

University of Wisconsin-Madison
Zoology 405:
Introduction to Museum Studies in the Natural Sciences
2-3 credits
<https://canvas.wisc.edu/courses/65355>

Instructor: Laura Monahan

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Office hours: 12:00-1:00 Wednesdays or by appointment. Please email Laura to set up a time.

Course Designations & Attributes

Level: Intermediate

Counts as Liberal Arts and Science credit in L&S.

Requisites:

Open to Junior, Senior, or graduate standing only

Enroll Info:

Open to Jr, Sr, Grads, Adv special students

Meeting Time and Location: Classes will meet in Noland Hall, Room 443, Wednesdays 1:20-3:50. We will take a number of “field trips” to other collections. Be sure to check the Date & Site column on the syllabus for specific information on the place of each class meeting. It is important for you to attend all weeks; there is no way to make-up the exercises completed during class. Readings, assignments, and supplementary materials can be found on our Canvas course web-page

Instructional Mode:

All face-to-face

Credit Hours: The credit standard for this course is met by an expectation of a total of 90 hours of student engagement with the courses learning activities (at least 45 hours per credit), which include regularly scheduled instructor:student meeting times on Wednesdays 1:20-3:50, reading, writing, problem sets, labs, field trips, and other student work as described in the syllabus.

Please note that this 2-credit course meets for 2.5 hours each week, to allow time for travel for field trips and clean-up after laboratory exercises.

Course Description: Provides an overview of natural history museums, including history, field collecting, specimen preparation, collection preservation, ethics, education, and employment opportunities. At the same time, it introduces students to the natural science museums and library collections located on the UW campus.

Learning Outcomes:

- identify and summarize the important role that museums play in formal and informal education.
- describe the use of museum specimens (some very old) in modern research and potential future scientific research.

- demonstrate knowledge about the current state of museums by writing a research paper and presenting research.
- prepare and present effective, informative and persuasive arguments in written and oral formats.
- integrate knowledge gained during this course to real world applications.

Readings: You are not required to purchase a book or reader for this class. Instead, you will be able to read on-line or print the weekly readings from the course's Learn@UW site. All readings should be completed by the Wednesday under which they are listed. Readings will be added no later than two weeks prior to the week they are to be completed. It is your responsibility to check the site periodically to ensure that you have the most up-to-date materials. All of the links are current and accessible as of the beginning of the semester; please tell Ms. Monahan if you cannot access readings. The readings have been selected from a number of different sources and have been provided to you through your password-protected access to Learn@UW. Per copyright laws, you do not have permission to duplicate and distribute the readings.

All readings are traceable to the source from which they came, so that you are able to find them if need be. **Assignments – Written Homework:** You are responsible for completing four (4) homework assignments. All assignments are to be given to Ms. Monahan by 1:20 pm on the due date. You should upload them at Learn@UW. Be sure to put your name on all assignments. Please proof-read your work before submitting it. **Punctuation, spelling and grammar will be taken into account when grading papers!** The UW Writing Center (<http://writing.wisc.edu/>) has excellent facilities to help you improve your writing skills. All homework assignments must be double-spaced and a maximum of two pages. Be sure to use the full two pages and attach a works cited at the end of each assignment.

Assignments – Discussions: Although you must always come to class prepared and ready to contribute, you will be graded based upon your participation in three (3) in-class discussions held during the weeks of November 1st, November 22nd and November 29th. Due to the Thanksgiving holiday, Laura will offer alternative times for the November 22nd class to try to accommodate those who will be traveling on Wednesday. Details will be discussed in class. For all discussions, you should be an active audience member.

Course Requirements (For everyone, the first two credits are graded as follows):

- Attendance, engagement, and participation - 5%
- Assignment 1 (Due September 20th) – 5%
- Assignment 2 (Due October 4th) – 5%
- Assignment 3 (Due October 18th) – 5%
- **Midterm Exam (October 25th) - 15%**
- Discussion 1 (In-class November 1st) – 5%
- Assignment 4 (Due November 8th) – 5%
- Discussion 2 (In-class/On-line November 22nd) – 5%
- Discussion 3 (In-class November 29th) – 5%
- Updates for project/paper/presentation (Sept. 6th, Sept. 13th, Sept. 27th, Oct. 11th, Nov. 15th) - 5%
- Final Project Paper (December 13th) - 15%
- Final Project Presentation (December 13th) - 10%
- **Final Exam (Monday, December 18th - 7:25-9:25PM in Noland 443) – 15%**

**** 3 Credit Option:** Students who opt to take the course for three credits must intern at one of the following institutions: UW Geology Museum, UW Zoological Museum, Wisconsin State Herbarium, or Wisconsin Insect Research Collection for 3 regularly scheduled hours per week (for a total of 45 hours) to gain hands-on practice in one or more of the areas discussed during class. The decision to participate in an

internship project must be made by the end of the first week of classes. **If you are not committed to participating in this portion of the course, please drop the third credit!** Ms. Monahan will coordinate all internships, although you will have the opportunity to rank your preferences for internship opportunities. **Grading:** If you are participating in the internship project, the additional 1-credit grade will be based upon your participation and effort, as assessed by your internship supervisor (50%); the Final Project Paper (30%); and the Final Project Presentation (20%).

Grading: Incompletes will *not* be given. If you feel that you need additional accommodations to complete the assigned tasks, please contact Ms. Monahan. Your final grade will be based on how well you complete the course requirements. Tentative grading scale (based on final percentage):

92-100 A 88-91 AB 82-87 B 78-81 BC 70-77 C 60-69 D <60 F

Final Project Papers and Final Project Presentations: All students must organize and complete a final project paper and final project presentation. For all students, project ideas must be approved by Ms. Monahan by September 27th. A **brief**, written progress report must be submitted on October 11th. An outline and bibliography with at least five (5) sources listed is required on November 15th. Students will be submitting their papers and presenting their projects on December 13th. If you are not interning, your final paper should be approximately 5 pages. Please note that participating in an internship (3 credits) requires a more significant paper (in substance and length). Internship supervisors are encouraged to attend.

Exams: There will be two exams; one during week eight, which will include material presented during weeks **one through seven**, and one during finals week, which will focus on the second half of the course, but will be **comprehensive** in nature. Please proof-read your exams before submitting them; in grading, punctuation, spelling and grammar will be noted.

Academic Integrity: By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison's community of scholars in which everyone's academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to studentconduct.wiscweb.wisc.edu/academic-integrity/.

Accommodations for Students with Disabilities: McBurney Disability Resource Center syllabus statement: "The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA."

<http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php>

Diversity and Inclusion: Institutional statement on diversity: “Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.” <https://diversity.wisc.edu/>

Date & Site	Due	Topic	Lab/Activity
September 6 443 Noland	<i>Internship options due Friday, September 8th</i>	Week 1: Introduction - Museum Studies - Introduction to course - Diversity (types) of museums - public, university, private - Personnel descriptions - UWZM tour	Introduction to course & course mechanics; Introduction to museums & tour (MONAHAN)
September 13 443 Noland (going to the UW –Madison Arboretum)	<i>Internship contract due Friday, September 15th</i>	Week 2: Field Work - Techniques and Uses of Living Collections - Introduction to the UW Arboretum, its collections and types of research conducted there - Permits and data collection protocols - Combining land care with research and use - Explore Longenecker Gardens (classic arboretum), the Native Plant Garden (examples of southern WI native plant communities) and Curtis Prairie	Tour the UW Arboretum and discuss living collections (HERRICK & HANSON)
September 20 Foyer of Birge Hall, outside room 160	<i>Assignment 1 Due</i>	Week 3: Preparation of Natural History Specimens-Plants - Methods of plant field collection and preparation for the herbarium - Preservation of vascular and non-vascular plants - Tour the Wisconsin State Herbarium	Tour the Wisconsin State Herbarium (CAMERON, WETTER & FEIST)
September 27 443 Noland (going to Lake Wingra)	<i>Project: Topic approval</i>	Week 4: Field Work - Collection of Fishes - Methods of catching fishes for study - Examine fish and discuss types of fishes in Wisconsin - Discussion of initial preparation for fluid preservation	Collect fishes in the field (LYONS)
October 4 443 Noland	<i>Assignment 2 Due</i>	Week 5: Preparation of Natural History Specimens-Fluids and Tissues - Fluid preservation: labeling, fixation and storage - Tissue preparation methods and preservation	Demonstration of fluid specimen preparation (MAYER)

October 11 Lobby of Russell Labs <i>*Try to be there by 1:00</i>	<i>Project: Written progress report</i>	Week 6: Preparation of Natural History Specimens- Insect Preservation - Methods of insect field collection - Preparation and preservation of insects: fluid fixation and insect pinning - NOTE: Please read all chapters paying particular attention to chapters 7-12 (see Learn@UW)	Demonstration of insect pinning and tour the UW Insect Research Collection (YOUNG & BRABANT)
October 18 443 Noland	<i>Assignment 3 Due</i>	Week 7: Preparation of Natural History Specimens- Mammals and Birds - Preparation of mammals and birds: skins and skeletons - Rough preparation techniques	Demonstration of vertebrate preparation (HOLAHAN)
Date & Site	Due	Topic	Lab/Activity
October 25 443 Noland	<i>Mid-term Exam</i>	Week 8: Mid-term Exam - Through week 7	Exam in 443 Noland (MONAHAN)
November 1 443 Noland	<i>Discussion 1</i>	Week 9: Use of Collections – Research - Uses of museum specimens in modern research - Students to discuss various case studies	Discuss various research techniques (MONAHAN)
November 8 443 Noland (going to the Geology Museum)	<i>Assignment 4 Due</i>	Week 10: Use of Collections – Educational Programming - Education and exhibits - Education and outreach - Teacher Preparation	Tour the geology displays and discuss museum education (NORSTED)
November 15 443 Noland	<i>Project: Outline and bibliography with at least 5 sources</i>	Week 11: Use of Collections - Exhibition Development - Examples of exhibits in small museums - Phases of exhibition development - Build an exhibit prototype	Tour Noland Exhibits (ELLIOT)
November 22 443 Noland	<i>Discussion 2</i>	Week 12: Museum Concerns - Laws and Ethics - “Dinosaur 13”	Video and Discussion (MONAHAN)
November 29 443 Noland	<i>Discussion 3</i>	Week 13: Museum Concerns – Laws and Ethics - Legal and ethical concerns, specific to museums - Students to discuss various case studies	Discuss various legal and ethical concerns (MONAHAN)

December 6 Memorial Library, room 126	<i>Optional review session after class</i>	Week 14: Preservation of Museum Collections- Conservation, Environments & IPM - Preventative conservation vs. remedial conservation - Museum Environments: measurement and mitigation - Integrated Pest Management (IPM)	Tour the GLS Preservation Department (ROLICH & GATHRIGHT)
December 13 443 Noland	<i>Project: Papers and Presentations</i>	Week 15: Presentations & Final Papers Due	Presentations (STUDENTS)
Monday, December 18 443 Noland	<i>Final Exam</i>	Final Exam 7:25-9:25PM	Exam in 443 Noland