

**Government and Public Administration Cluster
Aerospace Science: Honors Ground School
Course Number 28.01900**

Course Description:

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.

Course Standard 1

GPA-AFSHGS-1

The following standard is included in all CTAE courses adopted for the Career Cluster/Pathways. Teachers should incorporate the elements of this standard into lesson plans during the course. The topics listed for each element of the standard may be addressed in differentiated instruction matching the content of each course. These elements may also be addressed with specific lessons from a variety of resources. This content is not to be treated as a unit or separate body of knowledge but rather integrated into class activities as applications of the concept.

Standard: Demonstrate employability skills required by business and industry.

The following elements should be integrated throughout the content of this course.

1.1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.

Person-to-Person Etiquette	Telephone and Email Etiquette	Cell Phone and Internet Etiquette	Communicating At Work	Listening
Interacting with Your Boss	Telephone Conversations	Using Blogs	Improving Communication Skills	Reasons, Benefits, and Barriers
Interacting with Subordinates	Barriers to Phone conversations	Using Social Media	Effective Oral Communication	Listening Strategies
Interacting with Co-workers	Making and Returning Calls		Effective Written Communication	Ways We Filter What We Hear
Interacting with Suppliers	Making Cold Calls		Effective Nonverbal Skills	Developing a Listening Attitude
	Handling Conference Calls		Effective Word Use	Show You Are Listening
	Handling Unsolicited Calls		Giving and Receiving Feedback	Asking Questions
				Obtaining Feedback
				Getting Others to Listen

Nonverbal Communication	Written Communication	Speaking	Applications and Effective Résumés
Communicating Nonverbally	Writing Documents	Using Language Carefully	Completing a Job Application
Reading Body Language and Mixed Messages	Constructive Criticism in Writing	One-on-One Conversations	Writing a Cover Letter
Matching Verbal and Nonverbal communication		Small Group Communication	Things to Include in a Résumé
Improving Nonverbal Indicators		Large Group Communication	Selling Yourself in a Résumé
Nonverbal Feedback		Making Speeches	Terms to Use in a Résumé
Showing Confidence Nonverbally		Involving the Audience	Describing Your Job Strengths
Showing Assertiveness		Answering Questions	Organizing Your Résumé
		Visual and Media Aids	Writing an Electronic Résumé

Georgia Department of Education

		Errors in Presentation	Dressing Up Your Résumé
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1.2 Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.

Teamwork and Problem Solving	Meeting Etiquette
Thinking Creatively	Preparation and Participation in Meetings
Taking Risks	Conducting Two-Person or Large Group Meetings
Building Team Communication	Inviting and Introducing Speakers
	Facilitating Discussions and Closing
	Preparing Visual Aids
	Virtual Meetings

1.3 Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations.

Problem Solving	Customer Service	The Application Process	Interviewing Skills	Finding the Right Job
Transferable Job Skills	Gaining Trust and Interacting with Customers	Providing Information, Accuracy and Double Checking	Preparing for an Interview	Locating Jobs and Networking
Becoming a Problem Solver	Learning and Giving Customers What They Want	Online Application Process	Questions to Ask in an Interview	Job Shopping Online
Identifying a Problem	Keeping Customers Coming Back	Following Up After Submitting an Application	Things to Include in a Career Portfolio	Job Search Websites
Becoming a Critical Thinker	Seeing the Customer's Point	Effective Résumés:	Traits Employers are Seeking	Participation in Job Fairs
Managing	Selling Yourself and the Company	Matching Your Talents to a Job	Considerations Before Taking a Job	Searching the Classified Ads
	Handling Customer Complaints	When a Résumé Should be Used		Using Employment Agencies
	Strategies for Customer Service			Landing an Internship
				Staying Motivated to Search

1.4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.

Workplace Ethics	Personal Characteristics	Employer Expectations	Business Etiquette	Communicating at Work
Demonstrating Good Work Ethic	Demonstrating a Good Attitude	Behaviors Employers Expect	Language and Behavior	Handling Anger
Behaving Appropriately	Gaining and Showing Respect	Objectionable Behaviors	Keeping Information Confidential	Dealing with Difficult Coworkers
Maintaining Honesty	Demonstrating Responsibility	Establishing Credibility	Avoiding Gossip	Dealing with a Difficult Boss
Playing Fair	Showing Dependability	Demonstrating Your Skills	Appropriate Work Email	Dealing with Difficult Customers
Using Ethical Language	Being Courteous	Building Work Relationships	Cell Phone Etiquette	Dealing with Conflict
Showing Responsibility	Gaining Coworkers' Trust		Appropriate Work Texting	
Reducing Harassment	Persevering		Understanding Copyright	
Respecting Diversity	Handling Criticism		Social Networking	
Making Truthfulness a Habit	Showing Professionalism			
Leaving a Job Ethically				

1.5 Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills.

Expected Work Traits	Teamwork	Time Management
Demonstrating Responsibility	Teamwork Skills	Managing Time
Dealing with Information Overload	Reasons Companies Use Teams	Putting First Things First
Transferable Job Skills	Decisions Teams Make	Juggling Many Priorities
Managing Change	Team Responsibilities	Overcoming Procrastination
Adopting a New Technology	Problems That Affect Teams	Organizing Workspace and Tasks
	Expressing Yourself on a Team	Staying Organized
	Giving and Receiving Constructive Criticism	Finding More Time
		Managing Projects
		Prioritizing Personal and Work Life

1.6 Present a professional image through appearance, behavior and language.

On-the-Job Etiquette	Person-to-Person Etiquette	Communication Etiquette	Presenting Yourself
Using Professional Manners	Meeting Business Acquaintances	Creating a Good Impression	Looking Professional
Introducing People	Meeting People for the First Time	Keeping Phone Calls Professional	Dressing for Success
Appropriate Dress	Showing Politeness	Proper Use of Work Email	Showing a Professional Attitude
Business Meal Functions		Proper Use of Cell Phone	Using Good Posture
Behavior at Work Parties		Proper Use in Texting	Presenting Yourself to Associates
Behavior at Conventions			Accepting Criticism
International Etiquette			Demonstrating Leadership
Cross-Cultural Etiquette			
Working in a Cubicle			

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence L9-10RST 1-10 and L9-10WHST 1-10

Georgia Standards of Excellence ELA/Literacy standards have been written specifically for technical subjects and have been adopted as part of the official standards for all CTAE courses.

Course Standard 2

GPA-AFSHGS-2

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

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

Course Standard 3

GPA-AFSHGS-3

Students will understand the airplane components and systems.

- 3.1 Identify the basic components of an aircraft as well as the primary function.
- 3.2 Explain the advancements in modern technologies as they apply to aviation advancement.
- 3.3 Label the primary Flights Instrumentation of today’s modern aircraft.
- 3.4 Diagram the powerplant and related systems with respect to operation and maintenance requirements for flight.

Course Standard 4

GPA-AFSHGS-4

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

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

Course Standard 5

GPA-AFSHGS-5

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

- 5.1 Compare and contrast the classifications of airspace and their limitation and uses.
- 5.2 Identify appropriate Air Traffic Control services available to pilots.
- 5.3 Demonstrate knowledge and proficiency in using emergency procedures.
- 5.4 Demonstrate the ability to locate and use appropriate sources of flight Information.

Course Standard 6

GPA-AFSHGS-6

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

- 6.1 Use various sources to determine suitability of weather conditions for safe flight.
- 6.2 Interpret applicable weather charts and data products.

Course Standard 7

GPA-AFSHGS-7

Students will learn how to use data supplied by manufacturer in predicting airplane performance.

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

Course Standard 8

GPA-AFSHGS-8

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

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