

11: UAS Unit 6: Introduction to Drones and UAS Operations

Content Area: **Technology**
Course(s):
Time Period: **Full Year**
Length: **14 Days**
Status: **Published**

General Overview, Course Description or Course Philosophy

This is the third course in the four-year Aviation & Aerospace sequence. This course is foundational for both manned and unmanned aviation, and will prepare students to take either of two Federal Aviation Administration tests: the Private Pilot Knowledge Test or the Part 107 Remote Pilot Knowledge Test. Topics include: pre-flight procedures, airspace, radio communications, aviation phraseology, regulations, airport operations, aviation safety, weather, cockpit management, and emergency procedures. This course will also cover small unmanned aircraft performance, ethics, human factors, aeronautical decision-making and judgment, safety protocols, weight and balance, maintenance, aviation weather sources and effects of weather (micro-meteorology) on small unmanned aircraft performance, small unmanned aircraft loading and performance, emergency procedures, crew resource management, and preflight inspection procedures. Students will be provided the opportunity to participate in multiple practice examinations. Students will be prepared to complete the Federal Aviation Administration's Part 107 Remote Pilot Knowledge Test upon completion of this course.

OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

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

CONTENT AREA STANDARDS

SCI.HS-ETS1-3

Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.

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

LA.RH.11-12.2

Determine the theme, central ideas, information and/or perspective(s) presented in a primary or secondary source; provide an accurate summary of how key events, ideas and/or author's perspective(s) develop over the course of the text.

LA.RH.11-12.4

Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).

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.11-12.8	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.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.

STUDENT LEARNING TARGETS

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

Declarative Knowledge

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

Procedural Knowledge

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

EVIDENCE OF LEARNING

Formative Assessments

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

Summative Assessments

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

RESOURCES (Instructional, Supplemental, Intervention Materials)

Materials and resources are outlined in each unit of study.

Link to resources:

https://drive.google.com/drive/folders/1jqQeWdpwsY3R4Lr1nmYqo07M1T_89rbs?usp=sharing

INTERDISCIPLINARY CONNECTIONS

Interdisciplinary connections are outlined in each unit of study.

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

Accommodations & Modifications are outlined in each unit of study.