

Career & Technical Education (CTE) Standards Revision Project

Cluster: Management and Administration

Pathways: Administrative Services, Business Information Technology, Corporate/General Management, Human Resource Management, Operations Management

Management and Administration Cluster Overview

The Management and Administration Cluster prepares learners for careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Career opportunities are available in every sector of the economy and require specific skills in organization, time management, customer service and communication.

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Participation in this review and update included secondary business and marketing teachers and secondary language arts and math teachers.

Updated June 2010

Standards: Operations Management

Career Cluster/Cluster Grouping:	Management and Administration
Pathway(s):	Operations Management
Prepared Completer Competencies: MAOM.01 Business Law: Know and abide by laws and regulations affecting business operations and transactions to ensure compliance.	
High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> MAOM.01.01 Apply knowledge of business contracts to establish business relationships. 	
Evidence Outcomes Students can:	21st Century Skills and Readiness Competencies
<ul style="list-style-type: none"> a. Discuss the nature of contract suspensions. b. Explain the nature of contract terminations. c. Issue a service/goods contract. 	Academic Content Knowledge Alignment:
	Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):
High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> MAOM.01.02 Explain laws regulating the vendor/supplier bidding process to facilitate business operations. 	
Evidence Outcomes Students can:	21st Century Skills and Readiness Competencies
<ul style="list-style-type: none"> a. Discuss regulations that affect the vendor/supplier bidding process. 	Academic Content Knowledge Alignment:

	Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):
Prepared Completer Competencies: <ul style="list-style-type: none"> MAOM.02 Customer Relations: Foster positive, ongoing customer relationships. 	
High School Expectations	
Concepts and skills students know include: <ul style="list-style-type: none"> MAOM.02.01 Maintain positive customer service. 	
Evidence Outcomes Students can:	21st Century Skills and Readiness Competencies
<ul style="list-style-type: none"> a. Explain the relationship between customer services and sales. RWC01.07.b b. Process customer orders. PWR1.2.d, RWC04.06.d c. Process returns. PWR1.2.d- 	Academic Content Knowledge Alignment: RWC01.07.b - Oral Expression and Listening - Oral presentations require effective preparation strategies - Use verbal and nonverbal techniques to communicate information RWC04.06.d - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - Use a variety of strategies (such as search engines, online databases, interview) to collect and organize relevant and significant information Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR1.2.d-Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences - Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life
Prepared Completer Competencies:	

- MAOM.03 Financial Analysis: Establish, maintain, control, and plan the use of financial resources.

High School Expectations

Concepts and skills students know include:

- MAOM.03.01 Utilize cost accounting methods to guide business decision-making.

Evidence Outcomes

Students can:

- 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. MAT02.06.a
- Perform job costing. PWR1.2.d
- Calculate quality costs (e.g. prevention, appraisal, and failure). PWR1.2.d
- Conduct cost/benefit analysis on planned acquisitions. PWR1.2.d

21st Century Skills and Readiness Competencies

Academic Content Knowledge Alignment:

MAT02.06.a - Patterns, Functions, and Algebraic Structures - Quantitative relationships in the real world can be modeled and solved using functions - Represent, solve, using all tools including graphing technology, and interpret problems in various contexts using linear, quadratic, and exponential functions

Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):

PWR1.2.d-Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences - Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life

High School Expectations

Concepts and skills students know include:

- MAOM.03.02 Manage risk to protect a business's well-being.

Evidence Outcomes

Students can:

- Discuss the nature of credit risk management. SST03.06.b
- Discuss reasons to integrate risk management into business operations. MAT03.02.c
- Discuss the nature of enterprise risk management (ERM).
- Integrate risk management into business operations. PWR1.1.b

21st Century Skills and Readiness Competencies

Academic Content Knowledge Alignment:

MAT03.02.c - Data Analysis, Statistics, and Probability - The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions - Differentiate between the inferences that can be drawn in experiments versus observational studies

SST03.06.b-Social Studies, Economics, Analyze the components of personal credit to manage credit and debt(PFL) - Investigate legal and personal responsibilities affecting lenders and borrowers

	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR1.1.b-Postsecondary & Workforce Readiness, Content Knowledge , Literacy - Write clearly and coherently for a variety of purposes and audiences</p>
<p>High School Expectations</p>	
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> MAOM.03.03 Implement suitable internal accounting controls to ensure the proper recording of financial transactions. 	
<p>Evidence Outcomes Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
<ul style="list-style-type: none"> a. Explain the purpose of internal accounting controls. b. Determine the components of internal accounting control procedures for a business. PWR1.2.d c. Maintain internal accounting controls. MAT01.02.a, PWR1.2.d 	<p>Academic Content Knowledge Alignment: MAT01.02.a - Number Sense, Properties, and Operations - Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently. - Use appropriate computation methods that encompass estimation and calculation</p> <p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR1.2.d-Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences - Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life</p>
<p>Prepared Completer Competencies:</p> <ul style="list-style-type: none"> MAOM.04 Information Management: Apply inventory tracking technology to facilitate operational controls. 	
<p>High School Expectations</p>	

Concepts and skills students know include:	
<ul style="list-style-type: none"> MAOM.04.01 Utilize tools, strategies and systems to develop and maintain operational controls. 	
Evidence Outcomes	21st Century Skills and Readiness Competencies
Students can:	
<ul style="list-style-type: none"> a. Describe the impact of technology on order processing. PWR2.2.a, RWC01.07.b b. Explain the nature of Universal Product Code (UPC) barcoding. PWR2.2.a c. Explain the nature of radio frequency identification (RFID) tags. PWR2.2.a 	<p>Academic Content Knowledge Alignment: RWC01.07.b - Oral Expression and Listening - Oral presentations require effective preparation strategies - Use verbal and nonverbal techniques to communicate information</p> <p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.2.a-Postsecondary & Workforce Readiness, Learning and Behavior Skills, Find and Use Information/Information Technology - Select, integrate, and apply appropriate technology to access and evaluate new information</p>
High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> MAOM.04.02 Understand inventory tracking technology to facilitate operational control. 	
Evidence Outcomes	21st Century Skills and Readiness Competencies
Students can:	
<ul style="list-style-type: none"> a. Describe the impact of technology on order processing. PWR2.2.a b. Explain the nature of Universal Product Code (UPC) barcoding. PWR2.2.a, RWC01.07.b c. Explain the nature of radio frequency identification (RFID) tags. PWR2.2.a, RWC01.07.b 	<p>Academic Content Knowledge Alignment: RWC01.07.b - Oral Expression and Listening - Oral presentations require effective preparation strategies - Use verbal and nonverbal techniques to communicate information</p> <p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.2.a-Postsecondary & Workforce Readiness, Learning and Behavior Skills, Find and Use Information/Information Technology - Select, integrate, and apply appropriate technology to access and evaluate new information</p>

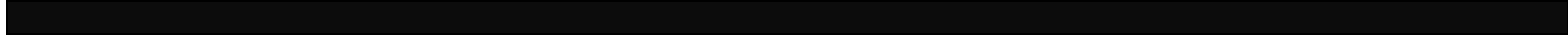
Prepared Completer Competencies:	
<ul style="list-style-type: none"> MAOM.05 Monitor, plan, and control day-to-day business activities to maintain and improve operational functions. 	
High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> MAOM.05.01 Understand purchasing activities to obtain business materials and services. 	
Evidence Outcomes	21st Century Skills and Readiness Competencies
Students can:	
<ul style="list-style-type: none"> a. Describe the role of solicitations used in the purchasing process. b. Discuss the impact of vendor competition on purchasing. PWR2.2.a c. Discuss the importance of utilizing ethical purchasing methods. PWR2.7.c d. Explain the impact of the purchasing process on productivity. PWR2.2.a, RWC04.10.c e. Discuss the nature of purchasing methods. RWC01.07.b f. Describe business objectives/strategies that influence purchasing. RWC04.10.c 	<p>Academic Content Knowledge Alignment: RWC01.07.b - Oral Expression and Listening - Oral presentations require effective preparation strategies - Use verbal and nonverbal techniques to communicate information</p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p>
	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.2.a-Postsecondary & Workforce Readiness, Learning and Behavior Skills, Find and Use Information/Information Technology - Select, integrate, and apply appropriate technology to access and evaluate new information</p> <p>PWR2.7.c-Postsecondary & Workforce Readiness, Learning and Behavior Skills, Personal Responsibility - Behave honestly and ethically</p>
High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> MAOM.05.02 Explain organizational requirements for properly handling purchase requisitions. 	
Evidence Outcomes	21st Century Skills and Readiness Competencies

<p>Students can:</p>	
<ul style="list-style-type: none"> a. Describe types of purchase orders. b. Discuss organizational requirements for purchase requisitions. c. Discuss priority procedures used by businesses for purchases. RWC04.10.c d. Explain budgetary procedures for purchase requisitions. PWR1.2.d 	<p>Academic Content Knowledge Alignment: RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p>
	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR1.2.d-Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences - Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life</p>
<p>High School Expectations</p>	
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> • MAOM.05.03 Implement purchasing policies to ensure cost and quality control. 	
<p>Evidence Outcomes Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
<ul style="list-style-type: none"> a. Maintain vendor/supplier relationships. PWR2.9.a b. Develop lists of sources (e.g. approved, preferred, partnered, certified, disqualified). RWC04.06.c c. Conduct vendor/supplier search. RWC04.06.d d. Negotiate terms with vendors. PWR1.2.d e. Establish bid specifications. PWR1.2.d 	<p>Academic Content Knowledge Alignment: RWC04.06.c - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - Identify and evaluate potential sources of information for accuracy, reliability, validity, and timeliness</p> <p>RWC04.06.d - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - Use a variety of strategies (such as search engines, online databases, interview) to collect and organize relevant and significant information</p>

	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR1.2.d-Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences - Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life</p> <p>PWR2.9.a-Postsecondary & Workforce Readiness, Learning and Behavior Skills, Collaboration - Work effectively with others</p>
<p>High School Expectations</p>	
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> MAOM.05.04 Discuss inventory control strategies used to maintain appropriate levels of stock/supplies. 	
<p>Evidence Outcomes Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
<ul style="list-style-type: none"> a. Discuss types of inventory. b. Explain methods of inventory control. MAT01.02.a c. Discuss stockless purchasing and inventory systems. d. Describe the process of supplier-managed inventory. PWR1.2.d 	<p>Academic Content Knowledge Alignment: MAT01.02.a - Number Sense, Properties, and Operations - Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently. - Use appropriate computation methods that encompass estimation and calculation</p>
	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR1.2.d-Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences - Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life</p>
<p>High School Expectations</p>	
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> MAOM.05.05 Plan the production of products/services. 	
<p>Evidence Outcomes Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>

<p>A. Explain the factors impacting a master production schedule. B. Create a master production schedule. MAT02.01.e, MAT03.03.a, PWR1.2.d C. Evaluate the effectiveness and efficiency of a production schedule. MAT03.03.c, PWR1.2.d</p>	<p>Academic Content Knowledge Alignment: MAT02.01.e - Patterns, Functions, and Algebraic Structures - Functions model situations where one quantity determines another and can be represented algebraically, graphically, and using tables - Categorize sequences as arithmetic, geometric, or neither and develop formulas for the general terms related to arithmetic and geometric sequences</p> <p>MAT03.03.a - Data Analysis, Statistics, and Probability - Visual displays and summary statistics condense the information in data sets into usable knowledge - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics (describing shape, center and spread) and accounting for outliers when appropriate</p> <p>MAT03.03.c - Data Analysis, Statistics, and Probability - Visual displays and summary statistics condense the information in data sets into usable knowledge - Describe the relationship between two categorical variables using percents</p>
<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR1.2.d-Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences - Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life</p>	
<p>High School Expectations</p>	
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> MAOM.05.06 Manage quality control processes to maximize operational effectiveness and expedite workflow. 	
<p>Evidence Outcomes Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
<p>a. Explain the nature of quality management. b. Determine reliability factors impacting the quality of a product/service. PWR2.1.a c. Test product/services for quality. d. Discuss the need for continuous improvement of the quality process.</p>	<p>Academic Content Knowledge Alignment: RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p>

<p>e. Develop continuous-improvement strategies. RWC04.10.c f. Develop a plan/program for quality achievement.</p>	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.1.a-Postsecondary & Workforce Readiness, Learning and Behavior Skills, Critical Thinking and Problem Solving - Apply logical reasoning and analytical skills</p>
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High School Expectations

Concepts and skills students know include:

- MAOM.05.07 Conduct supply chain management activities.

<p>Evidence Outcomes Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
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- a. Explain the nature of order cycle time. RWC01.07.b
- b. Explain types of supply chain activities. RWC01.07.b
- c. Describe the nature of inter-organizational supply chains. RWC01.07.b
- d. Discuss organizational dependence on effective supply chains. RWC01.07.b
- e. Discuss the nature of supply chain management. RWC01.07.b
- f. Describe the relationship between supply chain management and logistics. PWR2.1.a, RWC01.07.b
- g. Describe types of supply-chain management decisions (e.g., location, production, inventory, transportation). RWC01.07.b
- h. Implement supply chain management strategies. PWR2.1.a, RWC04.10.a

Academic Content Knowledge Alignment:
RWC01.07.b - Oral Expression and Listening - Oral presentations require effective preparation strategies - Use verbal and nonverbal techniques to communicate information

RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking

Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):
PWR2.1.a-Postsecondary & Workforce Readiness, Learning and Behavior Skills, Critical Thinking and Problem Solving - Apply logical reasoning and analytical skills



High School Expectations

Concepts and skills students know include:

- MAOM.05.08 Evaluate knowledge management strategies.

Evidence Outcomes Students can:	21st Century Skills and Readiness Competencies
<ul style="list-style-type: none"> a. Explain the role of organizational culture in knowledge management implementation. b. Assess knowledge-management strategies. RWC04.10.c 	Academic Content Knowledge Alignment: RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):
High School Expectations	
Concepts and skills students know include: <ul style="list-style-type: none"> • MAOM.05.09 Use innovation to gain competitive advantage in the marketplace. 	
Evidence Outcomes Students can:	21st Century Skills and Readiness Competencies
<ul style="list-style-type: none"> a. Discuss the nature of product-development management. b. Explain ways to align product-development plans with business strategy. RWC04.10.a c. Describe methods for recognizing opportunities for innovation. d. Implement product-development management strategies. PWR2.1.a 	Academic Content Knowledge Alignment: RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.1.a-Postsecondary & Workforce Readiness, Learning and Behavior Skills, Critical Thinking and Problem Solving - Apply logical reasoning and analytical skills
High School Expectations	

Concepts and skills students know include:	
<ul style="list-style-type: none"> MAOM.05.10 Manage the work capacity of an organization to meet predicted demands. 	
Evidence Outcomes	21st Century Skills and Readiness Competencies
Students can:	
<ul style="list-style-type: none"> a. Discuss the nature of capacity planning. b. Describe factors impacting demand. MAT02.06.a, MAT03.03.a, PWR2.1.a, RWC04.10.c c. Explain types of capacity planning (e.g., lead strategy, lag strategy, match strategy). RWC04.10.a d. Plan work capacity. MAT02.06.a, MAT03.03.a, PWR1.2.d 	<p>Academic Content Knowledge Alignment:</p> <p>MAT02.06.a-Mathematics, Patterns, Functions, and Algebraic Structures, Quantitative relationships in the real world can be modeled and solved using functions - Represent, solve, using all tools including graphing technology, and interpret problems in various contexts using linear, quadratic, and exponential functions</p> <p>MAT03.03.a-Mathematics, Data Analysis, Statistics, and Probability, Visual displays and summary statistics condense the information in data sets into usable knowledge - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics (describing shape, center and spread) and accounting for outliers when appropriate</p> <p>RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking</p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p> <p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):</p> <p>PWR1.2.d-Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences - Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life</p> <p>PWR2.1.a-Postsecondary & Workforce Readiness, Learning and Behavior Skills, Critical Thinking and Problem Solving - Apply logical reasoning and analytical skills</p>