# VII. STANDING COMMITTEE

A. Academic and Student Affairs Committee

Instructional Improvement and Innovation

See Attached Material.



# Summary of Services Provided for Individual Instructors

The Center for Instructional Development and Research (CIDR) strives to enhance teaching and learning on campus and to help maintain the University of Washington's national and international leadership role as a top research-extensive university committed to high quality teaching and learning. To that end, Center staff provide: individual consultations to teaching assistants, faculty, and administrators; instructional services for departments, units, and programs; and campus-wide activities.

In all their work, Center staff take a learning-centered approach that emphasizes instructional goals and, ultimately, outcomes for student learning. As one example, Center staff offer support in four main areas to help individual instructors determine *what methods* will best help them achieve desired goals for student learning:



How CIDR Works with Instructors

- consulting individually on questions about teaching learning, course design, and assessment
- providing resources and research on best practices in teaching and learning

How CIDR Works with Course Content

- helping instructors identify clear, achievable learning goals, design courses, and develop assignments
- taking a disciplinary approach to support teaching learning

How CIDR Works with Students

- helping instructors identify key elements of student preparation that might affect engagement in courses
- helping instructors gather and interpret feedback on student perceptions of course effectiveness

How CIDR Works with Context

- helping individual instructors examine contextual factors such as the level of the course and its place in the curriculum
- collaborating with other units on campus that support teaching and learning

# **University Courses**

# Supported by Funding from the Provost

The four courses we will support are:

"Engineering and Society" Fall 2005

**Beth Kolko, College of Engineering** 

"Religion, Violence and Peace" Winter 2006

Scott Noegel, Near Eastern Languages and Civilization James Wellman, Comparative Religion

"Society and the Oceans" Spring 2005

**Patrick Christie, School of Marine Affairs** 

"Crime Scenes: Investigating Cinema and Its Cultures"

Eric Ames, GermanicsSpring 2006Andrew Nestingen, Scandinavian Studies

# Society and the Oceans SMA/ENVIR/SIS 103

#### **Assistant Professor Patrick Christie**

# 5 credits Spring 2005 10:30-11:20 AM Mary Gates Hall 389

## Course website: www.washington.edu/oue/ucourses/index.html Course e-reserve site: <u>https://eres.lib.washington.edu/eres/coursepage.aspx?cid=3748</u>

Professor's contact information:	tel. # 685-6661, email: patrickc@u.washington.edu	
Professor's office hours:	3-4 Wednesday and 2-3 Fridays in room 225 MAR (Marine Studies Building at corner of Boat St. and Brooklyn NE)	
Teaching assistants:	Maggie Ostdahl (mostdahl@u.washington.edu) Jamie Doyle (jdoyle@u.washington.edu)	
TA office hours:	Tuesday, 2-4 PM, MAR 237 (corner of Boat St. and Brooklyn NE Thursday, 12-2 PM, Mary Gates Hall	
UW requirements:	This course counts toward UW Individual and Society (I&S) and Natural World (NW) requirements.	
Optional linked courses:	COM 220, ENGL 198R	

The oceans were once considered an inexhaustible source of protein and mineral wealth capable of sustaining humankind into the distant future. The allure of oceans and shores as aesthetic, cultural, and recreational amenities is practically universal in many cultures. A summer spent at the seashore has been called the closest a person can come to "paradise on earth." The ocean is also a source of livelihood and sustenance. These perspectives, grounded in human needs and worldviews, have implications for how we related to the ocean and choose to manage its bounty. Today the oceans have become the ultimate proving ground of whether humans are capable of achieving a sustainable relationship with a planet showing increasing signs of stress. Populations are burgeoning in coastal areas worldwide, with increasing affluence and increasing impoverishment each in its own way contributing to coastal resource degradation. Scientific studies reveal how the actions of such disparate groups as property owners along Puget Sound's shores or fishers in the Philippines contribute to marine environmental degradation. We can ask, therefore, as we will through this course: Why is it that we behave in ways that lead to the destruction of the things we love and depend on? What does it take to get us to change our ways?

In response to such vexing questions, some describe the state of the ocean as a "tragedy of the commons." Grounded in analysis that highlights rapid human populations growth, environmental carrying capacity, and incentive systems that favor individual over collective gain, this elegant explanation has had tremendous influence on public opinion and responses to environmental problems. On the other hand, some have suggested that this framework is a misleading, or at least oversimplified, explanation for environmental degradation.

Dealing with these complex human-environment interactions requires study rooted in both the social and natural sciences and responses that employ difficult-to-develop institutional arrangements. This course will be concerned primarily with the social and policy dimensions of the ocean environment and ocean management policy. Students will learn how human values, institutions, culture, and history shape

environmental issues and policy responses. These social dimensions are manifested ecologically throughout the world's oceans.

The course consists of four units:

- 1) an introduction to how human values and interests shape our interactions, through time, with the marine environment;
- 2) an examination of the concept of "tragedy of the commons";
- 3) a review of Puget Sound and Southeast Asia coral reef marine environmental issues and current policy responses;
- 4) and charting a path for marine policy.

Two very distinct cases—Puget Sounds salmon and Southeast Asia coral reefs— will be examined to emphasize the importance of context-specific policy formulation. Social and ecological evaluation criteria will be applied to develop skills in analytic and holistic policy development.

## Key learning themes:

Students will learn how to analyze the following issues:

- How are human-marine environmental interactions evolving?
- Is there a marine environmental crisis, and, if so, how is it best described?
- Why are certain ocean environmental issues prioritized?
- How do our worldviews and education shape our analysis of issues and design of solutions?
- What is the "tragedy of the commons" and when it is an accurate portrayal of marine environmental issues?
- What management strategies are being used to address these issues?
- What are the trade-offs associated with various management strategies?
- Why do management strategies vary so much between the developed and developing worlds?

Readings draw from a broad range of opinions and expertise. Students will be required to read most of the following book (available at the University Bookstore):

Montgomery, D.R. 2003. King of Fish: The Thousand-Year Run of Salmon. Boulder: Westview Press.

See class descriptions below for additional required readings drawn from books and journals that are posted on a UW e-reserve site at: <u>https://eres.lib.washington.edu/eres/coursepage.aspx?cid=3748</u>

Tentative reading list. Remove from final syllabus ---

Davidson, O.G. 1998. *The Enchanted Braid: Coming to Terms with Nature on the Coral Reef.* New York: J. Wiley and Sons. 269 pp. (Various chapters) ---

Erdmann, M.V. Perspective: The WAR on destructive fishing practices. *SPC Live Reef Fish Information Bulletin.* 10: June 2002.

Hardin, G. 1968. The tragedy of the commons. Science 162:1243-1248.

Hardin, G. Living on a lifeboat. Bioscience 24:561-568.

Lowe, C. "Who is to Blame: Logics of Responsibility in the Live Reef Food Fish Trade in Sulawesi, Indonesia." *SPC Live Reef Fish Information Bulletin.* 10: June 2002.

D. Pauly and Reg Watson, Counting the Last Fish. Scientific American, July 2003.

J. M. Pandolfi et al., Global Trajectories of Long-Term Decline of Coral Reef Ecosystems. *Science* 15 August 2003.

Vandermeer, J. 1996. *Reconstructing Biology, Genetics and Ecology in the New World Order*. New York: J. Wiley and Sons, Inc. (Portions)

Steward, H. Indian Fishing, Early Methods on the Northwest Coast. University of Washington Press.

Ronald Hites et al., Global Assessment of Organic Contaminants in Farmed Salmon. *Science* 9 January 2004.

Blue Revolution. The Promise of Fish Farming The Economist, August 9-15, 2003.

Christie, P., B.J. McCay, M.L. Miller, C. Lowe, A.T. White, R. Stoffle, D.L. Fluharty, L. Talaue-McManus, R. Chuenpagdee, C. Pomeroy, D.O. Suman, B.G. Blount, D. Huppert, R.L. Villahermosa Eisma, E. Oracion, K. Lowry, R.B. Pollnac. 2003. Toward developing a complete understanding: A social science research agenda for marine protected areas. *Fisheries* 28(12):22-26.

Christie, P., A.T. White and E. Deguit. 2002. Starting point or solution? Community-based marine protected areas in the Philippines. *Journal of Environmental Management* 66:441-454.

## Course philosophy and pedagogy:

Professor Christie and guests will lecture Monday, Wednesday, and Friday. Class TAs will lead Tuesday and Thursday sessions that will be dedicated primarily to quizzes, videos, discussions, and other interactive exercises. Attendance in **all** class sessions is expected and will influence grades.

Please keep in mind that this is OUR class. While I will do much of the lecturing, I invite you to play an active role in class discussions. The course will expose you to a wide array of opinions on ocean environmental issues and management strategies. There is a great deal of debate as to causes and appropriate responses. It is critically important that we respect one another's opinions. You will be expected to express your opinions and contribute knowledge based on your skills and training. You are also very welcome to ask clarifying questions of one another and your instructors.

#### Attendance:

It is expected that you will attend all classes. If you are not able to attend, please provide an explanation to the class TAs. Your attendance will improve your understanding of the course materials and will enhance the learning environment of others. Quizzes and written essays will be based on readings and materials presented and discussed in class.

#### Major exams and Assignments:

Assignment	Percent of overall grade	Due date
1) Quizzes (5 given, lowest score dropped)	40	See below, some
		unannounced
2) Mid-term exam	20	May 3, in class
3) Final exam	20	June 6, 8:30-10:20 AM
4) 4 short essays contributing to final	15	April 8, April 29, May 16,
portfolio composed of best 3 essays		June 3
5) Wikipedia contribution	5	Posting by May 27

There will be 5 quizzes given during the course of the quarter. Some will be announced in advance and others will not. Your lowest quiz score will be dropped. There will be 4 short essays on class discussions and key themes to be handed **in person** on above dates, of which the best 3 will form a portfolio to be handed in and graded at the end of the course. During last unit students will be expected to contribute to Wikipedia sites on the live fish trade or South Maury Island environmental issues. There will be opportunities for extra credit throughout the course involving field trips and non-course lectures.

Descriptions of assignments will be handed out when necessary with ample time for preparation.

## Grading:

Your grade in this course is based on diverse assignments. This provides us an opportunity to assess your progress, participation, and learning in a holistic manner.

A total of 100 points are available for the course. Final grades are assigned in accordance with UW's numerical grading system and scale:

A = 3.5 - 4.0 (90 - 95 + %), B = 2.5 - 3.4 (80 - 89%), C = 1.5 - 2.4 (70 - 79%), D = 0.7 - 1.4 (60 - 69%), E (F) = 0 (<60%).

Writing assignments will be distributed in class with clear verbal and written instructions. Assignments are due **at the beginning of class on the due date**. Two points will be subtracted for each day late on these assignments. Assignments will not be graded if received three days past the due date. **Submit all assignments in hard copy, not by email.** 

#### Attending office hours:

Educational research has shown that a student's grades are directly correlated to her/his level of engagement in a class. Discussing the class concepts with the teacher and/or your peers leads to higher levels of engagement. So, come to hours for the professor or teaching assistants. You will benefit from such meetings.

# C.L.U.E:

C.L.U.E. stands for the *Center for Learning and Undergraduate Enrichment*. C.L.U.E. is, in their own words, "a late-night academic center designed to support all UW undergraduates, with a strong emphasis on freshmen and transfer students who are enrolled in many of the UW's crucial lower-division courses." Visit their web page at: http://depts.washington.edu/fyp/clue/. Your TAs for SMA/ENVIR/SIS 103 will be available to help you with course materials and preparation for quizzes and exams at in Mary Gates Hall Monday and Wednesdays from 6:30-8 PM.

#### **Special Needs:**

To request academic accommodations due to a disability, please contact Disabled Student Services, 448 Schmitz, 543-8924 (V), 543-8925 (TTY), uwdss@u.washington.edu. If you have a letter from DSS indicating that you have a disability which requires academic accommodations, please present the letter to your instructor or a TA so we can discuss the accommodations you might need for the class.

#### **Grievance Policy:**

If you have any concerns about the course or grading, please see the instructor about these concerns as soon as possible. If you are not comfortable talking with the instructor or you are not satisfied with the response that you receive, you may contact the Director of the School of Marine Affairs Tom Leschine (tml@u.washington.edu).

#### **Academic Integrity:**

The University's definitions of academic and personal misconduct are outlined in the *Student Conduct Code* (available in your University of Washington Student Planner pages 97-103 and online at http://www.washington.edu/students/handbook/conduct.html). It is your responsibility to read and understand the University's expectations in this regard. Until you have read the *Code*, do not assume that you know what this University defines as cheating, plagiarism, and other forms of academic misconduct. Plagiarism is a significant violation of the *Student Conduct Code* and will be dealt with severely in this class. It is important for you to know that plagiarism is any representation of another person's words or ideas in a manner that makes it seem as if they were your own, in either oral or written form. For more on plagiarism, including a review of proper and improper paraphrasing practices, see http://depts.washington.edu/grading/issue1/honesty.htm.

#### **Class schedule:**

#### UNIT 1

#### Introduction to Society and the Ocean

Learning goals: Students will learn that importance of the social dimensions of marine environmental issues and the value of applying integrated analysis frameworks. How personal perspectives of the ocean and ocean issues are shaped by individual values will be explored.

Monday 3/28: Unpacking the social dimension of the marine environment. Lecture will provide a review the course philosophy and coverage. A framework for integrated socialecological assessment of marine environmental issues and policy responses will be introduced.

Tuesday 3/29: Videos from Shifting Baseline and pro-fishing video

Wednesday 3/30: Worldviews and how they shape our interpretations and recommendations: role-play and discussion. Ask Breckie ===== Reading: Ch 15 Vandermeer ---

Thursday 3/31: In class discussion of videos and worldviews role-play.

#### Society's changing relation with the sea:

Learning goals: Students learn that human relations with the ocean are changing rapidly. While increasing numbers of people are concerned with the marine environment (and tend to blame fisheries, development, etc.), many value fisheries and some deny the overall decline of fish stocks and environmental quality. Marine leisure and tourism sectors are expanding and influencing the condition of marine environments. Marine policy-making must balance these various forces and perspectives.

Friday 4/1: Is there an ocean crisis?

Lecture will explore the emerging interest in marine environmental issues and the implications of how issues are framed.

Reading: D. Pauly and Reg Watson, Counting the Last Fish. *Scientific American*, July 2003. OR overview piece from Economist? --- Jamie will look.

Monday 4/4: Evolving human interactions with the ocean: From fishing to coastal and marine tourism, guest lecture by Marc Miller, Professor, School of Marine Affairs. Reading: ask Miller ----

Tuesday 4/5: Video: 2 from *Empty Oceans, Empty Nets*, Video with traditional fishing methods, tourism, *Fast Track to Poverty*, or Trawler History

Wednesday 4/6: Evolving fishing and navigational technologies in coastal societies, guest lecturer Peter Lape (Burke Museum Archaeology Curator) and Christie. Reading: from *Indian Fishing, Early Methods on the Northwest Coast.* Hilary Stewart. ---Reading: modern fishing methods ----Reading: Diamond, J. ----

Thursday 4/7: Quiz and discussion (and in class writing if there is time)

Unit extra credit: Field trip to the Burke Museum collection of fishing gears. Maximum number ---

#### UNIT 2

#### The Tragedy of the Commons: a Compelling or Misleading Framework?

Learning goals: Students will learn the strengths and weaknesses of the "tragedy of the commons" framework, one of the most influential frameworks used to explain environmental degradation.

Friday 4/8: The tragedy of the (ocean) commons. Readings: Tragedy of the commons by G. Hardin, TBD Reading: Modern day adoption of Hardin's position --- (url?) Need reading on this ----

#### \*\*\*First essay due\*\*\*

Monday 4/11: Have we overextended the tragedy of the commons analysis? Introducing a multidisciplinary framework. Reading: Living on a Lifeboat by G. Hardin Reading: Vandermeer, *Reconstructing Biology*, ch 2----

Tuesday 4/12: Quiz --- (remove from student syllabus) and prisoner's dilemma game --- and discussion.

# UNIT 3

#### Case study: The Fate of the Pacific Northwest's Iconic Marine Species

Learning goals: Students will learn about critical marine environmental issues in Puget Sound. They will explore the importance of iconic marine species, such as salmon, to the Pacific Northwest's image and how this status influences public opinion and policy. Students will learn about the dilemmas and trade-offs associated with various policy options.

Wednesday 4/13: What defines the Pacific Northwest marine realm socially? Culture, history, and commodification of the environment. (Video from The Native Americans series---) Reading: *King of Fish: the Thousand-Year Run of Salmon*: Preface, ch 4 Reading: contemporary NW description from Sunset/Seattle PI magazine? See refs from Pearson ----*For lecture: draw from article from Fluharty on iconic species—and Puget's Sound. (Section on descriptions of contact with tribes, salmon runs.)--*

Thursday 4/14: Video: *This Troubled Sound*. KIRO (correct name?---), or some other video other video on salmon from Dave's collection, or game to ID an icon for the WA version of the quarter.) Reading: Seattle PI

Friday 4/15: What defines the Pacific Northwest marine realm ecologically and geographically? Guest lecture by Terrie Klinger, SMA professor.

Reading: King of Fish: the Thousand-Year Run of Salmon by David R. Montgomery: ch 1, 2, 3

Monday 4/18: What happened to the salmon? Multiple factors impacting this iconic species. Guest lecture by David R. Montgomery.

Reading: from King of Fish: the Thousand-Year Run of Salmon: ch 7, 8, 9, 10 (Too much?---)

Tuesday 4/19: Net Loss: The Storm Over Salmon Farming video or Farming the Seas video ---

Wednesday 4/20: Issue 1: Tough decisions: eating farmed or wild salmon? Reading: Ronald Hites et al., Global assessment of organic contaminants in farmed salmon. *Science* 9 January 2004.

Reading: Blue Revolution. The promise of fish farming *The Economist*, August 9-15, 2003. Reading: from *King of Fish: the Thousand-Year Run of Salmon*: ch?---

Thursday 4/21: Discussion.

Friday 4/22: Issue 2: Incompatible desires? Growth and maintaining salmon populations in Puget Sound and around Maury Island----Reading: from *King of Fish: the Thousand-Year Run of Salmon*: ch 11

Monday 4/25: Society's response: Industry's efforts to meet consumer demand, while maintaining salmon habitat. Guest lecture by Glacier Northwest Mining representative or panel discussion with various stakeholders in South Maury mining issue and marine protected area. Move to Tuesday 4/26 -- Reading: TBD. Materials about Glacier -----

Tuesday 4/26: Guest presentation by Preserve Our Islands Executive Direct JW ---, Former Governor Booth Garnder ? Dow Constantine ?---- (JW available 4/20 to 5/2) (or videos *Wild Salmon Forever* by the Sierra Club and *Treaty Indian Fisheries and Salmon Recovery* by the Pacific Northwest Fisheries Commission.)

Wednesday 4/27: Society's response: The environmentalist's position. Guest lecture by Cathy Fletcher, Executive Director of People for Puget Sound. Reading: TBD, Puget Sound Action Team Report Card ---.

Thursday 4/28: In class presentations by COM 220 students regarding salmon issues and South Maury Island issues.----

Friday 4/29: Society's response: how Washington State and Federal agencies are responding to these issues. Guest lecture by Professor and Director Tom Leschine, School of Marine Affairs. Reading: TBD ----

#### \*\*\*\*Second essay due\*\*\*\*

Saturday, April 30 Extra credit field trip to Vashon-Maury Islands.

Monday 5/2: Linking it back to the "tragedy of the commons": Dilemmas and trade-offs. Reading: TBD ----

Tuesday 5/3: Mid term exam. Multiple choice? ----

Extra credit for this unit: 1) field trip to Vashon-Maury Island (50 slots available), 2) visit to supermarket to compare farmed and wild salmon, or 3) joint field trip with FISH/ENVIR 101 to trawler. ----

#### **Case study: The Fate of Philippine Coral Reefs**

Learning goals: Students learn that Philippine coral reefs are valuable marine ecosystem in a state of rapid decline. Social conditions and historic legacies are contributing to reef degradation. The live fish trade will be explored as exemplary of the local and global forces driving environmental decline. Management responses are varied in their success and fraught with trade-offs that have implications for economic development.

Wednesday 5/4: Tropical paradise? An introduction to the Philippines and Indonesia and the live fish trade.

Reading: J. M. Pandolfi et al., Global Trajectories of Long-Term Decline of Coral Reef Ecosystems. *Science* 15 August 2003.---

Or see status of coral reefs book <u>http://www.aims.gov.au/pages/research/coral-bleaching/scr2004/index.html</u>

Reading: See Celia's recommendations or CIA country page for each country----

Thursday 5/5: Reefs at Risk video --- (move to last unit?), or Cuyo video on live fish trade, or Triplets of Belleville --- Reef bombing in Sulawesi (celia) and intro to live fish trade --- Discussion Reading: The Enchanted Braid, ch 10-11, O.G. Davidson Reading: World Resources Institute, Reefs at Risk executive summary. Reading: While Stocks Last. Asian Development Bank report on live fish trade.---Reading: See suggestions from Pomeroy---

Friday 5/6: Society's response: The emergence of blame and enforcement-based policies. Guest lecture by Assistant Professor Celia Lowe, Department of Anthropology. Reading: Lowe, 2003 Readings: Erdmann, 2002

Monday 5/9: Society's response: Shaping the decisions of the consumer and certification schemes.

Tuesday 5/10: In class presentations by COM 220 students? [NOTE: This was changed from Thursday 5/12 check date ----1

Reading: policy brief from the Marine Aquarium Council (MAC) that is leading a certification scheme for aquarium fish.---

Wednesday 5/11: Climate change and coral reefs: Why your ride matters to coral reefs. Reading: TBD ----

Thursday 5/12: Quiz (remove from student syllabus copy ---), discussion.

Friday 5/13: Linking it back to the "tragedy of the commons": Dilemmas and trade-offs.

Extra credit for this unit: Evening virtual "guest lecture" by Philippines coral reef scientists and management experts Dr. Hilconida Calumpong (Silliman University) and Dr. Alan White (Project FISH). Online chat with Silliman University students. ---

# UNIT 4

#### Charting the future of marine policy

Learning goal: Students learn that this is a unique and exciting time in the field of marine policy. The response needs to occur on multiple governance levels. Models of marine resource management, marine policy, and marine conservation are highly context specific and influenced by particular historic and social conditions.

Each of the following guest lecturers will be asked to respond in the context of their expertise and specific topic to the questions: What are the key issues driving marine environmental degradation? And what are the key solutions to these problems?

Monday 5/16: Global response: The role of Law of the Sea and how it was negotiated. Guest lecture by Ed Miles, SMA Professor. Readings: TBD, get ----

\*\*\*Third essay due\*\*\*\*

Tuesday 5/17: Wiki introduction in class. ----

Wednesday 5/18: Global responses: The case of collapsing fish stocks and call for a global network of marine protected areas. Reading: TBD---- (TNC report---) Reading: MPA News: cost of global network. July 2004.----

Reading: Christie 2004. ----Reading: D. Pauly and Reg Watson, Counting the Last Fish. *Scientific American*, July 2003.----

Thursday 5/19: Discussion--- Or Wiki class in computer lab.-----

Friday 5/20: National responses: The US Ocean Commission Report. Guest lecture by Marc Hershman, Professor of SMA and Member of US Oceans Commission Readings: TBD by Hershman---

Monday 5/23: Sub-national responses: The case of successful Alaska fishery management. Guest lecture by David Fluharty, Associate Professor, School of Marine Affairs. Reading: TBD by Fluharty----

Tuesday 5/24. Discussion.

Wednesday 5/25: Community-level responses: Engaging resource users as stewards. Reading: *The Enchanted Braid*, ch 12, O.G. Davidson ---- too much? Reading: Christie, P. and A.T. White. 1997. Reading: Durban World Parks Accord and Terborgh's essay.

Thursday 5/26. Quiz. Solution oriented video -----

Friday 5/27: Scientific responses: Using technology to understand the ocean and inform policy. Guest lecture by Professor John Delaney, School of Oceanography----

Monday 5/30: No class: Memorial Day.

Tuesday, 5/31: Discussion of role of monitoring technology in distinct contexts. Video clips on tsunami? ---

Wednesday 6/1: The December 26 2004 Indian Ocean tsunami: A challenge to ocean governance. Discussion led by Professor K. Sivaramakrishnan, Department of Anthropology and Mia Siscawati, Anthropology graduate student.

Thursday 6/2: Discussion of tsunami and policy response.

Friday 6/3: Tying it together: integrated policy-making and what you can do.... Reading: Essay by Christie to be prepared ----

#### \*\*\*\*Fourth essay due\*\*\*\*

Final Exam: Monday, June 6, 2005, 8:30-10:20 AM. Location: MGH 389. Short essay format.

WEEK IN REVIEW DESK

# The Nation: Course Correction; Teaching Students to Swim in the Online Sea

#### By GEOFFREY NUNBERG (NYT) 1064 words Published: February 13, 2005

INFORMATION literacy seems to be a phrase whose time has come. Last month, the Educational Testing Service announced that it had developed a test to measure students' ability to evaluate online material. That suggested an official recognition that the millions spent to wire schools and universities is of little use unless students know how to retrieve useful information from the oceans of sludge on the Web.

Clearly, "computer skills" are not enough. A teacher of Scandinavian literature at Berkeley recently described how students used the Web to research a paper on the Vikings: "They're Berkeley students, so, of course, they have the sense to restrict their searches to 'vikings NOT minnesota.' But they're perfectly willing to believe a Web site that describes early Viking settlements in Oklahoma."

That trusting nature is partly a legacy of the print age. If we tend to give the benefit of the doubt to the things we read in library books, it is because they have been screened twice: first by a publisher, who decided they were worth printing, and then by the librarian who acquired them or the professor who requested their purchase.

The Web imposes no such filters, even as it allows users to examine subjects people would never have gone to a traditional library to research, like buying a printer or a cheap airline ticket. Many adolescents use the Internet to get information about issues they are reluctant to discuss with parents or teachers, like sexual behavior, sexual identity, drug use or depression and suicide.

But there is a paradox in the way people think of the Web. Everyone is aware that it teems with rotten information, but most people feel confident that they can sort out the dross. In a survey released last month by the Pew Project on the Internet and American Life, 87 percent of search-engine users said they found what they were looking for all or most of the time.

That level of confidence may not be justified, particularly when a search for information requires judging a Web site's credibility. According to the Pew survey, only 38 percent of search-engine users were aware of the difference between unpaid and sponsored search results, and only 18 percent could tell which was which.

A 2002 study directed by BJ Fogg, a Stanford psychologist, found that people tend to judge the credibility of a Web site by its appearance, rather than by checking who put it up and why. But it is much easier to produce a professional-looking Web site than a credible-looking book. The BBC was recently duped by a fake Dow Chemical site into broadcasting an interview with an environmentalist posing as a company spokesman.

Then, too, search engines make it all too easy to filter information in ways that reinforce pre-existing biases. A Google search on "voting machine fraud," for example, will turn up popular Web pages that feature those words prominently, most of which will support the view that voting machines make election fraud easier; opposing sites won't tend to feature that language, so will be missed in the search. A researcher exploring the same topic in a library would be more likely to encounter diverse points of view.

Up to now, librarians have taken the lead in developing information literacy standards and curriculums. There's a certain paradox in that, because a lot of people assumed that the digital age would require neither libraries nor librarians. But today, students have only

limited contact with librarians, particularly because they do most of their online information-seeking at home or in the dorm.

More important, leaving information literacy to librarians alone suggests a failure to understand the scope of the problem.

Part of it lies in the word "literacy" itself. No other language has a word that covers such a broad swath of territory, from reading and writing skills, to a familiarity with culture, to elementary competence in subjects like math or geography. To many, "information literacy" suggests a set of basic ABC's that can be consigned to Information 101.

One can list some basic principles of information literacy, like "Recognize an information need"; "Evaluate sources critically"; and "Check to see if the site sponsor is reputable." But those precepts are only of limited help with all that people now use online resources to do.

Last fall, for example, I co-taught a graduate course on "Information Quality" at Berkeley's School of Information Management and Systems. The students were highly sophisticated about search engines and knew their way around the Web.

But even they had difficulty with exercises that involved evaluating information in unfamiliar areas, like using the Web to decide which online degree program to recommend to a friend.

Still, given more time, those students would have known where to go for more accurate maps of the territory they were exploring. Unlike most students, they knew that "what's out there" doesn't end with what comes up on Google. University librarians complain that students tend to confine their online research to Web searches, ignoring other resources that the libraries have access to, like old newspaper archives, map collections and census data.

No less important, the students in our course would have known to use an even more basic technique: asking the right person. E-mail turns the Web into a vast digital help desk; user groups are teeming with people who will gladly explain the finer points of espresso machines or the history of English slang. But most people rarely think to make use of them.

In the end, then, instruction in information literacy will have to pervade every level of education and every course in the curriculum, from university historians' use of collections of online slave narratives to middle-school home economics teachers showing their students where to find reliable nutrition information on the Web.

Even then, it is true, most people will fall back on perfunctory techniques for finding and evaluating information online. As Professor Fogg observes, people tend to be "cognitive misers," relying on superficial cues whenever they can get away with it.

Only when confronting a question that is personally important -- a health problem, a major purchase -- are most people motivated to dig deeper. But that is reason enough to make sure that people have the skills they will need.

Drawing (Drawing by Adam Palmer)



Article reprinted from the online edition of *University Week*, the faculty and staff newspaper of the University of Washington. You may read this article on the Uweek website at the following URL: http://admin.urel.washington.edu/uweek/archives/issue/Auweek\_story\_small.asp?id=2722

New 'Society and Oceans' course designed to focus beyond basic science Thursday, May 05, 2005 Vol. 22, No. 26

While Patrick Christie is trying to shake up the way undergraduates frame issues in the new course "Society and the Oceans," the UW is trying to frame the large lecture class in new ways as well.

The class, the first in a series of what are being called "University Courses," is the newest entry in the effort to improve courses that have the greatest impact on UW students: the large lecture classes, according to Christine Ingebritsen, acting dean of undergraduate education.

While some 100- and 200-level courses offer one, or sometimes two, links to courses students can take concurrently, "Society and the Oceans" offered three and could offer even more links in the future, Ingebritsen says. The university is trying to be more systematic in fostering close ties among the instructors, in this case coordinating with Christie, Matt McGarrity in Communications 220: Public Speaking and Emilie Jackinsky-Horell and Joan Graham in English 198: Interdisciplinary Writing/Social Science.

Christie says students in public speaking will get a chance to present talks to the whole class and learn from their classmates' feedback on which arguments are most compelling. And he's altered lectures in the main class by drawing on comments from essays done by students in the writing link. Parts of the third link, concerning infomatics, ended up being folded into the overall course with the development of sites on Puget Sound and coral reef management for Wikipedia, a publicly created online encyclopedia.

Another difference from other courses is that "Society and the Oceans" doesn't have conventional sections, the entire 150-member class meets together every day. Several days a week are for lectures and speakers, while Tuesdays and Thursdays are for videos, quizzes, discussions and other interactive exercises, again involving the whole class.

Christie, an assistant professor with joint appointments in the School of Marine Affairs and Jackson School of International Studies, wants to encourage critical thinking about the social and policy dimensions of the ocean environment and management.

This week, for instance, the class begins studying the rapid decline of coral reefs of the Philippines and Indonesia and possible innovative solutions. The students will learn about coral reef ecology as well as how people depend on reefs for fisheries and tourism. Fish captured with sodium cyanide for food and for the aquarium trade, and marketed globally, will be considered along with climate change and other environmental factors affecting the reefs.

Focusing on the importance of biodiversity is but one way to frame the issue, Christie says. Steps to conserve such biodiversity, by for instance putting areas off limits to fishing, ignore other valid ways of framing the issue.

"It's potentially a human rights issue and a food-security issue when up to half the protein intake for Filipinos — from fish — is no longer accessible," he says. "Or it can be framed as a peace-and-order issue when tensions run high over scarce resources or a marine conservation project."

Closer to home, the class examined such things as a proposed gravel mine on Maury Island in Puget Sound. In that section they heard from seven guest speakers in five days including a former Washington state governor, a King County council member, representatives of a mining company and environmentalists.

Although a 100-level course, the class of 150 ended up being about half freshmen and sophomores and half juniors and seniors, including some oceanography majors within a quarter of graduating.

That's been a challenge, Christie says, but also good practice for the natural science majors to think like social scientists and for the younger students to hear views from upper classmates.

Being from the School of Marine Affairs, where classes more typically are upper-level undergraduate and graduate courses, Christie was encouraged by the school's director, Tom Leschine, to compete for a chance to develop "Society and the Oceans" as the first University Course.

The provost's office has provided \$50,000 to build the course during a twoyear period. The money and support from Ingebritsen and others in undergraduate education has gone for such things as training teaching assistants, summer work and special excursions. Christie has both received training through undergraduate education's large-class collegium and is expected to offer training and insights about what he's learned to UW colleagues during a seminar next summer.

In coming quarters, University Courses will be offered in technical communications, religion and conflict, and crime and film.

Developing a University Course requires an enormous commitment of time and energy, Christie offers as advice. The task is made less daunting with backing from Ingebritsen and others.

"It's been worth it seeing students about to graduate realize they can learn something from a 100-level course," he says. "And seeing freshmen decide to dedicate their next four years to understanding human relations to the ocean is inspirational."

-Sandra Hines

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