

## **RSB Special Meeting**

Monday, February 16, 2026 Earlier than usual regular start times  
ZOOM, 500 Big Dog Salmon Way, Angoon, AK 99820

1. **Call Special Meeting to Order**

2. **Roll call to determine quorum**

3. **Approval of Agenda**

4. **Public comment on agenda or non-agenda items**

5. **Action Items:**

5.1. Approve Out of State Travel to Hawaii for the  
Kolea Institute.

**Speaker (s):** Board  
Chair

6. **Board Member Comment**

7. **Adjournment**

## Press Release

# Mapping Ancestral Connections: Angoon Youth Honored Nationally for Culturally Modified Tree Research

**Angoon, Alaska — October 2025**

Three Angoon High School students recently returned home from an extraordinary journey that began thousands of miles across the Pacific, at the Kōlea Institute, hosted by Hawai'i Community College, Pālanui. Their path reflects the migratory spirit of the Kōlea bird itself, moving between Alaska and Hawai'i, connecting ecosystems, stories, and generations.

Last spring, Chatham School District students Cody Pitka, Angel Jack, Collins Mendenhall, and Johnny Hunter, worked alongside Dr. Sanjay Pyare of the University of Alaska Southeast (UAS), Seth Bader of See Stories, and community partners to explore geocultural science, a term coined by Dr. Pyare describes learning that unites community, ecology, and technology.



**Image 1: High school and community college students collaborate for local surveys through the Kōlea Institute. Photo Credit - Kate Cruz**

At the Kōlea Institute, students learned from Dr. Ryan Perroy of the University of Hawai'i at Hilo and Paul Agamata of Hawai'i Community College, joining adult learners to study geospatial technologies such as drone mapping, GIS, multispectral DGPS surveying, LiDAR, and ground-based LiDAR. These tools were introduced through the lens of ecosystem management of culturally significant plants, emphasizing care, observation, and interconnection.

Highlights of the Institute included a geocultural landscape history presentation, remote sensing and Ka'akepa field surveys, and community partnerships with Pōhaku Pelemaka. A Hawaiian ceremony organized by Orlo Steele and the Hawaiian student staff at HCC grounded the experience in aloha 'āina and reciprocity. To conclude the field institute, each student selected a cultural or natural artifact to document, practicing new skills in 3D rendering, digital modeling, and presenting within a higher education environment.

Three UAS undergraduate mentors, Riley Larson, Samantha Zelley, and Alexandra Gorbecheva, enrolled in UAS ENVS 493, joined the Institute to provide hands-on mentorship and create a postsecondary bridge for the Angoon students. Alexandra, a recent UAS Environmental Science graduate connected to Dr. Sanjay Pyare, later supported the group in developing their academic poster and scientific communication for their regional presentation alongside Hilda Mendenhall of Chatham School District.

Upon their return to Angoon, the students shared their learning with peers enrolled in ENVS 193, a dual-credit course, extending the impact of the project across their school and community. With support from Kootznoowoo, Inc. and the U.S. Forest Service, the students applied their new skills to capture 3D renderings of culturally modified trees (CMTs) identified for clearing during the Angoon Hydroelectric Project. Their work ensures that, while renewable energy brings resources to the community, the living connections to ancestral knowledge remain preserved.

Working closely with an externship with See Stories, students produced a [short film](#) and digital story maps soon to be featured at the new Angoon Community Center.

Their work, *The Tree, the Map, and the Flight Home*, culminated in a national presentation at the American Indian Science and Engineering Society (AISES) Conference on October 2. The students presented both a panel session and academic poster, with travel support from Sealaska, and received Outstanding Achievement Recognition in the High School Science Research Competition for their Culturally Modified Tree (CMT) project, which connected Tlingit history with emerging technologies including drone navigation, story mapping, surveying, and 3D rendering.



**Image 2: Angoon students Cody Pitka, Collins Mendenhall, and Angel Jack receive their Outstanding Achievement Recognition at the National AISES Conference, alongside their mentors Seth Bader of See Stories and Hilda Mendenhall of Chatham School District. Photo Credit - See Stories**

These efforts have laid the foundation for continued collaboration across the Pacific, with plans for additional spring courses, future iterations of the Kōlea Institute, and a growing Community of Practice supported by the USDA-NIFA project, *Developing an educational pathway in geocultural science for underserved coastal communities across the Pacific, 2024–2027*, (Award No. 2024-38470-43375). This initiative, led by Dr. Sanjay Pyare in collaboration with Kate Cruz and regional partners, has underwritten and interconnected many aspects of this multi-year effort, from mentorship and coursework to cross-Pacific exchange and community-based research.

*“Being able to share the stories of their ancestors, of their culture, in a way that lives on in this new wave of technology is inspiring to see. I think they laid the groundwork for a lot of future projects in a similar area to share the story, share the legacy of all the elders before.” Audience Feedback, AISES*

## **Media Contact**

### **Dr. Sanjay Pyare**

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# 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.*

| <b>Guided Drone Project Rubric</b>          |   |  |   |
|---|---|--|---|
|   | <i>Drone Flights</i>  | <i>Editing</i>   | <i>Writing and Reflections</i>  |
| <i>Step it up!<br/>(60-69%)</i>             | 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"  |
| <i>You're getting there...<br/>(70-79%)</i> | 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  |
| <i>Good work.<br/>(80-89%)</i>              | 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  |
| <i>Wow, amazing!<br/>(&gt;90%)</i>          | 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.



**Kolea Institute: exploring remote sensing applications in cultural landscape studies**  
(ENVS 193 Special Topics 3-cr)  
Syllabus

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Instructors: Sanjay Pyare  
E-mail: [spyare@alaska.edu](mailto:spyare@alaska.edu)  
Phone: 796-6007  
Office: Whitehead 223  
Office hours: TWR 1-3p/MW 1:45-3:15.  
Class location: By distance (Angoon) & in person (Hawaii Island)

**Course Objectives & Overview:**

This course integrates geotechnologies, cultural mapping, and environmental science as a participant in the Kōlea Institute, an earth-science educational & research institute to better understand environmental hazards and increase coastal resilience for underserved coastal communities across the Pacific (Alaska and Hawai'i). High school students will collaborate with undergraduate mentors and professors from the Universities of Alaska & Hawaii and interact with community participants in this Institute learning environment. Students will engage in field-based learning, applying analytical skills to cultural-environmental challenges, while developing their ability to document and communicate findings through writing and storytelling. A key focus will be on remote sensing technologies and analysis – from 3D modeling to GIS map making and drone remote sensing-- to enhance storytelling and research documentation, culminating in cultural project opportunities and a teach-back session for a geocultural mapping drone course in Angoon. Students will also integrate photographic documentation, case study research, and writing skills to create digital and physical representations of their work. By utilizing these modern navigation, imaging and geospatial mapping tools with interdisciplinary research methods, students will gain critical skills in STEM concepts of data analysis, environmental fields, and geospatial science, and extend learning to interdisciplinary concepts about culture, such as ethnomathematics, geocultural science, archaeology, environmental history and cultural landscape studies. The course will culminate in an opportunity to present at upcoming AISES (American Indian Science & Engineering Society) conferences in Juneau and Minnesota.

This tech-based curriculum not only strengthens students' understanding of STEM principles but also prepares them for future opportunities in STEM fields such as environmental science, geography, engineering, and data science. This course fosters mentorship, research, and career support, ensuring that district students have greater access to STEM careers, higher education, and industry connections. This program is a stepping stone to future innovation and success in STEM disciplines.

## General competencies and Student Learning Outcomes

Upon successful completion of the course, students will achieve the following:

- Develop proficiency in geospatial technologies (drone mapping, image analysis).
- Gain experience in community-engaged research with Indigenous knowledge systems.
- Apply critical thinking to analyze changing environments and cultural landscapes.
- Enhance communication skills through mentorship, team based work, storytelling, and presentations.
- Build a portfolio of research and mapping work applicable to future studies and careers.

## Course Outline, Organization & Schedule

The course is organized into pre-trip meetings, the field institute and post trip research and presentations sessions translating to ~40hrs.

| <i>Session</i>                                | <i>Description</i>  | <i>Timing &amp; Location</i>  |
|---|---|---|
| Pre-Meeting & Preparation                     | Orientation, project overview, field study prep, familiarization with remote sensing software   | Feb 28, March 3 (3:00-4:30)<br>Angoon + Juneau via distance                           |
| Skills Development                            | Hands-on fieldwork in Hawai'i: immersive training in drone mapping, ag-forestry experiences and analysis of cultural-landscape features   | March 10 – 15 (9:30-3:30)<br>Field Study in Hawai'i                                   |
| Community Engagement                          | Participating in knowledge exchange with local Hawaiian communities and post-secondary institutions and undergraduate mentors   | Hawaii Community College,<br>Palamanui (Kona) and<br>Manono (Hilo) Campus,<br>Hawai'i |
| Leadership & Mentorship                       | Pairing with undergraduates for development of case study plans and mentoring peers upon return to Angoon   |   |
| Research & Storymapping                       | Contributing to the work on documenting local cultural features, documenting findings through writing, map renderings, and photo documentation  |   |
| Post-Trip Integration, Reflection & Teachback | Post-Trip Meeting: Reflection, synthesis, and classroom-presentation planning &<br>Translating field experiences to classroom applications, teaching back to the drone course at school | April 2, April 10 (3:00-5:00)<br>Angoon + Juneau via distance<br><br>~3 hrs           |
| Independent Research                          | Writing, data analysis, and finalizing project deliverables &<br>Developing an individual or group academic poster for AISES or a group presentation proposal                           | April 11-29   |
| Final Project & AISES Presentation Prep       | Submission of case study plan, evidence of teach back, remote sensing products, and AISES prep  | April 30<br>Final Project Due   |

### **Assignments:**

- Contributions to research case study in geocultural mapping
- Remote sensing products, field data, and written reflection for future Storymap integration
- Photo/AV documentation of field experiences and project work
- Written or audio reflection capturing personal insights, connections between field experiences and Indigenous knowledge systems, and applications to future studies and careers
- Academic poster or presentation for AISES Regional/National Conference (group or individual proposal)

### **Grading**

- |   |     |
|---|-----|
| • Component 1: Skills Development                     | 20% |
| • Component 2: Community Engagement                   | 20% |
| • Component 3: Leadership & Mentorship                | 20% |
| • Component 4: Research & Storymapping                | 20% |
| • Participation, Professionalism, & Performance (PPP) | 20% |

A grade letter will be assigned as follows.

|           |   |
|-----------|---|
| 90 – 100% | A |
| 80 - 89   | B |
| 70 - 79   | C |
| 60 - 69   | D |
| 0 - 59    | F |

Plusses and minuses may be given at the discretion of the instructor.

### **Required Materials**

- Laptop or tablet for GIS work
- Field notebook for documentation
- Access to GIS/remote sensing software (provided)
- Camera or phone for photo documentation



Angoon Developing Plan/Schedule Kolea Institute 2026 **Updated 02/09/2026**

|    | Sun   | Mon  | Tue  | Wed   | Thur  | Fri  | Sat   |
|----|---|--|--|---|---|--|---|
| 1  |   |  |  |   |   |  | 7<br>To Kona<br>Airbnb lodging →  |
| 8  | Kona-Palananui<br>Orientation Day<br>Ethnobotanical Geography<br>Honnanau: Ali'i trail mapping/DGPS | 9<br>Palamanui<br>Campus<br>Gathering Day<br>GeoCultural<br>Science/Tech<br>Kohanaiki<br>gathering | 10<br>Work Day<br>AK students<br>GeoCultural<br>Field Training<br>GeoCultural<br>Tech Training | 11<br>Hilo-Manono<br>Stop over @<br>Pu'u<br>Huluhulu/Kaulaa<br>Manu Kipuka<br>Student Led<br>LiDAR/3D<br>Modeling | 12<br>Kaakepa<br>surveys w/<br>Pohaku<br>Pelemaka TBD | 13<br>Lokowaka Pond:<br>AinaHoola<br>service project<br>Bayfront BBQ | 14<br>Angoon Students<br>Depart Hilo<br>Flight to SEA via HNL<br>Arrive |
| 15 | Airbnb lodging  | 16   | 17   | 18<br>Hotel Check-in  | 19<br>Hotel Stay                                      | 20<br>Hotel Stay   | 21<br>Hotel Check-out   |
| 22 | Arrive: SEA / Depart to JNU<br>Seaplanes Angoon TBD   | 23   | 24   | 25  | 26  | 27   | 28  |
| 29 |   | 30   | 31   |   |   |  |   |