

**FORMAT 1**

Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500).  
See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> for a complete description of the rules governing curriculum & course changes.

***TRIAL COURSE OR NEW COURSE PROPOSAL***

**8. COURSE FORMAT:**

NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks

**RESTRICTIONS ON ENROLLMENT (if any)**

**14. PREREQUISITES**

Instructor permission (students must contact a potential mentor before enrolling to determine whether experience is sufficient and matching opportunities exist).

These will be *required* before the student is allowed to enroll in the course.

**15. SPECIAL RESTRICTIONS, CONDITIONS**

none

**16. PROPOSED COURSE FEES**

\$0

Has a memo been submitted through your dean to the Provost for fee approval?

**17. PREVIOUS HISTORY**

***JUSTIFICATION FOR ACTION REQUESTED***

The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

Providing opportunities for undergraduate research is a high-impact educational practice. In the current economic climate and in the face of rising tuition costs, such high-impact practices are essential for successful recruiting and for student retention. It was through recognition of this that the UAF Chancellor and Provost created URSA. The mission of URSA is to support, develop, and institutionalize a broad-based, robust program of undergraduate research and creative scholarship. The Museum Research Apprenticeship program (MRAP) encompasses one potential rib of this umbrella

See signatures on next page.



## PRELIMINARY SYLLABUS

**MRAP 488 Museum Research Apprenticeship II**  
1 or 2 credits (3 or 6 hrs/week, Pass/Fail)

**Fall 2012**

**Prerequisites:** Permission of instructor (see areas of current opportunities below). Apprenticeship opportunities may include preference for prior experience. Students must contact one or more of the faculty members listed below and apply for consideration to be included; opportunities and space are both limited. Areas presently offering opportunities and contact information to request instructor permission:

**Birds** (Kevin Winker, [kevin.winker@alaska.edu](mailto:kevin.winker@alaska.edu))  
**Mammals** (Link Olson, [leolson@alaska.edu](mailto:leolson@alaska.edu))  
**Plants** (Stefanie Ickert-Bond, [smickertbond@alaska.edu](mailto:smickertbond@alaska.edu))  
**Insects** (Derek Sikes, [dssikes@alaska.edu](mailto:dssikes@alaska.edu))  
**Earth Science** (Patrick Druckenmiller, [psdruckenmiller@alaska.edu](mailto:psdruckenmiller@alaska.edu))  
**Fishes** (Andres Lopez, [jalopez2@alaska.edu](mailto:jalopez2@alaska.edu))  
**Archaeology** (Jeff Rasic, [Jeff\\_Rasic@nps.gov](mailto:Jeff_Rasic@nps.gov))  
**Ethnology/History** (Angela Linn, [ajlinn@alaska.edu](mailto:ajlinn@alaska.edu))  
**Fine Art** (Mareca Guthrie, [mrguthrie@alaska.edu](mailto:mrguthrie@alaska.edu))

**Location:** University of Alaska Museum of the North, specific rooms to be determined.

**Meeting times:** Flexible, depending on apprenticeship opportunities.

**Instructors:** Co-taught by UAM faculty curators, who may include Kevin Winker ([kevin.winker@alaska.edu](mailto:kevin.winker@alaska.edu)), Link Olson ([leolson@alaska.edu](mailto:leolson@alaska.edu)), Stefanie Ickert-Bond ([smickertbond@alaska.edu](mailto:smickertbond@alaska.edu)), Derek Sikes ([dssikes@alaska.edu](mailto:dssikes@alaska.edu)), Patrick Druckenmiller ([psdruckenmiller@alaska.edu](mailto:psdruckenmiller@alaska.edu)), Andres Lopez ([jalopez2@alaska.edu](mailto:jalopez2@alaska.edu)), and/or Mareca Guthrie ([mrguthrie@alaska.edu](mailto:mrguthrie@alaska.edu)).

**Readings/materials:** None required overall, but some apprenticeship opportunities will require lab safety training and/or opportunity-specific readings (e.g., preparation or protocol literature). Read and sign appropriate safety and museum security documents, which will be provided to the student.

**Course description:** This is a once- or twice-weekly laboratory/collections-based course for undergraduate students eager to build upon their training and experience in museum science. While the same activities are open to less experienced students in MRAP 288, there is a progression in the depth and complexity of those activities that only advanced students are allowed to pursue. This upper-division course reflects the opportunity to pursue more challenging depths, new themes, and new experiences in an array of research activities. It also offers the opportunity to mentor less-experienced students, prepare short lectures, and/or lesson preparations. The University of Alaska Museum of the North is the State's *de facto* repository of natural history specimens and cultural objects, and we house multiple world-class research collections. Processing incoming specimens or objects and their associated data is a critical ongoing set of highly specialized tasks. Some of these tasks, for example, turn organisms into scientific specimens that are useful for a broad array of questions in areas as diverse as evolution, ecology, genetics, conservation, and the changing environment. Others process objects of historic or contemporary culture or art for preservation and study of myriad questions about humans, past and present. Careful documentation and preservation are key parts of these processes, and this course involves more in-depth hands-on training and working

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experience with specimens and objects and their associated data. For example, some students will prepare museum-quality skins, skeletons, and sometimes fluid specimens, or dry mounts following standard procedures. During some of these preparations, students will perform a dissection/necropsy and record observational data in a catalog. They will take measurements, tissue samples, and other parts to preserve as specimens. Students will be encouraged to explore questions about species' morphology, distributional patterns, diets, parasite loads, molting patterns, and other potential research questions. Other students will learn preventive conservation methods to prepare cultural objects for curation. Students will analyze objects and record data such as measurements, materials, function, typology, and design elements. Students will have the opportunity to research questions about human culture such as prehistoric trade and technology, human environmental interaction, and cultural meanings as reflected in art and artifact. Students will also participate in discovery science and in practical aspects of research resource infrastructure.

A various array of apprenticeship opportunities will be available each semester. Students may repeat the course to improve their knowledge, skills, and mentoring ability and to gain new experiences, and students with these skills and abilities are preferred when advanced opportunities such as paid positions and field work arise. Students will gain increased understanding of a critical aspect of museum science (e.g., preparing skins or skeletons, fluid-preserved specimens, botanical specimens, tissue samples, studying or documenting and cataloguing archaeological, ethnological, and art objects, etc.). They will also advance their understanding of the importance of accurately recording detailed data associated with museum specimens and objects. Such detailed focus on organisms and objects serves as an important complement to the social and natural sciences, or to art, at multiple levels.

Catalogue description: MRAP 488 (1 or 2 credits, Pass/Fail). Museum Research Apprentice II. Provides opportunities for advanced undergraduate student research or scholarship in museum-based subjects not available in typical undergraduate courses, building upon prior experience. Students are required to perform advanced research tasks associated with specimens, objects, and associated data and to turn in a final report. Opportunities range across several museum-based disciplines (archaeology, botany, earth science, entomology, ethnology & history, film, fine art, ichthyology, mammalogy, informal science education, and ornithology). This course may be repeated (up to 12 credits).

**Course goals:** Students will deepen their proficiencies in aspects of museum science associated with specimens, objects, and data.

**Student Learning Outcomes:** Students will deepen their learning, through direct research experience, about how discipline-specific specimens, samples, and objects are processed and preserved and how associated knowledge is created, archived, and disseminated. Associated activities may include, but are not limited to: specimen preparation, subsampling, comparative age- and sex-related anatomy, species identification, georeferencing, databasing, labeling/barcoding, DNA/tissue archiving, automontage specimen photography, preventive conservation, and other procedures. The tools, skills, and techniques associated with these activities, which are unique to each discipline, will become familiar and associated knowledge will be deepened, as will the critical thinking skills necessary to effectively and safely use them. Writing skills will also be improved through recording data, weekly note-taking, and a final report.

**Instructional methods:** Will vary somewhat with instructor and discipline but will be mostly one-on-one or small group laboratory and/or collections practicum. Brief lectures may also be given in some disciplines.

**Grading:** This course is Pass/Fail. Grading will be based on attendance, laboratory and/or collection-based activities, keeping up a notebook (90% for these), and a final report (10%). The final report shall be no longer than 3 pages and will provide a retrospective of the laboratory and/or collection-based activities performed and include an assessment of concepts or skills covered and possible future directions.

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**Course policies:** Students must attend each week for the full hours committed (1 credit = 3 hr/week; 2 credits = 6 hr/week). Missed time must be made up. Coordinate with your instructor. Safety training will be required if you are working in a laboratory. *Safety tips:* safety coordinators will review safety issues, and you will hopefully have some safety knowledge from previous courses. We suggest that any work be carried out with appropriate caution. Wear safety gear as required. Do not rush. Do not attempt a procedure without the necessary training. Familiarize yourself with the potential hazards of materials you are using. Use common sense. This is a learning experience, so do not be shy about asking for assistance. **BE SURE THAT YOUR WORKSPACE IS CLEAN UPON LEAVING.** Per academic policy, plagiarism and cheating are serious offenses and may result in failure. The purpose of participation in this course is to acquire useful skills through learning. To submit another person's work as your own is to lose the opportunity to learn these skills. Honesty is a primary responsibility of you and every other UAF student. *Withdrawal:* Students are expected to formally withdraw from the course if they cannot complete it; they will not be automatically withdrawn by the instructor or their research mentor if they do not attend or fall behind. Students who do not successfully complete the class and do not withdraw will receive a grade of "F".

**Course calendar:** This is an outline; discipline-specific activities may vary.

Course week	Course Topic	Course Assignment
1	Introduction to disciplines and activities; lab safety (if needed); initiate individual research, lesson planning/lecture notes.	
2	Individual research	Begin weekly lab notebook
3	Individual research	Notebook Entries
4	Individual research; discuss progress with supervisor, review notebook, and/or lesson prep.	Notebook Entries
5	Individual research	Notebook Entries
6	Individual research	Notebook Entries
7	Individual research; discuss progress with supervisor, review notebook and/or lesson prep.	Notebook Entries
8	Individual research	Notebook Entries
9	Individual research	Notebook Entries
10	Individual research; discuss progress with supervisor, review notebook, mid-term progress.	Notebook Entries
11	Individual research	Notebook Entries
12	Individual research	Notebook Entries
13	Individual research; discuss progress with supervisor, review project report requirements.	Notebook Entries
14	Individual research	Notebook Entries
15	Complete semester's project	Complete lab notebook
Finals week		Project Report

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**UAF policies:** As a UAF student, you are subject to the Student Code of Conduct (<http://www.uaf.edu/ses/student-resources/conduct/#condu>). In accordance with Board of Regents' Policy 09.02.01, UAF will maintain an academic environment in which the freedom to teach, conduct research, learn, and administer the university is protected. Students will enjoy maximum benefit from this environment by accepting responsibilities commensurate with their role in the academic community. The principles of the Code are designed to facilitate communication, foster academic integrity, and defend freedoms of inquiry, discussion, and expression among members of the university community. You should become familiar with campus policies and regulations as published in the student handbook.

UAF requires students to conduct themselves honestly and responsibly, and to respect the rights of others.

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Alleged violations of the Code of Conduct will be reviewed in accordance with procedures specified in regent's policy, university regulations and UAF rules and procedures. For additional information and details about the Student Code of Conduct, contact the Dean of Student Services or web [www.alaska.edu/bor/](http://www.alaska.edu/bor/) or refer to the student handbook that is printed in the back of the class schedule for each semester. Students are encouraged to review the entire code.

**A Few Words on Plagiarism:** In general, DO NOT present someone else's ideas or data as your own: you are expected and required to give credit where credit is due. Plagiarism is a violation of the law and may lead to serious repercussions! Please follow the following guidelines: for any written assignments, if you use someone else's ideas, data, or other information, write it in your own words and include the reference in parentheses directly following that information. Avoid copying someone else's text. If, however, you feel you have to include an exact copy of that text, put it in quotation marks followed by the reference in parentheses. Of course, include all cited references in the Literature Cited section. During oral presentations, please acknowledge the sources by mentioning their name(s) and year of publication or by printing them on overheads, slides, or handouts. Also be aware that you need to cite earlier work by yourself. Any substantial use of any written or other materials that was used for another course or that was generated in any other circumstances will not be accepted for credit in this course. Only minor contributions from earlier work with appropriate citation(s) will be accepted.

**Evaluation:** This course is Pass/Fail. Students will be evaluated on the research tasks performed (90%) and on their final report (10%).

**Disabilities Services:** The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. We will work with the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655) to provide reasonable accommodation to students with disabilities.