only, fixed-rate, and adjustable-rate loans using various credit ratings.
  - e. Explain credit ratings and credit reports and why they are important to consumers.
  - f. Research rights and responsibilities of consumers established by credit legislation.

*Examples: truth-in-lending, fair credit reporting, equal credit opportunity, fair debt collection*

## Markup and Discounts

4. Interpret different types of discounts and their effects on personal and business expenses.
  - a. Identify various types of discounts.
  - b. Calculate chain, trade, and cash discounts and net selling prices of items using each type of discount.
  - c. Determine the price of products after applying coupons, sales incentives, and/or rebates.
5. Assess and calculate markup or markdown.
  - a. Determine the rate of the markup or markdown.
  - b. Find the cost, markup, or selling price when any two of the three are known.
  - c. Convert markups from cost to selling price or from selling price to cost.

## Data Analysis and Reporting

6. Analyze business data to discover trends for strategic decision-making.
  - a. Calculate mean, median, and mode in business data, and use results to measure progress toward business goals.
 

*Examples: salary, pricing*
  - b. Distinguish between a simple average and a weighted average and calculate each.
  - c. Make predictions and decisions based on data and explain reasoning.
  - d. Explain how using statistics, probability, and systems of measurement impacts business decisions.
  - e. Analyze lending methods including construction loans, second mortgages, refinancing, and investment capital.

## Payroll

7. Display business data in tables, charts, graphs, and infographics.
  - a. Identify and construct various types of graphs and charts to interpret business data.
  - b. Compile and arrange numerical facts in an organized manner in a table, chart, or infographic to support a business presentation and/or to validate purchase decisions.
  - c. Evaluate and solve practical problems involving business and consumer applications, including business tax forms, pricing for profit, sales records, income and expenses, profit and loss, double-entry bookkeeping, debits, and credits.
  - d. Analyze journals, statements, ratio analysis, percent analysis, and inventory turnover.
8. Create an individual payroll and earnings record for a salaried and an hourly worker.
  - a. Calculate pay based on piecework, salary, commissions, and graduated commissions.
  - b. Calculate gross pay based on an hourly wage with an overtime policy.
  - c. Calculate an employee's net earnings per pay period using varied amounts for health insurance, FICA, and tax deductions.
  - d. Explain the costs and benefits of payroll-deducted flexible benefit packages.  
*Examples: IRA, 401(k), flexible spending plans*
9. Describe and calculate federal and state taxes associated with employee payroll.
  - a. Find the federal tax withholding amount per paycheck for an individual, using IRS tax tables and IRS percentage method.
  - b. Calculate an employee's Social Security tax and Medicare tax per paycheck.
  - c. Determine an employer's total deposit for withheld income tax, Social Security tax, and Medicare tax per pay period and quarterly for a group of employees.
  - d. Compute business expenses related to employees.  
*Examples: benefits, disability insurance, travel, employee training*

## Interest Rates

10. Examine rates, amount of interest, and proceeds of bank discounts for various loans and explain how variations in these factors impact financial outcomes and decisions.
  - a. Calculate simple interest using the simple interest formula for a personal and a business loan based on various credit scores.
  - b. Calculate any single variable (principal, interest rate, amount of interest, or time) given the other three to evaluate optimal conditions for pursuing a bank loan.
  - c. Explain the process of discounting a promissory note and calculate the proceeds of a discounted promissory note.
11. Explain maturity value and find the maturity value of a loan.
  - a. Compute compound interest on a loan by compounding annually.
  - b. Create an amortization table in spreadsheet software showing interest compounded daily using varying rates and terms.

## Investments

12. Explain investment terms including *risk*, *yields*, *price to earnings (P/E) ratio*, and *rate of return*.
  - a. Explain the effects of compounding in an investment and lending environment.
  - b. Compare investment opportunities and make mathematical comparisons of investment alternatives.
  - c. Explain net present value and describe how to calculate the net present value of an investment.  
*Examples: certificate of deposit, savings account, stocks, mutual funds*
  - d. Determine stock yield, earnings per share, and price to earnings ratio for several stocks.
  - e. Calculate the anticipated rate of return on specific investments (ROI) and savings accounts using various factors including simple or compound interest, dividends, and fees.
  - f. Calculate a stock's percentage price change over a period of several weeks.
  - g. Calculate a stock's dollar price change over a period of several weeks.
  - h. Complete a stock transaction form for buying and selling stocks.
  - i. Describe how common stocks are valued.

## Personal Taxes

13. Describe and prepare federal tax documents for varying household types.
  - a. Complete 1040 EZ Federal Income Tax Forms.
  - b. Determine the need for and prepare a 1040A using the required documentation for varying households.
  - c. Complete basic tax forms for business and personal use utilizing strategies to maximize benefits and determine the results of the selected strategies.

*Examples: W-2, W-4*

14. Discuss and calculate property taxes based on local percentages and guidelines including assessed values and homestead exemptions.

## Bank Records

15. Outline the historical progression of banking institutions and how changes affected customers' costs for services.

*Examples: traditional banks, online banks, credit unions*

16. Complete routine banking procedures to manage finances efficiently.
  - a. Utilize business and personal data to write checks, prepare deposits, and prepare withdrawal slips without going over budget or incurring penalty fees.
  - b. Utilize methods for maintaining a check register including proper procedures for ATM usage (without incurring usage fees) and automatic payment withdrawals.
  - c. Reconcile bank statements.
  - d. Explain fees associated with banking accounts.

*Examples: cashier's checks, overdraft penalties, minimum balance requirements*

17. Describe features, advantages, and disadvantages of mobile and online banking.

*Examples: electronic transfers, paperless deposits, bill pay, mobile apps*

**Insurance**

18. Identify and compare types of insurance and compute the costs and benefits of selected plans.
  - a. Explain insurance premium charts, determine the cost of a particular policy, and explain the reasons for selecting one policy over the others.
  - b. Evaluate proposals for automobile insurance and determine costs of both compulsory and optional coverage.
  - c. Review health insurance coverage plans, calculate premiums based on selected options, and discuss the rationale (mathematical or personal) for selecting a particular option.
  - d. Assess the effects of deductibles on policy costs and the ramifications of selecting a higher or lower deductible.

**Ratios and Proportions**

19. Discuss the terms *ratio* and *proportion* and explain how they are used for calculations in different business situations.
  - a. Use ratios to evaluate profitability, efficiency, and leverage.
  - b. Use ratios to express the quantitative relationship between two amounts of inventory and explain how the business will be impacted by inventory figures.
  - c. Analyze and explain methods for solving business problems involving proportions and how the results lead to increased productivity.

*Examples: scaling, finding equivalent ratios*
  - d. Use ratios, proportions, and percentages to solve problems involving financial calculations.

**Depreciation**

20. Compare and contrast the straight-line method, declining balance method, sum of the years digits method, and the modified accelerated cost recovery system (MACRS) method to calculate depreciation.
  - a. Calculate the straight-line depreciation of plant assets for a year and describe the benefits and/or drawbacks of using this method.
  - b. Calculate the depreciation expense on plant assets by the sum of the years digits and declining balance methods and explain the benefits of using each method.
  - c. Calculate the modified accelerated cost recovery system depreciation of plant assets and describe its benefits.
  - d. Use the straight-line depreciation method to find the value of an asset.

**Inventory**

21. Tabulate costs associated with inventory to support business productivity.
  - a. Explain effective management of inventory.
  - b. Calculate the cost and value of inventory.
  - c. Analyze the rate of inventory turnover.
  - d. Determine the value of ending inventory using average cost (weighted average), first in first out (FIFO), and last in first out (LIFO) and present scenarios in which each method is preferred.

**Business Calculations**

22. Calculate and assess future costs of operation.
  - a. Estimate transportation costs.
  - b. Estimate equipment maintenance costs.
  - c. Calculate future equipment costs including taxes and transfer costs.
  - d. Analyze and track business income.
  - e. Analyze business income statements.
  - f. Analyze staffing costs and prepare staffing cost estimates, including recruitment, training, and hiring.
  - g. Explain the history and principles of lean manufacturing.
  - h. Find the inventory break-even point in a given scenario.

# Business and Legal Concepts

<b>Course Credit</b>	0.5 (Content standards 1, 5, 6, 9, 10, 11, 12, 13 are required), OR 1.0 (All content standards are required)
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Business and Legal Concepts** emphasizes the ethical and legal dimensions of conducting business. The course focuses on application of ethical concepts, historical events that have shaped business law in the United States, the U.S. court systems, contracts, insurance, and various areas of law that impact business operations.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.

6. Discuss and demonstrate ways to value diversity.

## BUSINESS AND LEGAL CONCEPTS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Ethics

1. Summarize ethical responsibilities of business owners toward employees and consumers.
  - a. Research and share information on social responsibility of business owners to the community.
  - b. Distinguish between ethical and unethical business practices.
  - c. Explain rationales and options for resolving disputes.  
*Examples: mediation, arbitration, legal action*
  - d. Relate ethical, moral, and legal considerations to the decision-making process in business situations.
2. Research and share information on legislation involving ethical issues.  
*Examples: Fair Labor Standards Act, equal employment opportunity statutes, Employment Retirement Income Security Act, Family and Medical Leave Act*
  - a. Gather and share information pertaining to regulation of interactions between businesses and office-holders, including campaign finance, government purchasing, conflicts of interest, and lobbying after leaving office.
  - b. Research and share examples of unethical behaviors that have led to increased regulation of business and industry.

### Business Insurance

3. Explain the role of insurance in risk management and mitigation.
  - a. Explain the principles of insurance.
  - b. Research and share information on types of insurance needed by businesses and the purpose of each type.

### Business Crimes

4. Identify types of crimes businesses may commit.  
*Examples: copyright and patent infringement, fraud, insider trading, tax evasion, bribery*
  - a. List legal responsibilities of business owners to their customers, employees, and stakeholders.
  - b. Identify legal responsibilities of businesses regarding e-business and e-marketing.

	<p>5. Describe types of crimes directed toward businesses.  <i>Examples: vandalism, shoplifting, embezzlement, piracy, cybercrime, counterfeiting of products, copyright and trademark infringement</i></p> <p>a. Explain measures a business can take to protect itself against cybercrime and crimes committed by employees and customers.</p>
<p><b>Negotiable Instruments</b></p>	<p>6. Explain the nature of negotiable instruments, including the essentials of negotiability.</p> <p>a. Compare and contrast the handling and purposes of various negotiable instruments, including promissory notes, drafts, digital currency, cashier's checks, bonds, and checks.</p> <p>b. Identify liabilities for the holder of a negotiable instrument.</p> <p>c. Distinguish between negotiation and discharge of a debt.</p> <p>d. Research and summarize cases dealing with negotiable instruments.</p>
<p><b>Court System</b></p>	<p>7. Research and share information about the jurisdictions and characteristics of civil and criminal courts for business cases.</p> <p>a. Gather and share information on types of business cases handled in state and federal courts.</p> <p>b. Explain the role of class action lawsuits in holding businesses responsible for injuries resulting from their products or wrongful actions.</p> <p>c. Research and share information about significant U.S. Supreme Court cases that influence the way business is conducted.</p> <p>d. Differentiate between business torts and crimes.</p>
<p><b>Regulation</b></p>	<p>8. Explain the rationale for governmental regulation of business activities.</p> <p>a. Gather and share information on significant federal legislation governing the conduct of businesses, including incidents leading to the laws and situations the regulations were designed to address.  <i>Example: Triangle Shirtwaist Co. fire in 1911</i></p>
<p><b>Business Ownership</b></p>	<p>9. Research and share information on ways businesses may be organized.</p> <p>a. Describe the responsibilities of stockholders to a corporation and a corporation to its stockholders.</p> <p>b. Explain the steps required to incorporate a business.</p>

**Contracts**

10. Discuss and explain the classes of contracts and describe methods of offer and acceptance.
  - a. Examine concepts of consideration and principles of contracts in business.
  - b. Create charts, diagrams, or infographics explaining the different capacities to contract and defective or illegal agreements.
  - c. Research recent court cases dealing with contract law and analyze their outcomes.

**Employment Law**

11. Explain concepts of agency and employment law.
  - a. Summarize the creation, operation, and termination of an agency.
  - b. Explain employee rights.
  - c. Research and report on the history of labor relations in the United States.
  - d. Describe the function of collective bargaining agreements.
  - e. Interpret the concepts of non-disclosure and limitations on work product protection.
  - f. Research and share information on cases involving employment law.
12. Explain the differences between an employee and an independent contractor.
  - a. Explain the function of an employment contract.
  - b. Explain the concept of employment at will.
  - c. Analyze right to work laws and list states where right to work laws are in force.
  - d. Research and share information on workers' compensation coverage.

*Examples: who is covered, how it is calculated, who pays for workers' compensation, how to file*

**Property Law**

13. Research and explain the principles of property ownership and acquisition.
  - a. Classify different types of property.
  - b. Discuss the different types of intellectual property.
  - c. Analyze fair use and explain infringement.
  - d. List ways property can be transferred or acquired.

# Business Communications

<b>Course Credit</b>	0.5 (Content standards 1-10 are required), OR 1.0 (All content standards are required)
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Business Communications** focuses on how employees and management interact with each other and with groups and individuals outside the organization to reach organizational goals, objectives, and activities. This course emphasizes oral, written, and digital communication techniques, and content is designed to encourage exploration of business ethics, teamwork, conflict resolution, and leadership skills. Content standards require the use of presentation and word processing software to create business communications. Standards require proficiency in producing documents and multimedia presentations.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.

5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## BUSINESS COMMUNICATIONS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### General Communication

1. Describe the business communication process.
  - a. Explain the differences between nonverbal and verbal communication, giving examples of each type.
  - b. Identify organizational, physical, physiological, language, cultural, psychological, and technical barriers to communication.
  - c. Demonstrate effective nonverbal communication skills.

### Oral Communication

2. Demonstrate effective oral communication skills.
  - a. Speak using correct pronunciation, enunciation, tone, and cadence.
  - b. Compare and contrast basic communication, interpersonal communication, organizational communication, and rhetorical communication.
  - c. Identify regional, international, and cultural differences in oral communication.
  - d. Plan and deliver an oral presentation based on individual or group research.
  - e. Identify ways in which audience and situation affect choices of style and tone.
3. Demonstrate proficient listening skills.
  - a. Follow oral directions by listening attentively, taking accurate notes, and asking questions.
  - b. Demonstrate business telephone techniques.
  - c. Demonstrate courtesy and respect for a speaker through attentive listening.

## Written Communication

4. Demonstrate correct usage and mechanics in English, including sentence structure, punctuation, and grammar, to communicate clearly and concisely.
  - a. Compose sentences using the correct forms of commonly misused or misspelled words.  
*Examples: accept/except, to/too/two, want/won't, their/there/they're*
5. Utilize reading strategies to read efficiently, comprehend content, and retain information.
  - a. Select and utilize reading methods for a particular situation.  
*Example: Use skim and scan techniques to preview a document, noting headings, topic sentences, vocabulary, words in bold print, titles, and questions within the text.*
  - b. Read, follow, and create detailed written directions.
  - c. Describe the purpose of a particular message, identifying propaganda and biased, literal, inferential, or factual statements.
6. Produce effective written documents.
  - a. Explain the purpose of each step of the writing process: planning, drafting, revising, editing, publishing.
  - b. Use the writing process to produce emails and letters appropriate to task, purpose, and audience.
  - c. Format business documents, including business letters, emails, and reports.
  - d. Utilize design elements to enhance written communications.  
*Examples: layout, illustrations, tables, graphs, charts*
7. Compose an effective business report.
  - a. Use research and the writing process to plan, draft, revise, edit, and publish a business report.
  - b. Identify the parts of the business report, including title page, table of contents, abstract/executive summary, body (including introduction and conclusion), references, and appendices.
  - c. Compare and contrast analytical and informational reports and their appropriate uses.

## Human Relations

8. Apply communication skills in varied professional roles.
  - a. Demonstrate steps of a conflict-resolution process.
  - b. Describe effective leadership skills.

*Examples: planning, organizing, monitoring*
  - c. Explain the stages of team development, indicating the procedures involved in each stage.

*Examples: forming, storming, norming, performing*
  - d. Explain ethics and integrity as they relate to business communication.

Digital  
Technology

9. Use technology to enhance the effectiveness of communication.
  - a. Utilize basic software applications.
  - b. Refine and enhance documents as needed using spell check, thesaurus, grammar check, layout, design, and graphics.
10. Demonstrate proficiency in word processing software to create, edit, and publish professional business documents.
  - a. Share and maintain documents by configuring options, restricting access to a document, and adding and modifying templates in an existing document.
  - b. Format content of a document by applying advanced font and paragraph attributes, creating tables and charts, constructing reusable content, and linking sections.
  - c. Track and reference documents by reviewing, comparing, and combining documents, creating a reference page, and creating an index.
11. Use digital technologies, communication and networking tools, and social networks appropriately to access, manage, integrate, evaluate, and disseminate information in professional settings.
  - a. Distinguish between personal and professional use of social media outlets.
  - b. Evaluate the effectiveness of social media for business messaging and brand awareness.
  - c. Explain how individuals interpret messages differently and how values, points of view, and media influence beliefs and behaviors.
  - d. Apply a fundamental understanding of the ethical, legal, and privacy issues surrounding the access and use of media, including what to share and what not to share.
  - e. Apply social media and digital technology etiquette when communicating with a target audience and in the business environment.

12. Demonstrate proficiency with presentation software to create, edit, publish, and deliver professional business presentations.
  - a. Manage a presentation by adjusting views, manipulating presentation features, configuring quick access toolbar, and utilizing presentation file options.
  - b. Create a professional slide presentation by constructing and editing a photo album, changing slide orientation settings, adding and deleting slides, formatting slides, entering and editing text, and formatting text boxes.
  - c. Apply graphic and multimedia elements to a presentation by manipulating graphic elements, images, and/or audio and video elements.
  - d. Create charts and tables within a presentation and manipulate table and chart elements within the layout.
13. Create and present a digital portfolio of products highlighting the procedures and techniques involved in effective business communication.
14. Demonstrate communication skills needed to gain and keep employment.
  - a. Research job search strategies and sources for job placement.
  - b. Create an employment portfolio.
  - c. Describe and demonstrate the application and interview process for employment.
  - d. List the communication skills needed to maintain employment.

## Career Opportunities

# Business Essentials

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Business Essentials** provides an overview of business skills required for today’s business world. The course includes types of business ownership, laws and regulations, principles of business management, and analysis of business practices in light of ethical and social responsibilities. Emphasis is placed on skills needed for success in the workplace, managing resources to achieve company goals, and the impact of financial decisions on a business.

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3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.

- 6. Discuss and demonstrate ways to value diversity.

**BUSINESS ESSENTIALS  
CONTENT STANDARDS**

Each content standard completes the stem “*Students will...*”

**Budgeting  
and Finance**

- 1. Create and maintain complete, accurate, and necessary financial records including cash flow statements, balance sheets, income statements, and check registers.  
*Examples: budgets, bank reconciliations, payroll, taxes, invoices, purchase orders*
- 2. Evaluate various types of business budgeting methods and design a plan for money management.
  - a. Identify and establish financial goals for a business.
  - b. Describe sources of income for a business venture.
  - c. List fixed and variable expenses.  
*Examples: utilities, payroll, repairs, advertising, savings, profits, loan payments*
  - d. Describe various types of financial statements and how they are used to make business decisions.  
*Examples: balance sheets, income statements, cash flow statements*
  - e. Analyze a balance sheet to determine the financial health of a business.
  - f. Differentiate among assets, liabilities, and owner’s equity on a balance sheet.
  - g. Differentiate between revenue and expenses on an income statement.
  - h. Examine an income statement to determine whether the business has incurred a net income or a net loss.

**Business Concepts**

- 3. Define and describe basic business concepts and how they are applied to business activities.
  - a. Explain the roles of business in society.
  - b. Describe types of business activities.
  - c. Gather and share information on major causes of business failure.
  - d. Describe how government policies affect businesses including spending, interest rates, and regulations.
  - e. Identify and describe issues and trends in business.
- 4. Identify conflict management strategies to resolve workplace conflict.

	<ol style="list-style-type: none"> <li>5. Compare advantages and disadvantages of different configurations of businesses, including sole proprietorships, partnerships, corporations, franchises, and cooperatives.             <ol style="list-style-type: none"> <li>a. Explain how a business's structure affects management decisions.</li> </ol> </li> <li>6. Classify various businesses according to whether they market goods, provide services, or a combination of the two.             <ol style="list-style-type: none"> <li>a. Explain the principles of supply and demand.</li> <li>b. Explain the importance of using different marketing strategies for goods and for services.</li> </ol> </li> <li>7. Explain the importance of developing and organizing a successful business plan.             <ol style="list-style-type: none"> <li>a. Describe the process of developing a business plan.</li> <li>b. Identify the components and format of a business plan.</li> <li>c. Explain the advantages of a well-prepared business plan.</li> <li>d. Identify types of assistance offered to new or proposed businesses by local, state, and federal agencies.</li> <li>e. Develop a business plan for a proposed business.</li> </ol> </li> </ol>
<p><b>Business Management</b></p>	<ol style="list-style-type: none"> <li>8. Explain the importance of organizational skills needed to manage business operations and maintain an orderly flow of work.             <p><i>Examples: maintaining schedules and calendars; organizing documents, forms, and manuals; following workplace policies and procedures</i></p> </li> </ol>
<p><b>Entrepreneurship</b></p>	<ol style="list-style-type: none"> <li>9. Describe characteristics and actions of the successful entrepreneur.</li> </ol>
<p><b>Ethics</b></p>	<ol style="list-style-type: none"> <li>10. Discuss the ethical responsibilities of consumers and businesses in commerce.             <p><i>Examples: Identify consumers' legal accountability associated with credit, consumerism, and insurance. Identify various liabilities of businesses related to employees and consumers.</i></p> </li> </ol>
<p><b>International Business</b></p>	<ol style="list-style-type: none"> <li>11. Describe the impact of international business activities on the local, state, and national economies.             <ol style="list-style-type: none"> <li>a. Trace the history of U.S. involvement in international trade.</li> <li>b. Identify small business opportunities in international trade.</li> </ol> </li> </ol>

## Legal Issues

12. Identify and discuss legal issues related to government regulation of commerce and the potential effect of these legal issues on consumers.
  - a. Describe procedures for documenting compliance with law, rules, and regulations.
  - b. Describe procedures a business would use in a variety of business law cases.  
*Examples: filing a suit, filing for bankruptcy*
  - c. Distinguish between civil law and criminal law.
  - d. Identify different areas of civil law that impact business.  
*Examples: tort, contracts, property law*
13. Describe types of crimes committed against businesses.  
*Examples: arson, forgery, embezzlement, computer crimes*

## Management

14. Describe the primary functions of management, ways of implementing them, and their integration within the business environment.
  - a. Differentiate among the planning, organizing, leading, and controlling functions of management.
15. Explain how effective decision-making skills can influence business decisions in a variety of areas.  
*Examples: product development, marketing, distribution, insurance, organizational development*
16. Interpret research results to determine factors and trends affecting recruiting, training, and retention of employees in the workplace.

## Marketing

17. Explain marketing concepts and functions.
  - a. Describe various marketing strategies and give specific scenarios to explain the importance of each.
  - b. Explain the difference between retail and wholesale, giving examples and identifying the roles of retailers and wholesalers in a private enterprise system.
  - c. Explain market segments, target markets, marketing strategies, and the relationship of marketing to consumers and commerce.

## Risk Management

18. Determine risks involved in operating a business, and identify various risk protection strategies available to companies.
  - a. Assess options to protect against risk and financial loss for businesses.
  - b. Evaluate protection options against risk and financial loss for consumers.

# Business Software Applications I

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Business Software Applications I** emphasizes the skills required to create, edit, and publish industry-appropriate documents. Areas of instruction include the integration of word processing, desktop publishing, spreadsheets, database management, and presentation software as well as the use of emerging technologies. Competencies for the co-curricular student organizations, DECA and Future Business Leaders of America (FBLA-PBL), are also embedded in this course. Students will have the opportunity to gain industry-recognized credentials to document basic computer skills needed for future education or employment.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.

6. Discuss and demonstrate ways to value diversity.

## BUSINESS SOFTWARE APPLICATIONS I CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Basic Computer

1. Utilize technology functions, including compressing files, converting files, importing files, exporting files, and transferring data among applications.
  - a. Compare hardware and software functions in word processing applications.
  - b. Save files in various formats including plain text and PDF in word processing applications.
  - c. Describe network computer functions including cloud-based applications.
  - d. Demonstrate electronic file management skills across local computers, networks, and the cloud.
2. Diagnose problems relating to technology systems, including network systems, hardware, and software.
  - a. Demonstrate basic computer and printer preventative maintenance.
  - b. Determine strategies to correct malfunctioning network systems, hardware, and software.

### Word Processing

3. Create, manage, and navigate through a variety of business- and industry-appropriate documents using various data input techniques in word processing applications.
 

*Examples: keyboarding, voice recognition, handwriting recognition, scanning*

  - a. Apply basic editing and formatting tools to text within a document in word processing applications.
  - b. Apply document themes and style sets in word processing applications.
  - c. Format and edit paragraphs using options in word processing applications.
  - d. Create and modify a table within a document and apply table styles.
  - e. Create and modify lists using formatting to enhance document style.
  - f. Create and manage reference markers including footnotes, endnotes, captions, and citations.
  - g. Insert graphic objects within a document and apply formatting to those graphics.
4. Produce and edit business documents using word processing technology, including business letters, research papers, and reports that include title or cover page, headings, table of contents, page numbers, headers, footers, in-text citations, footnotes, and endnotes.

## Desktop Publishing

5. Create, edit, and share documents using online word processing technologies.
6. Utilize the desktop publishing process to apply design principles to publications.
7. Import and manipulate objects, images, shapes, and text in publications.
8. Generate a variety of business publications, with and without templates, using desktop publishing software.  
*Examples: newsletters, flyers, invitations, business cards, brochures, catalogs, letterheads, informational forms, greeting cards, calendars*
9. Prepare publications for printing and sharing.

## Spreadsheets

10. Create, manage, and navigate through industry-appropriate worksheets in spreadsheet applications.
  - a. Identify, manage, and search cell data and apply text and number formatting using spreadsheet applications.
  - b. Apply and modify document style to cells and tables using spreadsheet applications.
  - c. Apply and manage view options using spreadsheet applications.  
*Examples: hide/unhide worksheets, freeze pane, split window, zoom*
  - d. Utilize formulas, functions, and fill to perform mathematical processes in spreadsheet applications, including percentages and decimals, order of operations, estimation, and prediction of patterns of data.
  - e. Identify relative and absolute cell references in spreadsheet applications.
  - f. Create and edit charts and graphs, and customize chart elements.
  - g. Examine spreadsheet data through sorting and filters.
11. Formulate and produce a variety of business documents using spreadsheet applications.  
*Examples: budgets, payroll, inventory, invoices, balance sheets, profit-loss statements, conversion of foreign currencies*

## Presentation Software

12. Create and manage industry-appropriate slideshows using presentation software.
  - a. Apply suitable design elements for professional business presentations.
  - b. Edit and customize master slide options in presentations.
  - c. Apply custom animation effects and transitions in presentations.
  - d. Insert and edit objects in presentations.
  - e. Insert hyperlinks and action buttons in presentations.
13. Create and deliver well-organized, audience-appropriate presentations for a variety of business situations.  
*Examples: informative, instructional, entertainment*

## Database Management

14. Create and manage data using basic database applications.
  - a. Explain the purpose and composition of databases and database management systems, using professional terminology to describe features and components.  
*Examples: field, record, queries, reports*
  - b. Create and edit fields within a database.
  - c. Utilize basic database functions.  
*Examples: sorting, filtering, querying, merging data*
  - d. Print and review reports within a database.
15. Create tables, forms, reports, and queries for business and personal use, utilizing database software.

## Productivity

16. Use technology to increase administrative office productivity and enhance workplace performance.
  - a. Access, process, and transmit information through various channels.  
*Examples: fax, email, teleconferencing, virtual meetings*
  - b. Perform integrated functions using various software applications.
17. Explore the business applications of digital technology on the Internet.
  - a. Use cloud computing to improve productivity by designing, saving, and uploading documents in an online account.
  - b. Use online collaboration tools.  
*Examples: calendar, document and presentation sharing*
  - c. Explore the benefits of social networking as a business tool, including professional portfolios and blogs, considering privacy settings and safety issues.
  - d. Explain the personal and business use of apps on digital devices.

Ethics

18. Demonstrate ways to modify documents to be more accessible to people with disabilities.  
*Examples: large print/font, use heading styles, alternative text for images, utilize Accessibility Checker, use sufficient contrast for text and background colors, add meaningful hyperlink text and screen tips*
19. Describe the importance of professional ethics and legal responsibilities in the workplace.
  - a. Evaluate and justify decisions based on ethical reasoning.
  - b. Identify and explain personal and long-term consequences of unethical or illegal behaviors in the workplace.
  - c. Evaluate components of acceptable use policies, codes of ethics, and their role in a business environment.

# Business Software Applications II

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	Career Preparedness OR Business Software Applications I

**Business Software Applications II** focuses on advanced word processing and spreadsheet and database management skills using current and emerging integrated technology. These skills include a variety of input technologies in the production of professional quality business documents and reports. Performance and production skills for the co-curricular student organizations, DECA and Future Business Leaders of America (FBLA-PBL), are embedded in this course. Students will also have the opportunity to gain industry-recognized credentials to document advanced computer skills needed for future education or employment plans.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## BUSINESS SOFTWARE APPLICATIONS II

### CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Word Processing

1. Manage advanced word processing document options and settings.
  - a. Manage templates, macros, and multiple documents using word processing software.
  - b. Prepare documents for collaboration using editing functions and protecting documents using passwords.
  - c. Use language-specific features, configure editing, and display languages to set language options.
  
2. Utilize advanced word processing editing and formatting features.
  - a. Perform advanced editing and formatting with word processing software.  
*Examples: wildcards to replace special characters, formatting, styles, paste options*
  - b. Configure paragraph layout options.  
*Examples: hyphenation, line numbers, pagination options*
  - c. Create and modify paragraph and character styles using word processing software.
  
3. Create custom document elements using advanced word processing software.
  - a. Mark, create, and update index entries software, including tables of contents, captions, and tables of figures.
  - b. Create and manage document building blocks.
  - c. Create custom design elements.  
*Examples: color sets, font sets, themes, style sets*
  - d. Create and manage tables of figures using captions and configuring caption properties.
  
4. Create and modify advanced word processing features.
  - a. Manage forms by adding custom fields, modifying field properties, and inserting and configuring standard content controls.
  - b. Create and modify macros.  
*Examples: Record, name, and edit simple macros. Copy macros to other documents or templates.*
  - c. Create mail merged documents, labels, and envelopes using recipient lists and merged fields.

## Spreadsheets

5. Manage workbook options and settings.
  - a. Manage workbooks using advanced features including save as template, copy macros, and reference data from other spreadsheets.
  - b. Manage workbook review in word processing software, including restrict editing, protect, encrypt with password, configure formula calculation options, manage workbook versions, and protect workbook structure features.
6. Apply custom data formats, layouts, and validation to workbooks.
  - a. Apply advanced conditional formatting and filtering to workbooks using spreadsheet software.
  - b. Create and modify custom workbook elements using spreadsheet software.
  - c. Prepare a workbook for internationalization, modifying currency, text, and other elements as needed, using spreadsheet software.
7. Create advanced workbook formulas using spreadsheet software.
  - a. Apply functions in formulas by performing logical operations including AND, OR, NOT, and nested functions and statistical operations including SUMIFS, AVERAGEIFS, and COUNTIFS functions in spreadsheet software.
  - b. Look up data by using functions VLOOKUP, HLOOKUP, MATCH, and INDEX with spreadsheet software.
  - c. Apply advanced date and time functions including NOW and TODAY functions and serializing numbers using spreadsheet software.
  - d. Use financial functions of spreadsheet software to perform data analysis and business intelligence including import, transform, combine, display, connect, and consolidate data; perform what-if analysis; use cube functions; and calculate data.
  - e. Troubleshoot formulas by utilizing trace precedence and dependence, monitor cells and formulas, validate formulas by using error checking, and evaluate formulas.
  - f. Define and manage named ranges and objects by name cells, data ranges, and tables.
8. Create advanced charts and tables with workbook data in spreadsheet software.
  - a. Add trendlines to charts and create dual-axis charts.
  - b. Create and modify pivot tables by changing field selections and options, creating slicers, grouping data, adding calculated fields, and formatting data.
  - c. Create and modify pivot charts by manipulating options in existing charts, applying styles, and drilling down into details, using spreadsheet software.

## Database Management

9. Build tables using database software.
  - a. Import data into tables and from other databases, create linked tables from external sources, and create a table from a template with application parts.
  - b. Customize tables by hiding fields, adding total rows and descriptions, and renaming tables.
  - c. Manage records in tables by updating, adding, deleting, sorting, and filtering records, appending records from external data, and finding and replacing data.
  - d. Create and modify fields using add and delete fields; add validation rules; change field captions, sizes, and data types; configure fields to auto-increment; set default values; and use input masks.
10. Create and manage database forms.
  - a. Create and save forms and create a form from a template with application parts.
  - b. Configure form controls by moving, adding, and removing form controls; modifying data sources; setting form control properties; managing labels; and adding subforms.
  - c. Format forms using modify tab order; configure print settings; sort records by form field; apply a theme; control form positioning; and insert backgrounds, headers, footers, and images.
11. Create database reports.
  - a. Create reports based on query or table, in design view, and using a wizard.
  - b. Configure report controls by group and sort fields, modify data sources, add report controls, and add and modify labels.
  - c. Format reports using multiple columns, add calculated fields, control report positioning, format report elements, change report orientation, insert header and footer information, insert images, and apply a theme.

## Productivity

12. Utilize digital technology applications on the Internet for business, personal, and educational uses.
  - a. Present a digital portfolio encompassing all programs used during the course.  
*Examples: website, blog, slideshow*
  - b. Collaborate using cloud computing by designing, saving, uploading, and sharing documents, presentations, and calendars in an online account.  
*Example: cloud-based filing repositories*
  - c. Utilize social networking as a business tool to create professional portfolios and blogs.
13. Devise and apply methods of modifying documents to be more accessible to people with disabilities.  
*Examples: use headings, lists, meaningful hyperlinks, alternate text for images, tables; identify document language*

# Career Pathway Project in Business Management and Administration

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	10-12
<b>Prerequisites</b>	Two or more credits from the same pathway in the Business Management and Administration Career Cluster

**Career Pathway Project (CPP) in Business Management and Administration** is a capstone course designed for students who have earned two or more career and technical education credits from the same pathway in the Business Management and Administration Career Cluster. This course allows students to utilize their secondary coursework through an experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and explore it in depth while demonstrating problem-solving, decision-making, and independent-learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education.

During the CPP, the student works with his or her coordinating teacher, academic teachers, and a product or process mentor who has expertise in the student’s field of study. At the conclusion of the CPP, the student presents or demonstrates the knowledge gained to an audience consisting of the coordinating teacher, academic teachers, the mentor, peers, and community and business representatives.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.

2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## CAREER PATHWAY PROJECT IN BUSINESS MANAGEMENT ADMINISTRATION CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Project Proposal

1. Create a formal, narrative proposal that communicates a specific concept, creates a process, or develops a product proposal related to Business Management and Administration.  
*Example: Create a business plan for a new business venture.*

### Research

2. Conduct independent research related to the selected Business Management and Administration project.  
*Examples: Internet research, related readings, original research*

### Project Report

3. Write a detailed report on the chosen Business Management and Administration pathway project, following established conventions for format, grammar, and usage.

**Presentation**

4. Produce an original multimedia presentation based upon Business Management and Administration pathway project research and results.  
*Examples: producing a digital presentation and oral explanation, creating a documentary, presenting a project model and explanation.*

**Portfolio**

5. Design and create a project portfolio that documents all components of the Business Management and Administration pathway project and demonstrates the validity of the process.  
*Examples: components—abstract, table of contents, project proposal, signature sheets, journal entries, research, formal timeline, self-assessment, mentor assessments*

# Computer Game and Simulation Programming

<b>Course Credit</b>	1
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	Career Preparedness, OR Business Software Applications I, OR Computer Science for Business

**Computer Game and Simulation Programming** standards are designed to equip students with the skills needed to prepare for higher education and for success in careers such as a computer game simulator, designer, programmer, or software developer. Interest and involvement in the gaming industry has grown substantially over the years. Professions in this industry require technical skill proficiency, competency-based applied learning, higher-order reasoning, teamwork, and problem-solving skills. The course integrates core academic subjects with elements of visual design, digital audio and video, storyboarding, and collaboration to attain the knowledge, skills, and attitudes necessary to compete successfully in the gaming production industry.

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3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.

4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## COMPUTER GAME AND SIMULATION PROGRAMMING CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Pre-Production

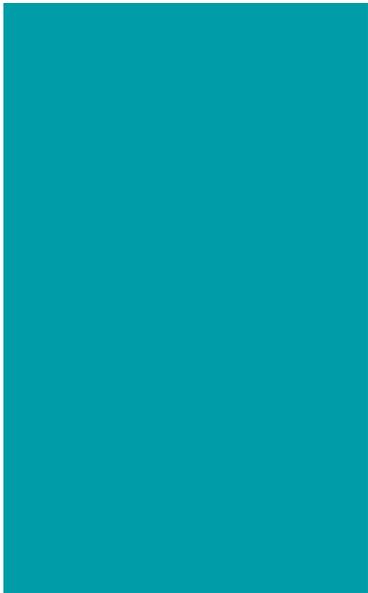
1. Research and share information on the history of video games, including timelines of events, historical figures, and changes in generational game development.
2. Play a variety of games to research, collect, and analyze game play data.
  - a. Write a critical analysis of a current video game.
3. Research the methods used to create and sustain player immersion and explain why it is important.

### Game Platforms

4. Explain game ratings, genres, and types.
5. Research and share information on various computer and mobile game development platforms.

### Game Design and Development Process

6. Summarize the game design production cycle.
7. Define the roles and responsibilities of team members on a video game design team and identify their typical short- and long-term goals.
8. Demonstrate game concept development process and roles both independently and as part of a team.
9. Compare and contrast communication features and interface design.



- 10. Assess and apply strategies to prevent, debug, and eliminate problems.  
*Examples: viruses, malware, inconsistencies within data*
- 11. Develop an end goal game strategy and feedback needed to progress through the game.  
*Examples: earning points, reaching levels, overcoming obstacles*
- 12. Incorporate a user friendly experience for design functionality which allows players to change movements, immerse themselves in the environment, and take control or drive on their own.
- 13. Include interface elements in game design.  
*Examples: sounds, graphics, spatial recognition, narration*
- 14. Create an original game design which executes game concept development, communication features, interface design, game strategy, and immersification.
  - a. Create a title page for an original project with instructions, characters, levels, puzzles, art, graphics, animation, and clear navigation including start, pause, quit level, and end game.



**Software Application**

- 15. Identify tools and software commonly used in game development, including web page and graphic design, art, and animation.
- 16. Utilize vector, modeling, and paint programs used to make graphics and animation.
  - a. Explain the principles of 2D and 3D animation as they relate to game graphics.  
*Examples: walk, run, jump, idle*
- 17. Explain the use of readme files and source codes, and demonstrate appropriate documentation for templates, libraries, and copyrighted materials used.



**Post-Production (Game Testing, Enhancement, and Release)**

- 18. Enhance or upgrade an original stand-alone or online game using various computer programming languages or game/animation engines to write code and implement programming skills.
  - a. Integrate created assets into a functional digital platform with a logical theme or concept.  
*Examples: scoreboard, leaderboard, celebratory messages, levels, lives, instructional display*

Career Awareness

- 19. Execute an original game and implement game testing.  
*Examples: in-house, larger testing group(s), open release without additional instructions*
  - a. Demonstrate an understanding of the techniques used to evaluate game mechanics, game play, flow, and game design.
  - b. Analyze design elements that maintain player interest and vary the degree of challenge.
- 20. Demonstrate project management skills, utilize feedback data to improve an original game, and add advanced features.  
*Examples: feedback from testing groups, basic general maintenance for overall improvement*
- 21. Gather information on the gaming industry, including career opportunities and training in game design and production.
  - a. Connect information to personal interests and develop a plan for a possible future career in the field of computer gaming and simulation programming.
- 22. Develop a plan to identify and enhance any workplace skills needing improvement in the computer game field.
  - a. Create a computer game or simulation designed to improve workplace skills.

# Computer Science for Business

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Computer Science for Business** provides an understanding of basic computer programming concepts and logic for the business workforce. The course introduces programming through a variety of projects and object-based programming activities and applications. Business-related skills such as teamwork, interpersonal skills, and professionalism will be explored and demonstrated through project-based learning.

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## Foundational Standards

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2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## COMPUTER SCIENCE FOR BUSINESS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

<b>Software Application</b>	1. Describe large-scale software and device design processes, data usage, and implementation plans.
<b>Abstraction</b>	2. Decompose an everyday problem into parts, then filter the important information to create a new sequence to solve the problem.  3. Explain how code or other systems work in the background in ways that may not be apparent to the user. <i>Example: Millions of lines of code control the subsystems within an automobile.</i>
<b>Algorithms</b>	4. Adapt existing algorithms to solve computational problems.  5. Plan algorithms using pseudocode, then compare and convert the code to a programming language.  6. Explain the differences among sequential statements, conditional statements, and <i>and/or</i> iterations.  7. Determine the benefits and disadvantages of choosing one control structure over another. <i>Examples: sequence control structure, decision control structure, loop control structure</i>  8. Determine when a solution to a problem requires decisions to be made among alternatives. <i>Examples: an iterative loop, selection constructs, recursion</i>
<b>Data</b>	9. Model the methods and procedures by which computing devices translate digital information into a user interface that can be read, viewed, and interpreted.

	<p>10. Collect data using computational tools and transform the data into visualizations that translate the story the data is conveying. <i>Examples: charts, graphs, tables, maps</i></p>
<p><b>Design</b></p>	<p>11. Use the design process to create or improve a product which has broad applications in business.</p> <p>12. Use the design thinking or engineering process, including mistakes and feedback, to diagnose and correct a problem.</p>
<p><b>Digital Identity</b></p>	<p>13. Explain how digital identity is created and maintained, including the persistence and public availability of artifacts. a. Compare and contrast strategies to manage digital identity and reputation.</p>
<p><b>Human and Computer Partnerships</b></p>	<p>14. Collect feedback from a wide variety of users and systematically design and develop programs for different target audiences. <i>Examples: games, utilities, mobile applications</i></p> <p>15. Research problems that can be solved only by humans and machines working in tandem. a. Decompose the problem-solving process to determine which part of the problem is solved by humans and which is dependent on the machine. <i>Examples: facial recognition, personal virtual assistance, GPS maps, social media feeds</i></p>
<p><b>Impact of Computing</b></p>	<p>16. Research and share information on ways technology facilitates the disruption of traditional businesses, institutions, and services, including ways companies have successfully adapted to the changes. <i>Examples: digital currencies, ridesharing, autonomous vehicles, retail, Internet of Things</i></p> <p>17. Select a career field and gather information about how computing has impacted it in both positive and negative ways. <i>Examples: government, business, medicine, entertainment, education, transportation</i> a. Gather and present information about emerging employment opportunities in a selected career path.</p>

## Legal and Ethical Behavior

18. Demonstrate responsible use of digital devices and resources as outlined in school, district, or business policies and procedures.
19. Locate and curate information from digital sources.
  - a. Evaluate the credibility of information from digital sources.
  - b. Give proper credit to sources used for written and audio-visual presentations.
20. Discuss the impact of malicious hacking on governments, businesses, and individuals.
 

*Examples: ransomware, dissemination of privileged information*

  - a. Gather and share information on instances of malicious hacking which targeted businesses and government agencies.
  - b. Write an argument for or against paying ransom to a hacker.

## Modeling

21. Develop a model or simulation to formulate, test, and refine a hypothesis.
 

*Examples: robotics lab, machine learning design, app user interface, science lab, space exploration*

## Programming and Development

22. Compare and contrast a wide variety of programming languages that are commonly used in the business world, indicating situations in which each language would be effective.
23. Construct digital projects to be used in a business environment, using a variety of programming tools including those which encourage the creation of code.
24. Develop and use a series of test cases to verify that a program performs according to its design specifications.
  - a. Collaborate with others in a code review process to identify correctness, efficiency, scalability, and readability of program code.

## Safety, Privacy, and Security

25. Identify, isolate, and report incidents (threats) that pose personal and business safety issues while using devices and online resources.
26. Discuss the provisions and ramifications of end-user license agreements and terms of service associated with granting rights to personal data and media to other entities.

**Systems**

27. Gather, evaluate, and share information about tradeoffs between allowing information to be public and keeping business information private and secure.
28. Diagnose and resolve performance and connectivity issues with computers and peripherals.
29. Describe problems that can impact network functionality.
  - a. Describe the relationship between network components that could cause issues with the reliability of the network.
30. Identify the responsibilities of operating system software.

*Examples: manage memory, manage data storage and I/O devices, common code that applications can use*

# CTE Lab in Business Management and Administration

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	10-12
<b>Prerequisites</b>	Two or more credits from the same pathway in the Business Management and Administration Career Cluster

**CTE Lab in Business Management and Administration** is designed to enhance the student’s general understanding and mastery of the cluster. This course is designed as a learning laboratory to support students’ individual interests and goals. This laboratory may take place in a traditional classroom, in an industry setting, or in a virtual learning environment.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.

4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## CTE LAB IN BUSINESS MANAGEMENT AND ADMINISTRATION CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Occupational Expertise

1. Demonstrate expertise in a specific occupation within the Business Management and Administration Cluster.
  - a. Meet benchmarks selected by the instructor from the appropriate curriculum frameworks, based upon the individual student’s assessed needs.

### Research and Investigation

2. Conduct investigative research on a selected topic related to business management and administration using approved research methodology; interpret findings; and prepare a presentation to defend results.
  - a. Select an investigative study based on research and knowledge.
  - b. Collect, organize, and analyze data accurately and precisely.
  - c. Design procedures to test the research.
  - d. Report, display, and defend the results of investigations to audiences that may include professionals and technical experts.
3. Demonstrate higher order critical thinking and reasoning skills appropriate for a career in business management and administration.
  - a. Use mathematical and/or scientific skills to solve problems encountered in the chosen occupation.
  - b. Locate, evaluate, and interpret information related to the chosen occupation, in oral, written, and digital formats.
  - c. Analyze and apply data and/or measurements to solve problems and interpret documents.

## Leadership

4. Apply enhanced leadership and professional career skills needed in a business management and administration career.
  - a. Develop and present a professional presentation offering potential solutions to a current issue.
  - b. Practice leadership and career skills in job placement, job shadowing, entrepreneurship, or internship, or by obtaining an industry-recognized credential of value.
  - c. Participate in leadership development opportunities available through DECA, FBLA-PBL, and/or professional organizations in the business management and administration field.
  - d. Demonstrate written and oral communication skills through presentations, public speaking, live or virtual interviews, and/or an employment portfolio.

# Customer Service and Sales

<b>Course Credit</b>	0.5 (Content standards 1-7, 13, and 17 are required), OR 1.0 (All content standards are required)
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Customer Service and Sales** is designed to provide instruction on basic principles of customer service and selling. This course focuses on the identification and classification of customer services, technology literacy issues related to customer service, and the human relations, leadership, organizational, and communication skills necessary for success in customer service. In addition, this course offers instruction related to selling and sales, including professional sales, sales presentations, types of compensation, and characteristics and traits associated with successful selling.

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3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.

6. Discuss and demonstrate ways to value diversity.

## CUSTOMER SERVICE AND SALES CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Business Basics

1. Demonstrate digital literacy related to customer service.
  - a. Identify the types of technology, systems, software, and applications used in customer service.
  - b. Discuss ethical issues involving the use of technology as it applies to employer/employee relationships and to customers.
  - c. Analyze situations in which technology positively or negatively impacts customer service.
  - d. Obtain and record customer service data.

### Communication Skills

2. Demonstrate the communication skills necessary for success in customer service.
  - a. Greet and assist visitors and clients in a professional manner.
  - b. Model the appropriate use of grammar, vocabulary, diction, tone, and body language to interact successfully with customers, co-workers, and supervisors.
  - c. Identify and engage in appropriate conversations for work-related settings.
  - d. Adapt communications to meet the needs of diverse clientele and environments.
  - e. Describe and demonstrate the listening, speaking, and non-verbal skills necessary to determine customer needs and to identify and overcome possible barriers to communication.
3. Apply conflict and dispute resolution techniques.
  - a. Describe the nature of conflicts and their impact on interpersonal relationships and organizations.
  - b. Demonstrate the role of communication in generating productive conflict resolutions.
  - c. Utilize and apply conflict intervention strategies in the management and resolution of conflicts.  
*Examples: coaching, negotiation, mediation, system design*

## Customer Relations

4. Identify the types of customer service.
  - a. Explain the nature of high-quality client relations, using industry-accepted definitions of *customer* and *customer service*.
  - b. Demonstrate the ability to handle customers' inquiries and complaints and deal with difficult customers.
  - c. Explain company policies to customers or clients and demonstrate competence in resolving customer problems.  
*Examples: clarify issues, explain policies/procedures, reach a solution*
  - d. Classify customer services according to the nature and characteristics of each service skill.
  - e. Explain the importance of stress management as it relates to job performance.
5. Describe and demonstrate the human relations skills required for effective customer service.
  - a. Collaborate with and contribute to a team.
  - b. Identify personal skills and areas needing improvement and cultivate strategies to become a better provider of customer service.
  - c. Demonstrate norms of behavior and follow the chain of command.
  - d. Explain the importance of self-management under minimum direction or supervision.
  - e. Explain the importance of exhibiting culturally sensitive behaviors when dealing with customers from diverse backgrounds.
  - f. Demonstrate the techniques used to persuade customers.
6. Describe the duties of a customer service representative.
  - a. Describe different types of call centers.
  - b. Discuss the role of a customer representative and describe reasons for providing customer service.
  - c. Compare and contrast types of customer service for different venues and types of interactions.  
*Examples: mass market, department store, speciality retail*
  - d. Discuss the importance of accuracy, efficiency, and follow-through in customer relations.
  - e. Identify major areas of customer complaints and the tangible and intangible costs of complaints to both the salesperson and the business.
  - f. Identify types of difficult customers and employ strategies for mitigating conflicts.  
*Examples: disagreeable, domineering or superior, suspicious, slow or methodical, dishonest*

**Sales  
and  
Promotion**

7. Describe and perform telephone and online activities applicable to customer service.  
*Examples: live chat, email*
  - a. Demonstrate techniques for effective telephone communication including making a positive first impression and recording or relaying messages.
  - b. Demonstrate active listening skills.
  - c. Demonstrate techniques for handling an irate or upset caller.
  - d. Maintain a telephone log or spreadsheet accurately in accordance with defined procedures.
8. Describe the importance of utilizing follow-up techniques after a sale has been completed.
  - a. Explain the importance of utilizing appropriate sales follow-up to secure customer feedback and positive referrals for future sales.
  - b. Describe Customer Relationship Management (CRM), including loyalty and retention marketing.
9. Compare and contrast wholesale, retail, and professional sales and their effects on the economy.
  - a. Explore methods of compensation in sales occupations.  
*Examples: commissions, bonuses, prizes*
  - b. Explain the nature of sales forecasts and the effect of sales cycles.
  - c. Describe the use of technology in the selling function.
10. Analyze and apply the steps needed for effective sales presentations.
  - a. Develop questioning techniques in order to identify customers' needs and wants.
  - b. Use feature-benefit selling for an effective sales presentation.
  - c. Identify and resolve customers' questions and objections.
  - d. List appropriate follow-up techniques to be used after the sale.
11. Describe the characteristics and behaviors of a successful salesperson.
  - a. Utilize prospecting techniques to develop a customer base.
  - b. Obtain customer and product knowledge and prepare a plan to satisfy customer needs.
  - c. Demonstrate professional written and oral communication skills.
  - d. Research and discuss the traits associated with successful salespeople.

	<p>12. Utilize effective techniques and procedures for customer service sales activities.</p> <ol style="list-style-type: none"> <li>Determine customers' needs and identify products, services, and/or supports as solutions.</li> <li>Discuss the importance of selling complementary goods and services and cross-selling.</li> <li>Demonstrate the ability to overcome objections.</li> <li>Demonstrate closing a transaction.</li> </ol> <p style="text-align: center;"><i>Examples: thanking the customer, conducting follow-up</i></p> <ol style="list-style-type: none"> <li>Identify the ways that the reputation of a business is influenced by customer satisfaction.</li> </ol>
<p style="text-align: center;"><b>Ethics</b></p>	<p>13. Identify ways that businesses are obligated to follow through and meet positive expectations created by their advertising and marketing.</p> <p>14. Gather and share information on ethical requirements in customer service and sales.</p> <ol style="list-style-type: none"> <li>Identify common ethical dilemmas in business and sales.</li> <li>Analyze the steps of ethical decision-making.</li> <li>Explain the importance of identifying and understanding one's own personal values as a means of avoiding unethical choices.</li> </ol>
<p style="text-align: center;"><b>Customer Satisfaction</b></p>	<p>15. Examine and share information on the importance of business image and reputation in selling.</p> <ol style="list-style-type: none"> <li>Gather and share information on the cost of and payoff for word-of-mouth advertising.</li> <li>Explain possible negative biases that may affect businesses.</li> </ol> <p>16. Explore the methods businesses use to promote customer satisfaction.</p> <p style="text-align: center;"><i>Examples: follow up after the sale, establishing positive customer relations, customer loyalty programs</i></p>
<p style="text-align: center;"><b>Career Opportunities</b></p>	<p>17. Develop a plan for pursuing a career in customer service and sales.</p> <ol style="list-style-type: none"> <li>Discuss the advantages and disadvantages of working in a customer service field.</li> <li>Identify personal qualities and skills necessary for job enhancement and career development in a customer service field.</li> <li>Research and summarize a job description for a customer service occupation.</li> <li>Identify the education or training, skills, and work experience needed for a customer service occupation.</li> </ol>

# Data Analytics

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	10-12
<b>Prerequisites</b>	

**Data Analytics** is a specialized course designed to introduce statistics and the application of statistics to business decision-making. It covers the design and development of financial applications using the tools available in statistical analysis software to analyze data and convert into useful information. It focuses on utilizing software applications and appropriate methods to collect data and provide clients with useful information to reach valid conclusions resulting in sound business decisions.

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Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

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2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.

5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## DATA ANALYTICS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Analyzing Data

1. Summarize and evaluate how statistics are used in business areas.  
*Examples: accounting, economics, finance, management, marketing*
  - a. List the advantages of using statistics to make financial business decisions.
  - b. Describe the use of technology in the management of finance.  
*Examples: spreadsheet software, instant financial statement generator*
  - c. Explain the variation of data using range, sample variance, sample standard deviation, coefficient of the variation, and Z score.
  - d. Demonstrate and explain the measure of shape of the data set using skewness, symmetry, and kurtosis.  
*Example: Use charts and graphs to explain the importance of visualization to communicate with clients.*
2. Use functions and formulas available in statistical analysis software to process and analyze data.
  - a. Discuss strategies for selecting appropriate technology tools to solve problems.
3. Use a problem-solving model to analyze data, formulate a plan or strategy, determine a solution, justify the solution, and evaluate the problem-solving process.
4. Explain the meaning, uses, and importance of data visualization.
5. Explain how photographs, words, numbers, and sounds can be interpreted as data, giving examples from real-world situations.  
*Examples: infographics, symbols, memes, videos, logos*

## Analytics

6. Explain the four main types of analytics and how these work together to provide information about all facets of a company's operations.

*Examples: consumer behaviors, marketing strategies, sales forecasts*

## Interpreting Data

7. Describe how financial and statistical data are used in professional and personal lives.

*Examples: insurance rates, interest rates, data trackers, marketing analytics, Census, National Highway Traffic Safety Administration, National Center for Education Statistics*

8. Analyze data presented in graphic form, including histograms, scatter plots, heat maps, and box plots, to identify patterns in data and make predictions.

*Examples: trends, fluctuations, data concentration*

9. Interpret data presented in various data visualization models.

*Examples: dashboards, flowing data*

- a. Describe how models highlight various aspects of data.

10. Use statistical analysis software to analyze transactional data.

- a. Develop a plan for using transactional data to develop customer intelligence.

## Statistics

11. Use statistics appropriate to the shape of the data distribution to compare the center (median, mean) of two or more different data sets used in business.

12. Identify and use patterns in data values or range of data values to improve a business process.

*Examples: Track customer orders to refine menu items in a restaurant, increase server capacity and delivery services in response to health-related emergencies, attract customers with mid-week sales to control crowds on weekends.*

13. Explain how categorical data may be used in decision-making in a service business to improve efficiency and profit.

*Examples: Identify the groups for the variable, popular meal served, frequency of each meal served, time of day meal is served.*

	<p>14. Interpret relative frequencies in the context of the data. <i>Examples: joint probability, marginal distribution, conditional relative frequencies</i></p> <p>15. Identify data on two quantitative variables on a scatter plot, and describe how the variables are related.</p> <p>16. Describe how statistics are used to analyze and understand various business and economic problems and to formulate policies for economic growth. <i>Examples: labor market reports, trade balance, Gross Domestic Product, consumer spending</i></p>
<p><b>Probabilities</b></p>	<p>17. Use diagrams, tables, organized lists, and area models to compute sales probability during peak season for a retail business. <i>Examples: Determine customer likes and dislikes for popular items based on previous years' sales.</i></p> <p>18. Analyze concepts of probability associated with financial planning.</p>
<p><b>Financial Practices</b></p>	<p>19. Describe how technology impacts all aspects of finance, from customer experience and operational efficiency to big data and analytics. <i>Examples: statistical analysis software</i></p> <p>20. Apply problem-solving models and statistics to develop a business plan. <i>Examples: formulate a business plan or strategy, determine a solution</i></p>
<p><b>Ethics</b></p>	<p>21. Gather and share information on the ethical and responsible use of statistical data in business.</p>
<p><b>Career Opportunities</b></p>	<p>22. Research career opportunities that require strong analytical skills. <i>Examples: data analyst, derivatives analyst, climatologist, nurse, geneticist, political scientist, rocket engineer, criminologist</i></p>

# Digital Media Design

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	Career Preparedness OR Business Software Applications I

**Digital Media Design** provides a creative, hands-on environment in which students collaborate to produce a variety of digital media projects. Students use various hardware, peripherals, software, and web-based tools to learn skills involving graphic design, digital photography, web design, and digital video production. Additionally, the standards are designed for students to engage in critical thinking skills and practice appropriate behavior in the use of technology. Emphasis is placed on exploring and demonstrating business-related skills such as teamwork, interpersonal skills, and ethics while completing their projects.

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Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to

enhance leadership and teamwork.

6. Discuss and demonstrate ways to value diversity.

## DIGITAL MEDIA DESIGN CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Hardware and Software

1. Compare and contrast types of multimedia design, including desktop publishing, graphic design, web page design, digital photography, animation, and digital video.
  - a. Describe components of digital design, including text, images, animation, audio, and video.
  - b. Explain how creativity and technical skills can be utilized to create multimedia projects.
2. Use a variety of hardware to digitize information in various formats, including digital camera, video camera, scanner, and mobile devices.
3. Utilize a variety of software and equipment to create, modify, and enhance multimedia projects.
4. Perform basic computer functions as they apply to the multimedia design industry.
  - a. Explain how the file storage capacity of media storage devices is affected by the resolution of photographs and other factors.
  - b. Utilize file system folders, online file management services, and naming conventions to organize and back up files.

### Digital Photography

5. Demonstrate appropriate use of digital photography equipment and techniques.
  - a. Utilize various photo composition techniques.  
*Examples: lighting, perspective, candid vs. posed, rule of thirds*
  - b. Transfer still shot images from equipment to the computer.

## Graphic Design

6. Utilize photo editing software to edit and enhance digital photographs.  
*Examples: cropping, scaling, brightness/contrast, saturation, levels, hue/color balance, feathering, masking, layering*
7. Demonstrate design techniques using graphic design software.  
*Examples: selecting, resizing, and manipulating images; changing resolutions; rastering; correcting color; creating images*
8. Apply the design process to digital media.
  - a. Demonstrate the process of planning a digital document.
  - b. Utilize the elements of design (line, shape, form, texture, pattern, color, value, and space) when creating digital media products.
  - c. Demonstrate the principles of design (contrast, repetition, balance, movement, emphasis, harmony, proportion, and unity) when creating digital media projects.
  - d. Demonstrate the effective use of color in digital media.
9. Identify and apply the principles of typography.
  - a. Describe typeface classifications and their uses, including serif, sans-serif, script, and decorative.
  - b. Identify the anatomy of typography including serif, ascender, descender, x height, counter, baseline, and cap height.
  - c. Identify and apply typography elements including typeface, style, contrast, color, font size, leading, kerning, tracking, alignment, and white space.
10. Use precision software tools to manipulate images.  
*Examples: deleting, moving, rotating, setting custom alignment guides, extracting, applying filters*
11. Apply integration principles to import scanned, digitized graphics and text, tables, charts, and pictures into a publication.

**Video Production**

- 12. Demonstrate the process of pre-production when creating videos.
  - a. Utilize basic storytelling principles.
  - b. Create a storyboard.
  - c. Organize and plan a production including shot list, shoot schedule, and crew and cast responsibilities.
- 13. Identify and demonstrate effective use of a variety of shots, movements, and angles.
 

*Examples: wide/long, medium, close up, extreme close up, cutaway, over the shoulder, arc, point of view, pan, tilt, zoom, eye level, bird’s eye, worm’s eye*
- 14. Apply proper transitions, edits, titles, effects, and media to create videos for various purposes.
 

*Examples: promotional videos, documentaries, product videos, training videos, social media videos*

**Web Design**

- 15. Compare and contrast elements and purposes of websites, web pages, and web browsers.
 

*Examples: web elements, including hypertext markup language (HTML) tags, headings, and body*
- 16. Develop interactive web pages and sites using a variety of component formats, including HTML, HTML editors, and web authoring programs.
 

*Examples: guest book, forms, hit counter, marquees, hover button, transition, banner advertisements, navigational schemes*
- 17. Determine and apply the appropriate format for digital files for different needs.
 

*Examples: Joint Photographic Experts Group (JPEG), Graphics Interchange Format (GIF), Portable Network Graphics (PNG), Music Player 3 (MP3), Tagged Image File Format (TIFF)*
- 18. Manipulate digital image file sizing.
 

*Example: Optimize the resolution for web and print publications.*

**Ethics/Copyright**

- 19. Summarize laws governing copyright, intellectual property, and software licensing as they relate to multimedia design.
 

*Examples: font usage, photography, illustration, audio and video rights*

  - a. Describe the process of obtaining permission to use copyrighted materials.

# Digital Publications Design

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	Career Preparedness OR Business Software Applications I

**Digital Publications Design** gives students marketable experience in both print and digital publishing. Emphasis is placed on page layout and design, computerized text, graphic art, digital photography, and the use of software to create a variety of publications.

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4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## DIGITAL PUBLICATIONS DESIGN CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Multimedia Components

1. Research award-winning magazines, newspapers, and other print and digital publications and list exemplary practices to be used as guidelines for creating a publication.
  - a. Describe processes involved in producing digital publications, presentations, videos, and websites, including creation of content, layout, graphic design, editing, and publishing.
2. Design and create enhanced, interactive multimedia projects that utilize various computer software and hardware components.
3. Explain the features of various digital file formats.
  - a. Determine the applicable file format for use in a variety of digital publications.
  - b. Use file conversion software to convert multiple types of files.
4. Demonstrate methods of organizing and backing up files using file system folders and online file management services.

### Digital Photography

5. Utilize a variety of equipment to create and import digital images.  
*Examples: digital cameras, scanners*
6. Demonstrate the basic techniques of digital photography.
  - a. Utilize the rules of composition when creating photographs for publication.
  - b. Demonstrate proper use of digital-imaging software and equipment to edit photographs.
  - c. Compare and contrast similar or related photographs to determine which would be most effective on a published page.

### Publishing

7. Explain the importance of setting design goals for publications.

8. Select design elements and content based upon the purpose, message, and audience for a publication.
9. Produce original, creative, professional, and appealing publication layouts.
10. Design page layouts with appropriate proportions, balance, and typography.
  - a. Demonstrate techniques for text wrapping, creating sidebars and borders, and inserting drop caps.
11. Demonstrate effective writing skills in the development of publications.
  - a. Take complete, concise, and accurate notes during meetings and interviews.
  - b. Write and edit stories and cutlines according to the style selected by a particular publication.
12. Analyze images for visual, spatial, and functional differences.

*Examples: photographs, artwork, shapes, icons*
13. Create publication grids for effective layout of various types of pages.
14. Explain the concepts of copyright, libel, trademark, and fair use as they apply to print and digital publications.
15. Explain the concepts of censorship as they apply to creating a publication.
16. Proofread and correct finished publications.
17. Meet deadlines, multitask, and prioritize as needed to produce a publication in an efficient and timely manner.
18. Produce a finished, edited publication for a particular audience or purpose.
  - a. Distribute a publication in electronic and/or printed versions.

## Video Production

19. Demonstrate the ability to execute the steps in the digital video pre-production process.
  - a. Identify segment type, audience, and genre.
  - b. Create a script and storyboard appropriate to the needs of the production.
20. Demonstrate the ability to successfully complete the digital video production process.
  - a. Identify and utilize commonly used angles and shots.
  - b. Control camera movement to obtain the required effects.
21. Demonstrate the ability to complete the digital video post-production process.
  - a. Operate editing hardware and software to produce videos.

# Economics and Financial Services

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	10-12
<b>Prerequisites</b>	

**Economics and Financial Services** presents basic topics in economics, including the principles and practices of banking, credit, and consumer lending in the United States. Additional emphasis is placed on money management, economic growth and stability, and characteristics of different economic systems and financial institutions. The course includes the major functions of banks and other financial intermediaries, central banking and the Federal Reserve System, current trends in the finance industry, credit functions, principles of credit risk evaluation, loan creation, debt collection, and stocks and bonds.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.

5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## ECONOMICS AND FINANCIAL SERVICES CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Economic Systems

1. Describe different types of business organization.
  - a. Compare the features of sole proprietorship, partnership, and corporation.
  - b. List and explain the advantages and disadvantages of forming a corporation.
  - c. Investigate and share reasons for corporate acquisitions and mergers, giving examples of actual events.
2. Summarize how economic stability impacts growth of the economy.
  - a. Explain the concept of economic growth, including how it fits into the business cycle and why it is considered desirable.
  - b. Explain the four stages of the business cycle, citing examples for each stage from United States and world history.

### Market Systems

3. Compare and contrast major features of a variety of economic systems.
  - a. Describe major economic philosophies, utilizing the terms *profit*, *market*, and *market system*.
  - b. Explain concepts associated with trade among nations.
4. Describe the four basic levels of international business activities: domestic, international, multinational and global.
  - a. Explain how supply and demand impact decisions in business.

### Profit

5. Explain how the profit motive drives decisions in a capitalist economic system.  
*Examples: decisions involving personal investment, banking investment, or economic development*

## Capital

6. Describe the methods and sources available to corporations for raising capital.
 

*Examples: bank loans, fundraisers, venture capitalists, internet sites, savings, friends, family members*

  - a. Identify and share reasons for corporate efforts to raise capital.
  - b. Explain the role of securities in capital markets.

## Trade

7. Explain the financial interdependence of nations.
  - a. Describe the effects of rising and falling exchange rates on the U.S. dollar.
  - b. Explain how businesses reduce the risk of exchange rate losses.
 

*Examples: forwards and futures contracts*
  - c. Describe the advantages and disadvantages of importing and exporting goods and explain the effect such trade has on the United States economy.
  - d. Discuss how outsourcing affects the supply of goods and services in the American economy.
  - e. Research and discuss the impact of trade barriers, including tariffs, on domestic and global markets.

## Banking and Investment

8. Use various sources of information to gather data about specific investments, including stocks, bonds, mutual funds, and futures.
 

*Examples: prospectus, online resources, financial publications*

  - a. Identify and interpret financial data components found in various media sources.
 

*Examples: stock price fluctuations, volume, trend graphs, dividends*
  - b. Explain the importance of the interpretation of financial data and its impact on possible future investments.
9. Outline the growth and role of the banking system in America from its early years to the present.
  - a. Identify the major federal banking laws and their role in the financial services industry.
  - b. Identify emerging financial products and services offered by a variety of financial institutions.
10. Describe banking services provided in the American financial system.
  - a. Compare and contrast services provided by credit unions, full-service banks, investment banks, and on-line banking.
  - b. Identify financial services offered by major non-bank competitors.
  - c. Discuss the role of the Community Reinvestment Act in providing banking services to low- and moderate-income communities.

**Monetary Policy  
and  
Federal Reserve**

11. Describe the role financial institutions play in economic growth and development.
  - a. Explain the role money plays in the American economic system.
  - b. Identify and explain the role the Federal Reserve System plays in American money, credit, and banking processes, including the effects of changes to monetary policies.  
*Example: prime interest rates*

**Consumer  
Economics**

12. Interpret economic and financial data using correct terminology.  
*Example: reports of Gross Domestic Product, United States stock market data (Dow Jones Industrial Average, Nasdaq Composite Index, S&P 500 Index)*
13. Describe the role of consumer credit in today's economy.
  - a. Identify major providers of consumer credit.
14. Describe the impact of consumer debt on both the consumer and on the economy as a whole.
  - a. Differentiate between good and bad debt.
  - b. Identify the components of a credit report and explain the impact of credit scores on a consumer's financial affairs.
  - c. Using a personal budget model, calculate the effects of debt on credit scores.

**Ethics**

15. Demonstrate ethical customer service skills in the financial sector.
  - a. Design a financial plan for products and services based on customers' needs and desires.
  - b. Summarize information about customers' rights and responsibilities and demonstrate effective methods of making customers aware of them.
  - c. Describe methods of protecting customers' privacy and confidential information.

**Cost-Benefit  
Analysis**

16. Gather and share information on the effectiveness of marketing strategies used by financial institutions to attract and retain customers.

# Entrepreneurship

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Entrepreneurship** focuses on the skills needed to organize, develop, create, and manage a business in a variety of environments. Course standards are designed to foster an entrepreneurial mindset; encourage innovation, critical thinking, and problem-solving in a fast-paced professional setting; and build basic knowledge of various entrepreneurial ventures.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

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## Foundational Standards

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2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.

- 6. Discuss and demonstrate ways to value diversity.

## ENTREPRENEURSHIP CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

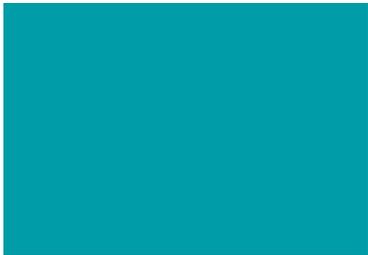
### Foundations of Entrepreneurship

1. Explain the concepts and processes associated with successful entrepreneurial performance.
  - a. Identify political and economic factors that encourage and support entrepreneurship.
  - b. Identify and analyze characteristics of a successful entrepreneur, citing examples from the business world.
2. Discuss the entrepreneurial discovery process and the risks and rewards of being an entrepreneur.
  - a. Assess global trends and opportunities for establishing new businesses.
  - b. Identify possible opportunities for creating new businesses on the local, state, and/or national level.
3. Explain the fundamental concepts of business ownership.
  - a. Discuss the role of competition in a private, free-enterprise system.
  - b. Explain the effects of competition on buyers and sellers.
4. Compare and contrast types of business ownership, indicating their advantages and disadvantages for entrepreneurs.

*Examples: sole proprietorships, partnerships, corporations, LLCs*

### Marketing Information Management

5. Explain the concepts, systems, and tools needed to gather, access, synthesize, evaluate, and disseminate information for use in making business decisions.
  - a. Describe methods used to obtain marketing research data, including primary and secondary research.
  - b. Describe characteristics of effective data collection instruments.
  - c. Explain techniques for processing marketing information.
  - d. Describe methods used to interpret and present market segment information, including reports, charts, and graphs.



6. Identify the concepts, strategies, and systems needed to implement and obtain support for an entrepreneurial entity.
  - a. Utilize strategies to determine feasibility of ideas.  
*Examples: test marketing, prototyping, marketing research*
  - b. Gather and share information on the major reasons for business failure, citing examples of actual cases.
  - c. Utilize the marketing functions to assess the competitive advantage of a business.



7. Identify the elements needed in a formal written business plan, including an executive summary; introduction; analysis of strengths, weaknesses, opportunities, and threats (SWOT analysis); planned operation of the proposed business or service; timelines; planned financing; and requests for financing.
8. Gather and share information on the concepts, processes, systems, strategies, and tools needed to create a successful business venture.
  - a. Identify goods and/or services to be sold in a proposed business.
  - b. Discuss and explain the types of risks that businesses encounter.
  - c. Identify the market segment for a proposed business.
  - d. Formulate a marketing mix designed to reach a specific market segment.
9. Explain the processes and strategies used in selecting a business location whether brick-and-mortar, e-business, or both.
  - a. Discuss advantages and disadvantages of types of business locations.
  - b. Explain the steps used in conducting a location analysis.
  - c. Identify current trends and other criteria for site location.
  - d. Justify the rationale for selecting a particular site.



10. Gather, evaluate, and share information on the processes, strategies, and systems needed to guide the financial organization of an entrepreneurial entity.
  - a. Discuss, compare, and contrast sources of capital used by entrepreneurs.
  - b. Identify fixed and variable costs and tax liability for startup and maintenance of a business.
  - c. Explain the terminology used in financial reports.
  - d. Create a tentative budget for a proposed business and explain the purpose of each component, including income statement, balance sheet, and cash flow statement.

<p><b>Legal Issues</b></p>	<p>11. Gather and share information on legal issues affecting businesses.</p> <ul style="list-style-type: none"> <li>a. Identify governmental agencies and regulations affecting businesses.</li> <li>b. Define and utilize terms used in business law. <i>Examples: copyright, trademark, patent, logo, license, permit</i></li> <li>c. List licenses needed by a small business.</li> </ul>
<p><b>Product and Service Planning</b></p>	<p>12. Obtain and share information on product strategies.</p> <ul style="list-style-type: none"> <li>a. Describe how technology is used in the product/service management function.</li> <li>b. Describe strategies used by marketers to position products or services.</li> <li>c. Describe techniques used by businesses to position corporate brands.</li> <li>d. Explain the importance of planning purchases.</li> </ul>
<p><b>Distribution</b></p>	<p>13. Identify and explain place strategies.</p> <ul style="list-style-type: none"> <li>a. Describe how technology is used in the channel management function.</li> <li>b. Describe ethical considerations in channel management.</li> <li>c. Coordinate channel management with other marketing activities.</li> <li>d. Compare the costs and benefits associated with various inventory management systems.</li> </ul>
<p><b>Pricing</b></p>	<p>14. Identify and explain pricing strategies.</p> <ul style="list-style-type: none"> <li>a. Describe the role of ethics in pricing.</li> <li>b. Explain the use of technology in the pricing function.</li> <li>c. Identify factors that affect pricing strategy decisions, including the product life cycle.</li> </ul>
<p><b>Selling and Promotion</b></p>	<p>15. Identify and explain promotion strategies.</p> <ul style="list-style-type: none"> <li>a. Describe how technology is used in the promotion function.</li> <li>b. Discuss the components of the promotional mix, including direct marketing and digital marketing.</li> <li>c. Explain the importance of coordinating elements in advertisements.</li> <li>d. Outline a promotional plan for a proposed product or service.</li> </ul>

Ethics

16. Identify and explain selling strategies.
  - a. Describe how technology is used in the selling function.
  - b. Analyze the effectiveness of a company's unique selling proposition.
  - c. Explain the role of sales forecasting and planning.
  - d. Demonstrate sales techniques.
17. Identify the ethical, social, and environmental responsibilities of businesses in relation to employees, customers, and the community.
  - a. Describe the social obligations of a business.
  - b. Discuss ethical behavior and ethical issues in business.
  - c. Describe safety procedures and health procedures used in business operations.
  - d. Identify environmental concerns and issues related to the operation of a business.

# Event Planning and Management

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Event Planning and Management** is designed for students interested in learning to create and present gatherings for groups of people to enjoy or attend for corporate goals or individual benefits. The course emphasizes the many facets of this multi-billion-dollar industry, including site selection, financial management, time management, promotion, and catering. Students will organize, plan, and evaluate various meetings and events such as conferences, sporting events, weddings, and workshops.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.

5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## EVENT PLANNING AND MANAGEMENT CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Organizational Development

1. Explain the goals of the event planning process.
  - a. Explain the decision-making process for selecting event locations and venues.
  - b. Describe types of social, educational, and business events and meetings.
2. Identify the steps in creating the vision, purpose, and goals for a proposed event.
  - a. Determine the need for a theme for a proposed event.
  - b. Identify client expectations for a proposed event.
3. Explain the purpose and value of identifying the intended audience for a variety of events.
4. Establish overall event timelines with deadlines clearly indicated.
5. Create an event itinerary to be used during the event.

### Financial Strategy

6. Describe the importance of a financial strategy and budget for a proposed event.
  - a. Estimate the cost allocation for expense items for an event.
  - b. Describe the negotiating skills needed to obtain the best return on investments.

<p><b>Logistics and Legal Issues</b></p>	<p>7. Identify space and site requirements for a proposed event, including the physical layout and flow of facility for business or educational events and spatial design, layout, and flow for special or social events.  <i>Examples: banquet rooms, theaters, convention centers, boardrooms, reception halls</i></p> <p>a. Describe the laws and regulations associated with facilities.  <i>Examples: Americans with Disabilities Act, fire and safety codes</i></p> <p>b. Calculate risks associated with hosting events.  <i>Examples: physical damage, excess alcohol consumption</i></p> <p>c. Determine types and amounts of insurance needed when hosting events.</p> <p>8. Identify the legal components of a contract for a proposed event and the ramifications of breaching a contract.</p>
<p><b>Logistics and Financial Strategy</b></p>	<p>9. Plan food and beverage services.</p> <p>a. Determine the need for caterers and servers both on and away from the event site.</p> <p>b. Calculate menu and meal expenses, including costs per person attending.</p>
<p><b>Logistics and Event Management</b></p>	<p>10. Determine necessary staffing for all areas and functions of an event.  <i>Examples: audio/video technicians, security, ushers, greeters, parking attendants</i></p> <p>a. Create contingency plans to be used in case of emergency.</p> <p>11. Identify various types of transportation and accommodations for an event.</p> <p>a. Research costs and occupancy of shuttles, charter buses, taxis, and public transit available to the site.</p> <p>b. Plan and execute procedures for securing hotel and lodging applicable to site, including negotiations of pricing and room blocks.</p>
<p><b>Promotion</b></p>	<p>12. Describe types of promotion for event planning and identify the appropriate types of promotion for specific events.</p>
<p><b>Technology</b></p>	<p>13. Explain how the use of technology can facilitate and enhance an event.  <i>Examples: event-specific software, mobile apps, registration, live streaming, public reviews, social media</i></p>

**Evaluation**

- 14. Analyze methods of evaluating an event to identify areas of strength and areas that need improvement.
  - a. Use data from an event to inform the planning of future events.

**Career Explorations**

- 15. Research and analyze entry-level positions available in event planning and management and describe opportunities for advancement in the field.
  - a. Assess characteristics necessary for career success in event planning and management.
  - b. Discuss legal, ethical, safety, and security responsibilities of event planners and managers.
  - c. Research certifications available in event planning and management.
  - d. Research and compare salaries for careers in event planning and management.

**Management**

- 16. Demonstrate teamwork, problem-solving, and decision-making skills in implementing a planned event.
  - a. Demonstrate conflict resolution strategies in managing events.
- 17. Explain the importance of communication among clients, vendors, and partners while planning and managing an event.
  - a. Discuss strategies for working with people with different backgrounds, cultures, and beliefs.
- 18. Describe the role of the planner on site at the event and the mindset necessary to oversee successful event coordination.
  - a. Explain the importance of positive staff morale during an event.

**Ethical Issues**

- 19. Conduct standard and customary ethical, legal, risk management, safety, and security analysis for an event.
- 20. Research and identify ethical issues in event planning and managing.

# Foundations of Business Leadership

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Foundations of Business Leadership** focuses on the exploration of leadership and management to determine the impact of management practices on business and industry, management of expectations regarding legal and ethical behavior, and investigation of how resources are managed to achieve company goals. Standards are designed to emphasize principles of sound business management and analysis of business practices to determine ethical and social responsibilities.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

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## Foundational Standards

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3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.

- 6. Discuss and demonstrate ways to value diversity.

## FOUNDATIONS OF BUSINESS LEADERSHIP CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Introduction to Leadership

1. Describe characteristics and behaviors of a successful leader.  
*Examples: integrity, competence, consistency, loyalty, openness, awareness, vision, imagination, responsibility*
2. Compare and contrast various leadership styles, including their effects on colleagues and organizations.  
*Examples: authoritative, autocratic, bureaucratic, coach-style, democratic, laissez-faire, participative, strategic, transactional, transformational*
  - a. Describe how various leadership styles fit into an organization.
  - b. Explain how effective, qualified leadership contributes to the success of organizations.

### Management

3. Identify and describe the roles of individuals at various levels of management.  
*Examples: entry level managers, middle management, upper level management, administrators, executives, superintendents*
4. Explain how the functions of management, including planning, organizing, staffing, leading, and controlling, affect the work environment.
5. Explain the importance of having a clear vision, creating a mission statement, and establishing goals for an organization.
  - a. Explain how stakeholders’ expectations and other factors can influence the vision, mission, and goals of an organization.
  - b. Explain how to communicate vision, mission, and goals to the organization’s stakeholders.
  - c. Identify and describe steps involved in leading an organization to fulfill its stated mission.

6. Explain the concept of time management and the importance of using effective time management techniques.
  - a. Identify distractions and examine strategies for reducing them.
  - b. Clarify and prioritize tasks to meet goals.
  - c. Identify planning strategies to complete work effectively.
7. Explain the importance of diversity and inclusion within organizations.
  - a. Describe ways to attract and recruit a diverse workforce.
  - b. Describe ways to develop and retain a diverse workforce.
  - c. Describe ways to provide equal employment opportunities to all segments of the population.
8. Identify and discuss ways to overcome personal biases and stereotypes within an organization.
  - a. Identify situations in which discrimination exists.
  - b. Describe the consequences of discrimination for individuals, the company, and society.
  - c. Explain how federal laws protect against discrimination.
9. Apply conflict management strategies to resolve workplace disputes.
  - a. Describe possible conflict in the workplace and its sources.
  - b. Describe how diverse cultural perspectives impact conflict and attempts to manage it.
10. Analyze the ethical responsibility of stakeholders and leaders in an organization.
  - a. Gather and share information on ethics from policy and procedure manuals of several businesses.
  - b. Describe how stakeholders can influence ethical decision-making.
11. Demonstrate how to monitor projects and take corrective action.
  - a. Explain the importance of monitoring projects, analyzing progress, and making changes when necessary.
  - b. Identify and describe areas in a project that should be monitored.  
*Examples: progress, quality of work, communication, budget*
  - c. Explain methods for monitoring projects.  
*Examples: group meetings, emails, status reports*
  - d. Describe corrective measures that can be taken when projects are off track.  
*Examples: reassign tasks, modify schedules, reassess goals*

**Legal Issues**

12. Identify laws that business leaders should know and the areas to which the laws apply.  
*Examples: Title VII of the Civil Rights Act of 1964, ADA, Immigration Reform and Control Act of 1986, FMLA, OSHA, FLSA, EPA*

**Employee Relations**

13. Describe the role of a labor union or worker organization.
- a. Trace the history of labor organizations in the United States.
  - b. Describe the advantages and disadvantages of membership in labor unions and worker organizations for a company’s employees.
  - c. Describe the advantages and disadvantages of labor unions for employers and corporations.

**Role of the Leader**

14. Demonstrate professional oral and written communication skills.
- a. Identify types and characteristics of effective communication and explain its importance in the workplace.
  - b. Discuss the benefits and characteristics of open, honest communication.
  - c. Identify barriers to communication and methods for improving the communication process in the workplace.
  - d. Describe culturally-sensitive communication strategies in the workplace.
15. Demonstrate honesty and integrity.
- a. Distinguish between *honesty* and *integrity*.
  - b. Explain the importance of being honest and showing integrity in the workplace.
16. Explain how leadership impacts employee engagement, performance, and the organizational culture.
- a. Describe ways to maximize employee engagement and performance.
  - b. Identify effective strategies to boost employee morale.
17. Demonstrate appropriate professional etiquette.
- a. Explain how workplace habits, attire, hygiene, and awareness of one’s environment (cube etiquette) affect professionalism and the working environment.
18. Demonstrate emotional intelligence skills in dealing with others.
- a. Define and identify components of emotional intelligence.
  - b. Describe the relationship between emotional intelligence and leadership.

- 
19. Demonstrate leadership and teamwork skills.
    - a. Explain the importance of recognizing personal strengths and weaknesses.
    - b. Discuss ways to identify personal strengths and weaknesses.

# Hospitality Management and Marketing

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Hospitality Management and Marketing** emphasizes skills needed for ownership, management, or employment in the growing hospitality and tourism industry. Standards are designed to develop a leadership perspective about social, environmental, economic, legal, human resource, customer relations, and consumer factors impacting the hospitality industry. The course also focuses on the marketing aspect of hospitality and tourism, including sales, promotions, advertising, and public relations.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

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4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## HOSPITALITY MANAGEMENT AND MARKETING CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Operations and Management

1. Develop a marketing plan and sales promotion tool for hospitality and tourism.
  - a. Compare and contrast marketing concepts, advertising, and public relations.
  - b. Summarize the marketing mix, including the five P's (Product, Price, Place, Promotion, People) and the four C's (Client, Cost, Communication, Convenience).
  - c. Identify and describe the steps of a marketing plan.
  - d. Prepare a marketing budget.
  
2. Gather and share information concerning effective strategies for reaching various niche markets in the hospitality and tourism industry, including corporate, educational, sports, religious, and military groups.
  - a. Analyze sales strategies available for use in the hospitality and tourism industry.
  - b. Investigate the role of convention and visitors bureaus (CVBs) in large cities, and trends in the development of CVBs in smaller towns, neighborhoods, and other areas.
  - c. Compare and contrast the respective needs and wants of business and leisure travelers.
  - d. Identify features and benefits of hotel and airline offerings for both leisure and business travelers.
  
3. Demonstrate management skills needed to succeed in hospitality and tourism.
  - a. Identify opportunities for leadership within the hospitality and tourism industry and describe how one might prepare for these positions.
  - b. Compare and contrast styles of leadership and management and explain the importance of varying those styles in response to organization and employee needs.
  - c. Research and explain the use of an Individual Development Plan (IDP) in planning professional learning for employees.
  
4. Research and share information regarding the importance of cost-effective operations in the hospitality and tourism industry.
  - a. Analyze effects of seasonality and generate ideas to offset seasonality in hospitality and tourism operations.
  - b. Explain the importance of negotiating contracts and working within a budget for a department or an organization.
  - c. Explain the importance of cost control in the hospitality and tourism industry.
  - d. Identify the tax responsibilities managed by hospitality and tourism leaders.

Customer  
and  
Human  
Resource  
Management

5. Describe the necessity for strong customer service skills and explain the importance of guest services in the hospitality and tourism industry.
  - a. Describe skills, traits, and behaviors needed to offer top-quality guest services and build positive relationships with customers and clients.
  - b. Demonstrate proper workplace etiquette for listening, speaking, and writing.
  - c. Explain how social media are used in tourism and hospitality and the importance of providing timely responses to guests' feedback.
  
6. Identify and describe the essential functions of human resources in the hospitality and tourism industry.
  - a. Explain the importance of recruiting, selecting, training, and retaining high-quality employees in the hospitality and tourism industry.
  - b. Deal effectively and ethically with workplace issues.  
*Examples: maintaining confidentiality with business matters, performing job functions*
  - c. Demonstrate the ability to use problem-solving, decision-making, and critical thinking strategies when dealing with customer service, co-workers, and vendors.  
*Examples: resolving complaints or disputes, negotiations*
  
7. Identify techniques and strategies to build an effective sales team.
  - a. Explain the principles and components of supply and demand in relation to the hospitality and tourism industry.
  - b. Identify effective sales techniques.  
*Examples: steps in sales process, cross-selling, upselling, alternative options*
  - c. Explain how customers' needs and perceptions of the hospitality and tourism industry affect their choices.
  - d. Outline an effective sales presentation, including a feature-benefit analysis and plans for promoting products and services through a variety of channels.
  - e. Explain the importance of promoting products and services using publicity, public relations, community events, advertising, and the Internet.

Legal Issues

8. Identify laws and regulations that affect the hospitality and tourism industry.
  - a. Identify the employment laws that impact the hospitality and tourism industry, and describe the role of human resources managers in applying these laws.
  - b. Discuss state and federal labor laws regulating the workplace.  
*Examples: child labor laws, sexual harassment prohibitions, EEOC, ADA, FMLA, OSHA*
  - c. Summarize OSHA requirements that apply to hospitality and tourism settings.

Ethical Issues  
and  
Trends

9. Research and share information on current and emerging trends in the hospitality and tourism industry.
  - a. Analyze tourism challenges at the local, state, and national levels.
  - b. Identify marketing trends that may influence marketing practices in the hospitality and tourism industry.
  - c. Cite marketing challenges and identify ways to respond to their potential occurrence.  
*Example: shifts or changes in travel trends*
  - d. Identify new tourism markets and trends that are developing around the world.
10. Research and share information on ethical and global issues in the hospitality and tourism industry.
  - a. Describe how managers can lead employees to meet the needs of global guest audiences.  
*Examples: discuss challenges and opportunities in welcoming people from diverse cultures, model inclusive behavior, respect diversity*
  - b. Explain the concept of social responsibility, and describe examples of how hospitality and tourism companies are including corporate social responsibility initiatives in their organizations.
  - c. List issues related to personal and business ethics.  
*Examples: theft, pilfering, unauthorized discounting*
11. Demonstrate an understanding of current conservation and sustainable practices in the hospitality and tourism industry.
  - a. Describe the benefits of sustainable practices and the role hospitality and tourism managers play in implementing them.
  - b. Identify green practices that can be initiated and implemented by the front of the house staff.
  - c. Explain the benefits of using sustainable building materials.
  - d. Identify ways the facilities management team can reduce a property's carbon footprint.

Technology

12. Summarize the value and uses of technology for hospitality and tourism marketing.
  - a. Research trends in the use of computers and software for travel reservations.
  - b. Evaluate security issues faced by hospitality and tourism professionals.

*Examples: hacking, viruses*
  - c. Contrast the value-added services offered by a travel consultant with those provided by an online travel agency (OTA).
  - d. Compare and contrast the use of various social media channels in the hospitality and tourism industry, examining the culture, purpose, and target audience of each.

# Human Resource Management

<b>Course Credit</b>	0.5 (Content standards 1, 3, 5-6, 9-13, 18-19, 25-26, 29, 31 are required), OR 1.0 (All content standards are required)
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Human Resource Management** focuses on preparing students for employment in the human resources field. The course emphasizes understanding the impact of proper management of people as a resource in business and identifying and managing issues facing human resources professionals, such as globalization, diversity, new technologies, knowledgeable workers, and changing trends in the workplace.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.

6. Discuss and demonstrate ways to value diversity.

## HUMAN RESOURCE MANAGEMENT CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Introduction to Human Resources

1. Identify and explain the traditional functions of human resources.  
*Examples: recruiting, selecting, training, developing, compensating*
  - a. Describe the responsibilities of a human resource manager.  
*Examples: advice and counsel, service, policy formulation and implementation, employee advocacy*
  - b. Compare and contrast human resources departments in large, midsized, and small organizations.
2. Explain current issues and trends that influence human resource management.
  - a. Identify strategies to adapt to trends.  
*Examples: globalization, diversity, new technologies, knowledgeable workers*

### Business Leadership

3. Describe the process of developing a mission statement and vision for an organization.
  - a. Explain how a company’s mission statement and vision impact day-to-day functions and affect employee morale.
  - b. Compare and contrast the mission statements of several companies.  
*Examples: large company vs. small company, for-profit organization vs. nonprofit organization*
  - c. Create a new or updated mission statement and vision for a business or organization.
4. Research and report on ways different leadership styles impact the performance, engagement, and morale of teams and organizations.  
*Examples: authoritative, autocratic, bureaucratic, coach-style, democratic, laissez-faire, participative, strategic, transactional, transformational*

## Recruitment

5. Describe effective methods of recruiting candidates externally and internally.
  - a. Propose ways to develop a diverse pool of talent for employment consideration.
  - b. Gather and share information on places or media where employers advertise open positions.  
*Examples: newspapers, electronic job boards, social media*
  - c. Discuss the pros and cons of different types of advertisements.
  - d. Describe the elements of a job posting and explain why each is important.
  - e. Create a sample job posting for a selected position.
  - f. Gather and share information regarding the use and effectiveness of electronic hiring platforms.
  
6. Explain how selection tools are used in choosing a candidate for a position.  
*Examples: interviews, skill tests, honesty and integrity testing, physical examinations, drug testing, reference and background checks*
  - a. Gather and share information on different ways companies conduct interviews and how candidates progress through an interview process.
  - b. Compare and contrast the hiring processes in businesses of different sizes.
  - c. Discuss how an organization utilizes job description and skillset to select the candidate best suited for an open position.
  - d. Explain the methods and importance of verifying information supplied by candidates for employment.
  
7. Identify legislation that affects the recruitment and selection processes.  
*Examples: Americans with Disabilities Act, Genetic Information Nondiscrimination Act, Age Discrimination in Employment Act*
  - a. Locate specific employment tools and evaluate them based on existing legislation.  
*Examples: questionnaires, tests*

## Employee Relations

8. Discuss the importance of positive morale in the workplace and the consequences of negative morale.
  - a. Identify strategies to build an atmosphere of teamwork and encourage employee engagement.
  - b. Conduct research to find organizations with excellent employee morale and identify factors that contribute to their positive atmosphere.

9. Compare and contrast different types of performance reviews and their potential impacts on employees and the organization.
  - a. Identify strategies utilized to address poor performance by employees and to impose consequences for such performance.

*Examples: tardiness, unreliability, improper dress, difficulty working with customers*
  - b. Describe strategies to motivate employees to do their best work.
10. Examine the onboarding process for new employees in different types of businesses.
  - a. Compare and contrast what parts of an onboarding process are constant and which differ depending upon the organization's type, size, and structure.
  - b. Discuss the effect of a well-prepared onboarding process on retention of employees.
11. Describe the expectations that a business or organization has for employees.

*Examples: attendance, professional dress, standards of behavior, confidentiality*

  - a. Gather and share information on the differences in expectations among jobs in various industries or fields.

*Examples: medical, business, agriculture, criminal justice, human services, technology, automotive*
12. Explain how wages and other compensation are determined in different employment categories.

*Examples: regular full-time, regular part-time, exempt, non-exempt, temporary full-time, temporary part-time, contingent or on-call*

  - a. Describe different pay scales, salary grades, and types of pay related to merit, overtime, and commission.
  - b. Describe ways other than wages that employees are compensated.

*Examples: bonuses, incentives, use of company vehicles, insurance*
  - c. Compare and contrast the payroll function of human resource departments in organizations of different sizes.

## Employee Benefits and Compensation

13. Describe benefits customarily offered to employees.
  - a. Describe provisions of annual leave, sick leave, family and medical leave, military leave, administrative leave, extended sick leave, and other types of leave.
  - b. Describe different types of employer-provided insurance.  
*Examples: medical, dental, vision*
  - c. Correlate employee benefits with the size of the company or organization.
  - d. Gather and share information on types of retirement plans for employees including employer contributions and required employee contributions.
  - e. Enumerate and explain benefits other than leave, insurance, and retirement plans which companies may offer their employees.  
*Examples: purchase discount programs, tuition reimbursement, on-site child care*

## Organizational Development

14. Describe different types of training and professional development for employees.
  - a. Differentiate between on-site and off-site training and determine the positive and negative aspects of each.
  - b. Explain the benefits of providing consistent and timely training and professional development related to advances in technology, growth and expansion of the business, policy changes, and legal considerations.
15. Explain why professional development is a shared responsibility between a business and an employee.
  - a. Categorize various types of professional development opportunities as the responsibility of either the employer or the employee.
  - b. Describe the relationship between lifelong learning and professional development.
16. Gather and share information on various work environments, including positive and negative aspects of each type.  
*Examples: office, working from home, working from a vehicle*

## Diversity in the Workplace

17. Explain how changing demographic trends in the workplace impact diversity.
  - a. Gather information about the aging workforce and the challenges associated with multigenerational employees working together.
  - b. Identify areas of diversity in the workplace and describe the positive and negative aspects of each with regard to best practices, diversity challenges, strategic team building, and employees working well together.  
*Examples: cultural differences, work styles, emotional intelligence, religion*
18. Explain the power of diversity of thought and how this applies to building a cohesive workforce.
  - a. Describe how identity, culture, and experience inform the contributions of employees in the workplace.
  - b. Conduct research to find organizations with positive relationships among diverse employee populations and identify the strategies employed successfully by these organizations.
19. Describe legislation, resources, and policies which encourage the hiring of employees from special and/or minority populations.  
*Example: Hire More Heroes Act*
  - a. Discuss ways of advertising positions to emphasize details that will attract a diverse pool of candidates and exhibit cultural sensitivity when describing what makes an organization a good place to work.

## Labor Relations

20. Identify the tasks and responsibilities of labor unions for a variety of industries and describe the advantages and disadvantages of joining a union.
  - a. Describe how employer actions differ in unionized and non-unionized businesses.
21. Describe the meaning of the phrase *right-to-work* and discuss the implications of right-to-work legislation for employees.
  - a. Distinguish the differences among right-to-work laws from state to state.
  - b. Form an opinion based on research as to which states' laws best protect employees.
22. Conduct research to identify a variety of unfair labor practices as defined by the National Labor Relations Act (NLRA), Federal Labor Relations Authority, and other labor laws or entities.
  - a. Summarize case studies to describe the labor practice being examined, the filing of charges, the investigation and processing of the charge, and the issuance of complaint and settlement, and (possibly) the hearing and decision (if a case is not settled following the issuance of complaint).

## Ethics, Legal Issues, Safety, and Security

23. Summarize the role of the U. S. Equal Employment Opportunity Commission (EEOC) in enforcing federal laws prohibiting discrimination against a job applicant or an employee because of race, color, religion, sex (including pregnancy, gender identity, and sexual orientation), national origin, age, equal pay, disability, or genetic information.
  - a. Identify types of employers that are covered by EEOC and explain the role and authority of EEOC in investigating charges of discrimination against covered employers.
24. Explain the importance of establishing and implementing strong policies and procedures for dealing with all forms of harassment.
25. Define the phrase *employment at will* and discuss the origins of this policy.
  - a. Explain the implications of employment at will for employees and summarize the pros and cons associated with this policy.
  - b. Identify any known exceptions to the employment at will rule and describe how these exceptions differ from state to state.
26. Conduct research to identify employment policy violations which can have legal ramifications and workplace consequences.

*Example: misuse of social media, drug use, data breaches*
27. Identify safety and security policies in place at businesses and discuss the differences between the policies in various industries and in organizations of different sizes.

*Examples: acceptable use, use of social media, personal calls, company vehicle use, solicitation*

## Global Human Resources

28. Explain the concept of human resource planning and how it relates to outsourcing.
  - a. Identify companies in the United States that rely heavily on the outsourcing of jobs and explain why the practice of outsourcing benefits them.

**Career Exploration**

- 29. Gather and share information on labor laws in various countries and the impact that such laws have on conducting business across the globe.
  - a. Compare and contrast the ease or difficulty of conducting business in different countries as determined by labor laws, cultural practices, and international politics.
- 30. Conduct research to identify top international employers and discuss what strategies and business practices are utilized by these employers to ensure their success.
  - a. Evaluate the practices used by leading international employers and discuss the possibilities for their use among other international employers.
- 31. Gather information on employment prospects and salary expectations for different jobs in the human resource management field.

# Information Management

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Information Management** concerns a cycle of organizational activity: the acquisition of information from one or more sources, the custodianship and the distribution of that information to those who need it, and its ultimate disposition through archiving or deletion. This course focuses on key components of information systems and information management and how each is utilized in business.

This course is designed to give students insight to a path towards becoming a certified Information Manager.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

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2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.

5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## INFORMATION MANAGEMENT CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Introduction

1. Distinguish between data management and information management.
  - a. Describe how the development of Information Technology (IT) led to the need for information management, citing real-world examples.
  - b. List information management system competencies.
  - c. Discuss ethical issues in information management.  
*Examples: censorship, security, privacy*
  - d. Show the consequences of enterprise systems on organizational agility.

### Information Technology

2. Describe Information Technology (IT).
  - a. Give examples of IT’s potential uses in future systems and the issues that may be incurred during its use.
  - b. Describe the nature of information technology and its technical maturity.
  - c. Compare how IT is used in the government and the private sector.
  - d. Give examples of how IT can be used for strategic issues.
  - e. Research and report information on the future trends in information technology systems and describe their potential impact on society.  
*Examples: global, social, personal, mobile devices, wearable, collaborative, printable*

### Information Systems

3. Describe Information Systems (IS), including components and their maturity.
  - a. Describe a Strategic Information System.
  - b. List examples of key operational Information Systems.
  - c. Describe how support systems affect both operational and strategic Information Systems.

<p><b>Organizations</b></p>	<p>4. Describe different kinds of Information Management organizations.  <i>Example: internal, external, IS/IT environments</i></p> <ol style="list-style-type: none"> <li>Describe components of internal and external IS/IT environments.</li> <li>Develop plans for an organization using the components of a well-defined Information Management environment.</li> </ol>
<p><b>Strategies</b></p>	<p>5. Describe different strategies used in Information Management.</p> <ol style="list-style-type: none"> <li>Discuss the importance of the Information Systems strategy and the consequences of a lack of strategy.</li> <li>Define and illustrate the strategic processes used in Information Management.</li> <li>Describe the differences between Information Systems and Information Technology strategies.</li> </ol>
<p><b>DIKAR</b></p>	<p>6. Diagram the strategic alignment model (also referred to as the DIKAR [Data, Information, Knowledge, Action, and Result] model), and show how the layers influence attitudes toward Information Management.</p>
<p><b>Business Processes</b></p>	<p>7. Identify components and processes of managing business information and give examples of effective application of the processes.</p> <ol style="list-style-type: none"> <li>Identify business processes used in Information Management in state and national governments.</li> <li>Define and give examples of recent radical process redesign in businesses' Information Management.</li> <li>Show examples of the depth and scope of problems resulting from change in business processes in Information Management.</li> </ol>
<p><b>Portfolio Information</b></p>	<p>8. Discuss two discriminating factors that allow a business to construct an alternative portfolio for information.  <i>Examples: project portfolio, legacy portfolio, common service portfolio</i></p> <ol style="list-style-type: none"> <li>Explain the difference between “availability of information” and “nature of the information.”</li> <li>Construct a matrix showing each stage or quadrant of the information portfolio, consisting of huge volumes of unstructured data.</li> <li>Describe the methods, techniques, and tools used for business and systems analysis and how the business analysis relates to the Information Portfolio.</li> </ol>

## Information Management Benefits

9. Outline each of the four stages of the benefits management cycle.  
*Example: Stage 1: Identify and structure benefits, Stage 2: Plan benefits realization, Stage 3: Execute benefits delivery plan, Stage 4: Review, evaluate, and exploit*

## Information Management Models

10. Describe Information Management bodies of knowledge (IMBOK) models.
- Describe the six knowledge areas: information technology, information system, business processes, business information, business benefit, and business strategy.
  - Describe the four Information Management processes: projects, business change, business operations, and performance management.
  - Graphically represent the relationship between the knowledge areas and the processes of Information Management.  
*Examples: matrix, charts, infographics, slides*
11. Compare Andy Bytheway's model for Information Management to other models for Information Management.
- Identify the pros and cons for various models for Information Management.

## Building an Information Management System

12. Build an Information Management System.
- Create and/or use spreadsheets, graphs, diagrams, text, and/or other representations to design and establish a well-structured Information Management system.
  - Collect relevant data, determine its usefulness, and organize applicable data for use in Information Management.
  - Examine and explain the software applications associated with analysis used for Information Management.
  - Explain and describe how information and analysis assist in business decision-making.
  - Perform data analysis to make business decisions and explain how data can be used in the decision-making process.

# International Business Concepts

<b>Course Credit</b>	0.5 (Content standards 1-3, 6, 8, 10, 12, 16 are required), OR 1.0 (All content standards are required)
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**International Business Concepts** is designed to provide an understanding of how and why businesses choose to expand their operations into other countries. This course presents challenges facing firms doing business internationally. The focus of course standards is on the exploration of advantages and disadvantages of conducting business in a global marketplace. Course standards provide opportunities for students to learn about business operations in the global economy.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

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3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.

- 5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
- 6. Discuss and demonstrate ways to value diversity.

## INTERNATIONAL BUSINESS CONCEPTS CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Globalization

- 1. Describe the relationship between globalization and international business.
  - a. Explain why companies engage in international business and the factors that encourage its growth.
  - b. Gather and share information on the expansion of technology and its effects on the global economy.

### Global Economics

- 2. Compare and contrast economic measurements and statistics, including gross domestic product (GDP), gross national income, human development index, and inflation rates, in various countries around the globe.
- 3. Gather and share information on how countries rate according to the Index of Economic Freedom.
  - a. Describe the factors used in ranking countries on the Index of Economic Freedom.

### Global Marketing

- 4. Compare and contrast types of marketing orientation, including production, sales, and customer orientations.
  - a. Differentiate between strategic and societal marketing.

### Global Strategy

- 5. Gather and share information on how multinational companies increase profitability, citing specific examples.
  - a. Describe how the economic environment of a country affects its attractiveness to foreign investors.
- 6. Gather, evaluate, and share information on foreign direct investment.
  - a. Describe factors that make investing in a foreign company attractive to investors.
  - b. Describe positive and negative consequences experienced by a host country as a result of foreign direct investment.

	7. Gather, evaluate, and share information on collaborative domestic arrangements.
<b>Global Supply Chain</b>	8. Assess how product quality affects the global supply chain. a. Explain how political factors influence the global supply chain. 9. Explain the role of inventory management in the global supply chain.
<b>Ethics</b>	10. Gather, evaluate, and share information on international business ethics and global corporate ethical behaviors. a. Evaluate the behaviors of selected multinational enterprises in foreign countries to determine whether those behaviors are ethical. b. Explain how the Corruption Perceptions Index is created and utilized. c. Discuss international companies' code of conduct policies.
<b>Importing and Exporting</b>	11. Describe the growth of direct marketing, including Internet or e-commerce marketing. 12. Explain the different types of trade barriers and their economic effects.
<b>Foreign Exchange Markets</b>	13. Explain the functions of the foreign exchange market. 14. Identify the major determinants of exchange rates. a. Describe how exchange-rate movements influence business decisions. b. Explain how companies show foreign-currency transactions on financial statements.
<b>Finance</b>	15. Interpret accounting standards required by United States stock market regulators. a. Explain major reporting issues for financial statements. <i>Examples: language, currency, financial statement format, accounting principles</i>
<b>Trade</b>	16. Describe how cross-border trade and movement of resources impact national economies.

# Mobile Application Development

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	Career Preparedness, OR Business Software Applications I, OR Computer Science for Business

**Mobile Application Development** is designed to equip students to create and develop mobile applications, which are both popular and important in education, entertainment, news, social dynamics, media, and general learning. This project-oriented course focuses on learning principles of basic design and development of mobile applications. This course will include analytical skills that mobile developers require for overall career success.

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## MOBILE APPLICATION DEVELOPMENT CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

<b>Creative Communication</b>	<ol style="list-style-type: none"> <li>1. Research multiple Internet publishing platforms to determine their suitability for various media types, target audiences, and feedback mechanisms.               <ol style="list-style-type: none"> <li>a. Utilize business communications to meet the needs of the targeted audience.</li> <li>b. Collaborate on a diverse team, using office or team norms.</li> </ol> </li> </ol>
<b>Digital Tools</b>	<ol style="list-style-type: none"> <li>2. Utilize a variety of digital tools to create digital products involving multiple content areas.               <ol style="list-style-type: none"> <li>a. Describe the components of mobile applications.</li> <li>b. Deploy an app using an emulator or a mobile device.</li> <li>c. Utilize version control capabilities and manage historical changes when editing documents within a digital tool, both independently and collaboratively.</li> <li>d. Select and use appropriate features to meet the desired functionality of an app. <i>Examples: user interface components, layout arrangements, media objects, drawing and animation, sensors, location awareness, accessing phone features</i></li> </ol> </li> </ol>
<b>Collaborative Research</b>	<ol style="list-style-type: none"> <li>3. Collaborate with peers, experts, or community members to analyze local, national, and global issues and problems in developing mobile applications. <i>Examples: competitive and overcrowded markets, OS and Mobile Device, software architecture pattern</i></li> </ol>
<b>Careers</b>	<ol style="list-style-type: none"> <li>4. Gather and present information on mobile app developers and popular applications.               <ol style="list-style-type: none"> <li>a. Research ways that technology is affecting careers in mobile applications development. <i>Examples: engineering, biomedical sciences, computer science</i></li> </ol> </li> </ol>
<b>Design</b>	<ol style="list-style-type: none"> <li>5. Analyze user-centered design principles in various models of an app or code. <i>Examples: print characters, sound, images, video</i></li> </ol>

Data

- 6. Analyze the structure and functionality of various mobile programs.  
*Examples: user interface components, data components, event handlers, procedures*
- 7. Evaluate ways to organize data elements, plan for data storage, and manage networked computing for mobile devices.  
*Examples: client server, peer-to-peer, cloud computing for mobile devices*
- 8. Create interactive data visualizations using software tools to bring attention to and help others understand real-world phenomena and to improve human outcomes related to the phenomena.  
*Examples: weather patterns, natural disasters, radar trackers, traffic patterns, store inventory, medical diagnoses, packaging, customer service, fitness data*
  - a. Select and use appropriate data features to create the desired functionality of an app.  
*Example: data storage*
- 9. Use data analysis tools to identify patterns in complex systems and create an algorithm to simplify the process.
  - a. Create an algorithm or sequence of steps to simplify daily life procedures at home or at the office.  
*Examples: deciding what to wear, meal planning, creating or organizing recipes, time management, creating and organizing charts, inventory, customer feedback collection, data analysis*

Systems

- 10. Evaluate mobile app scalability and the reliability of mobile networks and protocols, including ability to manage a large and increasing number of clients, customers, and users and accommodate overall growth; ease of app maintenance; measures to prevent gridlock; offline reliability; speed; and end result.
  - a. Identify fastest mobile networks and analyze their features.
- 11. Compare and contrast various mobile operating software systems.
- 12. Describe the advantages and disadvantages of using artificial intelligence in mobile networks, physical systems, and software.  
*Examples: apps for predictive modeling, self-driving cars, satellite networks, internet searching*

	<p>13. Analyze advantages, disadvantages, and features of various cybersecurity programs, and determine which situations are best suited for each.  <i>Examples: two-factor authentication, password requirements, geolocation requirements, antivirus programs, monitored internet access</i></p> <p>a. Explain the importance of protecting personal information.</p>
<p><b>Modeling and Simulation</b></p>	<p>14. Evaluate and explore possible improvements in different environments, situations, and simulations.  <i>Examples: product development, business operations, customer service, flawed modeling/debugging, science lab, robotics lab, manufacturing, space exploration</i></p> <p>a. Use collected data to form, test, and refine a hypothesis regarding possible improvements in a business operation.</p>
<p><b>Human-Computer Partnerships</b></p>	<p>15. Collect feedback from a wide variety of users and systematically design and develop mobile programs to match entertainment preferences for different target audiences.  <i>Examples: games, utilities, mobile applications</i></p> <p>16. Research and share information on apps that use both humans and machines for problem solving.</p> <p>a. Select an app that uses both human and machine input to solve problems and decompose the app’s problem-solving process to determine which part of the problem is solved by humans and which is dependent on the machine.  <i>Examples: facial recognition, personal virtual assistants, GPS maps, social media feeds</i></p>
<p><b>Design Thinking</b></p>	<p>17. Use an iterative design process of prototyping, testing, analyzing, and refining to design and develop a mobile application.</p>
<p><b>Abstraction</b></p>	<p>18. Decompose problems into parts, then filter the important information to create a new sequence to solve the problem.</p> <p>19. Explain how code or other systems behind the user interface make apps look a certain way, even though the code is not visible to the user.</p> <p>a. Determine the changes in user interface when modifying an app’s code.</p>

**Algorithms**

- 20. Plan algorithms when developing the app functions using pseudocode, then compare and convert it to programming language needed for the app design environment being used.
- 21. Compare and contrast sequential statements, conditional statements, and *and/or* iterations.
  - a. Determine the trade-offs that exist with using one control structure over another.
  - b. Determine which control structure is best for programming different parts of an app.
- 22. Determine when a solution requires decisions to be made among alternatives.
 

*Examples: iterative loop, selection constructs, recursion*
- 23. Adapt existing algorithms to solve computational problems when developing an app.
  - a. Research multiple algorithms for corrections in developing an app.

**Programming**

- 24. Design and use different prototypes to test an app to determine whether it performs according to design specifications.

**Safety, Privacy, and Security**

- 25. Describe the functions of user tracking methods developed as an internal component of an app.
  - a. Investigate the ethical ramifications of user tracking and create a written or digital presentation stating and defending their own beliefs about the propriety of tracking.
- 26. Develop and present an end-user license agreement for an app that includes a terms of service agreement granting rights to access or use personal data and media.
- 27. Describe the physical, legal, and ethical consequences of inappropriate digital behavior.
 

*Examples; cyberbullying, inappropriate sexual communications, digital footprint on social media*
- 28. Develop a plan to build a positive reputation of the app company and personal identity online.

**Legal and Ethical Behavior**

- 29. Research and apply safety measures that could protect an app and its data from malware and other attacks.
- 30. Explain the fair use doctrine and the benefits and negative effects of laws that protect intellectual property.
  - a. Determine potential effects on innovation of laws protecting intellectual property.

# Project Management

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	

**Project Management** is designed to introduce students to the myriad facets of Program and Project Management, test the character of each student as they juggle the complexities and conflicting demands, and initiate the development of difficult decision-making, for a successful program.

Project management is one of the most critical components of a successful business. It affects revenues and liabilities, and it ultimately affects customer or client satisfaction and retention. Project management is the application of knowledge, skills, tools, and techniques for project activities, to meet the project requirements.

A company might have only one project in the program in the works at a time, while other larger corporations or entities might juggle several projects at once. By their very nature, projects are temporary. A project is temporary in that it has a defined beginning and end in time, and therefore defined scope and resources to create a unique product, service, or result. It is a specific set of operations designed to accomplish a singular goal for the program. Projects are the mechanics of “getting it done” within a program. This course provides students with an opportunity to gain insight to the path of becoming a Certified Project Manager (PM).

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

Each foundational standard completes the stem “*Students will...*”

## Foundational Standards

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and

demonstrate job-seeking skills including resume-writing and interviewing.

4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## PROJECT MANAGEMENT CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Foundations of Project Management

1. Gather and share information about the benefits of effective project management and the qualifications of a project manager.
  - a. Explain the benefits of project management certification and the requirements for obtaining it.
  - b. Identify ethical issues in project management.  
*Examples: intellectual property, false information, taking money from a project, ignoring procedures*
  - c. Outline the functions of a project management office.
  - d. Describe the challenges a global project presents, including financial implications, logistical and communication difficulties, and cultural differences, and identify techniques to overcome these challenges.
  - e. Describe project portfolio management, listing criteria for selecting projects.

### Life Cycle

2. Describe the stages of the product life cycle.
  - a. Describe the technology life cycle model, including the segments and their markets.

### Project Planning

3. Outline the five stages of project management, indicating best practices of each stage.  
*Example: initiation, planning, execution, monitoring and controlling, closing*
  - a. Evaluate tools that assist in planning.  
*Examples: brainstorming, Gantt charts, fishbone diagrams*

**Statement  
of Work**

4. Write a statement of work (SOW) for a selected project.
  - a. List the components of a project SOW, including business need, product scope, and strategic plan.
  - b. Plan the project schedule and duration for a given SOW.
  - c. Discuss how the SOW will be used to monitor and correct any problems that arise during the project.
  - d. Describe how a SOW defines the end of the project.

**Project Steps**

5. Implement steps of project management.
  - a. Develop a project charter.
  - b. Develop a project management plan.
  - c. Describe the challenges of directing and managing project work.
  - d. Describe the challenges of monitoring and controlling work.
  - e. Explain how to perform integrated change control.
  - f. Explain how to perform project or phase closeout metrics.

**Scope  
Management**

6. Follow steps of project scope management.
  - a. Apply knowledge to plan scope management.
  - b. Collect and capture client requirements.
  - c. Delineate the scope of a project, providing the description of the expected outcome.
  - d. Create a Work Breakdown Structure (WBS), breaking down the description into small manageable parts.
  - e. Validate scope and secure clients' approval via formal acceptance document.
  - f. Control scope, monitoring the project status and managing scope creep.

**Schedule  
Management**

7. Create and follow a project schedule or time management plan.
  - a. Estimate the total time frame of the project, using the time estimated to complete each task or phase.
  - b. Outline project activities and milestones and assign resources to project tasks.
  - c. Sequence activities for effective project completion.
  - d. Create a project timeline, taking into account the time needed for each task.  
*Examples: task list, milestone chart, Gantt chart*
  - e. Develop a detailed schedule based on the project timeline.
  - f. Monitor and manage the project schedule, reviewing the costs and making adjustments as needed.

## Cost Management

8. Develop and utilize a project cost management plan.
  - a. Estimate project costs, including expenditures for human resources, materials, equipment, facilities, and project related services.
  - b. Outline cost management procedures.
  - c. Determine budget, including a detailed work plan, a list of materials and permits, and an estimate of weekly expenditures.
  - d. Control costs by determining cost thresholds and requiring permission for deviations from the budget.

## Quality Management

9. Implement project quality management procedures.
  - a. Plan quality management, incorporating quality requirements, government regulations, and stakeholder specifications.
  - b. Discuss and develop metrics for managing quality.
  - c. Discuss and create processes to verify that project deliverables meet quality criteria, allowing for corrective action when needed.
 

*Examples: inspections, verification and validation (v&v)*

## Resource Management

10. Implement a project resource management plan.
  - a. Plan resource management to identify, acquire, and manage necessary personnel and resources, including a work breakdown structure, roles and responsibilities documents, an organizational chart, and a staffing plan.
  - b. Explain activities associated with managing resources, including budgets, staffing, and materials.
  - c. Determine what additional resources are needed.
  - d. Develop the project team, planning for appropriate training and for the stages of creating a team.
 

*Examples: assembling the team, storming, norming, performing, adjourning*
  - e. Create and utilize structures for managing the team.
 

*Example: assignment matrix*

## Communications Management

11. Create formal communication protocols to implement project communications management.
  - a. Plan a communications approach that effectively and efficiently meets the needs of project stakeholders.
  - b. Manage communications by keeping stakeholders engaged and project team members motivated and by providing appropriate clarity and detail on relevant topics.
  - c. Monitor communications, ensuring the information needs of project stakeholders are being met in a timely fashion.

## Risk Management

12. Follow procedures for project risk management.
  - a. Plan for risk management, identifying uncertainty and potentially unfavorable incidents and planning how they will be handled in projects.
  - b. Utilize tools to identify the risks associated with a project.

*Example: documentation reviews, information gathering, brainstorming, checklist analysis, assumption analysis, diagramming, "Strength, Weaknesses, Opportunities, Threats (SWOT)" analysis, expert judgment techniques*
  - c. Perform and utilize qualitative risk management analysis, analyzing risks to determine their likelihood of occurrence and impact on project goals and prioritizing risks based on severity of impact.
  - d. Develop a risk response strategy to address potential risks if they arise.

*Examples: plan to avoid the risk, accept the risk's existence, mitigate the impact, transfer risk to another entity*

## Procurement Management

13. Implement project procurement management procedures.
  - a. Establish procedures and relationships to determine what to buy, how to buy it, what suppliers to use, and the approach to getting what is needed.
  - b. Procure necessary items, negotiating contracts and agreements with sellers, suppliers, and contractors.
  - c. Monitor and control procurements, ensuring that everything goes according to plan during the contract creation and purchasing phase.

## Stakeholder Management

14. Develop a project stakeholder management plan.
  - a. Identify project stakeholders, including anyone who might be involved, interested, or have an impact on the project, and assess their involvement.
  - b. Develop a stakeholder management plan, analyzing stakeholders' expectations of the project and deliverables.
  - c. Manage stakeholder engagement, engaging in proactive communication with each stakeholder to address concerns.

# Web Development

<b>Course Credit</b>	1.0
<b>Grade Levels</b>	9-12
<b>Prerequisites</b>	Career Preparedness, OR Business Software Applications I, OR Computer Science for Business

**Web Development** covers web design, web publishing, web programming, and database management. Web development includes many types of web content creation, such as hand coding web pages in a text editor, building a website in a program, and updating a blog via a blogging website. This course includes exploring and demonstrating business-related skills such as teamwork, interpersonal skills, and ethical use of programs, resources, and materials while completing projects.

Foundational standards, shown in the table below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership qualities and take advantage of the opportunities afforded by Career and Technical Student Organizations (CTSOs), and learn and practice essential digital literacy skills. The foundational standards are to be incorporated throughout the course.

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## Foundational Standards

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2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.

5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

## WEB DEVELOPMENT CONTENT STANDARDS

Each content standard completes the stem “*Students will...*”

### Hardware, Software, and Connectivity Technologies

1. Identify networking components and explain their impact on web development.
2. Compare and contrast various input, processing, output, and storage devices and storage services.
3. Compare a range of current and emerging Internet protocols.  
*Examples: hypertext transfer protocol, file transfer protocol, telnet, email*
4. Describe recent trends in web technology and predict their impact on web development.

### Ethics, Security, and Application in Web Pages

5. Demonstrate ethical use of technology and online resources.
  - a. Summarize intellectual property laws, including copyright, trademarks, and patents, and explain the consequences of violating each type of law.
6. Discuss the process of acquiring rights to use copyrighted and trademarked content in a website.
7. Explain the importance of information privacy and discuss ways to maintain it.  
*Example: securing credit card information, passwords, and personal information*
8. Describe the function, advantages, and disadvantages of non-disclosure agreements for individuals and companies.

## Fundamentals of Web Design

9. Incorporate functional design elements into web designs.  
*Examples: proximity, repetition, contrast, alignment, color theory, consistency, image file size, typography*
10. Identify, create, modify, and use common file formats.  
*Examples: text, image, video (analog and digital), audio files*
11. Select, create, modify, and integrate effective digital content.  
*Examples: vector-based and raster graphics, motion graphics, video, audio*
12. Create web pages using current web standards and web development skills.  
*Examples: version control, documentation, web application security, validation, accessibility, compatibility across multiple browsers and devices*

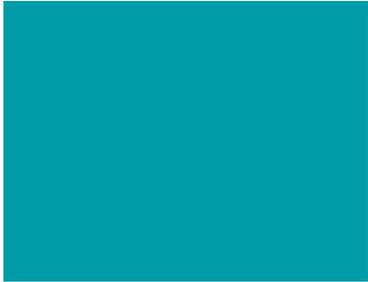
## Fundamentals of Web Programming

13. Differentiate among various web coding standards.  
*Examples: HyperText Markup Language, cascading style sheets*
14. Use standard applications to develop web applications.  
*Examples: text-based editing programs, word processors, web authoring software*
15. Explain client-server applications and describe the process of a client-server transaction.
16. Identify the advantages and disadvantages of client-side processing.
17. Use standard scripting languages to produce interactive web applications.
18. Apply tags, embed links, manipulate space, customize attributes, and incorporate style elements related to typography, margins, and spanning and padding.
19. Summarize the functions of plug-ins for content management systems and static websites.

## Web Page Servers and Hosting

20. Compare the advantages and disadvantages of running a personal server instead of using a server provider, including cloud/virtual server.
21. Explain the process of constructing secure transaction interfaces from the web server to the customer.

	<p>22. Explain the Transmission Control Protocol/Internet Protocol.</p> <p>23. Describe the process of establishing a domain name, server backup, and restoration of software features.</p> <p>24. Evaluate web page security measures.  <i>Examples: using a firewall, Secure Socket Layer (SSL) connections, Hypertext Transfer Protocol Secure (HTTPS) transactions, VPN</i></p>
<p><b>Basic Troubleshooting and Validation</b></p>	<p>25. Apply basic troubleshooting strategies to resolve errors in syntax, fix broken links, edit distorted images, and align website content for seamless navigation.</p> <p>26. Analyze methods of performing code validation on a completed or in-progress web page.</p> <ol style="list-style-type: none"> <li>Validate code for compatibility across browsers and devices.</li> </ol>
<p><b>Impact of Computing</b></p>	<p>27. Identify ways that technology and the Internet have changed traditional ways of doing business, interacting with others, and exchanging information.</p> <ol style="list-style-type: none"> <li>Debate the positive and negative effects of the Internet on personal, ethical, social, economic, and cultural spheres.</li> </ol> <p>28. Determine how technology is impacting traditional career pathways and decide which have been most affected, both positively and negatively.</p> <p>29. Identify ways that humans and technology must work together as partners in web design to solve problems and determine which parts of the problems are best suited for humans or machines to accomplish.  <i>Examples: Artificial Intelligence chatbots, web development tools</i></p>
<p><b>Design Process</b></p>	<p>30. Use the design thinking process to design websites with fair and equitable content and incorporate feedback based on testing of prototypes by a broad, inclusive audience.</p> <p>31. Use technology during the design process to collaborate with others, including peers, experts, and/or stakeholders, to examine local and global issues and problems from different viewpoints.</p>



- 32. Research multiple website publishing platforms to determine their suitability for various media types, target audiences, and feedback mechanisms.
  - a. Communicate professionally to meet the needs of the audience.
  - b. Collaborate as part of a diverse team, using office or team norms.
- 33. Analyze user-centered design principles in various models of web design.  
*Examples: print characters, sound, images, video*



- 34. Use analytics tools to identify patterns in website visits and audience behavior.  
*Example: URL shorteners, analytics tools*
- 35. Create data visualizations to share insight on website user behavior with the client.

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