



SPRING GROVE AREA SCHOOL DISTRICT



PLANNED COURSE OVERVIEW

Course Title: Aviation Capstone (AOPA) Grade Level(s): 12 Units of Credit: .5 Classification: Elective	Length of Course: Semester Periods Per Cycle: 6 Length of Period: 40 Minutes Total Instructional Time: 60 Hours
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Course Description

The second semester of twelfth grade is an exciting time, as it represents the culmination of everything that your students have learned in AOPA's High School Aviation STEM Curriculum. During this semester, your students—either individually or as a group—will complete capstone projects. These projects will allow students to dig deep into a facet of aviation that interests them, and to use both academic and experiential research skills to answer questions they have formulated about the industry.

Instructional Strategies, Learning Practices, Activities, and Experiences

Direct Instruction Field Experiences Groupwork Drone Flights	Instructional Videos Labs Practice Problems/Calculations	Reading Flight Simulations Flight Planning/Map Reading
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Assessments

Unit Quizzes Unit Tests Pre-Test	Projects Presentations Post-Test	Videos Simulations
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Materials/Resources

AOPA Curriculum Sectional Charts The York Airport	Plotters E6B Flight Calculators FAA Regulations FAR/AIM	Model Airplanes Drones The Pilots Handbook of Aeronautical Knowledge
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Adopted: 5/22/23

Revised:

https://springgroveareasco.sharepoint.com/sites/PrivateSGASD/Shared Documents/AASG/NEWCURR/STEM - Technology/2023/AOPA/Aviation Capstone/AOPA - Aviation Capstone_Overview.docx

CONTENT/KEY CONCEPTS	OBJECTIVES/STANDARDS
<p>Pilot Capstone</p> <p>Description: The second semester of twelfth grade is an exciting time, as it represents the culmination of everything that your students have learned in AOPA’s High School Aviation STEM Curriculum. During this semester, your students—either individually or as a group—will complete capstone projects. These projects will allow students to dig deep into a facet of aviation that interests them, and to use both academic and experiential research skills to answer questions they have formulated about the industry.</p>	<p>RST.11-12.1 - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.2 - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>RST.11-12.4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.</p> <p>RST.11-12.7 - Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p>RST.11-12.8 - Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p>RST.11-12.9 - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p>WHST.11-12.1 - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.11-12.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>WHST.11-12.5 - Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.</p> <p>WHST.11-12.6 - Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.</p> <p>WHST.11-12.7 - Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p> <p>WHST.11-12.8 - Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p>WHST.11-12.9 - Draw evidence from informational texts to support analysis, reflection, and research.</p> <p>WHST.11-12.10 - Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>

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