

Advanced Scientific Diving Syllabus
MSL 421/623
Spring 2008

Fees: \$300 This covers: limited gear rental, tanks, lodging and food during spring break

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Lecture: Wed 915-1115am 214 ONL

Course Description:

Students in this course will propose a hypothesis that they will experimentally test during a one-week field trip to the Kasitsna Bay Marine Lab. Associated with their hypothesis, they will develop a proposal, dive plan, and materials list. The proposal will be orally defended in front of the class prior to turning in a written 2-3 page proposal. Field work can not occur until a satisfactory written proposal, dive plan, and materials list is complete. After finishing the fieldwork, undergraduates will present their findings in a poster *or* informal (for class) oral presentation while graduate students will present theirs in a poster *and* public seminar. Posters may be turned in one week prior to their due date for feedback.

2-3 Page Written Proposal: This proposal will include 1) a brief introduction, which will introduce the reader to the general topic, 2) a general rationale explaining why the proposed question/hypothesis is scientifically interesting and 3) a detailed methods section. The proposal should cite at least five papers (from peer-reviewed journals) in the introduction and/or methods sections. The proposal should conclude a literature cited section.

Oral Proposals: Oral proposals will be done in Powerpoint. They should be 10 minutes long with 5 minutes for questions. They should introduce the topic (ie what is known about this subject), state the question/hypothesis, clearly explain the methods, and discuss expected outcomes. Students will help evaluate each others proposals.

Posters: These should follow a typical conference poster style (see the many posters in the halls of the ONL building or the Kasitsna Bay Lab for examples). Posters should have a short introduction and methods section. The bulk of the poster should be a results/discussion section. Remember that the best posters have less text and more images (graphs, etc...) but also remember that some text is needed to explain results so do not show many result graphs with no associated text. It is recommended that posters be turned in at least one week prior to their due date for feedback.

Oral presentations: These will be done in Powerpoint. They should follow a typical conference style presentation. They should be 12 minutes with 3 minutes for questions. These should include: a short introduction, state your question/hypothesis, explain your methods, and finish with your results/discussion. Don't forget acknowledgments. There will be a practice session for the graduate students on April 2. Undergraduates should practice their talks prior to this date.

Extra credit for undergraduate students: Undergraduates may receive extra credit for doing both a poster and oral presentation. Extra credit will increase a student's grade by 10%.

Prerequisite:
Scientific Diving (or AAUS certification), basic biology/ecology

Credit/Grading:
2 credits.

Grading will be apportioned as follows:

Oral presentation of proposal:	20%
Written proposal:	30%
Dive plan:	10%
Materials list:	10%
Final presentation/poster:	30%

Absolute scores will be used to determine final grades, which will be on the +/- scale.

B+ = 87-89%	A = 93-100%	A- = 90-92%
C+ = 77-79%	B = 83-86%	B- = 80-82%
D+ = 67-69%	C = 73-76%	C- = 70-72%
	D = 63-68%	D- = 60-62%
	F = 59% and lower	

**SCHEDULE
DATE**

TOPIC

Jan 30	Orientation, paper work, requirements, project ideas
Feb 6	Discuss hypotheses and preliminary experimental design
Feb 13	Discuss hypotheses and preliminary experimental design
Feb 20	Discuss hypotheses and preliminary experimental design
Feb 27	Present Proposals (oral Powerpoint) Each presentation should be 10 minutes with 5 minutes for questions dive plan (timeline) and materials list due
Mar 5	2-3 page written proposal due, pass out materials, check out gear
Mar 8-16	SPRING BREAK: complete projects at Kasitsna Bay Laboratory
April 2	Undergraduates: Presentations or Posters due Graduates: Posters due and Practice Talks
April 23 (3:30)	Graduate Presentations at the IMS seminar (201 ONL)

Required Books: none
Organism keys and field guides will be provided while at the Kasitsna Bay Laboratory.

Scientific Diving Manual:
<http://www.sfos.uaf.edu/dive/manual/contents.html>

Course policies:

Attendance is expected unless there is a good reason for the absence (illness or research-related travel). Students should contact the instructor prior to missing a class if possible.

Plagiarism will not be tolerated in any form. Any paper that contains plagiarized material will receive a grade of zero, and may possibly be grounds for flunking the class. Be sure you understand what constitutes plagiarism. For an explanation of what constitutes plagiarism see: <http://www.uaf.edu/library/instruction/handouts/Plagiarism.html>

Support and Disability Services:

The Office of Disability Services (203 WHIT 474-7043) implements the Americans with Disabilities Act and insures that UAF students have equal access to the campus and course materials. Students with disabilities can be assured that they will be provided with reasonable accommodation.

The class is a field course. Facilities at the lab are disability accessible. However, SCUBA diving excursions are required.