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PROGRAM CONCENTRATION: **Government & Public Safety**
CAREER PATHWAY: **JROTC – Air Force**
COURSE TITLE: **Aerospace Science: Honors Ground School**

Air Force Junior ROTC Curriculum

The Georgia Performance Standards for the Air Force Junior ROTC curriculum are designed to provide students with the knowledge and skills necessary to "develop citizens of character dedicated to serving their community and nation." **McREL** Standards and Benchmarks were used for all AFJROTC courses except Astronomy, Survival, and Global and Cultural Studies. Supported by contracts with the U.S. Education Department, Office of Educational Research and Improvement, **McREL** is one of ten Regional Educational Laboratories at the forefront of research, practice, and evaluation related to standards-based education and it has been awarded standards-based classroom instruction as its national leadership area within the regional educational laboratory network. Global and Cultural Studies used the **National Council on Social Studies** (NCSS) correlation, a nationally recognized source for social studies standards. Astronomy and Survival were correlated to the Georgia Performance Standards. All AFJROTC courses were compared to the **Georgia Performance Standards** for Social Studies, Math, Language Arts, and Science, and specific correlations were listed following each AFJROTC standard where applicable. Technology is infused into all AFJROTC curriculum.

All McREL Standards and Benchmarks are available for AFJROTC instructors and authorized users at https://owa.afjrotc.net/cybercampus_prod/default.aspx in the Library under Curriculum, McRel Standards and Benchmarks. Additional national education standards are referenced in this copyrighted cybercampus information. Georgia AFJROTC instructors should reference both the Georgia and McREL standards to meet both AFJROTC and Georgia student education requirements.

Air Force Junior ROTC Curriculum

Aviation Honors Ground School is an advanced, more in depth study of previous aerospace topics. The course is the foundation for students interested in receiving a private pilot's license. Upon successful completion of this course, the student will be prepared to take the Federal Aviation Administration (FAA) Private Pilot Written Exam.

PS-AFHGS-1. Students will become familiar with pilot training, aviation career opportunities, and human factors in aviation.

a. Outline the role of the FAA with reference to General Aviation.
b. List the eligibility and limitation requirements for the Private Pilot License.
c. Diagram the Category/Class Rating, and additional opportunities in Aviation Careers.
d. Demonstrate proper Aeronautical Decision Making, workload management, and Pilot-In Command responsibility.
e. Explain how fitness for flight and aviation physiology as related to Alcohol, Drugs, and Performance are related and regulated.

ACADEMIC STANDARDS:

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SCSh7. Students will analyze how scientific knowledge is developed.

SSCG15. The student will explain the functions of the departments and agencies of the federal bureaucracy.

PS-AFHGS-2. Students will understand the airplane components and systems.

a. Identify the basic components of an aircraft as well as the primary function.
b. Explain the advancements in modern technologies as they apply to aviation advancement.
c. Label the primary Flights Instrumentation of today's modern aircraft.
d. Diagram the powerplant and related systems with respect to operation and maintenance requirements for flight.

ACADEMIC STANDARDS:
SCSh4. Students will use tools and instruments for observing, measuring, and manipulating scientific equipment and materials.

SP1 Students will analyze the relationships between force, mass, gravity, and the motion of objects.

SP3 Students will evaluate the forms and transformations of energy.

SPS7.Students will relate transformations and flow of energy within a system.

PS-AFHGS-3. Students will become familiar with the four forces of flight, aerodynamic principles of stability, and load factors applied to aircraft.

a. Identify the relationship between lift, weight, thrust, and drag as they apply to aircraft in flight and at rest.
b. Recognize components of an aircraft and their uses.
c. Calculate weight and balance for a variety of load configuration.
d. Use appropriate tools to determine CG and fuel loads.

ACADEMIC STANDARDS:
SPS8. Students will determine relationships among force, mass, and motion.

SP1. Students will analyze the relationships between force, mass, gravity, and the motion of objects.

SP6. The student will describe the corrections to Newtonian physics given by quantum mechanics and relativity when matter is very small, moving fast compared to the speed of light, or very large.

SPS7. Students will relate transformations and flow of energy within a system.

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PS-AFHGS-4. Student will understand the important safety considerations, including collision avoidance precautions, right-of-way, and minimum safe altitudes.

a. Compare and contrast the classifications of airspace and their limitation and uses**.**
b. Identify appropriate Air Traffic Control services available to pilots.
c. Demonstrate knowledge and proficiency in using emergency procedures.
d. Demonstrate the ability to locate and use appropriate sources of flight Information.

PS-AFHGS -5. Student will learn the causes of various weather conditions, frontal systems, and hazardous weather phenomena. Understand how to recognize and avoid critical weather situations.

a. Use various sources to determine suitability of weather conditions for safe flight.
b. Interpret applicable weather charts and data products.

ACADEMIC STANDARDS:
SCSh5. Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations.

SES5 Students will investigate the interaction of insolation and Earth systems to produce weather and climate.

MM1D2. Students will use the basic laws of probability.

MM1D3. Students will relate samples to a population.

MM1D4. Students will explore variability of data by determining the mean absolute deviation (the average of the absolute values of the deviations).

PS-AFHGS-6. Students will learn how to use data supplied by manufacturer in predicting airplane performance.

a. Obtain and interpret appropriate charts, manuals and checklist to determine safe flight conditions.
b. Demonstrate proficiency in using various flight computers and flight charts.
c. Demonstrate understanding and use Navigational aids such as VOR, ADF, and DME.

ACADEMIC STANDARDS:
SCSh5. Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations.

SPS7. Students will relate transformations and flow of energy within a system.

SPS8. Students will determine relationships among force, mass, and motion.

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MM1G1. Students will investigate properties of geometric figures in the coordinate plane.

MM1D1. Students will determine the number of outcomes related to a given event.

MM1D2. Students will use the basic laws of probability.

MM1D3. Students will relate samples to a population.

MM1D4. Students will explore variability of data by determining the mean absolute deviation (the average of the absolute values of the deviations).

PS-AFHGS-7. Student will demonstrate an understanding of accepted procedures and concepts pertaining to aeronautical decision making and judgment.

a. Recognize the importance of Aviation Physiology in making decisions relative to safety of flight.
b. Identify and state the effects of night illusions, hypoxia, and hyperventilation.

Reading Across the Curriculum

Reading Standard Comment

After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal learning. Students encounter a variety of informational as well as fictional texts, and they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in context.

Beginning with middle grades years, students begin to self-select reading materials based on personal interest established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, research, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

Students will enhance reading in all curriculum areas by:

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a. Reading in all curriculum areas
   - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
   - Read both informational and fictional texts in a variety of genres and modes of discourse.
   - Read technical texts related to various subject areas.

b. Discussing books
   - Discuss messages and themes from nooks in all subject area.
   - Respond to a variety of texts in multiple modes of discourse.
   - Relate messages and themes from one subject area to messages and themes in another area.
   - Evaluate the merit of texts in every subject discipline.
   - Examine author's purpose in writing.
   - Recognize the features of disciplinary texts.

c. Building vocabulary knowledge
   - Demonstrate an understanding of contextual vocabulary in various subjects.
   - Use content vocabulary in writing and speaking.
   - Explore understanding of new words found in subject area texts.

d. Establishing content
   - Explore life experiences related to subject area content.
   - Discuss in both writing and speaking how certain words are subject area related.
   - Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that student pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and post secondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of career for all pathways in the program

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CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.

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Social Studies Skills Matrices

MAP AND GLOBE SKILLS GOAL: The student will use maps to retrieve social studies information. I: indicates when a skill is introduced in the standards and elements as part of the content D: indicates grade levels where the teacher must develop that skill using the appropriate content M: indicates grade level by which student should achieve mastery, the ability to use the skill in all situations A: indicates grade levels where students will continue to apply and improve mastered skills.

Map and Globe Skills	K	1	2	3	4	5	6	7	8	9-12
1. Use cardinal directions	I	M	A	A	A	A	A	A	A	A
2. Use intermediate directions		I	M	A	A	A	A	A	A	A
3. Use a letter/number grid system to determine location			I	M	A	A	A	A	A	A
4. Compare and contrast the categories of natural, cultural, and political features found on maps			I	M	A	A	A	A	A	A
5. Use inch to inch map scale to determine distance on maps			I	M	A	A	A	A	A	A
6. Use map key/legend to acquire information from historical, physical, political, resource, product, and economic maps			I	D	M	A	A	A	A	A
7. Use map to explain impact of geography on historical and political events			I	D	M	A	A	A	A	A
8. Draw conclusions and make generalizations based on maps				I	M	A	A	A	A	A
9. Use latitude and longitude to determine location				I	D	D	D	M	A	A
10. Use graphic scales to determine distances on maps					I	M	A	A	A	A
11, Compare maps of the same place at different points in time and from different perspectives to determine changes, identify trends, and generalize about human activities					I	M	A	A	A	A

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INFORMATION PROCESSING SKILLS

GOAL: The student will be able to locate, analyze, and synthesize information related to social studies topics and apply this information to solve problems/make decisions.
I: indicates when a skill is introduced in the standards and elements as part of the content
D: indicates grade levels where the teacher must develop that skill using the appropriate content
M: indicates grade level by which student should achieve mastery, the ability to use the skill in all situations
A: indicates grade levels where students will continue to apply and improve mastered skills

Information Processing Skills	K	1	2	3	4	5	6	7	8	9-12
1. Compare similarities and differences	I	D	M	A	A	A	A	A	A	A
2. Organize items chronologically	I	D	D	M	A	A	A	A	A	A
3. Identify issues and/or problems and alternative solutions	I	D	D	D	D	M	A	A	A	A
4. Distinguish between fact and opinion		I	D	M	A	A	A	A	A	A
5. Identify main idea, detail, sequence of events, and cause and effect in a social studies context		I	D	D	M	A	A	A	A	A
6. Identify and use primary and secondary sources		I	D	D	M	A	A	A	A	A
7. Interpret timelines		I	D	D	M	A	A	A	A	A
8. Identify social studies reference resources for a specific purpose			I	M	A	A	A	A	A	A
9. Construct charts and tables			I	M	A	A	A	A	A	A
10. Analyze artifacts			I	D	D	M	A	A	A	A
11. Draw conclusions and make generalizations				I	M	A	A	A	A	A
12. Analyze graphs and diagrams				I	D	M	A	A	A	A
13. Translate dates into centuries, eras, or ages				I	D	M	A	A	A	A
14. Formulate appropriate research questions					I	M	A	A	A	A
15. Determine adequacy and/or relevancy of information					I	M	A	A	A	A
16. Check for consistency of information					I	M	A	A	A	A
17. Interpret political cartoons					I	D	D	D	M	A

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PROGRAM CONCENTRATION: **Government & Public Safety**
CAREER PATHWAY: **JROTC – Air Force**
COURSE TITLE: **Leadership Education IV**

Air Force Junior ROTC Curriculum

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Leadership Education 400: Principles of Management and process skills on the AFJROTC Cybercampus have been correlated with The Project 2061's *Benchmarks for Science Literacy*, National Council for Social Studies: Curriculum Standards for Social Studies, Center for Civic Education: National Standards for Civics and Government, National Standards for Business Education, National Assessment of Educational Progress: National Civics Consensus Project, Quigley's *Civitas*, A Framework for Civics Education, CNAEA: National Standards for Arts Education, GESP: National Geography Standards, National Health Education Standards, NCHS: National Standards for History, NRC: National Science Education Standards, SCANS: Report for America 2000, and Health Framework for California Public Schools.

Course Description:

Leadership IV, Life Skills and Career Opportunities discusses principles of management. It includes definitions and histories of the discipline, conflict management, negotiation, and mentoring. It covers management techniques including principles and functions of

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management; management decisions involving conflict management, personal coping mechanisms, skills, roles, performance of management, and delegation; management functions of problem solving, decision making, negotiation, and mentoring, and managing one's self and others by managing self-development, time, and information.

PS-AFLEIV-1. Students will understand who managers are, where they work, what they do. They will know what management is.

a. Describe three characteristics of an organization.
b. List three examples of organizations.
c. Explain the difference between an operative and a manager.
d. Identify three levels of managers.
e. Define efficiency and effectiveness.
f. Diagram the four basic management processes.
g. Describe three kinds of management behavior.

Academic Standard(s):

SSEMI4. The student will explain the organization and role of business, and analyze the four types of market structures in the U.S. economy.

SCSh7. Students will analyze how scientific knowledge is developed.

PS-AFLEIV-2. Students will identify the skills and competencies successful managers possess, the importance the marketplace puts on managers, and how management relates to other disciplines of study.

a. List the four general skills of managers and the six specific skills of managers.
b. Define competencies.
c. Explain the importance the marketplace puts on managers.
d. Identify the reasons management is worth studying and how management relates to other disciplines of study.

Academic Standard(s):

SSEPF6. The student will describe how the earnings of workers are determined in the marketplace.

SCSh8. Students will understand important features of the process of scientific inquiry

SCSh7. Students will analyze how scientific knowledge is developed.

PS-AFLEIV-3. Students will compare the history of management from the classical contributions up to and including modern management.

a. Identify the contributions Adam Smith, Frederick Taylor, Henri Fayol, and Max Weber each made to the field of management.
b. Explain the influence of the industrial revolution on management practice.
c. Describe other major contributions to scientific management and why scientific management received so much attention.

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Academic Standard(s):
SSEMI2. The student will explain how the Law of Demand, the Law of Supply, prices and profits work to determine production and distribution in a market economy.

SSUSH11. The student will describe the growth of big business and technological innovations after Reconstruction.

SSWH21. The student will analyze globalization in the contemporary world.

SCSh4. Students will use tools and instruments for observing, measuring, and manipulating scientific equipment and materials.

SCSh7. Students will analyze how scientific knowledge is developed.

PS-AFLEIV-4. Students will analyze various approaches to management including the human resources approach and the quantitative approach. They will identify how social events shape management approaches as well as other influences on current management approaches.

a. Describe the contributions of Robert Owen and Hugo Munsterberg.
b. Discuss what Mary Parker Follett believed about managers and groups.
c. Compare and contrast the views of Chester Barnard and Max Weber.
d. Describe the Hawthorne Studies.
e. Identify the basic belief of the human relations movement.
f. Describe the approach of the behavioral science theorists.
g. List the applications of human resource approaches.
h. Give examples of the quantitative approach to management.
i. Identify a major factor that stimulated the classical and the human resources approach.
j. State the historical event that stimulated the quantitative approach.
k. Analyze the concept of a process approach, a systems approach, and a contingency approach to management.
l. Describe how classical writings are applied today.

Academic Standard(s):
SSEMI4. The student will explain the organization and role of business, and analyze the four types of market structures in the U.S. economy.

SSUSH11. The student will describe the growth of big business and technological innovations after Reconstruction.

SSWH21. The student will analyze globalization in the contemporary world.

SSEPF6. The student will describe how the earnings of workers are determined in the marketplace.

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SCSh4. Students will use tools and instruments for observing, measuring, and manipulating scientific equipment and materials.

SCSh7. Students will analyze how scientific knowledge is developed.

SCSh8. Students will understand important features of the process of scientific inquiry.

SSEMI2. The student will explain how the Law of Demand, the Law of Supply, prices and profits work to determine production and distribution in a market economy.

PS-AFLEIV-5. Students will understand how management affects the economy including the global marketplace and technology.

a. Create a timeline that identifies the three waves of civilization described by Alvin Toffler.
b. Name three examples of knowledge workers.
c. Describe a dot-com business.
d. Compare and contrast the difference between a multinational corporation and a transnational corporation.
e. Outline three stages of how globalization affects organizations.
f. Define technology and list three examples of technologies that benefit organizations.
g. Describe e-commerce.
h. Identify the two big challenges facing a manager of telecommuters.

Academic Standard(s):

SSEMI4. The student will explain the organization and role of business, and analyze the four types of market structures in the U.S. economy.

SSUSH11. The student will describe the growth of big business and technological innovations after Reconstruction.

SSWH21. The student will analyze globalization in the contemporary world.

SSEPF6. The student will describe how the earnings of workers are determined in the marketplace.

SCSh4. Students will use tools and instruments for observing, measuring, and manipulating scientific equipment and materials.

SCSh7. Students will analyze how scientific knowledge is developed.

SCSh8. Students will understand important features of the process of scientific inquiry.

SSEPF1. The student will apply rational decision to the making of personal spending and savings choices.

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SSEMI2. The student will explain how the Law of Demand, the Law of Supply, prices and profits work to determine production and distribution in a market economy.

PS-AFLEIV-6. Students will identify what society expects from organizations and managers. They will also know how entrepreneurship, the workforce, and labor impact society.

a. Compare and contrast the two basic positions on corporate social responsibility.
b. Select the definition of social obligation from a list of definitions.
c. Describe social responsiveness.
d. Explain the function of a code of ethics.
e. Identify the difference between an entrepreneur and a small business owner.
f. Outline the four stages of the entrepreneurial process.
g. Explain workforce diversity.
h. Describe work/life balance.
i. Compare and contrast outsourcing, rightsizing, and downsizing.
j. Explain the issues that contingent workers create for managers.
k. Identify the two demographic factors that contribute to the labor shortage.

Academic Standard(s):
SSEMI4. The student will explain the organization and role of business, and analyze the four types of market structures in the U.S. economy.

SSUSH11. The student will describe the growth of big business and technological innovations after Reconstruction.

SSWH21. The student will analyze globalization in the contemporary world.

SSEPF6. The student will describe how the earnings of workers are determined in the marketplace.

SCSh7. Students will analyze how scientific knowledge is developed.

SCSh8. Students will understand important features of the process of scientific inquiry.

SSEMI2. The student will explain how the Law of Demand, the Law of Supply, prices and profits work to determine production and distribution in a market economy.

PS-AFLEIV-7. Students will be able to identify planning actions and types of plans including management by objectives.

a. Describe formal and informal planning.
b. List four reasons managers should make formal plans.
c. State two of the major criticisms of formal planning.
d. List four ways to describe different types of plans.
e. Compare and contrast strategic and tactical plans, specific and directional plans, and single-use and standing plans.

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f. Define management by objectives (MBO) and list four common ingredients in MBO programs.
g. Describe the three basic findings of Locke's research on goal-setting.
h. Identify the six guidelines for setting employee objectives.

Academic Standard(s):
SCSh7. Students will analyze how scientific knowledge is developed.

SSEF4. The student will compare and contrast different economic systems, and explain how they answer the three basic economic questions of what to produce, how to produce and for whom to produce.

PS-AFLEIV-8. Students will establish goals and develop plans about contemporary issues and their personal lives.

a. Define traditional goal setting and identify the problems with the traditional goal setting approach.
b. Outline a means-end chain of traditional goal setting.
c. Describe the management by objective (MBO) approach to goal setting.
d. Identify the five characteristics of well-thought-out goals.
e. List the six steps in goal setting.
f. Identify the three contingency factors in planning.
g. Describe the difference between traditional and a modern planning.
h. Identify the two planning issues that are on the minds of contemporary experts.
i. Describe three characteristics of effective plans in dynamic environments.

Academic Standard(s):
SCSh7. Students will analyze how scientific knowledge is developed.

ELA9LSV1, ELA10LSV1, ELA11LSV1, ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions.

SSEPF1. The student will apply rational decision to the making of personal spending and savings choices.

PS-AFLEIV-9. Students will use the decision-making process to address situations in their lives.

a. List the eight steps of a decision-making process.
b. Define decision criteria.
c. Explain how risk and uncertainty affect the decision-making process.
d. Describe the advantages of creativity in decision-making.
e. Explain the three components of creativity.
f. Define *satisfice.*
g. Describe three features of practicing bounded rationality.
h. List three common errors in the decision-making process.

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Academic Standard(s):

SCSh7. Students will analyze how scientific knowledge is developed.

SCSh8. Students will understand important features of the process of scientific inquiry.

ELA9LSV1, ELA10LSV1, ELA11LSV1, ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions.

SSEPF1. The student will apply rational decision to the making of personal spending and savings choices.

PS-AFLEIV-10. Students will identify the various decision making styles used by groups and individuals. They will also explain how culture effects the decision making process.

a. Explain the difference between well-structured and ill-structured problems.
b. Name two characteristics of programmed and non-programmed decisions.
c. List three types of programmed decisions.
d. Compare and contrast the types of decisions made by managers at lower and higher organizational levels.
e. Describe the benefits of expert systems and neural networks for decision-making.
f. Name the two dimensions that most influence decision-making styles.
g. List four basic decision-making styles and name the advantages and disadvantages of each.
h. State the size of the most effective groups.
i. Practice brainstorming and nominal group techniques.
j. Explain how decision-making is impacted by culture.

Academic Standard(s):

SCSh7. Students will analyze how scientific knowledge is developed.

SCSh8. Students will understand important features of the process of scientific inquiry.

SSEPF1. The student will apply rational decision to the making of personal spending and savings choices.

SSEF4. The student will compare and contrast different economic systems, and explain how they answer the three basic economic questions of what to produce, how to produce and for whom to produce.

SSEMI2. The student will explain how the Law of Demand, the Law of Supply, prices and profits work to determine production and distribution in a market economy.

PS-AFLEIV-11. Students will identify the forces of change that affect management and employee actions.

a. List the three categories that managers can change.
b. Name five external forces that create a need to change in organizations.

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c. Describe the role of a change agent.
d. Explain the calm-water and white-water rapids metaphors for change.
e. Identify driving forces and restraining forces for change.
f. Describe the three phases for working on calm-water changes.
g. List three reasons why people resist change.
h. Name three techniques that can be used to encourage change.

Academic Standard(s):
SSEPF6. The student will describe how the earnings of workers are determined in the marketplace.

SCSh7. Students will analyze how scientific knowledge is developed.

SCSh8. Students will understand important features of the process of scientific inquiry.

SSEPF1. The student will apply rational decision to the making of personal spending and savings choices.

SSEMI2. The student will explain how the Law of Demand, the Law of Supply, prices and profits work to determine production and distribution in a market economy.

SSEF4. The student will compare and contrast different economic systems, and explain how they answer the three basic economic questions of what to produce, how to produce and for whom to produce.

PS-AFLEIV-12. Students will examine the difficulties and advantages of organizational changes.

a. Describe the changing of structure, technology, and people in organizations.
b. Identify four techniques used in organization development programs.
c. Explain how opportunities, demands, and constraints create stress in organizations.
d. List five common causes of stress in organizations.
e. Compare and contrast role conflict, role overload, and role ambiguity.
f. Name and give examples of the three ways stress reveals itself in people.
g. Describe one special program used to reduce employee stress in organizations.
h. List the three outcomes of innovation in organizations.
i. Name the four steps in the creativity process.
j. Explain the seven characteristics of an innovative culture.

Academic Standard(s):
SSEPF6. The student will describe how the earnings of workers are determined in the marketplace.

SCSh7. Students will analyze how scientific knowledge is developed.

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SSEF4. The student will compare and contrast different economic systems, and explain how they answer the three basic economic questions of what to produce, how to produce and for whom to produce.

PS-AFLEIV-13. Students will handle personal stress and incorporate time management skills into their lives for themselves and groups in which they are active.

a. Explain the difference between *eustress* and *distress*.
b. Describe Type A, B, and H personalities.
c. List three workaholic characteristics.
d. Describe several ways to make stress work for you rather than against you.
e. Name three burnout symptoms.
f. Explain the first two steps of managing your time.
g. Describe the technological paradox.
h. Explain what can be done before a meeting to make it more effective.

Academic Standard(s):
SCSh7. Students will analyze how scientific knowledge is developed.

SSEPF1. The student will apply rational decision to the making of personal spending and savings choices.

PS-AFLEIV-14. Students will identify personality traits and predict behavior and personality.

a. List the four kinds of behavior that are the focus of organizational behavior.
b. Name the three components of attitude.
c. Explain the three concerns about employee job attitudes.
d. Describe cognitive dissonance.
e. List the four dimensions of the Myers-Briggs type indicator.
f. Name the five factors in the Big Five model of personality.
g. Describe emotional intelligence and list the six dimensions of emotional intelligence.
h. Name the six job-fit types identified by John Holland.
i. Describe the proactive personality.

Academic Standard(s):
SCSh7. Students will analyze how scientific knowledge is developed.

ELA9LSV1, ELA10LSV1, ELA11LSV1, ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions.

PS-AFLEIV-15. Students will comprehend the impact of perception, how individuals learn, and group behavior on management decisions.

a. Describe the impact of perception (attributions) on managers.
b. Identify internal and external explanations of behavior.
c. List three ways managers determine the causes of behavior.
d. Explain fundamental attribution error and self-serving bias.

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e. Give examples of stereotyping and operant conditioning.
f. Describe social learning theory.
g. Identify four ways to shape behavior.
h. List the four basic concepts of groups.

Academic Standard(s):
SCSh7. Students will analyze how scientific knowledge is developed.

PS-AFLEIV-16. Students will describe the types of work teams, their characteristics, and their popularity.

a. Name three reasons teams are popular in businesses today.
b. List the five stages of team development.
c. Explain the difference between a work group and a work team.
d. List five types of work teams.
e. Explain the work of a problem-solving team and a cross-functional work team.
f. Identify one reason why entrepreneurs use teams.
g. Name six characteristics of high-performance teams.
h. Describe two characteristics of effective leadership.
i. Name three characteristics of a supportive climate for teams.

Academic Standard(s):
SCSh7. Students will analyze how scientific knowledge is developed.

ELA9LSV1, ELA10LSV1, ELA11LSV1, ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions.

PS-AFLEIV-17. Students will identify contemporary team issues and methods used to turn individuals into team players.

a. Describe the challenges facing teams in an individualistic culture.
b. List two countries in which the team approach has been much easier to introduce.
c. Identify nine work team roles.
d. List three tools a manager can use to shape team behavior.
e. Explain the use of a probationary period.
f. Describe the difference between an individual reward and a team reward.
g. Describe four ways to bring new life to a mature team.
h. Explain two situations in which the advantages of diversity are most clearly seen.
i. Identify two causes of attrition on teams.

Academic Standard(s):
SCSh7. Students will analyze how scientific knowledge is developed.

SSEPF6. The student will describe how the earnings of workers are determined in the marketplace.

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PS-AFLEIV-18. Students will understand and use the communication process, using information technology for written and verbal communications.

a. Name the five components of the communication process.
b. List four factors that affect the encoding of messages.
c. Describe the advantages and disadvantages of written communication and verbal communication.
d. Demonstrate the communication grapevine and three examples of both nonverbal communication and body language.
e. Explain how verbal intonation impacts communication.
f. Illustrate three examples of barriers to communication.
g. Describe actions managers can take to overcome communication barriers.
h. List five examples of the use of technology networks in communication.
i. Explain how knowledge is a major resource in an organization.

Academic Standard(s):

ELA9LSV1, ELA10LSV1, ELA11LSV1, ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions.

ELA11LSV2, ELA12LSV2. The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

PS-AFLEIV-19. Students will develop interpersonal skills in listening and feedback, delegation skills, managing conflict, negotiating, and writing evaluations.

a. Name the four essential elements of listening.
b. Explain two of the ways to make feedback more effective.
c. Describe the elements of effective delegation.
d. Explain three views of organizational conflict.
e. Name five styles for managing conflict.
f. Describe the process of negotiation and explain three of the methods (tips) for effective negotiation.
g. Describe the three purposes of written performance evaluations.

Academic Standard(s):

ELA9LSV1, ELA10LSV1, ELA11LSV1, ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions.

ELA11LSV2, ELA12LSV2. The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

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PS-AFLEIV-20. Students will identify the difference between managers and leaders. They will also understand the various theories of leadership that have been developed to analyze management behavior.

a. Compare and contrast the various theories of leadership.
b. Name four important modes in which leaders operate.
c. List two sets of variables that push a leader to behave in one way or another.
d. Compare and contrast the leader-participation model, the situational theory of leadership and the charismatic leadership theory.
e. Explain the difference between vision and setting goals.
f. Explain how transformational leaders differ from transactional leaders

PS-AFLEIV-21. Students will identify essential traits of today's leaders including the essence of leadership.

a. Describe the two aspects of a team leader's job that are *not* part of a first-line manager's job.
b. Name the four roles that team leaders play.
c. Explain why a leader has to pay attention to cultural factors in leading.
d. List the five components of emotional intelligence.
e. Name the five dimensions of trust and why it is so important to leadership.
f. Explain how leadership is sometimes not all that important.

Academic Standard(s):
SSEPF6. The student will describe how the earnings of workers are determined in the marketplace.

PS-AFLEIV--22. Students will understand the importance of goal setting, providing feedback, and developing protégés in both coaching and mentoring.

a. Compare and contrast a coach and a mentor.
b. Name three benefits of setting goals.
c. Explain two reasons mentoring is important in the business world.
d. Explain the difference between a mission statement and specific goals.
e. Describe how role modeling and feedback benefit a protégé.
f. List three techniques for giving feedback.
g. Name four ways to prepare a protégé for promotion.

Academic Standard(s):
SSEPF6. The student will describe how the earnings of workers are determined in the marketplace.

SSEPF1. The student will apply rational decision to the making of personal spending and savings choices.

Reading Across the Curriculum

Reading Standard Comment

Implementation date
Fall 2010

After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal learning. Students encounter a variety of informational as well as fictional texts, and they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in context.

Beginning with middle grades years, students begin to self-select reading materials based on personal interest established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, research, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

Students will enhance reading in all curriculum areas by:

a. Reading in all curriculum areas
   - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
   - Read both informational and fictional texts in a variety of genres and modes of discourse.
   - Read technical texts related to various subject areas.

b. Discussing books
   - Discuss messages and themes from nooks in all subject area.
   - Respond to a variety of texts in multiple modes of discourse.
   - Relate messages and themes from one subject area to messages and themes in another area.
   - Evaluate the merit of texts in every subject discipline.
   - Examine author's purpose in writing.
   - Recognize the features of disciplinary texts.

c. Building vocabulary knowledge
   - Demonstrate an understanding of contextual vocabulary in various subjects.
   - Use content vocabulary in writing and speaking.
   - Explore understanding of new words found in subject area texts.

d. Establishing content
   - Explore life experiences related to subject area content.
   - Discuss in both writing and speaking how certain words are subject area related.

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- Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that student pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and post secondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of career for all pathways in the program concentration

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

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CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.