Angoon High School: Spring 2026 Semester

Raven's Eye GeoCultural Mapping

Paired with UAS ENVS 193 Dual Credit Opportunity

Course Title: *Raven's Eye- GeoCultural Mapping*

Duration: One Semester (19 weeks)
Grade Level: High School (8-12)
Primary (Grading) Instructor(s): Seth Norell Bader and Sam Buck

Course Meeting Information: The course will be a mixture of virtual and in-person. Seth will meet with students twice per week via Zoom, with Mr. Buck and other Chatham staff present. Other classes will involve asynchronous work assigned to students for work during classtime. All assignments, class info, etc. will be posted on a Google Classroom for students.

Course Overview: In this semester-long unit, students will learn about the use of drones and drone-related technology, and implement drone based monitoring and/or storytelling projects about Angoon. Students will learn the rules/regulations required for passing their Part 107 Commercial Drone pilot license, and earn 3 100-level ENVS dual-enrollment credits from the University of Southeast (UAS). This course is hands-on and project based, and will be based in partnerships with the Angoon community and school, University of Alaska Southeast, Kootznoowoo Inc., and the Angoon Community Association. By the end of the course, students will have developed essential skills to independently pilot drones, documenting natural environments and ecosystems using drones, and communicating about the importance of their findings.

Grading: Students will be assessed on an A-F, letter grade format.
    A: 90-100%
    B: 80-89%
    C: 70-79%
    D: 60- 69%
    F: <60%

Learning Objectives: By the end of the semester, students will be able to:

- Explain and apply FAA Part 107 regulations
- Prepare for and attempt the FAA part 107 knowledge exam
- Safely operate drones in real world conditions
- Use drones to document local landscapes and community spaces
- Apply drones as tools for environmental monitoring
- Demonstrate ethical, legal, and culturally responsible drone use
- Communicate findings using aerial data
- Understand career and workforce pathways associated with using drones
- Address culturally sensitive issues with maturity, and practice collaborating across different cultures

Materials: We have a unique opportunity in that there are already many drone materials in Angoon. Over the course we will use:

- Droneology RubiQ
- DJI Avata 2 Drones
- DJI Matrice 300

Pacing Guide/ Additional Learning Objectives and Planned Activities:

Weeks 1-8 (January-February)
FAA Part 107 Curriculum and Intro to Drone Skills

- Review of course objectives and projects
- Focusing on students learning about FAA's Part 107 Rules and Regulations to become a licensed drone pilot
- Provide hands-on training with drone equipment
- Review of work pathways and job/career opportunities associated with being a drone pilot/ technician
- Students will complete several quizzes and practice tests associated with FAA's Part 107 curriculum
- Students will work toward gathering drone flight hours to gain practical experience with safely operating drones

Week 9 (March)
*Kolea Institute- **Hawaii Trip!***

- In mid-February, all students will have the opportunity to express interest, and "apply" for participating in the 2026 Kolea Institute, which is an inter-disciplinary learning opportunity taking place in Hawaii from March 8-14.
- 2-3 students will get to travel to Hawaii
- Kolea Institute to focus on GeoCultural mapping and culturally-based drone technology, with support of partners at University of Hawaii, Hawaii Community College, and University of Alaska Southeast
- Accepted students will also be required to participate as "AISES-Pathway" students- they will integrate learning from Kolea to the Angoon community, and complete an AISES project using drone technology in Angoon
    - Official AISES Coach is Hilda Mendenhall, who will support the 2-3 AISES Pathway Students

Weeks 10-12 (March)
Guided Drone Project

- Explore the historical and cultural context of gathering and sharing about important places from Angoon
- Students will each select a location in Angoon, that they can document and share about using drone technology
- Each student will use drones (2-3 drone flights) to document their location/ topic
- Reflect on implications of sharing certain cultural stories/locations on a digital platform
- Students will write about their location, based from observations gathered from drone flights, and create a short digital story (2-3 minutes) showcasing their drone flights and observations

Week 13-14 (April)
FAA Final Prep and Testing Week

- Students will complete all remaining and required FAA curriculum
- Students will take 2 complete practice tests, and review the practice tests together in class with instructor support
- The last week and April, students (aged 14 and older) will have the opportunity to travel to Juneau to take their proctored FAA part 107 Exam at the University of

Alaska Southeast

Weeks 15-19 (April-May)
Independent Drone Project

- Explore the historical and cultural context of gathering and sharing about important places from Angoon
- Students will each select a topic/location/problem that could be supported or solved by using drones and drone-based technology
  - The project could be a map, photos, film, 3-d photogrammetry, etc.
- Students will submit a project proposal of their idea
- Students will fly drones for project as needed, with instructor support and additional support from UAS staff and undergraduate students as scheduling and travel allows
- Reflect on implications of sharing certain cultural stories/locations on a digital platform
- Consider how best to share their drone project/ research locally and regionally
- AISES-Pathway Students can use their projects as support/project-work for AISES poster and project
- During the final 2 weeks of school, students will submit their final project for grading, and present their project to class for celebration and feedback

Assessment: Assessment will be based on a combination of the following:

> → FAA Part 107 Curriculum: Students working through online Part 107 curriculum and coursework at an appropriate pace
> → Drone Projects: The quality and creativity of the guided and independent front projects, with rubrics on following pages.
> → Participation and Engagement: Active involvement in discussions, feedback sessions, and community interactions.
> → Technical Skills: Proficiency in using drone equipment, editing software, and multimedia integration.

Grading Break-Down: Students will be assessed/ graded through the following assignments/ projects

- FAA Part 107 Curriculum
  - Completing readings/videos/materials weekly   **30% of Final Grade**
  - Practice Quizzes and Tests   **15% of Final Grade**

- Course Assignments including Guided Drone Project   **20% of Final Grade**
  - These will be a combination of reflections to weekly activities, prompts, drone flight practice, etc. supplied by instructor
  - Rubric for Guided Drone Project below

- Independent Drone Documentation Project
  - Project Proposal/ Outline   **5% of Final Grade**
  - Final Project   **25% of Final Grade**

- Participation/Attendance/Engagement   **5% of Final Grade**

Extra Credit Policy
Students can inquire about extra credit at any time. Students may earn up to 5% of "Extra Credit" points at any time in the school year, by completing additional assignments/ projects assigned by the instructor.

**Special Policy: Any students who travel to Juneau and attempt an official FAA test,

can earn up to 7.5% of extra credit points.

Assignment Schedule

Assignment	Due Date
Weekly FAA Part 107 curriculum- reading, videos, worksheets, quizzes, etc.	Weekly- dates as assigned in Google Classroom
Guided Drone Project	Thursday, April 9
Independent Drone Project Proposal	Friday, April 17
Rough Draft and Independent Drone Project	Tuesday, May 5
Final Draft of Independent Drone Project	Tuesday, May 19

Plagiarism
Submission of work completed by someone else, or work/assignments used in another class, or using Artificial Intelligence "AI" (ex: Chat GPT) is prohibited. A grade of "F" may be assigned in such instances. Further, plagiarism may result in action to drop the student from class. Advice on avoiding plagiarism may be obtained at https://owl.english.purdue.edu/owl/resource/589/01/.

Note: *The syllabus can be adjusted based on the specific needs of the students and the resources available. Additionally, field trips and guest speakers from the local community will enhance the learning experience.*

Guided Drone Project Rubric			
	Drone Flights	*Editing*	*Writing and Reflections*
Step it up! *(60-69%)*	You didn't conduct any drone flights	You've hardly edited at all	Your film doesn't flow or make sense- it doesn't include your "voice at all"
You're getting there... *(70-79%)*	You conducted one short drone flight for your film	Your editing is okay, but still a little choppy.	Your film somewhat flows and includes your "voice" at least once
Good work. *(80-89%)*	You conducted one drone flight for your film, that showcases your locations from multiple perspectives	Your editing is good, you have an opening and closing that work, you weave together statements and observations in a clear way.	Your film flows from beginning to end incorporates your "voice" multiple times to tell a story
Wow, *amazing!* *(>90%)*	You conducted two or three drone flights, that meaningfully shows your location with high quality and from many perspectives and conditions	Your editing is artful, you have an opening and closing that work effectively, you weave together your observations and statements with confidence	Your film flows from beginning to end, is inspiring to the mind and the heart, and makes sense to the audience, and consistently incorporates your "voice throughout"

A rubric for the **Independent Drone Project** will be supplied to students in April when project work begins.