

# 09\_Unit 9: Aviation Research Projects

Content Area: **Technology**  
Course(s):  
Time Period: **Full Year**  
Length: **25 Days**  
Status: **Published**

## **General Overview, Course Description or Course Philosophy**

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After having prepared for the Part 107 Remote Pilot Test in the previous year, students will examine the myriad of career options that exist within a wide range of industries for those with a UAS background. At the beginning of the semester, students will take the controls of a drone, reviewing their knowledge about UAS operations and growing as a team in the process. Following this, students will have an opportunity to do a deep dive into a segment of the UAS industry that interests them, and to share their findings with the class. For students who wish to act as innovators or entrepreneurs in the world of drones, this semester will provide them with the foundational business knowledge necessary to get their venture off the ground. They will also have an opportunity to review their community's drone rules, analyze them based on the needs of various stakeholders and groups, and make recommendations for changes or improvements. Finally, students will spend the latter part of the semester focusing on an area of personal interest within aviation while simultaneously developing skills in academic research— skills that will prepare them for their capstone project in semester two.

## **OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS**

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Objectives, essential questions and enduring understandings are outlined within each unit of study and/or Curricular Calendar.

## **CONTENT AREA STANDARDS**

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### **RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)**

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LA.RST.11-12.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
LA.RST.11-12.2	Determine the central ideas, themes, or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
LA.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.
LA.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.
LA.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.
LA.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.
LA.WHST.11-12.1	Write arguments focused on discipline-specific content.
LA.WHST.11-12.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.
LA.WHST.11-12.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
LA.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.
LA.WHST.11-12.6	Use technology, including the Internet, to produce, share, and update writing products in response to ongoing feedback, including new arguments or information.
LA.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.
LA.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.
LA.WHST.11-12.9	Draw evidence from informational texts to support analysis, reflection, and research.
LA.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.

## **STUDENT LEARNING TARGETS**

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Student learning targets are outlined within each unit of study and/or Curricular Calendar.

## **Declarative Knowledge**

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Declarative knowledge is outlined within each unit of study and/or Curricular Calendar.

## **Procedural Knowledge**

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Procedure knowledge is outlined within each unit of study and/or Curricular Calendar.

## **EVIDENCE OF LEARNING**

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### **Formative Assessments**

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Formative assessments are included and outlined in each unit of study.

### **Summative Assessments**

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Summative assessments are included and outlined in each unit of study.

## **RESOURCES (Instructional, Supplemental, Intervention Materials)**

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Materials and resources are outlined in each unit of study.

Link to resources:

[https://drive.google.com/drive/folders/1irINxSETj0EpMpVd6knnVhK6bB9CAksX?usp=drive\\_link](https://drive.google.com/drive/folders/1irINxSETj0EpMpVd6knnVhK6bB9CAksX?usp=drive_link)

## **INTERDISCIPLINARY CONNECTIONS**

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Interdisciplinary connections are outlined in each unit of study.

## **ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS**

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Accommodations & Modifications are outlined in each unit of study.

