

Fall 2003

NREM 458 Syllabus
Project Evaluation and Resource Management

Class	lecture	Mon 1:30-2:20	Kuykendall 401A
	practicum	Thurs 3:00-4:40	Sherman 111

Instructor	Carol Ferguson, NREM Associate Professor		
Office	Sherman 109 ph: 956-8864 e-mail: cafergus@hawaii.edu		
Office Hours	Mon 2:30-3:15, Thurs 2:00-2:45, or by appointment		

Course Description

In the past, NREM 458 (crosslisted as ECON 458) was a disciplinary economics course covering benefit-cost analysis and monetary valuation of the environment. The course is now being revised to become a multidisciplinary, integrative capstone for seniors in the NREM B.Sc. program. Seniors from related majors plus graduate students in NREM, the Resource Management Certificate program and other environmental fields also may be interested in the course.

The revised course covers applications of selected frameworks, field and analytical methods to assess natural resource projects and environmental conditions. A major activity is a practicum where student teams conduct baseline and detailed assessment studies for a local natural resources project. The course gives special attention to developing student skills in team collaboration, environmental research, oral and written communications.

Course Objectives

1. Develop teamwork and project management skills.
2. Integrate and synthesize students' knowledge from their undergraduate programs.
3. Practice applying research methods and tools that utilize the expertises of individual students.
4. Refine project and scientific communication skills.

Semestral Outline and Readings

Page 3 provides a tentative schedule of class sessions. Guest lectures by NREM faculty are planned for Monday classes. Lecturers will provide students with an assigned reading or handout. These lecture presentations are contingent on sufficient course enrollment. Otherwise, Monday classes will be seminar discussions of general readings assigned by the instructor.

Thursday classes will focus on practicum activities. This year's assessment project is described in a separate handout. For about the first half of the semester, students will be conducting baseline studies from secondary information. This will be followed by more detailed

research about selected issues raised by baseline results. The latter studies may involve primary data collection and/or field work. Initial readings for the practicum are listed in the project description handout (see General Readings section). Other readings will be identified by student teams as part of assessment research.

Assignments and Grading

A variety of assignments will be used to assess student learning. These are listed below, along with the respective points toward final course grades.

Class discussions, oral reports	200	points
Practicum participation, team output	400	
Baseline research written report	100	
Detailed research written report	100	
Final project written report/oral presentation	200	
Total	1,000	points

Separate handouts will be distributed to explain the requirements and grading criteria for different assignments. Due dates are given on the page 3 schedule. Late submissions are acceptable only for extenuating circumstances and with prior approval of the instructor. Without approval, points will be deducted for late work.

Course grades will be based on the total number of points from the above assignments. A tentative schedule on final grading is given below.

Final Grade:	A	850 - 1000	points
	B	700 - 849	
	C	550 - 699	
	D	400 - 549	
	F	0 - 399	

Bibliography

General references on resource assessment are listed in an attached bibliography (see pages 4-6). For many items, print copies are available in Sherman 111 for student use. Borrowing procedures will be explained in class.

CLASS SCHEDULE

Scheduling of lecture topics and practicum activities subject to change. Assignment due dates indicated in bold type.

DATE	MON 1:30-2:20 PM LECTURE Kuykendall 401A	DATE	THURS 3:00-4:40 PM PRACTICUM Sherman Lab 111
AUG 25	Course introduction, project <i>Ferguson</i>	AUG 28	<i>Chan-Halbrendt, Sekioka</i> on project. Teams: discuss problem areas, assign CTAHR readings.
SEP 1	holiday	SEP 4	Teams: reading reports, select study areas.
SEP 8	Resource frameworks <i>Robotham</i>	SEP 11	Select project framework, baseline studies. Teams: identify readings/search topics.
SEP 15	Field reconnaissance procedures <i>El-Swaify</i>	Saturday SEP 20	Field trip to Waialeale Research Station.
SEP 22	Baseline studies <i>Friday</i>	SEP 25	Teams: field observations, reading reports; identify info needs, search assignments.
SEP 29	Hamilton Library 156 Information searches <i>Herring</i>	OCT 2	Teams: progress reports, additional info search, secondary research assignments.
OCT 6	Secondary databases <i>Miura</i>	OCT 9	Teams: progress reports, follow-up assignments.
OCT 13	Assessment framework <i>Drigot</i>	OCT 16	Oral reports on baseline results. Discuss detailed follow-up study areas.
OCT 20	Biophysical primary data, methods <i>Evensen</i> Due: baseline research report	OCT 23	Select assessment framework, detailed studies. Teams: identify info needs, search/reading assignments.
OCT 27	Social primary data, methods <i>Cox</i>	OCT 30	Teams: progress reports; plan detailed studies, assignments.
NOV 3	Biophysical assessment analyses <i>Fares</i>	NOV 6	no class (field work)
NOV 10	Social assessment analyses <i>Bowen</i>	NOV 13	Teams: progress reports, trouble shoot.
NOV 17	no class (field work)	NOV 20	Oral reports on preliminary results, discuss overall assessment.
NOV 24	Intro to models <i>Idol</i>	NOV 27	holiday
DEC 1	Project reporting <i>Ferguson</i>	DEC 4	Final reporting: written & oral teams, outlines, assignments. Due: detailed research report
DEC 8	Outreach methods, tools <i>Ward</i>	DEC 11	Preparations for final reports.
finals DEC 16	Tuesday 2:15-4:00 PM, Sherman 103 Dress rehearsal for final oral report	finals DEC 19	Friday 2:15-3:15 PM, Sherman 103 Final project oral presentation Due: final project written report

BIBLIOGRAPHY

Most items are available in Sherman 111. Locations of other references, including Hamilton Library call numbers, are given in brackets.

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Dixon, John A. and Maynard M. Hufschmidt. 1986. *Economic Valuation Techniques for the Environment: A Case Study Workbook*. Baltimore: Johns Hopkins University Press.

Hufschmidt, M.M. and David James, A.D. Meister, B.T. Bower, J.A. Dixon. 1983. *Environment, Natural Systems, and Development: An Economic Valuation Guide*. Baltimore: Johns Hopkins University Press.

Jain, R. and L.V. Urban, G.S. Stacey, H. Balbach. 2002. *Environmental Assessment, 2nd edition*. New York: McGraw-Hill.

Juvik, Sonia P. and James O. Juvik, Thomas H. Paradise Juvik. 1999. *Atlas of Hawaii, 3rd Edition*. Honolulu: University of Hawaii Press.

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REVISED² CLASS SCHEDULE

Updated to reflect actual class topics, activities undertaken through October 13. Future practicum activities still tentative.

DATE	MON 1:30-2:20 PM LECTURE Kuykendall 401A	DATE	THURS 3:00-4:40 PM PRACTICUM Sherman Lab 111
AUG 25	Course introduction, project <i>Ferguson</i>	AUG 28	<i>Chan-Halbrendt</i> on project. Teams: discuss problem areas, assign CTAHR readings.
SEP 1	holiday	SEP 4	Teams: reading reports, identify tractable issues, prelim research activities.
SEP 8	Resource evaluation frameworks <i>Robotham</i>	SEP 11	Teams: identify study areas, field reconnaissance questions.
SEP 15	Field reconnaissance procedures <i>El-Swaify</i>	Saturday SEP 20	Field trip to Waialeale Research Station.
SEP 22	Discussion: field observations, baseline research outline	SEP 25	<i>Sekioka</i> on project. Teams: complete baseline outline, assign general readings or search topics.
		SEP 26	Due: field trip notes
SEP 29	Hamilton Library 156 Information searches <i>Herring</i>	OCT 2	<i>Hashimoto</i> on project. Teams: reading/search reports, assign research topic areas.
OCT 6	Sherman Lab 103 Resource inventory & assessment using GIS <i>Miura</i>	OCT 9	Baseline methodology. Teams: progress reports, discuss methods.
OCT 13	Sherman Lab 103 Water quality models <i>Fares</i>	OCT 16	Teams: plan research methodology, assign research activities.
OCT 20	Economic & fiscal impacts (discussion) <i>Ferguson</i>	OCT 23	Interim oral reports on research results. Assess project, revise research assignments.
OCT 27	Social impacts, community assessment (discussion) <i>Ferguson</i> Due: interim written report	OCT 30	no class (field work)
NOV 3	Ethics, social values for impact analyses (lecture/discussion) <i>Idol</i>	NOV 6	Teams: progress reports, trouble shoot.
NOV 10	Economic valuation of environment <i>Bowen</i>	NOV 13	Teams: discuss research results, final assignments.
NOV 17	no class (field work)	NOV 20	Teams: progress reports, trouble shoot.
NOV 24	Overall assessment, project reporting <i>Ferguson</i>	NOV 27	holiday
DEC 1	Final oral reports on project research.	DEC 4	Final reporting: written & oral teams, outlines, assignments.
DEC 8	Community outreach <i>Cox</i> Due: final written report	DEC 11	Preparations for final reports.
finals DEC 16	Tuesday 2:15-4:00 PM, Sherman Lab 103 Dress rehearsal for final oral report	finals DEC 19	Friday 2:15-3:15 PM, Sherman 103 Final project oral presentation Due: final project written report

