



**Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements**

The Pathway Knowledge and Skills Chart describes what all/most learners/workers need to know and be able to do to demonstrate competence within a career pathway. Following the pathway description, there are four sets of knowledge and skill expectations:

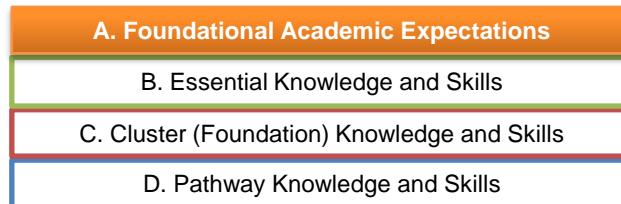


PATHWAY DESCRIPTION

Operations Management: Operations Management focuses on planning, organizing, coordinating, and controlling the resources needed to produce/provide a business's goods and/or services. Examples of activities in Operations Management are quality control, scheduling, procurement, and warehousing.

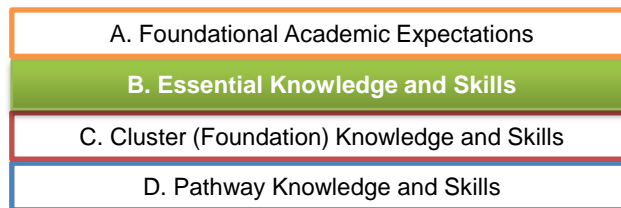
A. FOUNDATIONAL ACADEMIC EXPECTATIONS

All secondary students should meet their state's academic standards. All Essential Cluster and Pathway Knowledge and Skills are predicated on the assumption that foundational academic skills have been attained. Some knowledge and skill statements will further define critical linkages and applications of academics in the cluster and/or pathway.



B. ESSENTIAL KNOWLEDGE AND SKILLS

The following Essential Knowledge and Skill statements apply to careers in all clusters and pathways. Persons preparing for careers in this pathway should be able to demonstrate these skills in the context of this cluster and pathway.



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| Essential Topic ESS01 | ACADEMIC FOUNDATIONS: <i>Achieve additional academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within a career cluster.</i> |
| ESS01.01 | Complete required training, education, and certification to prepare for employment in a particular career field. |



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- ESS01.01.01 Identify training, education and certification requirements for occupational choice.
- ESS01.01.02 Participate in career-related training and/or degree programs.
- ESS01.01.03 Pass certification tests to qualify for licensure and/or certification in chosen occupational area.

ESS01.02 Demonstrate language arts knowledge and skills required to pursue the full range of post-secondary education and career opportunities.

- ESS01.02.01 Model behaviors that demonstrate active listening.
- ESS01.02.02 Adapt language for audience, purpose, situation. (i.e. diction/structure, style).
- ESS01.02.03 Organize oral and written information.
- ESS01.02.04 Compose focused copy for a variety of written documents such as agendas, audio-visuals, bibliographies, drafts, forms/documents, notes, oral presentations, reports, and technical terminology.
- ESS01.02.05 Edit copy to create focused written documents such as agendas, audio-visuals, bibliographies, drafts, forms/documents, notes, oral presentations, reports, and technical terminology.
- ESS01.02.06 Comprehend key elements of oral and written information such as cause/effect, comparisons/contrasts, conclusions, context, purpose, charts/tables/graphs, evaluation/critiques, mood, persuasive text, sequence, summaries, and technical subject matter.
- ESS01.02.07 Evaluate oral and written information for accuracy, adequacy/sufficiency, appropriateness, clarity, conclusions/solutions, fact/opinion, propaganda, relevancy, validity, and relationship of ideas.
- ESS01.02.08 Identify assumptions, purpose, outcomes/solutions, and propaganda techniques.
- ESS01.02.09 Predict potential outcomes and/or solutions based on oral and written information regarding trends.
- ESS01.02.10 Present formal and informal speeches including discussion, information requests, interpretation, and persuasive arguments.

ESS01.03 Demonstrate mathematics knowledge and skills required to pursue the full range of post-secondary education and career opportunities.

- ESS01.03.01 Identify whole numbers, decimals, and fractions.
- ESS01.03.02 Demonstrate knowledge of basic arithmetic operations such as addition, subtraction, multiplication, and division.
- ESS01.03.03 Demonstrate use of relational expressions such as equal to, not equal, greater than, less than, etc.
- ESS01.03.04 Apply data and measurements to solve a problem.
- ESS01.03.05 Analyze mathematical problem statements for missing and/or irrelevant data.
- ESS01.03.06 Construct charts/tables/graphs from functions and data.
- ESS01.03.07 Analyze data when interpreting operational documents.

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ESS01.04 Demonstrate science knowledge and skills required to pursue the full range of post-secondary and career education opportunities.

- ESS01.04.01 Evaluate scientific constructs including conclusions, conflicting data, controls, data, inferences, limitations, questions, sources of errors, and variables.
- ESS01.04.02 Apply scientific methods in qualitative and quantitative analysis, data gathering, direct and indirect observation, predictions, and problem identification.

**Essential Topic
ESS02** **COMMUNICATIONS: *Use oral and written communication skills in creating, expressing and interpreting information and ideas including technical terminology and information.***

ESS02.01 Select and employ appropriate reading and communication strategies to learn and use technical concepts and vocabulary in practice.

- ESS02.01.01 Determine the most appropriate reading strategy for identifying the overarching purpose of a text (i.e. skimming, reading for detail, reading for meaning or critical analysis).
- ESS02.01.02 Demonstrate use of content, technical concepts and vocabulary when analyzing information and following directions.
- ESS02.01.03 Select the reading strategy or strategies needed to fully comprehend the content within a written document (i.e., skimming, reading for detail, reading for meaning or critical analysis).
- ESS02.01.04 Interpret information, data, and observations to apply information learned from reading to actual practice.
- ESS02.01.05 Transcribe information, data, and observations to apply information learned from reading to actual practice.
- ESS02.01.06 Communicate information, data, and observations to apply information learned from reading to actual practice.

ESS02.02 Demonstrate use of the concepts, strategies, and systems for obtaining and conveying ideas and information to enhance communication in the workplace.

- ESS02.02.01 Employ verbal skills when obtaining and conveying information.
- ESS02.02.02 Record information needed to present a report on a given topic or problem.
- ESS02.02.03 Write internal and external business correspondence that conveys and/or obtains information effectively.
- ESS02.02.04 Communicate with other employees to clarify workplace objectives.
- ESS02.02.05 Communicate effectively with customers and employees to foster positive relationships.

ESS02.03 Locate, organize and reference written information from various sources to communicate with co-workers and clients/participants.

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- ESS02.03.01 Locate written information used to communicate with co-workers and customers.
- ESS02.03.02 Organize information to use in written and oral communications.
- ESS02.03.03 Reference the sources of information.

ESS02.04 Evaluate and use information resources to accomplish specific occupational tasks.

- ESS02.04.01 Use informational texts, Internet web sites, and/or technical materials to review and apply information sources for occupational tasks.
- ESS02.04.02 Evaluate the reliability of information from informational texts, Internet Web sites, and/or technical materials and resources.

ESS02.05 Use correct grammar, punctuation and terminology to write and edit documents.

- ESS02.05.01 Compose multi-paragraph documents clearly, succinctly, and accurately.
- ESS02.05.02 Use descriptions of audience and purpose when preparing and editing written documents.
- ESS02.05.03 Use correct grammar, spelling, punctuation, and capitalization when preparing written documents.

ESS02.06 Develop and deliver formal and informal presentations using appropriate media to engage and inform audiences.

- ESS02.06.01 Prepare oral presentations to provide information for specific purposes and audiences.
- ESS02.06.02 Identify support materials that will enhance an oral presentation.
- ESS02.06.03 Prepare support materials that will enhance an oral presentation.
- ESS02.06.04 Deliver an oral presentation that sustains listeners' attention and interest.
- ESS02.06.05 Align presentation strategies to the intended audience.
- ESS02.06.06 Implement multi-media strategies for presentations.

ESS02.07 Interpret verbal and nonverbal cues/behaviors to enhance communication with co-workers and clients/participants.

- ESS02.07.01 Interpret verbal behaviors when communicating with clients and co-workers.
- ESS02.07.02 Interpret nonverbal behaviors when communicating with clients and co-workers.

ESS02.08 Apply active listening skills to obtain and clarify information.

- ESS02.08.01 Interpret a given verbal message/information.
- ESS02.08.02 Respond with restatement and clarification techniques to clarify information.

ESS02.09 Develop and interpret tables, charts, and figures to support written and oral communications.

- ESS02.09.01 Create tables, charts, and figures to support written and oral communications.
- ESS02.09.02 Interpret tables, charts, and figures used to support written and oral communication.

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| ESS02.10 | Listen to and speak with diverse individuals to enhance communication skills. |
| ESS02.10.01 | Apply factors and strategies for communicating with a diverse workforce. |
| ESS02.10.02 | Demonstrate ability to communicate and resolve conflicts within a diverse workforce. |
| ESS02.11 | Exhibit public relations skills to increase internal and external customer/client satisfaction. |
| ESS02.11.01 | Communicate effectively when developing positive customer/client relationships. |
| Essential Topic ESS03 | PROBLEM-SOLVING AND CRITICAL THINKING: <i>Solve problems using critical thinking skills (analyze, synthesize, and evaluate) independently and in teams. Solve problems using creativity and innovation.</i> |
| ESS03.01 | Employ critical thinking skills independently and in teams to solve problems and make decisions (e.g., analyze, synthesize and evaluate). |
| ESS03.01.01 | Identify common tasks that require employees to use problem-solving skills. |
| ESS03.01.02 | Analyze elements of a problem to develop creative solutions. |
| ESS03.01.03 | Describe the value of using problem-solving and critical thinking skills to improve a situation or process. |
| ESS03.01.04 | Create ideas, proposals, and solutions to problems. |
| ESS03.01.05 | Evaluate ideas, proposals, and solutions to problems. |
| ESS03.01.06 | Use structured problem-solving methods when developing proposals and solutions. |
| ESS03.01.07 | Generate new and creative ideas to solve problems by brainstorming possible solutions. |
| ESS03.01.08 | Critically analyze information to determine value to the problem-solving task. |
| ESS03.01.09 | Guide individuals through the process of recognizing concerns and making informed decisions. |
| ESS03.01.10 | Identify alternatives using a variety of problem-solving and critical thinking skills. |
| ESS03.01.11 | Evaluate alternatives using a variety of problem-solving and critical thinking skills. |
| ESS03.02 | Employ critical thinking and interpersonal skills to resolve conflicts with staff and/or customers. |
| ESS03.02.01 | Analyze situations and behaviors that affect conflict management. |
| ESS03.02.02 | Determine best options/outcomes for conflict resolution using critical thinking skills. |
| ESS03.02.03 | Identify with others' feelings, needs, and concerns. |
| ESS03.02.04 | Implement stress management techniques. |
| ESS03.02.05 | Resolve conflicts with/for customers using conflict resolution skills. |

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| ESS03.02.06 | Implement conflict resolution skills to address staff issues/problems. |
| ESS03.03 | Identify, write and monitor workplace performance goals to guide progress in assigned areas of responsibility and accountability. |
| ESS03.03.01 | Write realistic performance goals, objectives and action plans. |
| ESS03.03.02 | Monitor performance goals and adjust as necessary. |
| ESS03.03.03 | Recognize goal achievement using appropriate rewards in the workplace. |
| ESS03.03.04 | Communicate goal achievement with managers and co-workers. |
| ESS03.04 | Conduct technical research to gather information necessary for decision-making. |
| ESS03.04.01 | Align the information gathered to the needs of the audience. |
| ESS03.04.02 | Gather technical information and data using a variety of resources. |
| ESS03.04.03 | Analyze information and data for value to the research objectives. |
| ESS03.04.04 | Evaluate information and data to determine value to research objectives. |

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| Essential Topic ESS04 | INFORMATION TECHNOLOGY APPLICATIONS: <i>Use information technology tools specific to the career cluster to access, manage, integrate, and create information.</i> |
| ESS04.01 | Use Personal Information Management (PIM) applications to increase workplace efficiency. |
| ESS04.01.01 | Manage personal schedules and contact information. |
| ESS04.01.02 | Create memos and notes. |
| ESS04.02 | Employ technological tools to expedite workflow. |
| ESS04.02.01 | Use information technology tools to manage and perform work responsibilities. |
| ESS04.03 | Operate electronic mail applications to communicate within a workplace. |
| ESS04.03.01 | Use email to share files and documents. |
| ESS04.03.02 | Identify the functions and purpose of email systems. |
| ESS04.03.03 | Use email to communicate within and across organizations. |
| ESS04.04 | Operate Internet applications to perform workplace tasks. |
| ESS04.04.01 | Access and navigate Internet (e.g., use a web browser). |
| ESS04.04.02 | Search for information and resources. |
| ESS04.04.03 | Evaluate Internet resources for reliability and validity. |
| ESS04.05 | Operate writing and publishing applications to prepare business communications. |
| ESS04.05.01 | Prepare simple documents and other business communications. |
| ESS04.05.02 | Prepare reports and other business communications by integrating graphics and other non-text elements. |
| ESS04.05.03 | Prepare complex multi-media publications. |
| ESS04.06 | Operate presentation applications to prepare presentations. |
| ESS04.06.01 | Prepare presentations for training, sales and information sharing. |



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- ESS04.06.02 Deliver presentations with supporting materials.
ESS04.07 **Employ spreadsheet applications to organize and manipulate data.**
- ESS04.07.01 Create a spreadsheet.
ESS04.07.02 Perform calculations and analyses on data using a spreadsheet.
ESS04.08 **Employ database applications to manage data.**
- ESS04.08.01 Manipulate data elements.
ESS04.08.02 Manage interrelated data elements.
ESS04.08.03 Analyze interrelated data elements.
ESS04.08.04 Generate reports showing interrelated data elements.
ESS04.09 **Employ collaborative/groupware applications to facilitate group work.**
- ESS04.09.01 Facilitate group work through management of shared schedule and contact information.
ESS04.09.02 Facilitate group work through management of shared files and online information.
ESS04.09.03 Facilitate group work through instant messaging or virtual meetings.
ESS04.10 **Employ computer operations applications to manage work tasks.**
- ESS04.10.01 Manage computer operations.
ESS04.10.02 Manage file storage.
ESS04.10.03 Compress or alter files.
ESS04.11 **Use computer-based equipment (containing embedded computers or processors) to control devices.**
- ESS04.11.01 Operate computer driven equipment and machines.
ESS04.11.02 Use installation and operation manuals.
ESS04.11.03 Troubleshoot computer driven equipment and machines.
ESS04.11.04 Access support as needed to maintain operation of computer driven equipment and machines.

**Essential Topic
ESS05**

SYSTEMS: *Understand roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. Identify how key organizational systems affect organizational performance and the quality of products and services. Understand global context of industries and careers.*

- ESS05.01** **Describe the nature and types of business organizations to build an understanding of the scope of organizations.**
- ESS05.01.01 List the types and functions of businesses.
ESS05.01.02 Describe the types and functions of businesses.
ESS05.01.03 Explain the functions and interactions of common departments within a business.
- ESS05.02** **Implement quality control systems and practices to ensure quality products and services.**
- ESS05.02.01 Describe quality control standards and practices common to the workplace.

Essential Topic
ESS06

SAFETY, HEALTH AND ENVIRONMENTAL: *Understand the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. Follow organizational policies and procedures and contribute to continuous improvement in performance and compliance.*

ESS06.01

Implement personal and jobsite safety rules and regulations to maintain safe and healthful working conditions and environments.

ESS06.01.01

Assess workplace conditions with regard to safety and health.

ESS06.01.02

Align safety issues with appropriate safety standards to ensure a safe workplace/jobsite.

ESS06.01.03

Identify safety hazards common to workplaces.

ESS06.01.04

Identify safety precautions to maintain a safe worksite.

ESS06.01.05

Select appropriate personal protective equipment as needed for a safe workplace/jobsite.

ESS06.01.06

Inspect personal protective equipment commonly used for selected career pathway.

ESS06.01.07

Use personal protective equipment according to manufacturer rules and regulations.

ESS06.01.08

Employ a safety hierarchy and communication system within the workplace/jobsite.

ESS06.01.09

Implement safety precautions to maintain a safe worksite.

ESS06.02

Complete work tasks in accordance with employee rights and responsibilities and employers obligations to maintain workplace safety and health.

ESS06.02.01

Identify rules and laws designed to promote safety and health in the workplace.

ESS06.02.02

State the rationale of rules and laws designed to promote safety and health.

ESS06.03

Employ emergency procedures as necessary to provide aid in workplace accidents.

ESS06.03.01

Use knowledge of First Aid procedures as necessary.

ESS06.03.02

Use knowledge of CPR procedures as necessary.

ESS06.03.03

Use safety equipment as necessary.

ESS06.04

Employ knowledge of response techniques to create a disaster and/or emergency response plan.

ESS06.04.01

Complete an assessment of an emergency and/or disaster situation.

ESS06.04.02

Create an emergency and/or disaster plan.

Essential Topic
ESS07

LEADERSHIP AND TEAMWORK: *Use leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.*

ESS07.01

Employ leadership skills to accomplish organizational goals and objectives.

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- ESS07.01.01 Analyze the various roles of leaders within organizations (e.g. contribute ideas; share in building an organization; act as role models to employees by adhering to company policies, procedures, and standards; promote the organization's vision; and mentor others).
- ESS07.01.02 Exhibit traits such as empowerment, risk, communication, focusing on results, decision-making, problem solution, and investment in individuals when leading a group in solving a problem.
- ESS07.01.03 Exhibit traits such as compassion, service, listening, coaching, developing others, team development, and understanding and appreciating others when acting as a manager of others in the workplace.
- ESS07.01.04 Exhibit traits such as enthusiasm, creativity, conviction, mission, courage, concept, focus, principle-centered living, and change when interacting with others in general.
- ESS07.01.05 Consider issues related to self, team, community, diversity, environment, and global awareness when leading others.
- ESS07.01.06 Exhibit traits such as innovation, intuition, adaptation, life-long learning and coachability to develop leadership potential over time.
- ESS07.01.07 Analyze leadership in relation to trust, positive attitude, integrity, and willingness to accept key responsibilities in a work situation.
- ESS07.01.08 Describe observations of outstanding leaders using effective management styles.
- ESS07.01.09 Participate in civic and community leadership and teamwork opportunities to enhance skills.

ESS07.02 Employ organizational and staff development skills to foster positive working relationships and accomplish organizational goals.

- ESS07.02.01 Implement organizational skills when facilitating others' work efforts.
- ESS07.02.02 Explain how to manage a staff that satisfies work demands while adhering to budget constraints.
- ESS07.02.03 Describe how staff growth and development to increase productivity and employee satisfaction.
- ESS07.02.04 Organize team involvement within a group environment.
- ESS07.02.05 Work with others to develop and gain commitment to team goals.
- ESS07.02.06 Distribute responsibility and work load fairly.
- ESS07.02.07 Model leadership and teamwork qualities to aid in employee morale.
- ESS07.02.08 Identify best practices for successful team functioning.
- ESS07.02.09 Explain best practices for successful team functioning.

ESS07.03 Employ teamwork skills to achieve collective goals and use team members' talents effectively.

- ESS07.03.01 Work with others to achieve objectives in a timely manner.
- ESS07.03.02 Promote the full involvement and use of team members' individual talents and skills.
- ESS07.03.03 Employ conflict-management skills to facilitate solutions.

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- ESS07.03.04 Demonstrate teamwork skills through working cooperatively with co-workers, supervisory staff, and others, both in and out of the organization, to achieve particular tasks.
- ESS07.03.05 Demonstrate teamwork processes that provide team building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution.
- ESS07.03.06 Develop plans to improve team performance.
- ESS07.03.07 Demonstrate commitment to and a positive attitude toward team goals.
- ESS07.03.08 Take responsibility for shared group and individual work tasks.
- ESS07.03.09 Assist team members in completing their work.
- ESS07.03.10 Adapt effectively to changes in projects and work activities.
- ESS07.03.11 Negotiate effectively to arrive at decisions.

ESS07.04 Establish and maintain effective working relationships with all levels of personnel and other departments in order to accomplish objectives and tasks.

- ESS07.04.01 Build effective working relationships using interpersonal skills.
- ESS07.04.02 Use positive interpersonal skills to work cooperatively with co-workers representing different cultures, genders and backgrounds.
- ESS07.04.03 Manage personal skills to accomplish assignments.
- ESS07.04.04 Treat people with respect.
- ESS07.04.05 Provide constructive praise and criticism.
- ESS07.04.06 Demonstrate sensitivity to and value for diversity.
- ESS07.04.07 Manage stress and control emotions.

ESS07.05 Conduct and participate in meetings to accomplish work tasks.

- ESS07.05.01 Develop meeting goals, objectives and agenda.
- ESS07.05.02 Assign responsibilities for preparing materials and leading discussions.
- ESS07.05.03 Prepare materials for leading discussion.
- ESS07.05.04 Assemble and distribute meeting materials.
- ESS07.05.05 Conduct meeting to achieve objectives within scheduled time.
- ESS07.05.06 Demonstrate effective communication skills in meetings.
- ESS07.05.07 Produce meeting minutes including decisions and next steps.
- ESS07.05.08 Use parliamentary procedure, as needed, to conduct meetings.

ESS07.06 Employ mentoring skills to inspire and teach others.

- ESS07.06.01 Use motivational techniques to enhance performance in others.
- ESS07.06.02 Provide guidance to enhance performance in others.

Essential Topic ESS08 ETHICS AND LEGAL RESPONSIBILITIES: *Know and understand the importance of professional ethics and legal responsibilities.*

ESS08.01 Apply ethical reasoning to a variety of workplace situations in order to make ethical decisions.

- ESS08.01.01 Evaluate alternative responses to workplace situations based on legal responsibilities and employer policies.
- ESS08.01.02 Evaluate alternative responses to workplace situations based on personal or professional ethical responsibilities.

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- ESS08.01.03 Identify personal and long-term workplace consequences of unethical or illegal behaviors.
- ESS08.01.04 Explain personal and long-term workplace consequences of unethical or illegal behaviors.
- ESS08.01.05 Determine the most appropriate response to workplace situations based on legal and ethical considerations.
- ESS08.01.06 Explain the most appropriate response to workplace situations based on legal and ethical considerations.

ESS08.02 Interpret and explain written organizational policies and procedures to help employees perform their jobs according to employer rules and expectations.

- ESS08.02.01 Locate information on organizational policies in handbooks and manuals.
- ESS08.02.02 Discuss how specific organizational policies and procedures influence a specific work situation.

**Essential Topic
ESS09 EMPLOYABILITY AND CAREER DEVELOPMENT: *Know and understand the importance of employability skills. Explore, plan, and effectively manage careers. Know and understand the importance of entrepreneurship skills.***

ESS09.01 Identify and demonstrate positive work behaviors and personal qualities needed to be employable.

- ESS09.01.01 Demonstrate self-discipline, self-worth, positive attitude, and integrity in a work situation.
- ESS09.01.02 Demonstrate flexibility and willingness to learn new knowledge and skills.
- ESS09.01.03 Exhibit commitment to the organization.
- ESS09.01.04 Identify how work varies with regard to site, from indoor confined spaces to outdoor areas, including aerial space and a variety of climatic and physical conditions.
- ESS09.01.05 Apply communication strategies when adapting to a culturally diverse environment.
- ESS09.01.06 Manage resources in relation to the position (i.e. budget, supplies, computer, etc).
- ESS09.01.07 Identify positive work-qualities typically desired in each of the career cluster's pathways.
- ESS09.01.08 Manage work roles and responsibilities to balance them with other life roles and responsibilities.

ESS09.02 Develop a personal career plan to meet career goals and objectives.

- ESS09.02.01 Develop career goals and objectives as part of a plan for future career direction.
- ESS09.02.02 Develop strategies to reach career objectives.

ESS09.03 Demonstrate skills related to seeking and applying for employment to find and obtain a desired job.

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- ESS09.03.01 Use multiple resources to locate job opportunities.
- ESS09.03.02 Prepare a résumé.
- ESS09.03.03 Prepare a letter of application.
- ESS09.03.04 Complete an employment application.
- ESS09.03.05 Interview for employment.
- ESS09.03.06 List the standards and qualifications that must be met in order to enter a given industry.
- ESS09.03.07 Employ critical thinking and decision-making skills to exhibit qualifications to a potential employer.

ESS09.04 Maintain a career portfolio to document knowledge, skills and experience in a career field.

- ESS09.04.01 Select educational and work history highlights to include in a career portfolio.
- ESS09.04.02 Produce a record of work experiences, licenses, certifications and products.
- ESS09.04.03 Organize electronic or physical portfolio for use in demonstrating knowledge, skills and experiences.

ESS09.05 Demonstrate skills in evaluating and comparing employment opportunities in order to accept employment positions that match career goals.

- ESS09.05.01 Compare employment opportunities to individual needs and career plan objectives.
- ESS09.05.02 Evaluate employment opportunities based upon individual needs and career plan objectives.
- ESS09.05.03 Demonstrate appropriate methods for accepting or rejecting employment offers.

ESS09.06 Identify and exhibit traits for retaining employment to maintain employment once secured.

- ESS09.06.01 Model behaviors that demonstrate reliability and dependability.
- ESS09.06.02 Maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite.
- ESS09.06.03 Complete required employment forms and documentation such as I-9 form, work visa, W-4 and licensures to meet employment requirements.
- ESS09.06.04 Summarize key activities necessary to retain a job in the industry.
- ESS09.06.05 Identify positive work behaviors and personal qualities necessary to retain employment.

ESS09.07 Identify and explore career opportunities in one or more career pathways to build an understanding of the opportunities available in the cluster.

- ESS09.07.01 Locate and identify career opportunities that appeal to personal career goals.
- ESS09.07.02 Match personal interest and aptitudes to selected careers.

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- ESS09.08 Recognize and act upon requirements for career advancement to plan for continuing education and training.**
- ESS09.08.01 Identify opportunities for career advancement.
 - ESS09.08.02 Pursue education and training opportunities to acquire skills necessary for career advancement.
 - ESS09.08.03 Examine the organization and structure of various segments of the industry to prepare for career advancement.
 - ESS09.08.04 Research local and regional labor (workforce) market and job growth information to project potential for advancement.
 - ESS09.08.05 Manage employment relations to make career advancements.
- ESS09.09 Continue professional development to keep current on relevant trends and information within the industry.**
- ESS09.09.01 Use self assessment, organizational priorities, journals, Internet sites, professional associations, peers and other resources to develop goals that address training, education and self-improvement issues.
 - ESS09.09.02 Read trade magazines and journals, manufacturers' catalogues, industry publications and Internet sites to keep current on industry trends.
 - ESS09.09.03 Participate in relevant conferences, workshops, mentoring activities and in-service training to stay current with recent changes in the field.
- ESS09.10 Examine licensing, certification and credentialing requirements at the national, state and local levels to maintain compliance with industry requirements.**
- ESS09.10.01 Examine continuing education requirements related to licensing, certification, and credentialing requirements at the local, state and national levels for chosen occupation.
 - ESS09.10.02 Examine the procedures and paperwork involved in maintaining and updating licensure, certification and credentials for chosen occupation.
 - ESS09.10.03 Align ongoing licensing, certification and credentialing requirements to career plans and goals.
- ESS09.11 Examine employment opportunities in entrepreneurship to consider entrepreneurship as an option for career planning.**
- ESS09.11.01 Describe the opportunities for entrepreneurship in a given industry.

Essential Topic ESS10 TECHNICAL SKILLS: Use of technical knowledge and skills required to pursue careers in all career cluster, including knowledge of design, operation, and maintenance of technological systems critical to the career cluster.

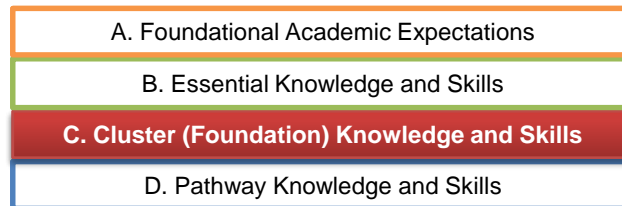
- ESS10.01 Employ information management techniques and strategies in the workplace to assist in decision-making.**
- ESS10.01.01 Use information literacy skills when accessing, evaluating and disseminating information.
 - ESS10.01.02 Describe the nature and scope of information management.
 - ESS10.01.03 Maintain records to facilitate ongoing business operations.

**Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements**

| | |
|-----------------|---|
| ESS10.02 | Employ planning and time management skills and tools to enhance results and complete work tasks. |
| ESS10.02.01 | Develop goals and objectives. |
| ESS10.02.02 | Prioritize tasks to be completed. |
| ESS10.02.03 | Develop timelines using time management knowledge and skills. |
| ESS10.02.04 | Use project-management skills to improve workflow and minimize costs. |

C. CLUSTER (FOUNDATION) KNOWLEDGE AND SKILLS

The following Cluster (Foundation) Knowledge and Skill statements apply to all careers in the Business Management and Administration Cluster. Persons preparing for careers in the Business Management and Administration Cluster should be able to demonstrate these skills in addition to those found on the Essential Knowledge and Skills Chart.



| | |
|---|--|
| Cluster Topic BAC01 | ACADEMIC FOUNDATIONS: <i>Achieve additional academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within a career cluster.</i> |
| BAC01.01 | Solve mathematical problems and use the information to make business decisions and enhance business management duties. |
| BAC01.01.01 <i>Sample Indicators</i> | Solve mathematical problems using numbers and operations. Recognize relationships among numbers Employ mathematical operations Perform computations successfully Predict reasonable estimations |
| BAC01.01.02 <i>Sample Indicators</i> | Apply algebraic skills to make business decisions. Recognize patterns and mathematical relations Use algebraic symbols to represent, solve, and analyze mathematical problems Create mathematical models from real-life situations Represent changes in quantities mathematically Determine rate of change mathematically Interpret graphical and numerical data |
| BAC01.01.03 <i>Sample Indicators</i> | Employ measurement skills to make business decisions. Recognize measurable attributes of objects Take measurements correctly |
| BAC01.01.04 <i>Sample Indicators</i> | Perform data analysis to make business decisions. Formulate questions effectively Collect relevant data Organize useful data Answer questions appropriately Employ appropriate statistical methods in data analysis |

**Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements**

- Develop and evaluate inferences and predictions
Apply basic concepts of probability
- BAC01.01.05 Evaluate the accuracy of mathematical responses using problem-solving techniques.
- Sample Indicators*
- Identify problem-solving techniques
 - Apply a variety of problem-solving strategies
 - Adjust problem-solving strategies, when needed

BAC01.02 Examine and employ business and economic principles and concepts in making informed business decisions to continue business operations.

- BAC01.02.01 Identify fundamental economic concepts necessary for employment in business.

- Sample Indicators*
- Distinguish between economic goods and services
 - Explain the concept of economic resources
 - Describe the concepts of economics and economic activities
 - Determine economic utilities created by business activities
 - Explain the principles of supply and demand
 - Describe the functions of prices in markets

- BAC01.02.02 Describe the nature of business and its contribution to society.

- Sample Indicators*
- Explain the role of business in society
 - Describe types of business activities
 - Explain the organizational design of businesses
 - Discuss the global environment in which businesses operate
 - Describe factors that affect the business environment
 - Explain how organizations adapt to today's markets

- BAC01.02.03 Recognize how economic systems influence environments in which businesses function.

- Sample Indicators*
- Explain the types of economic systems
 - Explain the concept of private enterprise
 - Identify factors affecting a business's profit
 - Determine factors affecting business risk
 - Explain the concept of competition
 - Describe market structures

- BAC01.02.04 Use knowledge regarding the impact government has on businesses to make informed economic decisions.

- Sample Indicators*
- Determine the relationship between government and business
 - Describe the nature of taxes
 - Discuss the nature of monetary policy
 - Discuss the supply and demand for money
 - Explain the role of the Federal Reserve System
 - Explain the concept of fiscal policies
 - Describe the effects of fiscal and monetary policies

- BAC01.02.05 Analyze cost/profit relationships to guide business decision-making.

- Sample Indicators*
- Explain the concept of productivity
 - Analyze impact of specialization/division of labor on productivity
 - Explain the concept of organized labor and business
 - Explain the impact of the law of diminishing returns
 - Describe the concept of economies of scale

- BAC01.02.06 Use economic indicators to detect economic trends and conditions.

Business Management and Administration Cluster Operations Management Pathway Knowledge and Skill Statements

Sample Indicators

- Describe the concept of price stability as an economic measure
- Discuss the measure of consumer spending as an economic indicator
- Discuss the impact of a nation's unemployment rates
- Explain the concept of Gross Domestic Product
- Describe the economic impact of inflation on business
- Explain unemployment and inflation tradeoffs
- Explain the economic impact of interest-rate fluctuations
- Determine the impact of business cycles on business activities

BAC01.02.07 **Determine global trade's impact on business decision-making.**

Sample Indicators

- Explain the nature of global trade
- Describe the determinants of exchange rates and their effects on the domestic economy
- Discuss the impact of cultural and social environments on global trade
- Explain labor issues associated with global trade

Cluster Topic BAC02 **COMMUNICATIONS: Use oral and written communication skills in creating, expressing and interpreting information and ideas including technical terminology and information.**

No additional statements in the topic beyond those found in the Essential Knowledge and Skills Chart.

Cluster Topic BAC03 **PROBLEM-SOLVING AND CRITICAL THINKING: Solve problems using critical thinking skills (analyze, synthesize, and evaluate) independently and in teams. Solve problems using creativity and innovation.**

No additional statements in the topic beyond those found in the Essential Knowledge and Skills Chart.

Cluster Topic BAC04 **INFORMATION TECHNOLOGY APPLICATIONS: Use information technology tools specific to the career cluster to access, manage, integrate, and create information.**

No additional statements in the topic beyond those found in the Essential Knowledge and Skills Chart.

Cluster Topic BAC05 **SYSTEMS: Understand roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. Identify how key organizational systems affect organizational performance and the quality of products and services. Understand global context of industries and careers.**

BAC05.01 **Identify new ideas, opportunities, and methods to create or start a new project or venture.**

BAC05.01.01 **Employ entrepreneurial discovery strategies to generate feasible ideas for business ventures.**

Sample Indicators

- Explain the need for entrepreneurial discovery
- Discuss entrepreneurial discovery processes
- Assess global trends and opportunities
- Determine opportunities for venture creation
- Assess opportunities for venture creation
- Describe idea-generation methods



**Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements**

| | |
|--------------------------|---|
| | <ul style="list-style-type: none"> Generate venture ideas Determine feasibility of venture ideas |
| BAC05.01.02 | Develop a concept for a new business venture. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Describe entrepreneurial planning considerations Explain tools used by entrepreneurs for venture planning Assess start-up requirements Assess risks associated with venture Describe external resources useful to entrepreneurs during concept development |
| | <ul style="list-style-type: none"> Assess the need to use external resources for concept development Describe strategies to protect intellectual property Use components of business plan to define venture idea |
| BAC05.01.03 | Evaluate a new business venture concept's potential for success. |
| BAC05.01.04 | Determine the resources needed for start-up viability of a business venture. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Describe processes used to acquire adequate financial resources for venture creation/start-up Select sources to finance venture creation/start-up Explain factors to consider in determining a venture's human-resource needs Explain considerations in making the decision to hire staff Describe considerations in selecting capital resources Identify capital resources needed for the venture Assess the costs/benefits associated with resources |
| BAC05.01.05 | Actualize a new business venture to generate profit and/or meet objectives. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Use external resources to supplement entrepreneur's expertise Explain the complexity of business operations Evaluate risk-taking opportunities Explain the need for business systems and procedures Describe the use of operating procedures Explain methods/processes for organizing workflow Develop and/or provide product/service Use creative problem-solving in business activities/decisions Explain the impact of resource productivity on venture success Create processes for ongoing opportunity recognition Develop plan to invest resources into improving current products or creating new ones |
| | <ul style="list-style-type: none"> Adapt to changes in business environment |
| BAC05.01.06 | Select a harvesting strategy that matches the entrepreneur's desired goals regarding the business venture. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Explain the need for continuation planning Describe methods of venture harvesting Evaluate options for continued venture involvement Develop exit strategies |
| BAC05.02 | Analyze accounting systems' contribution to the fiscal stability of a business. |
| BAC05.02.01 | Develop a foundational knowledge of accounting to understand its nature and scope. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Explain the concept of accounting Explain the need for accounting standards (GAAP) |

**Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements**

Discuss the role of ethics in accounting
Explain the use of technology in accounting
Explain legal considerations for accounting

BAC05.02.02 Demonstrate accounting procedures used to track money flow and to determine financial status.

Sample Indicators Describe the nature of cash flow statements
Prepare cash flow statements
Explain the nature of balance sheets
Describe the nature of income statements

BAC05.03 Understand tools, strategies, and systems used to maintain, monitor, control, and plan the use of financial resources.

BAC05.03.01 Acquire a foundational knowledge of finance to understand its nature and scope.

Sample Indicators Explain the role of finance in business
Discuss the role of ethics in finance
Explain legal considerations for finance

BAC05.04 Understand the methods that businesses use to recruit, train and develop human resources.

BAC05.04.01 Describe the role and function of human resources management.

Sample Indicators Discuss the nature of human resources management
Explain the role of ethics in human resources management
Describe the use of technology in human resources management

**Cluster Topic
BAC06**

SAFETY, HEALTH AND ENVIRONMENTAL: *Understand the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. Follow organizational policies and procedures and contribute to continuous improvement in performance and compliance.*

BAC06.01 Implement safety, health, and environmental controls to enhance business productivity.

BAC06.01.01 Adhere to health and safety regulations to support a safe work environment.

Sample Indicators Describe health and safety regulations in business
Report noncompliance with business health and safety regulations

BAC06.01.02 Implement safety procedures to minimize loss.

Sample Indicators Follow instructions for use of equipment, tools, and machinery
Follow safety precautions
Maintain a safe work environment
Explain procedures for handling accidents
Handle and report emergency situations

BAC06.01.03 Assess needed safety policies/procedures to ensure protection of employees.

Sample Indicators Identify potential safety issues
Establish safety policies and procedures

BAC06.01.04 Implement security policies/procedures to minimize chance for loss.

Sample Indicators Explain routine security precautions
Follow established security procedures/policies
Protect company information and intangibles



**Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements**

- BAC06.01.05 Develop policies/procedures to protect workplace security.
Sample Indicators Identify potential security issues
Establish policies to protect company information and intangibles
Establish policies to maintain a non-hostile work environment
Establish policies and procedures to maintain physical security of the work environment

**Cluster Topic LEADERSHIP AND TEAMWORK: *Use leadership and teamwork skills in*
BAC07 *collaborating with others to accomplish organizational goals and objectives.***

No additional statements in the topic beyond those found in the Essential Knowledge and Skills Chart.

**Cluster Topic ETHICS AND LEGAL RESPONSIBILITIES: *Know and understand the*
BAC08 *importance of professional ethics and legal responsibilities.***

BAC08.01 Describe business's responsibility to know and abide by laws and regulations that affect business operations.

- BAC08.01.01 Obtain and provide information in a business setting.
Sample Indicators Respect the privacy of others
Explain ethical considerations in providing information
Protect confidential information
Determine information appropriate to obtain from a client or another employee
- BAC08.01.02 Demonstrate ethical behaviors in the workplace.
Sample Indicators Explain the nature of business ethics
Demonstrate responsible behavior
Demonstrate honesty and integrity
Demonstrate ethical work habits
- BAC08.01.03 Manage internal and external business relationships to foster positive interactions.
Sample Indicators Treat others fairly at work
Describe ethics in human resources issues
- BAC08.01.04 Describe the nature and scope of business laws and regulations.
Sample Indicators Discuss the nature of law and sources of law in the United States
Describe the US Judicial system hierarchy for legal appeals
Describe legal issues affecting businesses
- BAC08.01.05 Describe the elements of a business contract.
Sample Indicators Identify the basic torts relating to business enterprises
Describe the nature of legally binding contracts
- BAC08.01.06 Describe the current regulatory environment of United States' businesses.
Sample Indicators Describe the nature of legal procedure
Discuss the nature of debtor-creditor relationships
Explain the nature of agency relationships
Discuss the nature of environmental law
Discuss the role of administrative law
- BAC08.01.07 Describe current human resources laws and regulations.
Sample Indicators Explain the nature of human resources regulations
Explain the nature of workplace regulations (including OSHA, ADA)
Discuss employment relationships

Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements

| | |
|---|--|
| BAC08.01.08 <i>Sample Indicators</i> | Select business structure for immediate and long-term operations. Explain types of business ownership Select form of business ownership |
| BAC08.01.09 <i>Sample Indicators</i> | Describe applicable commerce laws and regulations. Explain the nature of trade regulations Describe the impact of anti-trust legislation |
| BAC08.01.10 <i>Sample Indicators</i> | Explain applicable tax laws and regulations to comply with government requirements. Explain the nature of tax regulations on business Explain the nature of businesses' reporting requirements Develop strategies for legal/government compliance |

Cluster Topic
BAC09

EMPLOYABILITY AND CAREER DEVELOPMENT: *Know and understand the importance of employability skills. Explore, plan, and effectively manage careers. Know and understand the importance of entrepreneurship skills.*

| | |
|---|---|
| BAC09.01 | Explore, obtain, and develop strategies for ensuring a successful business career. |
| BAC09.01.01 <i>Sample Indicators</i> | Develop self-understanding to recognize the impact of personal actions on others. Describe the nature of emotional intelligence Explain the concept of self-esteem Recognize personal biases and stereotypes Assess personal strengths and weaknesses |
| BAC09.01.02 <i>Sample Indicators</i> | Develop personal traits and behaviors to foster career advancement. Identify desirable personality traits important to business Exhibit a positive attitude Exhibit self-confidence Demonstrate interest and enthusiasm Demonstrate initiative Foster positive working relationships |
| BAC09.01.03 <i>Sample Indicators</i> | Participate in career-planning to enhance job-success potential. Assess personal interests and skills needed for success in business Analyze employer expectations in the business environment Explain the rights of workers Identify sources of career information Identify tentative occupational interest Explain employment opportunities in business |
| BAC09.01.04 <i>Sample Indicators</i> | Implement job-seeking skills to obtain employment. Utilize job-search strategies Complete a job application Interview for a job Write a follow-up letter after job interviews Write a letter of application Prepare a résumé Use networking techniques to identify employment opportunities |
| BAC09.01.05 | Utilize career-advancement activities to enhance professional development. |

Business Management and Administration Cluster Operations Management Pathway Knowledge and Skill Statements

Sample Indicators

- Describe techniques for obtaining work experience (e.g., volunteer activities, internships)
- Explain the need for ongoing education as a worker
- Explain possible advancement patterns for jobs
- Identify skills needed to enhance career progression
- Utilize resources that can contribute to professional development (e.g., trade journals/periodicals, professional/trade associations, classes/seminars, trade shows, and mentors)

Cluster Topic BAC10

TECHNICAL SKILLS: *Use the technical knowledge and skills required to pursue the targeted careers for all pathways in the career cluster, including knowledge of design, operation, and maintenance of technological systems critical to the career cluster.*

BAC10.01 Access, process, maintain, evaluate, and disseminate information to assist in business decision-making.

BAC10.01.01 Use information literacy skills to increase workplace efficiency and effectiveness.

Sample Indicators

- Assess information needs
- Obtain needed information efficiently
- Evaluate quality and source of information
- Apply information to accomplish a task
- Store information for future use

BAC10.01.02 Acquire a foundational knowledge of information management to understand its nature and scope.

Sample Indicators

- Discuss the nature of information management
- Explain the role of ethics in information management
- Explain legal issues associated with information management

BAC10.01.03 Maintain business records to facilitate business operations.

Sample Indicators

- Describe the nature of business records
- Maintain customer records

BAC10.01.04 Acquire information to guide business decision-making.

Sample Indicators

- Describe current business trends
- Monitor internal records for business information
- Conduct an environmental scan to obtain business information
- Interpret statistical findings

BAC10.01.05 Utilize project-management skills to improve workflow and minimize costs.

Sample Indicators

- Explain the nature of project management
- Identify resources needed for project
- Develop project plan
- Apply project-management tools to monitor project progress
- Evaluate project results

BAC10.02 Establish, maintain, control, and plan the use of financial resources to protect solvency.

BAC10.02.01 Describe the fundamental principles of money needed to make financial exchanges.

Sample Indicators

- Explain forms of financial exchange (cash, credit, debit, electronic funds transfer, etc.)



Business Management and Administration Cluster Operations Management Pathway Knowledge and Skill Statements

| | |
|---|--|
| | Identify types of currency (paper money, coins, banknotes, government bonds, treasury notes, etc.) Describe functions of money (medium of exchange, unit of measure, store of value) |
| | Describe sources of income (wages/salaries, interest, rent, dividends, transfer payments, etc.) Explain the time value of money Explain the purposes and importance of credit Explain legal responsibilities associated with financial exchanges |
| BAC10.02.02 <i>Sample Indicators</i> | Analyze financial needs and goals to determine financial requirements. Explain the nature of financial needs (e.g., college, retirement, wills, insurance, etc.) Set financial goals Develop personal budget |
| BAC10.02.03 <i>Sample Indicators</i> | Manage personal finances to achieve financial goals. Explain the nature of tax liabilities Interpret a pay stub Read and reconcile bank statements Maintain financial records Demonstrate the wise use of credit Validate credit history Protect against identity theft Prepare personal income tax forms (i.e., 1040 EZ) |
| BAC10.02.04 <i>Sample Indicators</i> | Explain the use of financial-services providers to aid in financial-goal achievement. Describe types of financial-services providers Discuss considerations in selecting a financial-services provider |
| BAC10.02.05 <i>Sample Indicators</i> | Use investment strategies to ensure financial well-being. Explain types of investments Explain the nature of capital investment Establish investment goals and objectives |
| BAC10.02.06 <i>Sample Indicators</i> | Identify potential business threats and opportunities for protecting a business's financial well-being. Describe the concept of insurance Obtain insurance coverage Settle insurance losses Identify speculative business risks Explain the nature of risk management |
| BAC10.02.07 <i>Sample Indicators</i> | Obtain business credit and establish financial controls. Explain the purposes and importance of obtaining business credit Analyze critical banking relationships Make critical decisions regarding acceptance of bank cards Determine financing needed for business operations Identify risks associated with obtaining business credit Explain sources of financial assistance Explain loan evaluation criteria used by lending institutions Complete loan application package |
| BAC10.02.08 <i>Sample Indicators</i> | Manage financial resources to maintain business solvency. Describe the nature of budgets Explain the nature of operating budgets |

Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements

Describe the nature of cost/benefit analysis
 Determine relationships among total revenue, marginal revenue, output, and profit

Develop company's/department's budget
 Forecast sales
 Calculate financial ratios
 Interpret financial statements

BAC10.03 Employ tools and strategies to influence, plan, control, and organize an organization/department.

BAC10.03.01 Explain the role that business management has in contributing to business success.

Sample Indicators Explain the concept of management
 Explain the nature of managerial ethics

BAC10.03.02 Utilize planning tools to guide organization's/ department's activities.

Sample Indicators Explain the nature of business plans
 Develop company goals/objectives
 Define business mission
 Conduct an organizational SWOT
 Explain external planning considerations
 Identify and benchmark key performance indicators (e.g., dashboards, scorecards, etc.)
 Develop action plans
 Develop business plan

BAC10.03.03 Implement control activities that promote growth and development of the organization/department.

Sample Indicators Describe the nature of managerial control (control process, types of control, what is controlled)
 Analyze operating results in relation to budget/industry
 Track performance of business plan

BAC10.04 Identify, understand and implement processes and systems used to monitor, plan, and control day-to-day business activities.

BAC10.04.01 Implement expense-control strategies to enhance a business's financial well-being.

Sample Indicators Explain the nature of overhead/operating costs
 Explain employee's role in expense control
 Control use of supplies
 Conduct breakeven analysis
 Negotiate service and maintenance contracts
 Negotiate lease or purchase of facility
 Develop expense control plans
 Use budgets to control operations

BAC10.04.02 Maintain property and equipment necessary for ongoing business activities.

Sample Indicators Identify routine activities for maintaining business facilities and equipment
 Plan maintenance program

BAC10.05 Create, communicate, and deliver value to customers while managing customer relationships.

**Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements**

BAC10.05.01 Perform customer service activities to support customer relationships and encourage repeat business.

Sample Indicators Process customer orders
Process customer returns

BAC10.05.02 Utilize technology to facilitate customer relationship management.

Sample Indicators Explain the use of databases in customer relationship management (CRM)
Use CRM technology

BAC10.06 Employ systems, strategies, and techniques used to collect, organize, analyze, and share information in an organization.

BAC10.06.01 Explain the nature and scope of knowledge management practices within a business.

Sample Indicators Explain the nature of knowledge management
Discuss the role of ethics in knowledge management
Explain the use of technology in knowledge management
Explain legal considerations for knowledge management

BAC10.06.02 Use knowledge management strategies to improve the performance and competitive advantage of an organization.

Sample Indicators Identify techniques that can be used to capture and transfer knowledge in an organization
Determine factors causing loss of organizational knowledge
Implement knowledge-management strategies

BAC10.07 Plan, implement, monitor, and evaluate business projects.

BAC10.07.01 Utilize project management skills to start, run, and complete projects.

Sample Indicators Explain the nature of a project life cycle
Explain standard project-management processes
Coordinate schedules and activities
Track project progress and results

BAC10.08 Implement, monitor and evaluate quality standards in order to ensure high quality.

BAC10.08.01 Explain the nature and scope of quality management practices within a business.

Sample Indicators Explain the nature of quality management
Describe the nature of quality management frameworks (e.g., Six Sigma, ITIL, CMMI)

Discuss the need for continuous improvement of the quality process

BAC10.09 Examine and employ risk management strategies and techniques in order to minimize potential business loss.

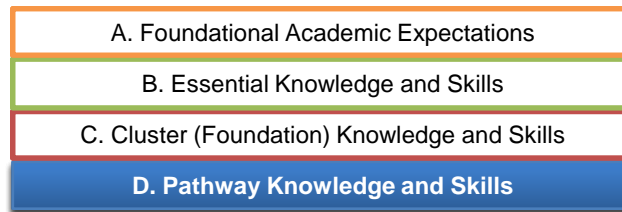
BAC10.09.01 Explain the nature and scope of risk management practices within a business.

Sample Indicators Explain the role of ethics in risk management
Describe the use of technology in risk management
Discuss legal considerations affecting risk management

D. PATHWAY KNOWLEDGE AND SKILLS

The following knowledge and skill statements apply to all careers in the Operations Management Pathway. The statements are organized within five topics.

**Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements**



**Pathway Topic
BAPE01 BUSINESS LAW**

| | |
|--------------------------|---|
| BAPE01.01 | Know and abide by laws and regulations affecting business operations and transactions to ensure compliance. |
| BAPE01.01.01 | Apply knowledge of business contracts to establish business relationships. |
| <i>Sample Indicators</i> | Discuss the nature of contract suspensions Explain the nature of contract terminations Issue a service/goods contract |
| BAPE01.01.02 | Explain laws regulating the vendor/supplier bidding process to facilitate business operations. |
| <i>Sample Indicators</i> | Discuss regulations that affect the vendor/supplier bidding process |

**Pathway Topic
BAPE02 CUSTOMER RELATIONS**

| | |
|--------------------------|--|
| BAPE02.01 | Foster positive, ongoing customer relationships. |
| BAPE02.01.01 | Maintain positive customer service. |
| <i>Sample Indicators</i> | Explain the relationship between customer services and sales Process customer orders Process returns |

**Pathway Topic
BAPE03 FINANCIAL ANALYSIS**

| | |
|--------------------------|---|
| BAPE03.01 | Establish, maintain, control, and plan the use of financial resources. |
| BAPE03.01.01 | Utilize cost accounting methods to guide business decision-making. |
| <i>Sample Indicators</i> | Discuss the relationship between operations management and accounting Describe the nature of cost accounting decision making Explain the nature of job costing Describe the nature of activity-based costing Discuss the implications of quality costs Perform job costing Calculate quality costs (e.g. prevention, appraisal, failure) Conduct cost/benefit analysis on planned acquisitions |
| BAPE03.01.02 | Manage risk to protect a business's well-being. |
| <i>Sample Indicators</i> | Discuss the nature of credit risk management Discuss reasons to integrate risk management into business operations Discuss the nature of enterprise risk management (ERM) Integrate risk management into business operations |

**Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements**

| | |
|--------------------------|--|
| BAPE03.01.03 | Implement suitable internal accounting controls to ensure the proper recording of financial transactions. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Explain the purpose of internal accounting controls Determine the components of internal accounting control procedures for a business |
| | Maintain internal accounting controls |

Pathway Topic
BAPE04 **INFORMATION MANAGEMENT**

| | |
|--------------------------|---|
| BAPE04.01 | Apply inventory tracking technology to facilitate operational controls. |
| BAPE04.01.01 | Utilize tools, strategies and systems to develop and maintain operational controls. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Describe the impact of technology on order processing Explain the nature of universal product code (UPC) barcoding Explain the nature of radio frequency identification (RFID) tags |
| BAPE04.01.02 | Understand inventory tracking technology to facilitate operational control. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Describe the impact of technology on order processing Explain the nature of universal product code (UPC) barcoding Explain the nature of radio frequency identification (RFID) tags |

Pathway Topic
BAPE05 **OPERATIONS**

| | |
|--------------------------|--|
| BAPE05.01 | Monitor, plan, and control day-to-day business activities to maintain and improve operational functions. |
| BAPE05.01.01 | Understand purchasing activities to obtain business materials and services. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Describe the role of solicitations used in the purchasing process Discuss the impact of vendor competition on purchasing Discuss the importance of utilizing ethical purchasing methods Explain the impact of the purchasing process on productivity Discuss the nature of purchasing methods Describe business objectives/strategies that influence purchasing |
| BAPE05.01.02 | Explain organizational requirements for properly handling purchase requisitions. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Describe types of purchase orders Discuss organizational requirements for purchase requisitions Discuss priority procedures used by businesses for purchases Explain budgetary procedures for purchase requisitions |
| BAPE05.01.03 | Implement purchasing policies to ensure cost and quality control. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Maintain vendor/supplier relationships Develop lists of sources (e.g. approved, preferred, partnered, certified, disqualified) Conduct vendor/supplier search Negotiate terms with vendors Establish bid specifications |

**Business Management and Administration Cluster
Operations Management Pathway
Knowledge and Skill Statements**

| | |
|--------------------------|--|
| BAPE05.01.04 | Discuss inventory control strategies used to maintain appropriate levels of stock/supplies. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Discuss types of inventory Explain methods of inventory control Discuss stockless purchasing and inventory systems Describe the process of supplier-managed inventory |
| BAPE05.01.05 | Plan the production of products/services. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Explain the factors impacting a master production schedule Create a master production schedule Evaluate the effectiveness and efficiency of a production schedule |
| BAPE05.01.06 | Manage quality control processes to maximize operational effectiveness and expedite workflow. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Explain the nature of quality management Determine reliability factors impacting the quality of a product/service Test product/services for quality Discuss the need for continuous improvement of the quality process Develop continuous-improvement strategies Develop a plan/program for quality achievement |
| BAPE05.01.07 | Conduct supply chain management activities. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Explain the nature of order cycle time Explain types of supply chain activities Describe the nature of inter-organizational supply chains Discuss organizational dependence on effective supply chains Discuss the nature of supply chain management Describe the relationship between supply chain management and logistics Describe types of supply-chain management decisions (e.g., location, production, inventory, transportation) Implement supply chain management strategies |
| BAPE05.01.08 | Evaluate knowledge management strategies. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Explain the role of organizational culture in knowledge management implementation Assess knowledge-management strategies |
| BAPE05.01.09 | Use innovation to gain competitive advantage in the marketplace. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Discuss the nature of product-development management Explain ways to align product-development plans with business strategy Describe methods for recognizing opportunities for innovation Implement product-development management strategies |
| BAPE05.01.10 | Manage the work capacity of an organization to meet predicted demands. |
| <i>Sample Indicators</i> | <ul style="list-style-type: none"> Discuss the nature of capacity planning Describe factors impacting demand Explain types of capacity planning (e.g., lead strategy, lag strategy, match strategy) Plan work capacity |