

## **EMERGE Alaska Graduate Student Mentoring Plan**

The goal of this mentoring plan is to support the academic and professional growth, development and success of the NSF EPSCoR Graduate Research Fellows in the EMERGE Alaska Program at the University of Alaska Fairbanks (UAF), College of Fisheries and Ocean Sciences (CFOS). It is expected that Fellows and participating faculty read and follow the mentoring plan during the entire course of the Fellows' tenure at CFOS.

### **Orientation**

The graduate school provides an orientation for all new UAF students and a seminar series that addresses academic, professional, and personal skills for success at UAF and life in Fairbanks. CFOS has a similar orientation in Fairbanks and Juneau for graduate students, which Fellows will be required to attend. Each orientation allows the students to meet and interact with campus/CFOS leadership and meet their student cohort. Fellows are familiarized with the student handbook, course criteria, expected timelines, and requirements for graduation. During the first month of starting the program, Fellows will also meet with their primary advisor(s) to create an Individual Development Plan (IDP). This IDP will outline research, professional and broader impact goals, as well as mentor-mentee expectations, meeting schedules, data collection and dissemination, planned publications, and a detail of operations such as fieldwork protocols. The IDP will be reviewed every 12 months to evaluate the success of the mentoring plan. Fellows will also be encouraged to participate in CFOS and EPSCoR internal graduate student mentoring programs.

**Research.** During the IDP development, supervising faculty will outline which components of the research project the Fellows will take ownership over. Training in preparation of additional grant proposals will be gained by direct involvement in proposals prepared by supervising faculty. Fellows will learn best practices, including identification of key research questions, definition of objectives, description of approach and rationale, and construction of a work plan, timeline, and budget. Fellows will also be encouraged to take proposal and scientific writing classes offered through CFOS.

**Publications and Presentations** are expected to result from the work supported by the fellowship. These will be prepared under the direction of the supervising faculty. Fellows will receive guidance and training in the preparation of manuscripts for scientific journals and conference presentations. Fellows will have the opportunity to apply for travel grants to professional meetings. Fellows will also be encouraged to present their work at local seminars and participate in the graduate school's Three Minute Thesis ® competition.

**Instruction in Responsible Professional Practices** will be provided on a regular basis by supervising faculty and will include fundamentals of the scientific method, laboratory safety, and other standards of professional practice. The Office of Research Integrity provides training on the responsible conduct of research, which EMERGE Fellows will be required to take. The graduate school offers training in environmental health and safety. In addition, Fellows will be encouraged to affiliate with one or more professional societies in their chosen field.

**Teaching.** If the Fellows are interested in developing and practicing teaching skills, UAF hosts a Faculty Accelerator office that provides teaching training opportunities such as designing online courses, teaching first-generation students, trauma-informed pedagogy, and syllabus construction. A limited number of TAs are also available in CFOS to potentially cover additional years of funding. Teacher and mentor

training is available through the UAF Center for Teaching and Learning. Fellows are also eligible to mentor undergraduate students through the UAF Undergraduate Research and Scholarly Activity program.

**Professional skills.** Participating faculty will mentor the Fellows through professional development skills by leveraging UAF, statewide, and national resources. These include UAF-sponsored, Alaska EPSCoR-sponsored, and externally-funded workshops. Other skills to be addressed include field safety, budget management, negotiating, LinkedIn and website design, and translating a CV to a resume for non-academic jobs. Advisors will help establish relevant connections with their collaborators spanning academia, state and federal agencies, NGOs, and private industry to enable the Fellows to explore a variety of career opportunities. Fellows and advisors are encouraged to include professional development and career counseling on the fellows' IDP. The UAF Career Services Department also offers graduate students individual career counseling and workshops on career development.

**Success of the Mentoring Plan** will be assessed by tracking the Fellows' progress toward their academic, research and career goals. All UAF students are minimally required to have annual meetings with their graduate advisory committee, where the committee and student review their academic progress and path to degree completion. The student and committee file a report of each meeting, and this is reviewed by the department chair, dean, and graduate school.