

**Arkansas Department of Career Education
Model Framework**

Course Title: **KeyCode**

Career Cluster: **Not Applicable**

Course Number	399210	
Credit	Not Applicable	
CIP Number		
Grade Level	7-8	
Prerequisite	None	
Course Type	Foundation	
Teacher Certification	031, 032, 034, 037, 224, 225, 250	
CTSO	Support Course	Support Course
Facility Requirements	http://arkansasfacilities.arkansas.gov/SchoolFacManual.aspx	
Industry Certifications		

Course Description

Key Code is a one-semester course designed to help students develop speed and accuracy by learning the touch operation of alphanumeric/keyboard characters. Emphasis is placed on the following: mastery of the keyboard with desirable keyboarding techniques, development of speed and accuracy, and proper care of the equipment. As a capstone to the first thirteen weeks of the course, the final five weeks will be dedicated to students using keyboarding skills as they relate to formulating algorithms as well as create, analyze, test and debug computer programs in order to solve real-world problems. Students will be required to use a text based programming language to accomplish these tasks.

This course is designed to meet the semester requirement for keyboarding as well as the five week coding block for all 7th or 8th grade students.

Standard 1: Keyboarding Basic Knowledge (2 Weeks)		
Performance Indicator 1 Keyboarding Basic Knowledge	CCTC Standards	National Standards for Business Education
1.1 Identify and explain the functions of computer equipment components	CRP2	CD3
1.2 demonstrate correct touch typing technique and spacing rules	CRP2	CD3
1.3 Key documents demonstrating proper keyboarding techniques	CRP11	COM3

Standard 2.0 Formatting Text and Documents (6 Weeks)		
Performance Indicator 2 Formatting Text and Documents	CCTC Standards	National Standards for Business Education
2.1 Key documents demonstrating proper use of text formatting features	CRP11	COM3
2.2 Key documents demonstrating paragraph formatting features	CRP2	COM3
2.3 Apply page set up features to documents	CRP2	COM3
2.4 Edit documents using appropriate proofreader's marks	CRP2	COM3
2.5 Key business documents using appropriate formatting guidelines	CRP11	COM3
2.6 Demonstrate proper 10-key technique using numeric keypad on a keyboard	CRP11 FN2	COM3

Standard 3.0 Keying Dictation (3 Weeks)		
Performance Indicator 3 Keying Dictation	CCTC Standards	National Standards for Business Education
3.1 Analyze parts of speech and speech patterns	CRP4	COM3
3.2 Prepare and maintain headset for use	CRP4	CD3
3.3 Explain and properly use audio settings	CRP2	CD3

Standard 4: Recognizing Handwriting (2 Weeks)		
Performance Indicator 4 Recognizing Handwriting	CCTC Standards	National Standards for Business Education
4.1 Compare and contrast types of handwriting recognition devices	CRP4	COM1
4.2 Create documents using handwriting devices	CRP11	COM4
4.3 Demonstrate proper techniques for operating a computer tablet	CRP11	CD3
4.4 Key documents from handwriting samples	CRP2	COM3

Standard 5: Computer Science Practices with Keyboarding Skills (5 Weeks)		
Performance Indicator 5 Computer Science Practices with Keyboarding Skills	CCTC Standards	National Standards for Business Education
5.1 Formulate and test algorithms	IT9 IT10	IT5 IT12 IT17
5.2 Implement programming concepts by creating programs	IT9 IT10	IT5 IT12
5.3 Analyze, test, and debug computer programs	IT9 IT10	IT5 IT7

Glossary

Standard 1: Keyboarding Basic Knowledge (2 Weeks)

Alternate keys (Alt) – executes commands with other key(s)

Arrow keys – moves the insertion point in the direction indicates by the arrow on each key

Backspace – deletes the character to the left of the insertion point

Caps lock – capitalizes all letters when locked down

Control key (Ctrl) – executes commands with other key(s)

Delete – removes the character to the right of the insertion point

Enter/Return – causes the insertion point to move to the left margin and down to the next line

Escape key (Esc) – closes a software menu or dialog box

Function keys – special keys located at the top of the keyboard (F1, F2, F3, etc.) that are used alone or with the Ctrl, Alt, and Shift keys to execute software commands

Gross Words a Minute (GWAM) – the number of standard words keyed in one minute

Hardware – is the physical parts of a computer system such as the monitor, keyboard, and the hard drive

Home keys – the keys where you place your fingers to begin keying; a s d f for the left hand and j k l ; for the right hand

Keyboarding posture – the correct seating position taught when developing typing skills

Service keys – special keys that allow you to use the computer to perform specific functions

Shift key – makes capital letters and certain symbols when used with those keys

Software – programs and routines that control the functioning of a computer

Space bar – inserts space between words and sentences

Tab key – moves the insertion point to a preset position

Word wrap – causes text to move automatically to a new line when the current line is full

Standard 2: Formatting Text and Documents (6 Weeks)

Addressee – the person to whom you are sending the memorandum

Alignment – the horizontal positioning of text (such as left, right, center or justify)

Attachment notations – indicates that another document is attached to a letter

Bold – a print enhancement used to make characters appear darker than other text to add emphasis

Block format – all parts of a letter (including paragraphs) begin at the left margin

Body – the paragraphs that make up the main message

Bullets/Numbering – used to arrange items in a list with each item beginning with a bullet or a number

Columns – information arranged vertically

Complimentary close – is the closing or the farewell of the letter

Cut/Copy/Paste – a feature that enables you to move or copy text from one place to another

E-mail – an electronic message used by individuals to communicate with one another

Enclosure notation – indicates that another document is enclosed with a letter

Font size – determines the height of characters in units called points

Font style – the type of character format that determines the look or artistic style of the characters

Font type – the design and appearance of printed characters

Footers – text such as title, page numbers, and dates printed at the bottom of a page

Hard return – a code entered into a document by pressing the Enter key that indicates the end of a paragraph or sentence

Headers – text such as title, page numbers, and dates printed at the top of the page

Indentations – to move one or more lines inward from the margins

Insertion mode – an input mode in which the existing text moves to the right as new text is added

Italics – text that is slanted to the right

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Landscape orientation – page orientation in which data prints across the wider portion of the page

Letter address – the address to which the letter is being sent

Line spacing – the vertical distance between two lines of type

Margins – blank spaces between the edge of the paper and the printed text

Memorandum (memo) – a written message used by individuals within an organization to communicate with one another

Mixed punctuation – a punctuation style for letters in which there is a colon follows the salutation/greeting and a comma follows the complimentary closing

Open punctuation – a punctuation style for letters in which there is no punctuation following the salutation and complimentary close of the letter

Page numbering –method of arranging pages in numerical order

Portrait orientation – page orientation in which data prints across the narrower portion of a page

Print – to make a hard copy of a document

Proofreader's marks – symbols used to indicate errors that need correcting when re-keying copy

Reference initials – indicate who keyed the document

Return address – the greeting of the letter

Reveal/Show codes – shows non-printing or formatting characters

Soft return – a return that the application inserts automatically when you reach the end of a line

Source document – copy from which you are keying

Spell check – used to check the spelling of a document after keying

Subject line – alerts the reader immediately to the content of the document

Tab settings – allow you to line up text at a certain point

Table – a grid of rows and columns that intersect to form cells into which information can be typed

Textual citations – parentheses used in the report body to give credit (cite) to authors for quotes taken from their works

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Typeover mode – replaces existing text with new text as it is keyed

Unbound reports – short reports that are often prepared without covers and binders and, if longer than one page, is usually fastened together in the upper left corner by a staple or paper clip

Underline – a feature that underlines text as it is keyed

Writer – the author of the document

Standard 3: Keying Dictation (3 Weeks)

Correction list – a group of words from which a word can be selected to replace an incorrect word

Dictation – keying documents from listening to spoken words

Enunciation – speaking words clearly and distinctly

Headset – a device that contains a microphone and speakers and is worn on one's head

Homonyms – words that sound the same but have different meanings

Mute – to silence or shut off

Text-to-speech – feature used to have dictated text read back to the user

Voice command mode – allows the user to give commands by talking to a computer

Standard 4: Recognizing Handwriting (2 Weeks)

Digital ink – the technology that allows handwritten computer input

Digital pen (stylus) – a device used for pointing, drawing, and writing on a special type of computer screen or digital tablet

Handtyping – inputting data using handwriting recognition

On-screen keyboards – keys that appear on the computer monitor that you can tap to enter characters

Tablet Input Panel – contains the handwriting tools for a Tablet PC

Tablet PC – a powerful notebook computer

Standard 5: Computer Science Practices with Keyboarding Skills (5 Weeks)

Algorithm- An algorithm is a series of steps or methodology to solve a problem; step-by-step instructions

Search- a method used to find information by typing keywords into a search engine. (we need to work on this definition)

Search engine - information retrieval system designed to help find information stored on a computer system. The search results are usually presented in a list and are commonly called hits.

Sort- the process of organizing data in a particular order allowing for information to be found easier.

Data type-a particular kind of data item, as defined by the values it can take, the programming language used, or the operations that can be performed on it

Declaration – determines the name and data type of a variable or other element. Programmers declare variables by writing the name of the variable into code, along with any data type indicators and other required syntax.

Variable declaration- In C++ (as in many other programming languages) all the variables that a program is going to use must be declared prior to use. Declaration of a variable serves two purposes: It associates a type and an identifier (or name) with the variable. The type allows the compiler to interpret statements correctly.

Initialization - process of locating and using the defined values for variable data that is used by a computer program. For example, an operating system or application program is installed with default or user-specified values that determine certain aspects of how the system or program is to function.

Assignment statements sets and/or re-sets the value stored in the storage location(s) denoted by a variable name; in other words, it copies a value into the variable. In most imperative programming languages, the assignment statement (or expression) is a fundamental construct.

Conditional branching - A programming instruction that directs the computer to another part of the program based on the results of a compare

Iteration- a process wherein a set of instructions or structures are repeated in a sequence a specified number of times or until a condition is met. When the first set of instructions is executed again, it is called an iteration

Debug- the routine process of locating and removing computer program bugs, errors or abnormalities

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Pseudocode- an informal program description that does not contain code syntax or underlying technology considerations.
Pseudocode summarizes a program's steps (or flow) but excludes underlying details.

Common Career and Technical Core Standards

Finance Career Cluster

Finance Career Cluster Standards (FN)

1. Utilize mathematical concepts, skills, and problem solving to obtain necessary information for decision making in the finance industry. **FN1**
2. Utilize tools, strategies, and systems to plan, monitor, manage, and maintain the use of financial resources. **FN2**
3. Plan, staff, lead, and organize human resources in finance to enhance employee productivity and job satisfaction. **FN3**
4. Determine effective tools, techniques, and systems to communicate and deliver value to finance customers. **FN4**
5. Create and maintain positive, ongoing relationships with finance customers. **FN5**
6. Plan, monitor, and manage day-to-day activities to ensure effective and efficient finance operations. **FN6**
7. Implement safety, health, and environmental controls to ensure a safe and productive finance workplace. **FN7**
8. Describe and follow laws, regulations, and ethical standards that affect finance operations and transactions. **FN8**
9. Plan, manage, and maintain the use of financial resources to protect solvency. **FN9**
10. Plan, organize, and manage a finance organization/department. **FN10**
11. Plan, monitor, and manage day-to-day activities required to sustain continued business functioning. **FN11**
12. Access, evaluate, and disseminate financial information to enhance financial decision-making processes. **FN12**
13. Manage a financial product or service mix in order to respond to market opportunities. **FN13**
14. Employ financial risk-management strategies and techniques used to minimize business loss. **FN14**

Information Technology Career Cluster

Information Technology Career Cluster Standards (IT)

1. Demonstrate effective professional communication skills and practices that enable positive customer relationships. **IT1**
2. Use product or service design processes and guidelines to produce a quality information technology (IT) product or service. **IT2**
3. Demonstrate the effectiveness of cross-functional teams in achieving IT project goals. **IT3**
4. Demonstrate positive cyber citizenry by applying industry accepted ethical practices and behaviors. **IT4**
5. Explain the implications of IT on business transformation and development. **IT5**
6. Describe trends in emerging and evolving computer technologies and their influence on IT practices. **IT6**
7. Perform standard computer backup and restore procedures to protect IT information. **IT7**
8. Recognize and analyze potential IT security threats to develop and maintain security requirements. **IT8**
9. Describe quality assurance practices and methods employed in producing and providing quality IT products and services. **IT9**
10. Describe the use of computer forensics to prevent and solve information technology crimes and security breaches. **IT10**

Web and Digital Communications Career Pathway (IT-WD)

1. Analyze customer requirements to design and develop a Web or digital communication product. **IT-WD1**
2. Apply the design and development process to produce user-focused Web and digital communications solutions. **IT-WD2**

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3. Write product specifications that define the scope of work aligned to customer requirements. **IT-WD3**
4. Demonstrate the effective use of tools for digital communication production, development, and project management. **IT-WD4**
5. Develop, administer, and maintain Web applications. **IT-WD5**
6. Design, create, and publish a digital communication product based on customer needs. **IT-WD6**
7. Evaluate the functionality of a digital communication product using industry accepted techniques and metrics. **IT-WD7**
8. Implement quality assurance processes to deliver quality digital communication products and services. **IT-WD8**
9. Perform maintenance and customer support functions for digital communication products. **IT-WD9**
10. Comply with intellectual property laws, copyright laws and ethical practices when creating Web and digital communications. **IT-WD10**

Common Career and Technical Core Career Ready Practices (CCTC CRP)

1. Act as a responsible and contributing citizen and employee. **CRP1**
2. Apply appropriate academic and technical skills. **CRP2**
3. Attend to personal health and financial well-being. **CRP3**
4. Communicate clearly, effectively, and with reason. **CRP4**
5. Consider the environmental, social, and economic impacts of decisions. **CRP5**
6. Demonstrate creativity and innovation. **CRP6**
7. Employ valid and reliable research strategies. **CRP7**
8. Utilize critical thinking to make sense of problems and persevere in solving them. **CRP8**
9. Model integrity, ethical leadership, and effective management. **CRP9**
10. Plan education and career path aligned to personal goals. **CRP10**
11. Use technology to enhance productivity. **CRP11**
12. Work productively in teams while using cultural/global competence. **CRP12**

National Standards for Business Education (2013)

Accounting

The Accounting Profession

ACC1 Explain the role that accountants play in business and society.

ACC2 Describe career opportunities in the accounting profession.

ACC3 Demonstrate the skills and competencies required to be successful in the accounting profession and/or in an accounting-related career.

Financial Reports

ACC4 Use an annual report and financial statements to make informed business decisions.

Financial Analysis

ACC5 Assess the financial condition and operating results of a company and analyze and interpret financial statements and information to make informed business decisions.

Accounting Principles

ACC6 Identify and describe generally accepted accounting principles (GAAP), explain how the application of GAAP impacts the recording of financial transactions and the preparation of financial statements.

Accounting Process

ACC7 Complete the steps in the accounting cycle in order to prepare the financial statements.

Interpretation and Use of Data

ACC8 Use planning and control principles to evaluate the performance of an organization and apply differential analysis and present-value concepts to make informed business decisions.

Compliance

Personal Finance

ACC9 Explain the individual income tax procedures and requirements to comply with tax laws and regulations.

Financial reporting

ACC10 Distinguish between generally accepted accounting principles and income tax law.

Payroll

ACC11 Apply appropriate accounting practices to payroll.

Business Law

Basics of the Law

BL1 Analyze the relationship between ethics and the law and describe sources of the law, the structure of the court system, different classifications of procedural law, and different classifications of substantive law.

Contract Law, Law of Sales, and Consumer Law

BL2 Analyze the relationships between contract law, law of sales, and consumer law.

Agency and Employment

BL3 Analyze the role and importance of agency law, and employment law as they relate to the conduct of business in the national and international marketplaces.

Business Organizations

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BL4 Describe the major types of business organizations, including sole proprietorships, partnerships, corporations, and limited liability companies, operating within the socioeconomic arena of the national and international marketplace.

Property Law

BL5 Explain the legal rules that apply to personal property, real property, and intellectual property.

Negotiable Instruments, Insurance, Secured Transactions, Bankruptcy

BL6 Analyze the functions of negotiable instruments, insurance, secured transactions, and bankruptcy.

Computer Law

BL7 Explain how advances in computer technology impact such areas as intellectual property, contract law, criminal law, tort law, and international law.

Environmental Law and Energy Regulation

BL8 Explain the legal rules that apply to environmental law and energy regulation.

Family Law

BL9 Explain the legal rules that apply to marriage, divorce, and child custody.

Wills and Trusts

BL10 Determine the appropriateness of wills and trusts in estate planning.

Career Development

Strategic Career Planning

CD1 Apply knowledge gained through individual assessment to develop a comprehensive set of goals and an individual career plan.

Career Exploration & Research

CD2 Utilize career resources to develop a career information portfolio that includes international career opportunities.

Career Readiness Expectations

CD3 Relate the importance of career readiness skills to career development.

School-to-Career Transition

CD4 Develop strategies to effectively transition from school to career.

Lifelong Learning

CD5 Relate the importance of lifelong learning to personal and career success.

Communication

Foundations of Communication

COM1 Listen actively, use the communication process, read and research information, and integrate technology to enhance communication

Interpersonal Skills

COM2 Apply interpersonal skills in personal and professional environments to communicate effectively.

Written Communication

COM3 Prepare clear, complete, concise, correct, and courteous written messages for personal and professional uses.

Spoken Communication

COM4 Demonstrate professional speaking techniques and strategies.

Employment Communication

COM5 Communicate effectively for employment success.

Economics & Personal Finance

Economics

Economics Allocation of Resources

EPF1 Assess opportunity costs and trade-offs involved in making choices about how to use scarce economic resources.

Economic Systems

EPF2 Explain why societies develop economic systems, identify the basic features of different economic systems, and analyze the major features of the U.S. Economic system.

Economic Institutions and Incentives

EPF3 Analyze the role of core economic institutions and incentives in the U.S. Economy.

Markets and Prices

EPF4 Analyze the role of markets and prices in the U.S. Economy.

Market Structures

EPF5 Analyze the different types of market structures and the effect they have on the price and the quality of the goods and services produced.

Productivity

EPF6 Explain the importance of productivity and analyze how specialization, division of labor, investment in physical and human capital, and technological change affect productivity and global trade.

The Role of Government

EPF7 Analyze the role of government in economic systems, especially the role of government in the U.S. Economy.

Global Economic Concepts

EPF8 Examine the role of trade, protectionism, and monetary markets in the global economy.

Aggregate Supply and Aggregate Demand

EPF9 Analyze how the U.S. Economy functions as a whole and describe selected macroeconomic measures of economic activity.

Personal Finance

Personal Decision Making

EPF10 Use a rational decision-making process as it applies to the roles of citizens, workers, and consumers.

Earning and Reporting Income

EPF11 Identify various forms of income and analyze factors that affect income as a part of the career decision-making process.

Managing Finances and Budgeting

EPF12 Develop and evaluate a spending/savings plan.

Saving and Investing

EPF13 Evaluate savings and investment options to meet short- and long-term goals.

Buying Goods and Services

EPF14 Apply a decision-making model to maximize consumer satisfaction when buying goods and services.

Banking and Financial Institutions

EPF15 Evaluate services provided by financial deposit institutions to transfer funds.

Using Credit

EPF16 Analyze factors that affect the choice of credit, the cost of credit, and the legal aspects of using credit.

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Protecting Against Risk

EPF17 Analyze choices available to consumers for protection against risk and financial loss.

Entrepreneurship

Entrepreneurs and Entrepreneurial Opportunities

ENT1 Recognize that entrepreneurs possess unique characteristics and examine the role of innovation in entrepreneurial opportunities.

Entrepreneurial Trends

ENT2 Recognize trends and social responsibilities can lead to entrepreneurial opportunities.

Economics

ENT3 Apply economic concepts when making decisions for an entrepreneurial venture.

Marketing

ENT4 Develop a marketing vision to introduce a product or service.

Finance

ENT5 Use the financial concepts and tools needed by the entrepreneur in making business decisions.

Accounting

ENT6 Recognize that entrepreneurs must establish, maintain, and analyze appropriate records to make business decisions.

Management

ENT7 Develop a management plan for an entrepreneurial venture.

Legal

ENT8 Analyze how forms of business ownership, government regulations, and legal regulations affect entrepreneurial ventures.

Business Plans

ENT9 Develop a business plan.

Information Technology

Impact on Society

IT1 Assess the impact of information technology in a global society.

Information Literacy

IT2 Gather, evaluate, use, cite, and disseminate information from technology sources.

Digital Citizenship

IT3 Demonstrate respectful, responsible and ethical behavior in a digital world.

Devices and Components

IT4 Describe current and emerging devices and components; configure, install, and upgrade equipment; diagnose problems; and repair hardware.

Operating Systems

IT5 Identify, evaluate, select, install, use, upgrade, and customize operating systems. Diagnose and solve problems with various types of operating system utilities.

Input Technologies

IT6 Use various input technologies to enter and manipulate information appropriately.

Applications

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IT7 Identify, evaluate, select, install, use, upgrade, troubleshoot, and customize applications.

Digital Media

IT8 Use and create digital media.

Web Development and Design

IT9 Design, develop, test, implement, update, and evaluate web solutions.

Database Management Systems

IT10 Use, plan, develop, and maintain database management systems.

Project Management and Systems Analysis

IT11 Analyze and design projects and information systems using appropriate management and development tools.

Programming and Application Development

IT12 Design, develop, test, and implement programs and applications.

Data and Networking Infrastructures

IT13 Develop the skills to design, deploy, and administer networks and telecommunications systems.

Information Technology Planning and Acquisition

IT14 Plan the selection and acquisition of information technologies.

Security and Risk Management

IT15 Design and implement security and risk management policies and procedures for information technology.

End-User Support and Training

IT16 Develop the technical and interpersonal skills and knowledge to train and support the user community.

Information Technology and Business Functions

IT17 Describe the information technology components of business functions and explain their interrelationships.

Information Technology Careers

IT18 Explore career opportunities in information technology.

International Business

Foundations of International Business

IB1 Explain the role of international business and identify its benefits and costs; analyze how it impacts business at all levels, including the local, state, national, and international levels.

The Global Business Environment

IB2 Describe the interrelatedness of the social, cultural, political, legal, economic, and technological factors that shape and impact the global business environment.

International Business Communication

IB3 Apply communication strategies necessary and appropriate for effective and mutually-beneficial international business relations.

Global Business Ethics and Social Responsibility

IB4 Describe the factors that define what is considered ethical and socially responsible business behavior in a global business environment.

Organizational Structures for International Business Activities

IB5 Identify forms of business ownership and entrepreneurial opportunities available in international business.

International Trade

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IB6 Relate balance of trade concepts to the import/export process.

International Management

IB7 Analyze special challenges in operations, human resources, and strategic management in international business.

International Marketing

IB8 Apply marketing concepts to international business situations.

International Finance

IB9 Explain the concepts, role, and importance of international finance and risk management.

Management

Management Functions

MGT1 Analyze the management functions and their implementation and integration within the business environment.

Management Theories

MGT2 Analyze management theories and their application within the business environment.

Business Organization

MGT3 Analyze the organization of a business.

Personal Management Skills

MGT4 Develop personal management skills to function effectively and efficiently in a business environment.

Ethics and Social Responsibility

MGT5 Examine the role of ethics and social responsibility in decision making.

Human Resource Management

MGT6 Describe human resource functions and their importance to an organization's successful operation.

Organized Labor

MGT7 Describe the role of organized labor and its influence on government and business.

Technology and Information Management

MGT8 Utilize information and technology tools to conduct business effectively and efficiently.

Industry Analysis

MGT9 Analyze a business organization's competitive position within the industry.

Financial Decision Making

MGT10 Analyze financial data influenced by internal and external factors in order to make short-term and long-term decisions.

Operations Management

MGT11 Apply operations management principles and procedures to the design of an operations plan.

Global Perspective

MGT12 Examine the issues of corporate culture and managing in the global environment.

Marketing

Foundations of Marketing

MKT1 Recognize the customer-oriented nature of marketing and analyze the impact of marketing activities on the individual, business, and society.

Consumers and Their Behavior

MKT2 Analyze the characteristics, motivations, and behaviors of consumers.

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External Factors

MKT3 Analyze the influence of external factors on marketing.

The Marketing Mix

MKT4 Analyze the elements of the marketing mix, their interrelationships, how they are used in the marketing process, and their role in positioning.

The Marketing Plan

MKT5 Describe the elements, design, and purposes of a marketing plan.

Marketing Research

MKT6 Analyze the role of marketing research in decision-making.