

WATER 484/684
FISHERY MANAGEMENT
SPRING SEMESTER 2006, 3 CREDITS

- Instructor:* Michael J. Hansen
Office: 174 CNR
Office Hours: posted on my office door
Office Phone: 715/346-3420
- Lectures:* Monday, Wednesday 12:00-12:50
Classroom: 120 CNR
- Lab:* Tuesday 11:00-12:50
Classroom: 361 CNR (speakers and discussions) or ACL (labs)
- Objectives:* The course will introduce students to the process of fishery management; principles of fishery science that are basic to fishery management; ecological, economic, political, and socio-cultural environment within which fishery management operates; means by which fish, fish habitat and fishery users are manipulated to achieve fishery management objectives; and examples of how fisheries are managed in streams, rivers, lakes, the Great Lakes, and the oceans. Students will develop a management plan for a fishery in Wisconsin, present the plan to their peers for review, and defend the plan's component actions.
- Textbook:* Kohler, Christopher C., and Wayne A. Hubert, editors. 1999. Inland Fisheries Management in North America, 2nd Edition. American Fisheries Society, Bethesda, Maryland. [All students are urged to purchase, rather than rent, the textbook to ensure they begin the acquisition of a library of reference books.]
- Format:* The two weekly lectures will cover the history of fishery management, basic concepts of fishery science, means by which fish populations, fish habitat, and fishery users are manipulated to achieve management objectives, and case studies of fisheries in Wisconsin. Professional fishery managers who are actually working on those systems will deliver the case studies of fisheries in Wisconsin. The weekly discussions will be used to discuss the status of fishery management in Wisconsin with professional fishery managers and researchers, to critically review fishery management issues, and to report on class projects. Each student will be assigned to work on a team whose task is to develop and report on a management plan for a real fishery. The final exam will be a mock interview for a job with a fishery management agency.
- Grading:* Assignments will not be accepted if they are turned in after the due date, other than for emergencies. Final grades for the course will be awarded based on the following: A = 93%; A- = 90%; B+ = 85%; B = 80%; B- = 75%; C+ = 70%; C = 65%; C- = 60%; D+ = 55%; D = 50%; F = <50%. The final class grade will be weighted according to the schedule below:
40% Management Plan and Oral Presentation: the management plan and oral presentation will include a management goal; analysis of the resource; diagnosis of problems and potentials; prescription of management actions,

budget for people, money, and equipment; implementation plan; evaluation plan; and maintenance plan. The written plan will be graded on completeness, style, and clarity. The oral presentation will be graded based on organization, clarity, substance, and questions. Each member of the team will confidentially review the quality of participation of each other team member for my use in assigning final grades.

- 30% Issue Briefs: four issue briefs will be assigned during the term. For each issue brief, a concise, two-page report will be written. Each issue brief will summarize the background, alternative actions, and recommended action for a fishery management problem. The reports will be graded on style, completeness, and clarity.
- 20% Final Exam: the final exam will be conducted as a mock interview for a job with a fishery management agency. Students should be familiar with fish population dynamics and the management process, including goal setting, fish population manipulations, fish habitat manipulations, and fishery regulations, along with public involvement and education in fishery management.
- 10% Class Participation: each student will be expected to participate in class discussions with guest speakers, on current topics in fishery science, of fishery management issue analyses, and of oral presentations of fishery management plans. Quality and quantity of class participation are not highly related, but silence does not give me a means by which to evaluate your class participation on any basis.

Schedule:

<u>Dates:</u>	<u>Lectures/Lab Topics:</u>	<u>Readings/Assignments:</u>
Jan 23	Lecture: <i>Management Process</i>	<i>Chapters 1 and 2</i>
Jan 24	Lab: <i>Analysis of Size Structure</i>	
Jan 25	Lecture: <i>Management History (Lee Kernen, Retired WDNR Fisheries Chief)</i>	
Jan 30	Lecture: <i>Fish Population Dynamics</i>	<i>Chapters 6 and 7</i>
Jan 31	Lab: <i>Analysis of Body Condition</i>	
Feb 1	Lecture: <i>Fish Population Dynamics</i>	
Feb 6	Self-Lecture: <i>Fish Population Dynamics</i>	<i>Chapters 6 and 7</i>
Feb 7	Lab: <i>Introduce Class Projects (Nancy Nate, WDNR Fishery Biologist)</i>	
Feb 8	Self-Lecture: <i>Fish Population Dynamics</i>	
Feb 13	Lecture: <i>Watershed Management</i>	<i>Chapter 9</i>
Feb 14	Discussion: <i>Lake Michigan Issue Brief</i>	
Feb 15	Lecture: <i>Watershed Management</i>	
Feb 20	Lecture: <i>Stream Habitat Management</i>	<i>Chapter 10</i>
Feb 21	Lab: <i>Analysis of Growth</i>	
Feb 22	Lecture: <i>Stream Habitat Management</i>	
Feb 27	Lecture: <i>Lake Habitat Management</i>	<i>Chapter 11</i>
Feb 28	Discussion: <i>Habitat Issue Brief</i>	
Mar 1	Lecture: <i>Lake Habitat Management</i>	

Mar 6	Lecture: <i>Species Introductions</i>	<i>Chapter 13</i>
Mar 7	Lab: <i>Analysis of Mortality</i>	
Mar 8	Lecture: <i>Species Enhancement</i>	<i>Chapter 14</i>
Mar 13	Self-Lecture: <i>Species Enhancement</i>	
Mar 14	Self-Lab: <i>Analysis of Abundance</i>	
Mar 15	Self-Lecture: <i>Species Enhancement</i>	
Mar 20-22	Spring Break	
Mar 27	Lecture: <i>Species Removals</i>	<i>Chapter 15</i>
Mar 28	Discussion: <i>Stocking Issue Brief</i>	
Mar 29	Lecture: <i>Species Removals</i>	
Apr 3	Lecture: <i>Fishing Regulations</i>	<i>Chapter 17</i>
Apr 4	No Lab: Work on Management Plans	
Apr 5	Lecture: <i>Fishing Regulations (Joe Hennessy, WDNR)</i>	
Apr 10	Evening: <i>Spring Conservation Congress Hearing</i>	<i>Chapter 3, 4 and 8</i>
Apr 11	No Lab: Work on Management Plans	
Apr 12	Lecture: <i>Public Involvement</i>	
Apr 17	Lecture: <i>Surveying Public Opinion</i>	<i>Chapter 3, 4 and 8</i>
Apr 18	Discussion: <i>Regulations Issue Brief</i>	
Apr 19	No class: <i>Finalize Management Plans</i>	
Apr 24	Speaker: <i>Mississippi River (Kurt Welke, WDNR)</i>	<i>Chapter 20</i>
Apr 25	No Lab: <i>Management Plans Due</i>	
Apr 26	Speaker: <i>Fox River (Kevin Kapuscinski, WDNR)</i>	<i>Chapter 19</i>
May 1	Speaker: <i>Kickapoo River (Dave Vetrano, WDNR)</i>	<i>Chapter 18</i>
May 2	No Lab: <i>Management Plan Presentations</i>	
May 3	Speaker: <i>Treaty Lakes (Pat Schmalz, WDNR)</i>	<i>Chapter 21</i>
May 8	Speaker: <i>Lake Winnebago (Ron Bruch, WDNR)</i>	<i>Chapter 22</i>
May 9	Presentations: <i>Management Plan Presentations</i>	
May 10	Speaker: <i>Great Lakes (Jessica Richards, USFWS)</i>	<i>Chapter 23</i>
May 15-17	Final Exam: <i>Job Interviews</i>	

