

Request for Proposals: Attending Uncrewed Aircraft Systems (UAS) Applications and Operations in Environmental Science Courses

Uncrewed Aircraft Systems (UAS or drones) are rapidly growing components of research, assessment and monitoring of coastal regions within the US Southeast. <u>Southeast Coastal Ocean</u> <u>Observing Regional Association</u> (SECOORA) is seeking applications to sponsor up to six candidates from the US Southeast region (NC, SC, GA, FL) to attend three UAS executive education courses offered by the Nicholas School of the Environment at Duke University.

Each online course is six weeks in duration, and includes asynchronous video lectures, weekly 1.5-hour virtual synchronous sessions, projects and assessments, and inclusion into a growing online community of UAS researchers. After successful completion of all three courses, applicants will receive a certificate of completion and learners will be able to:

- Explain basic aeronautics, flight physics, and describe how and why drones fly.
- Describe the foundations of revolutionary drone technology and how it's being applied in environmental science and management.
- Identify how drones can be applied in novel research or management applications, including their own.
- Describe the basics of drone flight operations, become legally certified to apply for the Part 107 license from the FAA, and fly effectively for scientific research and/or resource management.
- Identify the legal and ethical challenges of using drones in environmental science.
- Analyze drone data to test scientific hypotheses and communicate research results.
- Use modern analytical software to assess habitat changes, count animal populations, study animal health and behavior, and assess ecological relationships.

Course One: Introduction to Course Two: UAS operations for **Course Three: Quantitative** UAS in Biology, Ecology, and **Environmental Scientists** analysis of UAS data Conservation Learn the basics of drone flight Gain hands-on experience with Discover the foundations of operations, how to become legally drone data and modern analytical revolutionary drone technology certified, and how to fly effectively software needed to assess and how it's being applied in for scientific research and habitat changes, count animal environmental science and management purposes. populations, study animal health management. and behavior, and assess ecosystem relationships. Dates: October 9-Nov 17, 2023 Dates: Jan 8-Feb 16, 2024 Dates: March 11-April 26, 2024 Goal: Identify how drones can Goal: Become a scientist pilot! be applied in research and Goal: Use drone data to test management, including your scientific hypotheses and communicate results. own.

About the Three Courses

Request for Proposals

Proposals must follow the required format. Proposals that do not follow the required format will not be evaluated. Maximum page length is three pages (not including appendices). Text should be 12-point font, all margins one-inch, and must include the following components:

- Proposal title
- Applicant's name and complete contact information
- Statement of interest describing how the knowledge gained from the courses will be applied.
- Brief description of how the courses will advance the individual's learning objectives and their organization's mission in the US Southeast region.
- Statement of qualifications of applicant (i.e. summaries of past drone work or research, familiarity with GIS software such as ESRI, Google Earth, qGIS). If the applicant does not have past drone work, then describe how they plan to use drones for future academic or career endeavors.
- The following appendices do NOT count towards the three-page limit but they are required elements of the proposal:
 - Literature cited (if needed)
 - A curriculum vitae (CV) or resume (2 pages).
 - A signed letter of support from the applicant's supervisor indicating how drones are (or will be) used to accomplish the organization's mission, the role of the applicant in that work, and a statement identifying the applicant (if an employee) will be able to participate in the courses.

Submission

Please submit the entire application package electronically in PDF format through egrants.secoora.org. **Submissions are due at 5:00 PM ET on June 30, 2023**. You must complete the registration process in order to upload a proposal to <u>egrants.secoora.org</u>. This is a two-part verification system (phone and email confirmations are required). Once you have registered, please select the Request for Proposal to which you are applying, complete the required fields, and upload your proposal as one complete PDF package that includes the proposal, literature cited, CV, and letter of support from the supervisor.

Eligibility

The opportunity is open to:

- Graduate and undergraduate students who attend an academic institution in North Carolina, South Carolina, Georgia, or Florida.
- Employees of any academic, nonprofit, or public institution in North Carolina, South Carolina, Georgia, or Florida.

SECOORA cannot sponsor private sector participants or federal employees. Applicants must be able to meet the <u>course expectations and requirements</u>.

SECOORA is committed to building inclusive research, extension, communication, education, and outreach programs that serve people with unique backgrounds, circumstances, needs, perspectives, and ways of thinking. SECORA encourages applicants from all backgrounds to apply for this competitive opportunity.

Evaluation Criteria

All proposals will be evaluated based on the following criteria:

- Statement of interest and need 30%
- Anticipated outcomes of training to enhance individual, organizational, and regional UAS capacity and commitment to capacity building based on proposal and letter of support- 35%
- Qualifications of applicant 20%
- Compliance with proposal guidelines 10%
- Applicant works at an academic, nonprofit, or public institution in North Carolina, South Carolina, Georgia, or Florida 5%

Award Funding

The successful applicants will be notified no later than August 11, 2023. Course fees will be paid directly to Nicholas School of the Environment at Duke University by SECOORA. If selected to receive this award, you are committing to completing the three courses.

This is an open and competitive process. SECOORA will strive for some equal geographic distribution of awardees across the US Southeast. SECOORA reserves the right to reject any and all applications/proposals received as a result of this process.