



2021 Alabama Course of Study: Career and Technical Education

Business Management and Administration

Finance

Manufacturing

Marketing

Work-Based Learning

Alabama Board of Education Work Session

February 11, 2021

CAREER AND TECHNICAL EDUCATION

Bridging the Gap to Success

WORK-BASED LEARNING



HIGH SCHOOL



COLLEGE/WORKFORCE



Career and Technical Education Course of Study Committee

Multiple viewpoints and open minds from across the state brought all levels and backgrounds together in order to complete a high quality, detailed COS committed to ideas that are best for students.

During a year like no other, we were forced to think outside the box to accomplish the task at hand. Perseverance using our access to technology helped heighten our awareness of the need for digital learning and technology and allowed us to meet outside the confines of the listed agenda for each meeting.







Pass ALSDE 2020

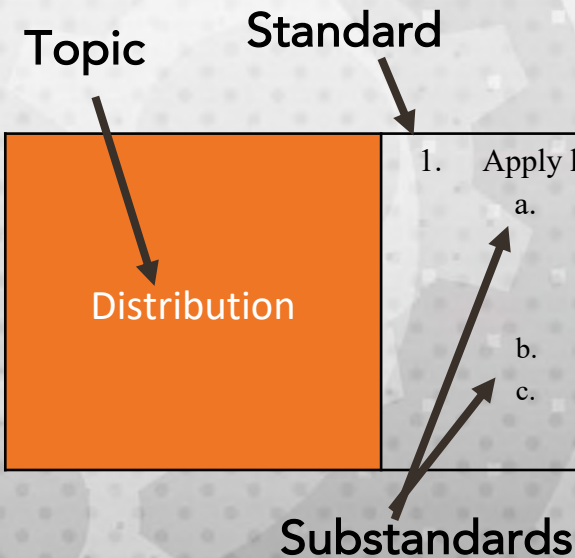
RESEARCH

- 2008 Alabama Course of Study: Career and Technical Education
- Data - Course Utilization, Labor Market Statistics
- Other States' Standards: Georgia, Florida, Texas, Tennessee, West Virginia, Mississippi, Utah, Kentucky
- Course Hero; MBA Research and Curriculum Center; National Alliance for Insurance; Manufacturing Skills Standards Council (MSSC); National Center for Construction Education Research (NCCER); Alabama Real Estate Commission
- Alabama Career Pathways Model; Alabama Committee on Credentialing and Career Pathways (ACCCP)
- Governor Ivey's Success Plus Plan
- Perkins V, July 2018

Instructions for Interpreting Content Standards

Foundational standards are customized by cluster and incorporated into every course.

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



1. Apply knowledge of logistics (distribution) and channel management to manage supply-chain activities.
 - a. Explain the nature and scope of channel management and distribution.
Examples: transportation, storage, buying, shipping, receiving ← Example
 - b. Contrast the functions of retailers, wholesalers, agents, and brokers.
 - c. Describe the use of technology in channel management and distribution and explain how it affects the costs of products.

**MARKETING
PRINCIPLES
CONTENT
STANDARDS**



BUSINESS MIDDLE SCHOOL

Courses

Grade

Exploring Business Management and Administration, Finance, & Marketing Career Clusters	6th - 7th Grade
Career Explorations	6th - 8th Grade
Computer Science Discoveries*	6th - 8th Grade
Digital Technology	6th - 8th Grade
Business Skills Development	7th - 8th Grade
Introduction to Programming*	7th - 8th Grade
Career Preparedness - A	8th Grade
Digital Media Skills Development	8th Grade
Entrepreneurship & Financial Skills Development	8th Grade
Introduction to Business Management and Administration, Finance, & Marketing Career Clusters	8th Grade

*Instructor must complete high quality professional development/training or certification to teach this course.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- Alabama DECA and Alabama FBLA (high school and middle level) are co-curricular with all of our courses and provide our students with opportunities to demonstrate skills and knowledge through competitive events, participate in community service, develop networking and leadership skills while meeting other students from across the state, country and internationally.
- Alabama DECA and Alabama FBLA are well represented at both the national and international levels of competition.
- Alabama FBLA National Service Partner - March of Dimes.
 - Alabama FBLA has been recognized nationally by March of Dimes as the top youth fundraising organization for the last eight years. To date, Alabama FBLA has raised over \$700,000.
- Alabama DECA National Service Partner - Muscular Dystrophy Association.



BUSINESS MANAGEMENT AND ADMINISTRATION



BUSINESS MANAGEMENT
AND ADMINISTRATION

Research from Alabama's Committee on Credentialing and Career Pathways (ACCCP) and Alabama Workforce Council

Business Management and Administration In-Demand Occupations Alabama

SOC	Occupation	Number of Qualifying Regions	Annual Projected Openings
11-1021	General and Operations Managers	7	2,610
13-1111	Management Analysts	7	590
13-1071	Human Resources Specialists	7	585
13-1151	Training and Development Specialists	7	330
11-3051	Industrial Production Managers	7	265
43-1011	First-Line Supervisors of Office and Administrative Support Workers	6	1,845
11-3021	Computer and Information Systems Managers	6	300
43-4051	Customer Service Representatives	5	4,340
43-5071	Shipping, Receiving, and Traffic Clerks	5	840
11-3121	Human Resources Managers	5	130
13-1131	Fundraisers	5	105
11-3061	Purchasing Managers	4	90
13-1121	Meeting, Convention, and Event Planners	4	75
15-2031	Operations Research Analysts	2	85
11-3011	Administrative Services Managers	2	75

BY THE NUMBERS

BUSINESS MANAGEMENT AND ADMINISTRATION

67,258
STUDENTS

number of students who took a
Business Management and
Administration course in
2019-2020



1,146
TEACHERS

number of teachers who
taught a Business Education
course in 2019-2020

number students who have earned
a credential through Certiport in
Microsoft Office and Microsoft
Technology Associate since 2013



100,000
CERTIFICATIONS

1070

DECA & FBLA state
competitors in 2019-2020 even
in a national pandemic which
led to virtual competitions



COMPETITORS

310

FBLA national virtual
competitors, DECA
national conference
was canceled



BUSINESS MANAGEMENT
AND ADMINISTRATION

BUSINESS MANAGEMENT AND ADMINISTRATION OVERVIEW

Business Management and Administration Cluster has three pathways:

- Business Administrative Services
- Business Information Technology
- Management

Courses have been created to prepare students with necessary skills including planning, organizing, communicating, serving, leading, directing, managing and others as well as the use of technology that are essential to efficient and productive business operations. These courses will equip learners with knowledge and skills for college and career readiness.

The engaging, structured environment encourages teamwork, stimulates students' creativity and fosters the essential skills needed for future employment.



BUSINESS MANAGEMENT AND ADMINISTRATION



BUSINESS MANAGEMENT & ADMINISTRATION



	Business Administrative Services	Business Information Technology	Management	
FOUNDATION	Career Preparedness Business Software Applications I Business Essentials	Career Preparedness Business Software Applications I Business Essentials	Career Preparedness Business Software Applications I Business Essentials	FOUNDATION
Foundation courses are optional courses. One Foundation Course credit may count towards Concentrator or Completer Status.				
CONCENTRATOR	Business and Legal Concepts (1/2 credit) Business and Legal Concepts Business Communications (1/2 credit) Business Communications Business and Consumer Mathematics Business Software Applications II Customer Service and Sales (1/2 credit) Customer Service and Sales Foundations of Business Leadership International Business Concepts (1/2 credit) International Business Concepts	Business Software Applications II Digital Media Design Digital Publications Design Data Analytics Information Management Computer Game & Simulation Programming Mobile Application Development* Web Development* Computer Science for Business* Introduction to Computer Science - TEALS* AP Computer Science Principles* AP Computer Science A* Exploring Computer Science*	Customer Service and Sales (1/2 credit) Customer Service and Sales Data Analytics Entrepreneurship Event Planning and Management Foundations of Business Leadership Hospitality Management & Marketing Human Resource Management (1/2 credit) Human Resource Management International Business Concepts (1/2 credit) International Business Concepts Economics and Financial Services Project Management	CONCENTRATOR
CAPSTONE	Career Pathway Project in BUSINESS MANAGEMENT & ADMINISTRATION CTE Lab in BUSINESS MANAGEMENT & ADMINISTRATION Work-Based Learning	Career Pathway Project in BUSINESS MANAGEMENT & ADMINISTRATION CTE Lab in BUSINESS MANAGEMENT & ADMINISTRATION Work-Based Learning	Career Pathway Project in BUSINESS MANAGEMENT & ADMINISTRATION CTE Lab in BUSINESS MANAGEMENT & ADMINISTRATION Work-Based Learning	CAPSTONE

Foundation =

Optional courses, with no more than one (1) counting towards Concentrator or Completer Status

Concentrator =

One (1)
 Foundation Course + one (1) Concentrator Course
OR
 Two (2) Concentrator Courses within a Pathway

Program =

Total of three (3) courses offered over a two-year period within a Pathway, with no more than one (1) Foundation Course

BUSINESS ADMINISTRATIVE SERVICES - Rigor of Standards

Course:

Business and Legal Concepts

2. Research and share information on legislation involving ethical issues.
Examples: Fair Labor Standards Act, equal 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.

Course:

International Business Concepts

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.

Business Administrative Services

Career Preparedness
Business Software Applications I
Business Essentials

Business and Legal Concepts
Business Communications
Business and Consumer Mathematics
Business Software Applications II
Customer Service and Sales
Foundations of Business Leadership
International Business Concepts

Career Pathway Project in
BUSINESS MANAGEMENT & ADMINISTRATION
CTE Lab in
BUSINESS MANAGEMENT & ADMINISTRATION
Work-Based Learning

BUSINESS INFORMATION TECHNOLOGY - Rigor of Standards

Course:

Digital Media Design

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.
 - c. Demonstrate the principles of design (contrast, repetition, balance, movement, emphasis, harmony, proportion, and unity)
 - d. Demonstrate the effective use

Course:

Computer Game & Simulation Programming

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.

Business Information Technology

Career Preparedness
Business Software Applications I
Business Essentials

Business Software Applications II
Digital Media Design
Digital Publications Design
Data Analytics
Information Management
Computer Game & Simulation Programming
Mobile Application Development*
Web Development*
Computer Science for Business*
Introduction to Computer Science - TEALS*
AP Computer Science Principles*
AP Computer Science A*
Exploring Computer Science*

Career Pathway Project in
BUSINESS MANAGEMENT & ADMINISTRATION
CTE Lab in
BUSINESS MANAGEMENT & ADMINISTRATION
Work-Based Learning

MANAGEMENT - Rigor of Standards

Course:

Human Resources Management

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.
 - c. Create a new or updated mission statement and vision for a business or organization.

Course:

Project Management

8. Develop and utilize a project cost management plan.
 - a. Estimate project costs including expenditures for human resources, materials, equipment, facilities, 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.

Management

Career Preparedness
Business Software Applications I
Business Essentials

Customer Service and Sales
Data Analytics
Entrepreneurship
Event Planning and Management
Foundations of Business Leadership
Hospitality Management & Marketing
Human Resource Management
International Business Concepts
Economics and Financial Services
Project Management

Career Pathway Project in
BUSINESS MANAGEMENT & ADMINISTRATION
CTE Lab in
BUSINESS MANAGEMENT & ADMINISTRATION
Work-Based Learning

BUSINESS MANAGEMENT AND ADMINISTRATION

Career Readiness Indicators (CRIs)

- Microsoft Office Specialist (MOS) Expert (2019/O365)
 - Excel Expert, Word Expert, Access Expert
- *Microsoft Office Specialist (MOS) Associate (2019/O365)
 - Excel Associate, Outlook Associate, PowerPoint Associate, Word Associate
- Adobe Certified Associate
 - Photoshop, Dreamweaver, Flash, Premier Pro, InDesign, Illustrator
- A*S*K Institute
 - Concepts of Entrepreneurship and Management, Fundamental Business Concepts
- IC³ Global Standard 6 (or higher)
- Certiport - Entrepreneurship and Small Business (Must hold concentrator status)

*Required to pass two assessments in order to earn a CRI.

Possible Careers

- General Manager
- Management Analyst
- Chief Executive Officer
- Entrepreneur
- Human Resources Manager
- Training & Development Specialist
- Graphic Designer
- Web Developer
- Game Designer
- Project Manager

QUESTIONS

for

Business Management and Administration



FINANCE



FINANCE

Research from Alabama's Committee on Credentialing and Career Pathways (ACCCP) and Alabama Workforce Council

Finance In-Demand Occupations Alabama

SOC	Occupation	Number of Qualifying Regions	Annual Projected Openings
13-2011	Accountants and Auditors	7	1,735
41-3021	Insurance Sales Agents	7	795
11-3031	Financial Managers	7	515
13-2072	Loan Officers	7	355
43-9041	Insurance Claims and Policy Processing Clerks	5	340
13-2052	Personal Financial Advisors	5	245
43-4131	Loan Interviewers and Clerks	4	305
41-3031	Securities, Commodities, and Financial Services Sales Agents	4	165
43-4011	Brokerage Clerks	4	70
13-2051	Financial Analysts	3	145
13-2031	Budget Analysts	3	70
13-2082	Tax Preparers	2	95

FINANCE

FINANCE CLUSTER OVERVIEW

In the Finance cluster, students choose one of three pathways:

- Accounting
- Financial Management
- Insurance

The Finance Cluster prepares learners for many careers in the financial market sector such as bank teller, financial advisor, or insurance sales representative.

Through coursework in this cluster, students will learn how to plan, manage personal finances, organize and evaluate financial records, navigate the financial world as consumers and as professionals and advise of appropriate insurance coverage for personal, family and customer needs.





FINANCE



Foundation =
Optional courses, with no more than one (1) counting towards Concentrator or Completer Status

Concentrator =
One (1)
Foundation Course + one (1)
Concentrator Course
OR
Two (2) Concentrator Courses within a Pathway

Program =
Total of three (3) courses offered over a two-year period within a Pathway, with no more than one (1) Foundation Course

	Accounting	Financial Management	Insurance	
FOUNDATION	Business Communications (1/2 credit) Business Communications Business Software Applications I Career Preparedness Personal Finance (1/2 credit) Personal Finance	Business Communications (1/2 credit) Business Communications Business Software Applications I Career Preparedness Personal Finance (1/2 credit) Personal Finance	Business Communications (1/2 credit) Business Communications Business Software Applications I Career Preparedness Personal Finance (1/2 credit) Personal Finance	FOUNDATION
Foundation courses are optional courses. One Foundation Course credit may count towards Concentrator or Completer Status.				
CONCENTRATOR	Accounting Advanced Accounting College Accounting Data Analytics Economics and Financial Services	Business Finance (1/2 credit) Business Finance Fundamentals of Financial Management Data Analytics Economics and Financial Services Entrepreneurship Global Financial Markets	Claims and Underwriting Operations (1/2 credit) Entrepreneurship Foundations of Insurance I - Property and Casualty (1/2 credit) Foundations of Insurance II - Life and Health (1/2 credit) Risk Management and Commercial Insurance (1/2 credit)	CONCENTRATOR
CAPSTONE	Career Pathway Project in FINANCE CTE Lab in FINANCE Work-Based Learning	Career Pathway Project in FINANCE CTE Lab in FINANCE Work-Based Learning	Career Pathway Project in FINANCE CTE Lab in FINANCE Work-Based Learning	CAPSTONE

FINANCE

Accounting Pathway-Rigor of Standards

Course:

Business Communications

6. Produce effective written documents.

- a. Explain the purpose of each step of the writing process: planning, composing, 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 and charts

Course:

Accounting

9. Demonstrate payroll procedures used to calculate, record, and distribute payroll earnings and related tax liabilities.

- a. Use hourly rate, overtime, salary, commission, and salary plus commission to calculate gross earnings.
- b. Prepare a payroll register and record payroll journal entries.

Accounting

Business Communications
Business Software Applications I
Career Preparedness
Personal Finance

Accounting
Advanced Accounting
Data Analytics
Economics and Financial Services
College Accounting

Career Pathway Project in FINANCE
CTE Lab in FINANCE
Work-Based Learning

Financial Management Pathway-Rigor of Standards

Course:

Personal Finance

3. Explain how goals, decision-making, and planning affect personal financial choices and behaviors.

- a. Create a plan to reach a specific financial goal.
- b. Explain personal values that affect financial choices.
Examples: desire for home ownership, work ethic, charity, civic virtue
- a. Explain the advantages of designing and following a personal financial plan.
- b. Compare and contrast retirement and estate planning options available to individuals and families.

Course:

Global Financial Markets

4. Explain concepts of global trade and investments.

- a. Explain the advantages of specialization.
- b. Describe the concept of comparative advantage.
- c. Distinguish between portfolio investment and direct investment.
- d. Characterize the position of the United States in global trade.

Financial Management

Business Communications
Business Software Applications I
Career Preparedness
Personal Finance

Business Finance
Fundamentals of Financial Management
Data Analytics
Economics and Financial Services
Global Financial Markets
Entrepreneurship

Career Pathway Project in FINANCE
CTE Lab in FINANCE
Work-Based Learning

Insurance Pathway-Rigor of Standards

Course:

Foundations of Insurance I: Property and Casualty

2. Gather and share information on how auto insurance works and the importance of obtaining and maintaining auto insurance.

- a. Discuss factors that affect insurability and premiums.
Examples: age, gender, driving record, make/model of vehicle, annual mileage
- a. Distinguish between eligibility and coverage.

12. Explain watercraft insurance coverage against different types of loss, including medical payments, physical damage, and liability.

Course:

Risk Management and Commercial Insurance

4. Describe the factors used in rating the value of business property, including building construction and usage, size, and location of property.

Examples: zoning, availability of police and fire protection, seasonal use of property

Insurance

Business Communications
Business Software Applications I
Career Preparedness
Personal Finance

Foundations of Insurance I - Property and Casualty
Foundations of Insurance II - Life and Health
Risk Management and Commercial Insurance
Claims and Underwriting Operations
Entrepreneurship

Career Pathway Project in FINANCE
CTE Lab in FINANCE
Work-Based Learning

FINANCE

Career Readiness Indicators (CRIs):

- Microsoft Office Specialist (MOS) Associate
 - MS Office 2019/O365
- Microsoft Office Specialist (MOS) Expert
 - MS Office 2019/O365
- Certified Insurance Service Representative (CISR)**pending approval*
- A*S*K Institute – Concepts of Finance
- IC³ Global Standard 6 (or higher)
- Intuit® Quickbooks Certified User

Possible Career Paths:

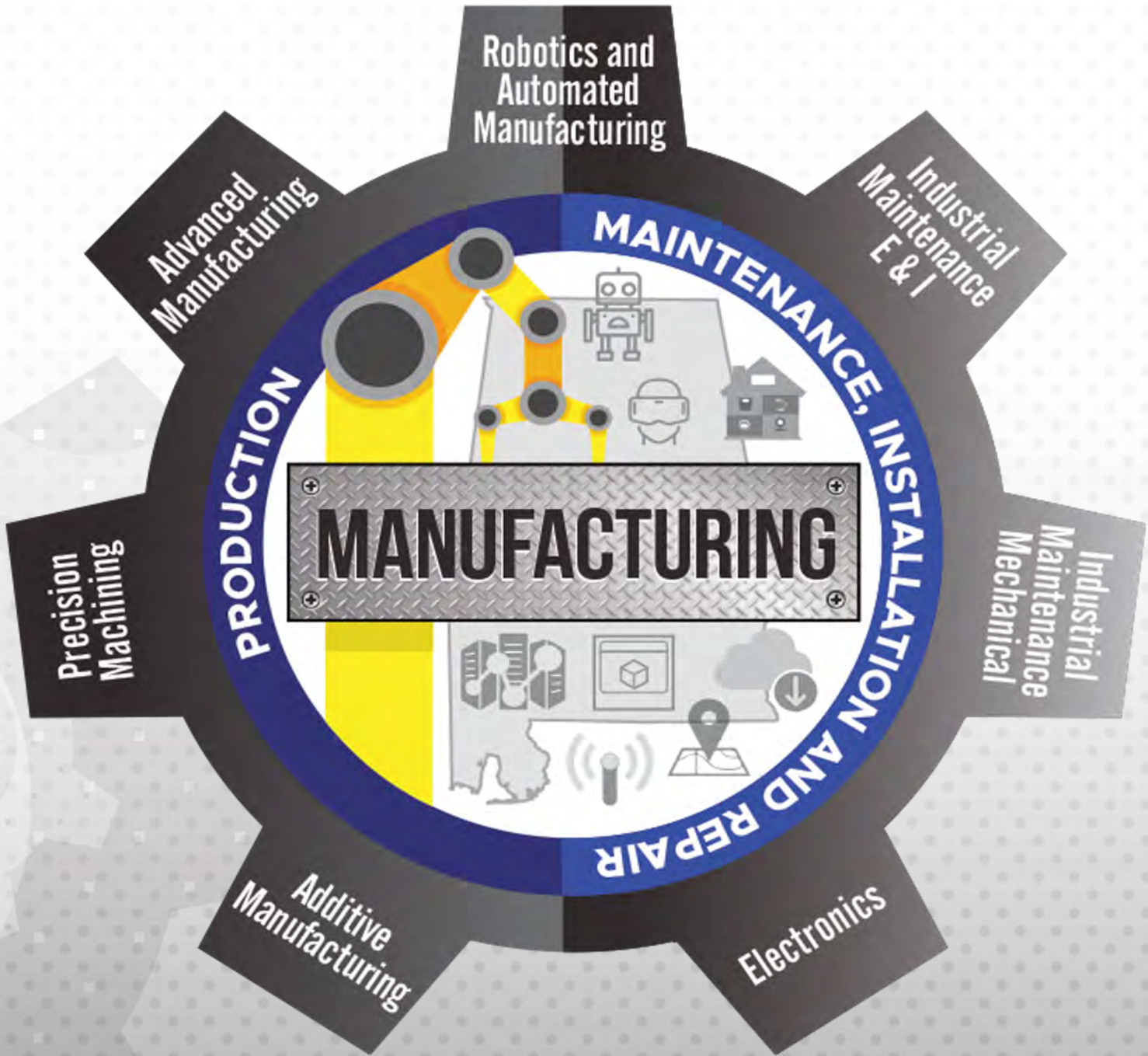
- Financial Managers*
- Insurance Sales Agents*
- Personal Financial Advisors*
- Accountants and Auditors*
- Loan Officers*
- Insurance Claims and Policy Processing Clerks
- Actuaries
- Tax Preparers
- Tellers
- Financial Analysts

**Highest Projected Growth Rate in the next five years.*

QUESTIONS for Finance



MANUFACTURING



Manufacturing Program Grid

Maintenance, Installation, and Repair Pathway Programs

Robotics & Automated Manufacturing

- Introduction to Manufacturing
- Safety & Health Regulations
- Computer Integrated Design
- Computer Integrated Production
- Computer Integrated Automation
- Introduction to Robotics
- Robotics Application
- Robotics & Automation
- Electronics & Control Systems
- CTE Lab in Manufacturing
- Career Pathway Project in Manufacturing

Industrial Maintenance E&I

- Introduction to Manufacturing
- Safety & Health Regulations
- Industrial Maintenance E&I
- Industrial Maintenance E&II
- Industrial Maintenance E&III
- CTE Lab in Manufacturing
- Career Pathway Project in Manufacturing

Industrial Maintenance Mechanical

- Introduction to Manufacturing
- Safety & Health Regulations
- Industrial Maintenance Mechanical I
- Industrial Maintenance Mechanical II
- Industrial Maintenance Mechanical III
- CTE Lab in Manufacturing
- Career Pathway Project in Manufacturing

Electronics

- Introduction to Manufacturing
- Safety & Health Regulations
- Direct Current
- Alternating Current
- Semiconductors
- Telecommunications Cabling
- Digital Electronics
- Electronics & Control Systems
- Introduction to Robotics
- Robotics Application
- CTE Lab in Manufacturing
- Career Pathway Project in Manufacturing
- Embedded Arduino Controls & Robotics Application

Production Pathway Programs

Robotics & Automated Manufacturing

- Introduction to Manufacturing
- Safety & Health Regulations
- Computer Integrated Design
- Computer Integrated Production
- Computer Integrated Automation
- Introduction to Robotics
- Robotics Application
- Robotics & Automation
- Electronics & Control Systems
- CTE Lab in Manufacturing
- Career Pathway Project in Manufacturing

Additive Manufacturing

- Introduction to Engineering Design
- Engineering Design Applications
- Introduction to Manufacturing
- Safety & Health Regulations
- Introduction to Drafting Design
- Intermediate Drafting Design
- Advanced Drafting Design
- Three-Dimensional Solid Modeling I
- Three-Dimensional Solid Modeling II
- CTE Lab in Manufacturing
- Career Pathway Project in Manufacturing

Advanced Manufacturing

- Introduction to Manufacturing
- Safety & Health Regulations
- Manufacturing I: Safety
- Manufacturing II: Quality
- Manufacturing III: Production
- Manufacturing IV: Maintenance
- CTE Lab in Manufacturing
- Career Pathway Project in Manufacturing

Precision Machining

- Introduction to Manufacturing
- Safety & Health Regulations
- Introduction to Precision Machining
- Computer Numerical Control I
- Computer Numerical Control II
- Computer-Aided Design & Computer-Aided Manufacturing I
- Computer-Aided Design & Computer-Aided Manufacturing II
- Coordinate Measuring Machine
- Introduction to Lathe
- Intermediate Lathe & Benchwork
- Milling & Surface Grinder I
- Milling and Surface Grinder II
- Drill Press
- CTE Lab in Manufacturing
- Career Pathway Project in Manufacturing

8th Grade Course Options

- Introduction to Manufacturing
- Introduction to Engineering Design

Research from Alabama's Committee on Credentialing and Career Pathways (ACCCP) and Alabama Workforce Council

SOC	Occupation	Number of Qualifying Regions	Annual Projected Openings
49-9071	Maintenance and Repair Workers, General	7	1,735
51-4121	Welders, Cutters, Solderers, and Brazers	7	1,345
49-9041	Industrial Machinery Mechanics	7	1,225
51-4041	Machinists	7	745
43-5061	Production, Planning, and Expediting Clerks	7	305
51-1011	First-Line Supervisors of Production and Operating Workers	6	1,550
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	6	800
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	6	450
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	6	355
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	6	255
17-3023	Electrical and Electronics Engineering Technicians	6	200
51-9122	Painters, Transportation Equipment	6	155
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	5	275
49-2011	Computer, Automated Teller, and Office Machine Repairers	5	240
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	5	165
17-3026	Industrial Engineering Technicians	5	140
49-9043	Maintenance Workers, Machinery	5	105
19-4031	Chemical Technicians	5	90
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	5	90
51-2092	Team Assemblers	4	5,330
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	4	565
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	4	265
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	4	170
49-2098	Security and Fire Alarm Systems Installers	4	110
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	4	110
51-4111	Tool and Die Makers	4	85

Progression of Rigor - Production Pathway

Advanced Manufacturing

Quality

Standard 6:

Describe the key parts of inspection equipment calibration standards and requirements.

Production

Standard 17:

Set up and verify equipment for the production process.

Maintenance

Standard 4:

Perform preventive maintenance and routine repair.

- a. Adjust belt tension using an adjustable mounting base.
- b. Explain how to install, align, and remove a roller chain drive system with adjustable centers.
- c. Use a ruler and a straightedge to measure chain sag.
- d. Describe how to inspect a hydraulic system during operation.

Progression of Rigor - Production Pathway

Robotics & Automated Manufacturing

Computer Integrated Design

Standard 2:

Apply the design and problem-solving process as an iterative process incorporating sciences, mathematics, and engineering to optimally convert resources to meet a stated objective.

Computer Integrated Production

Standard 10:

Design and analyze an efficient electrical system to convert, transform, and transmit electricity.

Computer Integrated Automation

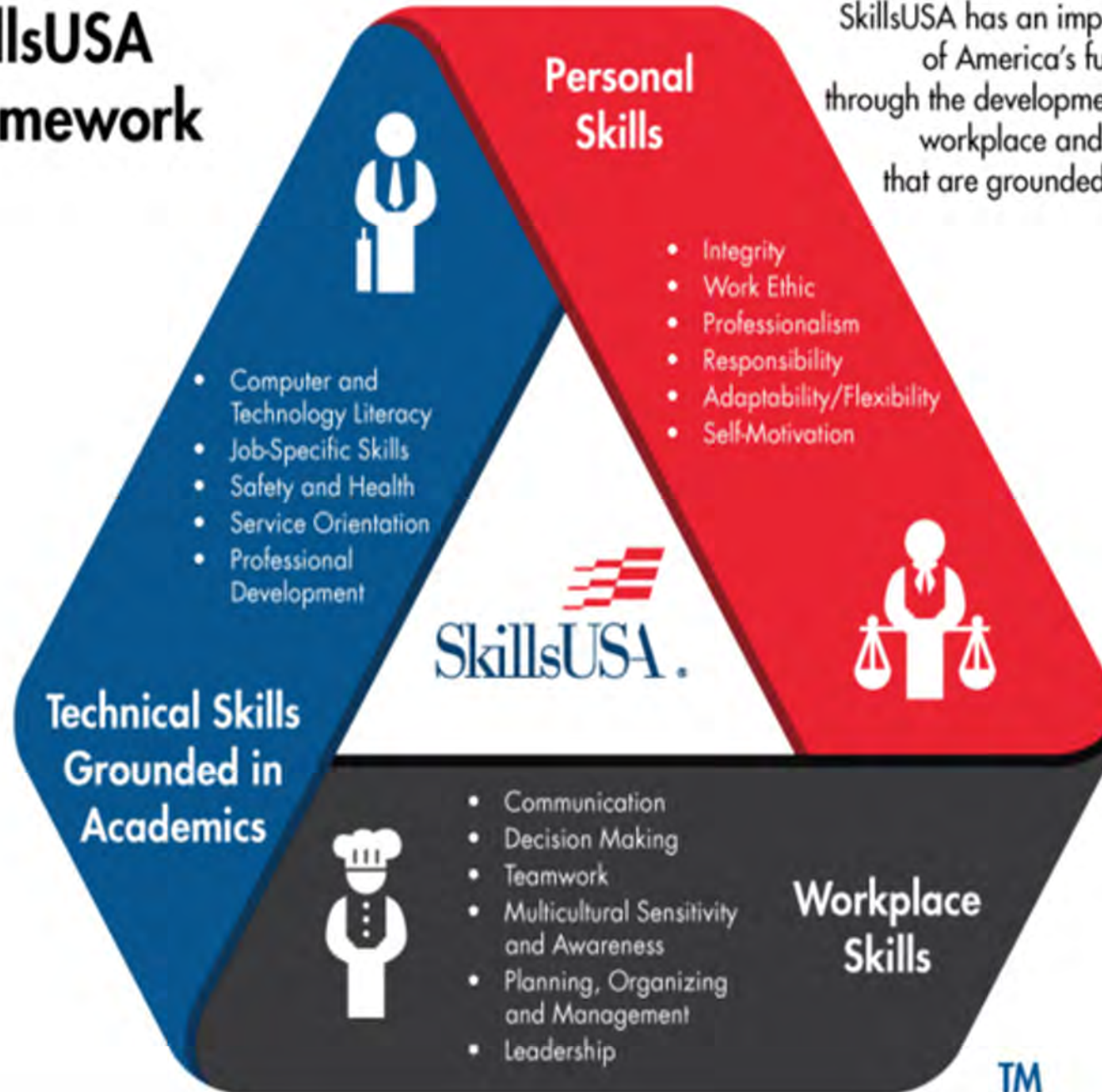
Standard 13:

Design and analyze the application of machine control systems, sensory feedback, and information processing to increase efficiency.

CAREER READINESS INDICATORS (CRI's)

- Autodesk - AutoCAD Certified User
- Autodesk - Inventor
- Autodesk - Fusion 360
- Construction and Skilled Trade Assessment
- Electronics Technicians Association - Basic AC
- Electronics Technicians Association - Basic DC
- Electronics Technicians Association - Basis Analog
- Electronics Technicians Association - Basic Digital
- Electronics Technicians Association - Comprehensive
- Electronics Technicians Association - Student Electronics Technician
- Fanuc Cert - Handling Tool Operations and Programming
- MSSC - Certified Production Technician (each Module will count as a CRI)
- NIMS Level 1 - Turning Operations: Turning Between Centers
- NIMS Level 1 - Turning Operations: Turning Chucking Skills
- NIMS Level 1 - Grinding Skills 1
- NIMS Level 1 - Drill Press Skills 1
- NIMS Level 1 - CNC Turning: Programming Setup, and Operations
- NIMS Level 1 - CNC Milling: Programming Setup, and Operations
- NIMS Level 1 - CNC Turning: Operations
- NIMS Level 1 - CNC Milling: Operations
- NCCER Electronics Systems Technician
- Solid Edge Certified Associate
- SolidWorks Associate
- NCCER Core (Module 6 is as elective and not required for a CRI)
- NCCER Industrial Maintenance E&I
- NCCER Industrial Maintenance Mechanical
- NIMS Level 1 - Measurement, Materials, and Safety
- NIMS Level 1 - Job Planning, Benchwork, and Layout
- NIMS Level 1 - Manual Milling Skills 1

SkillsUSA Framework



SkillsUSA has an impact on the lives of America's future workforce through the development of personal, workplace and technical skills that are grounded in academics.

QUESTIONS for Manufacturing



MARKETING



MARKETING

Research from Alabama's Committee on Credentialing and Career Pathways (ACCCP) and Alabama Workforce Council

Marketing In-Demand Occupations Alabama

SOC	Occupation	Number of Qualifying Regions	Annual Projected Openings
41-1011	First-Line Supervisors of Retail Sales Workers	7	3,425
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	7	2,755
13-1161	Market Research Analysts and Marketing Specialists	7	420
11-2022	Sales Managers	7	260
27-3031	Public Relations Specialists	7	240
41-1012	First-Line Supervisors of Non-Retail Sales Workers	5	500
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	4	135
11-9141	Property, Real Estate, and Community Association Managers	4	70
53-3031	Driver/Sales Workers	3	660
41-9022	Real Estate Sales Agents	3	195
27-1026	Merchandise Displayers and Window Trimmers	2	310
11-2021	Marketing Managers	2	55
41-9021	Real Estate Brokers	2	50
11-2031	Public Relations and Fundraising Managers	2	50

MARKETING

MARKETING OVERVIEW

Students who participate in the Marketing Cluster will have an opportunity to take rigorous courses that will ensure college and career readiness.

Students will gain skills and knowledge in marketing concepts, advertising, customer relations, and other areas that will help them to prepare for careers in marketing, finance, hospitality, professional sales, and real estate.



INTERDISCIPLINARY CONTENT

- Product Planning
- Promotion
- Purchasing
- Finance & Pricing
- Global Marketing
- Risk Management
- Research & Analytics
- Sales
- Distribution
- Segmentation
- Customer Relations
- Management Information Systems





MARKETING



Foundation =
Optional courses, with no more than one (1) counting towards Concentrator or Completer Status

Concentrator =
One (1) Foundation Course + one (1) Concentrator Course
OR
Two (2) Concentrator Courses within a Pathway

Program =
Total of three (3) courses offered over a two-year period within a Pathway, with no more than one (1) Foundation Course

	Marketing	Professional Sales	Real Estate Sales	
FOUNDATION	Business Software Applications I Business Communications (1/2 credit) Business Communications Career Preparedness Foundations of Business Leadership	Business Software Applications I Business Communications (1/2 credit) Business Communications Career Preparedness Foundations of Business Leadership	Business Software Applications I Business Communications (1/2 credit) Business Communications Career Preparedness Foundations of Business Leadership	FOUNDATION
Foundation courses are optional courses. One Foundation Course credit may count towards Concentrator or Completer Status.				
CONCENTRATOR	Marketing Principles Retail and Fashion Marketing Sports and Entertainment Marketing Advertising and Sales Digital Marketing Entrepreneurship Hospitality Management and Marketing	Advertising and Sales Customer Service and Sales (1/2 credit) Customer Service and Sales Hospitality Management and Marketing Digital Marketing Entrepreneurship Marketing Principles Retail and Fashion Marketing	Introduction to Real Estate Sales Buying and Selling Real Estate Entrepreneurship Advertising and Sales Digital Marketing Marketing Principles	CONCENTRATOR
CAPSTONE	Career Pathway Project in MARKETING CTE Lab in MARKETING Work-Based Learning	Career Pathway Project in MARKETING CTE Lab in MARKETING Work-Based Learning	Career Pathway Project in MARKETING CTE Lab in MARKETING Work-Based Learning	CAPSTONE

MARKETING

MARKETING Pathway - Rigor of Standards

Course: Marketing Principles

5. Explain marketing principles in relation to the free enterprise system and the global trade environment.

- a. Define marketing and explain its role in the economy.
- b. Utilize basic marketing terminology. *Examples: market segmentation, target marketing, marketing positioning*
- c. Explain key terms related to the global trade environment.

Course: Sports and Entertainment Marketing

1. Interpret marketing concepts as they apply to sports and entertainment marketing.

- a. Define and explain *marketing, sports marketing, and entertainment marketing*.
- b. Describe the “four P's” (Product, Price, Place, Promotion) as they apply to sports and entertainment marketing and explain why each is important.
- c. Define marketing segmentation and its components.
- d. Explain the marketing functions as they relate to each component of sports and entertainment events.

Examples: ticket sales, sponsorships, concessions, merchandise sales

Marketing

Business Software Applications I
Business Communications
Career Preparedness
Foundations of Business Leadership

Marketing Principles
Retail and Fashion Marketing
Sports and Entertainment Marketing
Advertising and Sales
Digital Marketing
Entrepreneurship
Hospitality Management and Marketing

Career Pathway Project in MARKETING
CTE Lab in MARKETING
Work-Based Learning

PROFESSIONAL SALES Pathway - Rigor of Standards

Course: **Customer Service and Sales**

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.

Course: **Advertising and Sales**

9. Analyze potential markets.

- a. Describe the use of technology in the marketing-information management function.
- b. Explain characteristics and techniques of effective data collection instruments for gathering and processing marketing data.
- c. Identify ways to segment advertising/promotion markets and explain the benefits of target marketing.
- d. Conduct a market analysis including market size, area, and potential.

Professional Sales

Business Software Applications I
Business Communications
Career Preparedness
Foundations of Business Leadership

Advertising and Sales
Customer Service and Sales
Hospitality Management and Marketing
Digital Marketing
Entrepreneurship
Marketing Principles
Retail and Fashion Marketing

Career Pathway Project in MARKETING
CTE Lab in MARKETING
Work-Based Learning

REAL ESTATE SALES Pathway - Rigor of Standards

Course: **Introduction to Real Estate**

6. Describe the different types of real property ownership, including rights of survivorship under Alabama law.

Course: **Buying and Selling Real Estate**

7. Analyze clauses and contingencies in land, real property, and real estate contract negotiations.

*Examples:
offers, purchase agreements,
counter-offers, multiple offers*

Real Estate Sales

Business Software Applications I
Business Communications
Career Preparedness
Foundations of Business Leadership

Introduction to Real Estate Sales
Buying and Selling Real Estate
Entrepreneurship
Advertising and Sales
Digital Marketing
Marketing Principles

Career Pathway Project in MARKETING
CTE Lab in MARKETING
Work-Based Learning

Career Paths

- Marketing Manager
- Sales Manager
- Entrepreneur
- Marketing Research Analyst
- Real Estate Agent
- Public Relations Manager

Career Readiness Indicators (CRI's)

- Microsoft Office Specialist (MOS) Expert (2019/O365)
 - Excel Expert, Word Expert, Access Expert
- *Microsoft Office Specialist (MOS) Associate (2019/O365)
 - Excel Associate, Outlook Associate, PowerPoint Associate, Word Associate
- Adobe Certified Associate
 - Photoshop, Dreamweaver, Flash, Premier Pro, InDesign, Illustrator
- Certified Guest Service Professional
- National Retail Federation Customer Service and Sales
- A*S*K Institute
 - Concepts of Entrepreneurship and Management
 - Fundamentals of Marketing Concepts
- IC³ Global Standard 6 (or higher)
- Certiport - Entrepreneurship and Small Business (Must hold concentrator status)

*Required to pass two assessments in order to earn a CRI.



Marketing Research Analysts

Brand Manager
Database Marketing Analyst
Content Director
Marketing Manager

Digital Marketing Manager
Marketing Specialist

Media Director

Real Estate Agent

Director of Marketing

Public Relations Specialist

Promotions Manager

Product Manager

SEO Manager

Event Planner

Sales Manager

Real Estate Broker

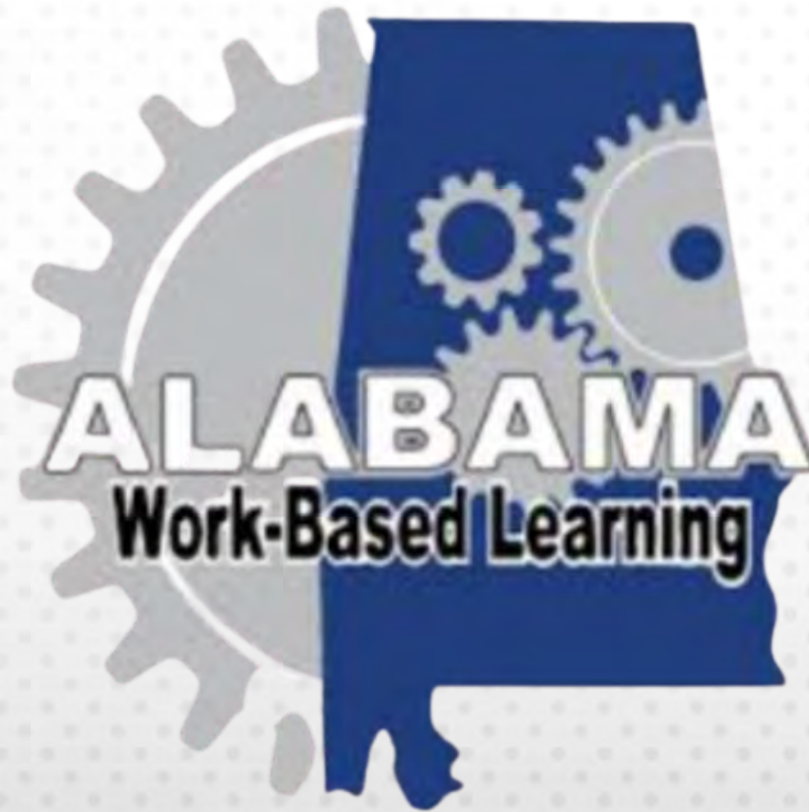
Communications Manager

QUESTIONS for Marketing



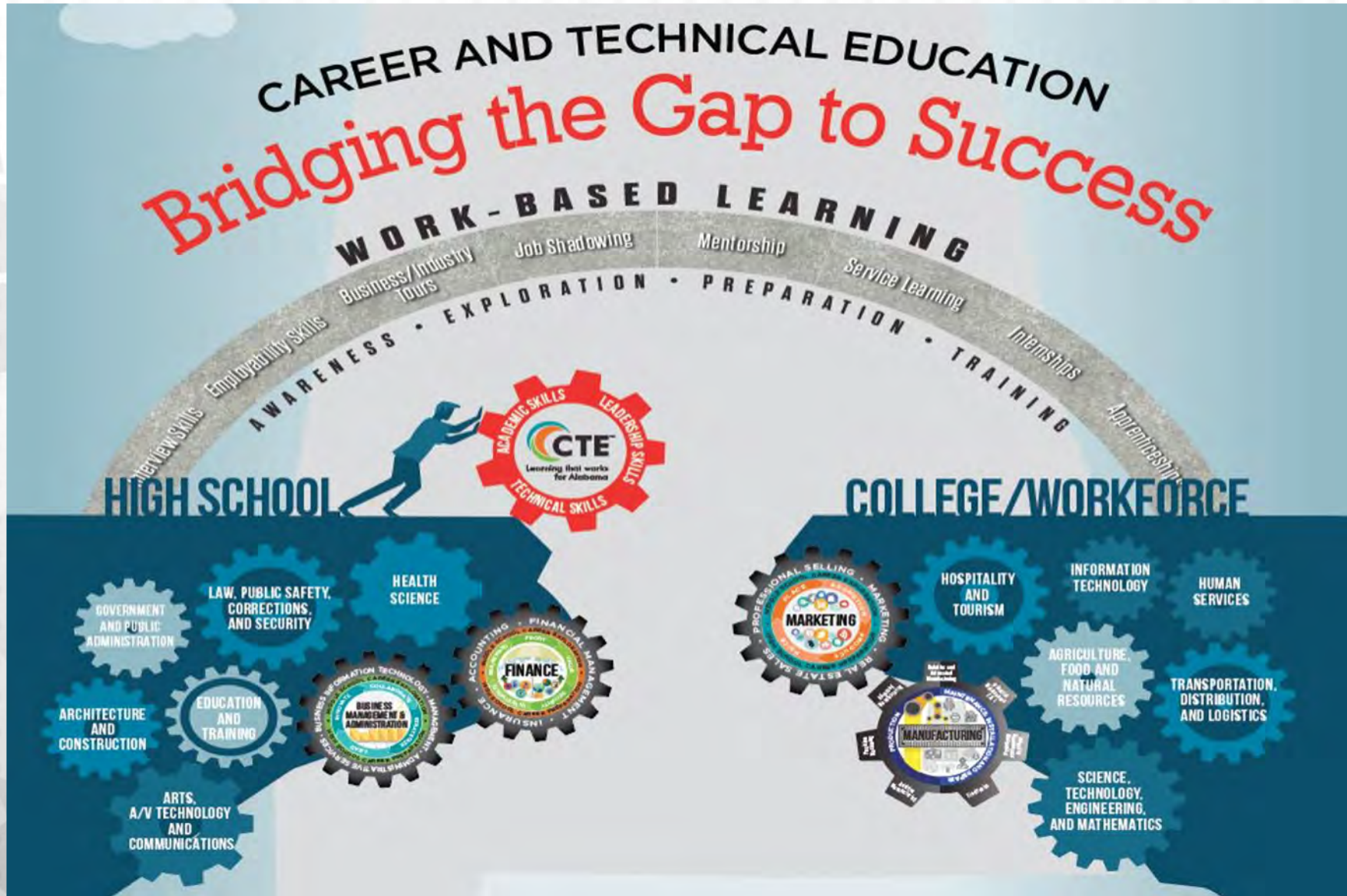
WORK-BASED LEARNING

WBL



Learning that “Works” for Alabama

Conceptual Framework



WORK-BASED LEARNING

Courses Reviewed

Career Explorations Grades 6-8 <i>(Formerly Career Cluster Explorations)</i>	Career Preparedness All Grades 9-12 <i>(no change in course name)</i>	Workforce Readiness Grades 9-12 <i>(Formerly Workforce Essentials)</i>
<p>3. Deliver work-based presentations that utilize eye contact, clear enunciation, and visual aids during presentations to enhance and sustain listeners' attention and interest.</p> <p>a. Identify, select, and prepare support materials to accompany a workplace presentation, including tables, charts, and technology.</p>	<p>2. Research and report on the positive and negative effects of various workplace behaviors.</p> <p>a. Identify inappropriate workplace behaviors, including violence and harassment, and procedures for reporting and addressing such behaviors.</p>	<p>2. Describe the relationship between career planning and educational achievement.</p> <p>a. Research a chosen profession and outline an academic plan to prepare for that profession, including any degrees and certifications that are prerequisites for employment.</p>
<p>Work-Based Learning content provided throughout all courses—includes middle school</p>		
<p>CTSO Recommended</p>		
<p>Connects All CTE Areas through business partnerships</p>		

Course Standards

- WBL content derived from CTE course standards that emphasize employability skills.
- The WBL Manual guides coordinators in policies, procedures, and best practices for student placement and success.
- Examples:
 - Training Plan
 - Child Labor Law
 - Training Agreement
 - Site Visits
 - Employer Skill Evaluations

**Work Based Learning
2020-21 Training Plan**

_____, who will receive supervised, on-the-job training
(Name of Student)

at Jewelry Company Name in Jewelry Designer
(Company's Name) (Career Objective)

Semester(s) Enrolled:		Course Numbers:		Online Application	Training Agreement	Revised	Resume
<input type="checkbox"/> 1 st <input type="checkbox"/> 2 nd <input type="checkbox"/> Both <input type="checkbox"/> Alternating							
Period(s)	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4					

WBL Site Contact Information

Date	Contact Name	Position

Monthly Checklist		<input type="checkbox"/> RFP Participant		<input type="checkbox"/> Career Ready Next	<input type="checkbox"/> Level Career Ready	
Completion		<input type="checkbox"/> Work Keys		<input type="checkbox"/> Applied Math	<input type="checkbox"/> Graphic Literacy	<input type="checkbox"/> Workplace Documents
Month	Grade	WH Report/ Total Hours	Check Stub(s)	Journal	Other	
August						

4 - Skilled--can work independently with no supervision.
 3 - Moderately Skilled--can perform job completely with limited supervision.
 2 - Limited Skill--requires instruction and close supervision.
 1 - No Exposure--no experience or knowledge in this area.

Column 1:

List each task that will be performed by: **Student Name**

Tasks	Task Progress		Rating			
	Learning Status	Date Objective Reached	1	2	3	4
Exhibits responsible behavior relative to workplace environment	On-going		1	2	3	4
Demonstrates punctuality	On-going		1	2	3	4
Demonstrates dependability	On-going		1	2	3	4
Demonstrates ability to work with others	On-going		1	2	3	4
Dresses appropriately for workplace	On-going		1	2	3	4
Works to maximize personal productivity	On-going					
Provides quality customer service	On-going		1	2	3	4
Selects and applies appropriate technology for a task	On-going		1	2	3	4
Functions as a productive team member	On-going		1	2	3	4
Complies with workplace safety regulations	On-going		1	2	3	4
Analyzes own performance for improvement	On-going		1	2	3	4
Asks questions as necessary	On-going		1	2	3	4

**The WBL Manual to be revised after the adoption of WBL COS*

Benefits of Work-Based Learning

- Sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, first-hand engagement with the tasks required of a given career field, that are aligned to curriculum and instruction. *(Perkins v)*

- WBL is an extension of all CTE courses



WBL Supports All Career Clusters

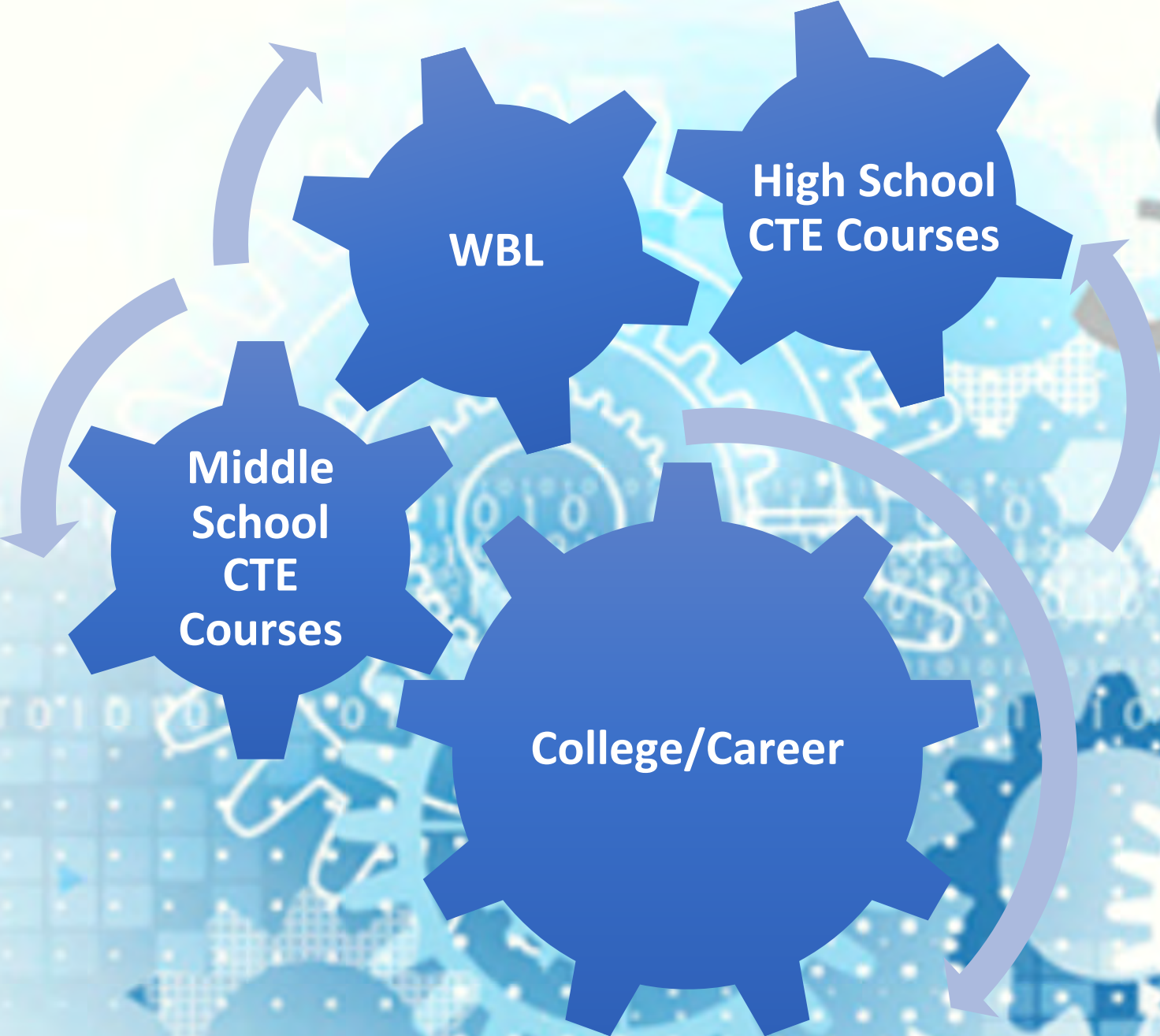
- Interview Skills
- Employability Skills
- Business Industry Tours
- Job Shadowing



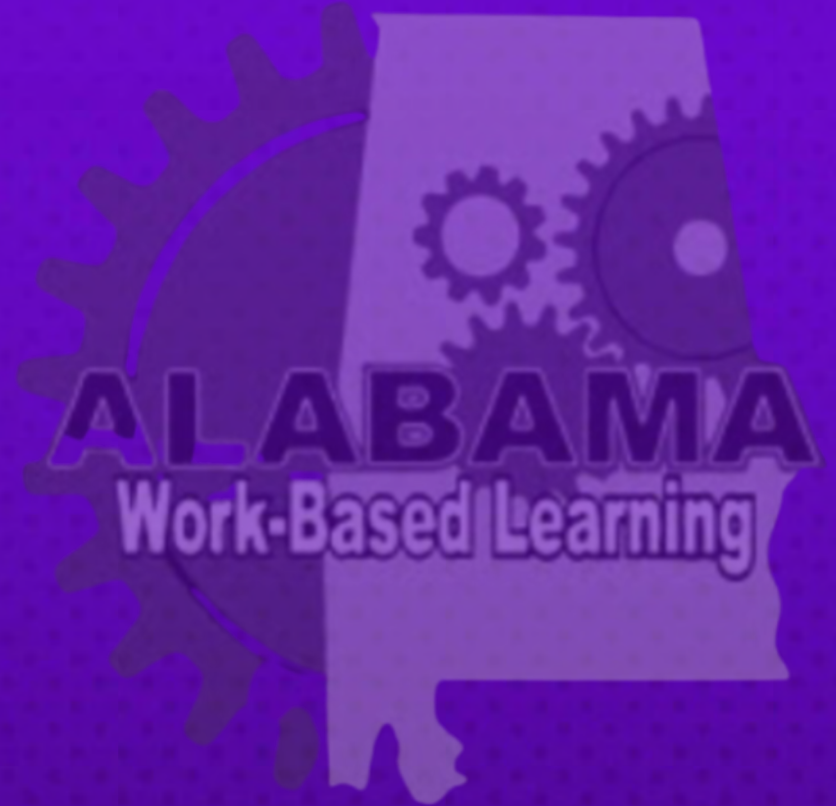
- Mentorship
- Service Learning
- Internships
- Apprenticeships



The Continuum



QUESTIONS for Work-Based Learning





Learning that works for Alabama

CTE™

Thank You

