

NRES 250
INTRODUCTION TO FISHERIES, FORESTRY AND WILDLIFE RESOURCES
FALL SEMESTER 2020 SYLLABUS

<u>Lecturers:</u>	<u>Office</u>	<u>Phone</u>	<u>Office Hours</u>
Dr. Justin VanDeHey (JV)	TNR 178	346-2090	10 – 11 Mon. and 2-3 Tues.
Dr. Shelli Dubay (SD)	TNR 325	346-4178	11 – 12 Mon. and Fri.
Dr. Rich Hauer (RH)	TNR 323	346-3642	8 – 9 Mon. and Wed.

Zoom Office Hours Links:

JV: <https://uwsp.zoom.us/j/7486427542?pwd=MHE5NHFLOGRvazBENkM2aEg2NE5Zz09>

Passcode: 05292013

SD: <https://uwsp.zoom.us/j/9269849384>

RH: <https://uwsp.zoom.us/j/96287053318?>

Overall Objectives: This course will introduce students to management practices used to achieve objectives using the fisheries, forestry and wildlife resources. Specifically, the course is designed to provide students with skills to 1) Identify the prevailing views toward, and conditions of, the North American fisheries, forestry and wildlife resources from pre-European settlement times to the present, 2) Identify key policies/legislation that has guided the management of the resources over time in addition to the reasons for their implementation, 3) Describe and/or apply sampling techniques when estimating fisheries, forestry or wildlife attributes, 4) Define the term sustainability and identify management techniques that lead to sustainability of fisheries, forestry, and wildlife resources, and 5) Evaluate the inter-related nature of managing fisheries, forestry, and wildlife resources identifying synergies and divergences therein.

Forestry Objectives: At the end of the course, students should be able to 1) Describe scientifically and environmentally sound forested stand regeneration techniques, intermediate stand management techniques, and harvesting options for both even-aged and uneven aged stands, as well as mixed and pure stands, and how they can be used to meet a wide ranging host of landowner objectives, including those related to fisheries and wildlife, 2) Identify the different forested regions of North America, and describe the growing conditions of, and predominant species present in, those regions, and 3) Compare and contrast the role, and management, of individual trees in urban forests versus traditional (rural) forests.

Fish and Wildlife Objectives: At the end of the course, students should be able to 1) Describe public attitudes and ethics involved with fish and wildlife management today, 2) Identify techniques used to sample fish and wildlife, 3) Describe the role of recruitment/natality, mortality, and growth in regulating fish and wildlife populations, 4) Describe techniques used to determine the age, sex, and growth rate of fish and wildlife species, 5) Identify techniques used to evaluate, manage, and improve fish and wildlife habitat, 6) Identify the various types of harvest regulations used to manage fish and wildlife populations, 7) Identify causes of fish and wildlife population decline and describe measures used to protect endangered populations.

Attendance: Attendance is completely virtual this semester and hence is your responsibility, and as a professional and responsible student, you are expected to watch all the video lectures on Canvas. Not watching lectures or attending (face to face or virtually) labs will most likely lead to poor performance in this class. If you have a conflict on the day of a scheduled exam because of a university-sponsored trip, you must contact the instructor(s) at least 4 days before the trip to arrange an alternative test time. If you miss an exam or have a conflict because of an emergency (health problem or family crisis), or other situation you are responsible for contacting Dr. VanDeHey or your lab instructor *as soon as feasible* and arranging a make-up exam immediately after your return to class. Make-up exams are not available for exams missed for reasons other than emergencies or university-sponsored trips. If you are having technical difficulties with your internet, computer or the UWSP Canvas site, please contact Dr. VanDeHey or your lab instructor right away.

Logistics: Lectures: All lectures will consist of videos posted to Canvas site.

Lectures are delivered by Drs. Hauer, Dubay, and VanDeHey. Initials by the title of each lecture (which appear later in this document) indicate the professor that will be lecturing on that topic. If you have questions about a specific lecture, contact the lecturer who covered that specific material. Labs are taught by a number of instructors as follows:

Laboratories (times as outlined below, all will meet in TNR 157 unless specified by your lab instructor):

- Section 1: Monday 8:00-9:50, Dr. Diane Lueck (TNR 245; 346-4151; dlueck@uwsp.edu)
- Section 4: Monday 10:00-11:50, Dr. Diane Lueck (TNR 245; 346-4151; dlueck@uwsp.edu)
- Section 6: Monday 13:00-14:50, Ms. Macayla Greider (mgrei219@uwsp.edu)
- Section 8: Monday 15:00-16:50, Dr. Nilesh Timilsina (TNR 327; 346-2446; ntimilsi@uwsp.edu)
- Section 11: Tuesday 11:00-12:50, Dr. Dr. Diane Lueck (TNR 245; 346-4151; dlueck@uwsp.edu)
- Section 7: Tuesday 13:00-14:50, Mr. Dan Connolly (dconn884@uwsp.edu)
- Section 9: Tuesday 15:00-16:50, Dr. Shuva Gautam (TNR 192; 346-2144; sgautam@uwsp.edu)
- Section 2: Wednesday 8:00-9:50, Dr. Marie Perkins (TNR 344; 346-2755; mperkins@uwsp.edu)
- Section 5: Wednesday 12:00-13:50, Mr. TJ Boettcher (TBD; tboet177@uwsp.edu)
- Section 10: Thursday 15:00-16:50, Mr. TJ Boettcher (TBD; tboet177@uwsp.edu)
- Section 3: Friday 8:00-9:50, Dr. Marie Perkins (TNR 344; 346-4151; mperkins@uwsp.edu)

Note, you are expected to attend only your scheduled lab section. Attending another section is not permissible except for (i.) pre-approved extenuating circumstances or (ii.) health problem or family crisis. Permissions must be granted by your lab instructor and the instructor whose lab you are trying to attend. See the attendance policy above for valid extenuating circumstances.

Canvas: We will use a Canvas site to provide lecture materials:

<https://uwstp.instructure.com/courses/334660>

Use of Canvas in labs will be at the sole discretion of your lab instructor and level of use can vary from lab instructor to lab instructor.

Readings: Readings will be assigned from the course texts (below) as well as from notes and other materials referenced from time to time in lecture. Exams can include questions from reading assignments.

Willis, D. W, C. G. Scalet and L. D. Flake. 2008. Introduction to wildlife and fisheries: An integrated approach. W. H. Freeman and Company, New York, New York, USA. **WS&F**

Young, R. A., and R. L. Giese, editors. 2003. Introduction to forest science. 3rd edition. John Wiley and Sons, New York, New York, USA. **Y&G**

Grading: The lecture component comprises 60% of your course grade and is based on three non-cumulative and equally weighted lecture exams that each contribute 20% toward your final grade. The remaining 40% of your grade results from the laboratory portion. The laboratory component consists of two lab exams (each contributing 9% toward your course grade), one scientific report (9% of your course grade) two assignments (a combined 7% of your course grade), and lab quizzes (collectively comprising 6% of your course grade).

Your final grade for the course will be assigned based on the final percentage of total points you earned. Categories are as follows:

A	92.6-100%	B+	86.6-89.5%	C+	76.6-79.5%	D+	66.6-69.5%
A-	89.6-92.5%	B	82.6-86.5%	C	72.6-76.5%	D	59.6-66.5%
		B-	79.6-82.5%	C-	69.6-72.5%	F	0-59.5%

Instructors reserve the right to adjust final course grade categories (*only* to your benefit) at semester's end. Direct questions regarding your course grade to Dr. Dubay, the coordinator for NRES 250 this semester.

Students with Disabilities: The university has a legal responsibility to provide accommodations and program access as mandated by Section 504 and the Americans with Disabilities Act (ADA). The university's philosophy is to not only provide what is mandated, but also convey its genuine concern for one's total well-being. If accommodations are needed, please contact the lead instructor (Dr. VanDeHey for this course) as well as the Office of Disability and Assistive Technology, 609 Albertson Hall (715) 346-3365.

LECTURE AND LAB SEQUENCE

WEEK 1: 2-4 September

- Lec: Course introduction & History of Fisheries management (JV)
- Lec: History of wildlife management (SD)

Labs begin September 14

Reading assignments

- WS&F 1.4, 1.5
- WS&F 1.3 & 1.5, 1.8, 17.2, 17.3

WEEK 2: 7-11 September

- Lec: History & importance of forest management (RH)
- Lec: Importance of Fisheries and Wildlife
- Lec: Forest regions of North America (RH)

Labs begin September 14

Y&G Ch. 1, pp. 196-202

Y&G Ch. 3

WEEK 3: 14-19 September

- Lec: Public attitudes, conservation ethics and values (SD)
- Lec: Animal Behavior I (SD)
- Lec: Animal Behavior II (SD)
- Lab: Tree Identification

- WS&F 16.4 -16.6
- WS&F Ch. 6, 2.8-2.10

WEEK 4: 21-25 September

- Lec: Factors influencing forest growth: tree morphology (RH)
- Lec: Forest ecology and the forest ecosystems (RH)
- Lec: Sampling forest resources (RH)
- Lab: Compass and Pacing

- Y&G pp. 75-85
- Y&G pp. 114-118, 127-130
- Y&G pp. 249-260, WS&F 13.5

WEEK 5: 28 Sept-2 October

- Lec: Sampling fish and wildlife (JV)
- Lec: Determining age, growth, and sex of fish and wildlife (JV)
- Lec: 1st LECTURE EXAM – October 2nd**
- Lab: GPS and Pacing

- WS&F Ch. 7, 9.10 & 9.14
- WS&F Ch. 8

WEEK 6: 5-9 October

- Lec: Silviculture techniques to manipulate biomass (RH)
- Lec: Even vs. uneven-aged approaches to forest management (RH)
- Lec: Intermediate forest management practices (RH)
- Lab: Timber Resource Measurements

- Y&G pp. 285-293
- Y&G pp. 285-293
- Y&G pp. 293-312

WEEK 7: 12-16 October

- Lec: Environmental physiology of tree growth (RH)
- Lec: Agricultural practices and wildlife management (SD)
- Lec: Range management and grazing systems (SD)
- Lab: Timber Cruising

- Y&G pp. 85-96, 261-262
- WS&F 2.11, 14.4, 18.9
- Y&G Ch. 15; WS&F 15.1

WEEK 8: 19-23 October

- Lec: Wildlife and Forest Management I (SD)
- Lec: Wildlife and Forest Management II (SD)
- Lec: Impacts of diseases on forests, fish, and wildlife (SD)
- Lab: MIDTERM LAB EXAM**

- Y&G Ch. 14, WS&F 13.7, 14.5, 15.1
- Y&G 148-160, WS&F 10.9, 391-2

WEEK 9: 26 – 30 October

- Lec: Dynamics of fish and wildlife populations (JV)
- Lec: Population Genetics in fisheries and wildlife (JV)
- Lec: Modeling and statistics in fish and wildlife populations (JV)
- Lab: Snags and Debris

- WS&F Ch. 3
- WS&F Ch. 4
- WS&F Ch. 9

WEEK 10: 2-6 November

- Lec: Lake and Reservoir management (JV) WS&F Ch. 15.3
- Lec: Case Study: Crane Management in Wisconsin (SD)
- Lec: 2nd LECTURE EXAM – November 6th**
- Lab: Scientific Writing

WEEK 11: 9-13 November

- Lec: Uses of marked animals in fisheries and wildlife (JV) WS&F Ch. 9.10-9.14
- Lec: Rectangular Land Survey (RH) Y&G Ch. 245-248
- Lec: Wetland management (ALL) WS&F 12.2, 14.6, 15.2, 15.6
- Lab: Fish and Wildlife populations

WEEK 12: 16-20 November

- Lec: Stream trout management (JV) WS&F Ch. 15.4
- Lec: Manipulating fish and wildlife resources: stocking and removals (JV) WS&F Ch. 10
- Lec: Manipulating fish and wildlife resources: harvest management (JV) WS&F Ch. 17, 19
- Lab: Scientific Method

WEEK 13: 23 – 27 November

- Lec: Harvest management in fish and wildlife case studies (JV)
- Lec: No Thursday lecture
- Lec: No Friday lecture
- Lab: No labs

WEEK 14: 30 November – 4 December

- Lec: Urban forestry and urban forest ecosystems (RH) Y&G Ch. 22
- Lec: Forest protection and managing natural resources (RH) Y&G Ch. 8
- Lec: Wildlife management in urban settings: benefits and problems (SD) WS&F 14.3
- Lab: Rectangular Land Survey

WEEK 15: 7-11 December

- Lec: Case study: Lake Whitefish management in Lake Michigan (JV)
- Lec: Management of depleted species (SD) WS&F Ch. 11
- Lec: Sustainable forestry, ecosystem management, & BMP's (RH) Y&G pp. 181-193, 307-312
- Lab: **FINAL LAB EXAM**

***FINAL LECTURE EXAM: Tuesday, December 15, 2020 (You can take the exam anytime this day).**

COVID – 19 Guidelines

Face Coverings: • At all UW-Stevens Point campus locations, the wearing of face coverings is mandatory in all buildings, including classrooms, laboratories, studios, and other instructional spaces. Any student with a condition that impacts their use of a face covering should contact the Disability and Assistive Technology Center to discuss accommodations in classes. Please note that unless everyone is wearing a face covering, in-person classes cannot take place. This is university policy and not up to the discretion of individual instructors. Failure to adhere to this requirement could result in formal withdrawal from the course.

Other Guidance: • Please monitor your own health each day using this screening tool. If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646). As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus. • Maintain a minimum of 6 feet of physical distance from others whenever possible. • Do not congregate in groups before or after class; stagger your arrival and departure from the classroom, lab, or meeting room. • Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face. • Please maintain these same healthy practices outside the classroom.

The University of Wisconsin – Stevens Point College of Natural Resources Principles of Professionalism

Integrity–Integrity refers to adherence to consistent moral and ethical principles. A person with integrity is honest and treats others fairly.

Collegiality–Collegiality is a cooperative relationship. By being collegial you are respecting our shared commitment to student education through cooperative interaction. This applies to all involved in the process: students, staff, faculty, administration and involved community members. You take collective responsibility for the work performed together, helping the group attain its goals.

Civility– Civility refers to politeness and courtesy in your interactions with others. Being civil requires that you consider the thoughts and conclusions of others and engage in thoughtful, constructive discussion to express your own thoughts and opinions.

Inclusivity–Inclusivity requires you to be aware that perspective and culture will control how communication is understood by others. While many values are shared, some are quite different. These differences in values should be both considered and respected.

Timeliness–Timeliness is the habit of performance of tasks and activities, planned in a way that allows you to meet deadlines. This increases workplace efficiency and demonstrates respect for others' time.

Respect for Property–Respect for property is the appreciation of the economic or personal value an item maintains. Maintaining this respect can both reduce costs (increase the operable life of supplies and equipment) as well as demonstrate respect for others rights.

Communication–Professional norms in communication require that you demonstrate the value of your colleagues, students, professors or others. The use of appropriate tone and vocabulary is expected across all forms of communication, whether that communication takes place face to face, in writing or electronically.

Commitment to Quality–Quality is the ability to meet or exceed expectations. By having a commitment to quality, we intend to provide a learning environment that is conducive to learning. Intrinsic to this commitment to quality is defining expectation (committed to in a syllabus through learning outcomes), implementation (with quality control in place) and assessment (where meeting of learning outcomes is determined).

Commitment to Learning–Learning is a lifelong process. By being committed to learning you are providing a model for all to follow. This model is not only professor to student but involves all combinations of people within our university and broader community.

Important Links and Information

UWSP Community Bill of Rights and Responsibilities

UW-Stevens Point values a safe, honest, respectful, and inviting learning environment. In order to ensure that each student has the opportunity to succeed, we have developed a set of expectations for all students and instructors. This set of expectations is known as the *Rights and Responsibilities* document, and it is intended to help establish a positive living and learning environment at UWSP. For more information visit:

<http://www.uwsp.edu/stuaffairs/Pages/rightsandresponsibilities.aspx>

Academic integrity is central to the mission of higher education in general and UWSP in particular. Academic dishonesty (cheating, plagiarism, etc.) is taken very seriously. Don't do it! The minimum penalty for a violation of academic integrity is a failure (zero) for the assignment. For more information, see the UWSP "Student Academic Standards and Disciplinary Procedures" section of the *Rights and Responsibilities* document, Chapter 14, which can be accessed here:

<http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/SRR-2010/rightsChap14.pdf>

Americans with Disabilities Act (ADA) Statement

The Americans with Disabilities Act (ADA) is a federal law requiring educational institutions to provide reasonable accommodations for students with disabilities. For more information about UWSP's policies, check here:

<http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/ADA/rightsADAPolicyInfo.pdf>

If you have a disability and require classroom and/or exam accommodations, please register with the Disability and Assistive Technology Center and then contact me at the beginning of the course. I am happy to help in any way that I can. For more information, please visit the Disability and Assistive Technology Center, located on the 6th floor of the Learning Resource Center (the Library). You can also find more information here:

<http://www4.uwsp.edu/special/disability/>

Emergency Events

In the event of a medical emergency, call 911 or use red emergency phone located outside TNR room 256. Offer assistance if trained and willing to do so. Guide emergency responders to victim.

In the event of a tornado warning, proceed to the lowest level interior room without window exposure. In this case, stay in TNR 252, it is one of the designated shelter areas.

See

[https://campus.uwsp.edu/sites/facplan/campus/Evacuation%20Floor%20Plans/CNR%20Sept%20EMERGENCY%20SC%20SECOND%20FLOOR%20\(1\).pdf](https://campus.uwsp.edu/sites/facplan/campus/Evacuation%20Floor%20Plans/CNR%20Sept%20EMERGENCY%20SC%20SECOND%20FLOOR%20(1).pdf)

for floor plans showing severe weather shelters on campus. Avoid wide-span rooms and buildings.

In the event of a fire alarm, evacuate the building in a calm manner. Meet at the library. Notify instructor or emergency command personnel of any missing individuals.

Active Shooter – Run/Escape, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Follow instructions of emergency responders.

See UW-Stevens Point Emergency Management Plan at www.uwsp.edu/rmgt for details on all emergency response at UW-Stevens Point.”