

**NRES 250: INTRODUCTION TO FISHERIES, FORESTRY AND WILDLIFE RESOURCES
SPRING SEMESTER 2019 SYLLABUS**

<u>Lecturers:</u>	<u>Office</u>	<u>Phone</u>	<u>Office Hours</u>
Dr. Justin VanDeHey (JV)	TNR 178	715-346-2090	12 – 1 Wed. and 10 – 11 Thur.
Dr. Shelli Dubay (SD)	TNR 325	715-346-4178	12 – 1 Tues. and Wed.
Dr. Rich Hauer (RH)	TNR 323	715-346-3642	10 – 11 Tues. and Thur.

Overall Objectives: This course will introduce students to management practices used to achieve management objectives for fisheries, forestry and wildlife resources. Specifically, the course provides 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 and 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) Develop economically, socially, and environmentally sound and science-based forestry practices to meet landowner objectives, including those related to fisheries and wildlife; 2) Select appropriate stand regeneration techniques (intermediate stand management, harvesting options for both even-aged and uneven aged stands, as well as mixed and pure stands) and relate how they can be used; 3) Identify the different forested regions of North America, predominant species present in those regions, describe common tree silvics characteristics; 4) Identify laws, polices, and market place approaches used to solve conservation, preservation, and sustainable questions; and 5) Compare and contrast the role, and management, of individual trees in urban forests and 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 your responsibility, and as a professional and responsible student, you are expected to attend class. Missing lectures and labs will most likely lead to poor performance in this class. Please let Dr. VanDeHey, coordinator of this class and/or your lab instructor know *as soon as possible* regarding an unavoidable absence from class. If you will be absent on the day of an exam because of a university-sponsored trip, you must contact the instructor(s) at least 3 days before the trip to arrange an alternative test time. If you miss an exam because of an emergency (health problem or family crisis), you are responsible for contacting Dr. VanDeHey or your lab instructor *as soon as possible* 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.

Lectures: 11:00–11:50 on Monday, Wednesday, and Friday in TNR 170

Lectures are delivered by Drs. Dubay, Hauer, 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:

Labs: Meeting times are below and all will meet in TNR 359 unless specified by your lab instructor

Section 1: Monday 8:00-9:50 – Dr. Melinda Vokoun (TNR 376; 715-346-2342; mvokoun@uwsp.edu)

Section 5: Monday 13:00-14:50 – Mr. Jordan Meyer (TNR 344; 715-346-2755; jomeyer@uwsp.edu)

Section 8: Monday 15:00-16:50 – Dr. Shuva Gautam (TNR 192; 715-346-2144; shuva.gautam@uwsp.edu)

Section 6: Tuesday 13:00-14:50 – Dr. Justin VanDeHey (TNR 178; 715-346-2090; jvandehe@uwsp.edu)

Section 2: Wednesday 8:00–9:50 – Dr. Justin VanDeHey (TNR 178; 715-346-2090; jvandehe@uwsp.edu)

Section 7: Wednesday 13:00-14:50 – Dr. Melinda Vokoun (TNR 376; 715-346-2342; mvokoun@uwsp.edu)

Section 3: Thursday 8:00-9:50 – Ms. Theresa Williams (TNR 360A; Theresa.Williams@uwsp.edu)

Section 4: Thursday 12:00-13:50 – Dr. Shuva Gautam (TNR 192; 346-2144; shuva.gautam@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's whose lab you are trying to attend. See the attendance policy above for valid extenuating circumstances.

Canvas: This course will use the Canvas site to provide lecture materials. 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.

Course Canvas site: <https://uwstp.instructure.com/courses/132287>

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. Hauer, the coordinator for NRES 250 this semester.

Students with Disabilities: The University has a legal responsibility to provide accommodations and program access as legislated 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. Hauer for this course) as well as the Office of Disability Services, 609 LRC, voice (715) 346-3365 or 4116.

LECTURE AND LAB SEQUENCE

WEEK 1: January 21–25, 2018

Lec: **No Class Monday January 21 – Martin Luther King Jr. Day**
Lec: Course introduction & History of fisheries management (JV)
Lec: History of wildlife management (SD)
Lab: No Scheduled Lab First Week

Reading Assignments

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

WEEK 2: January 28–February 1, 2018

Lec: Rectangular Land Survey (RH)
Lec: Public attitudes, conservation ethics and values (SD)
Lec: History, importance, legislation of forest management (RH)
Lab: Rectangular Land Survey and Map Reading

Y&G Ch. 245-248
WS&F 16.4 -16.6
Y&G Ch. 1, pp. 196-202

WEEK 3: February 4–8, 2018

Lec: Importance of fisheries and wildlife management (SD)
Lec: Animal Behavior I (SD)
Lec: Animal Behavior II (SD)
Lab: Scientific Writing

WS&F Ch. 6, 2.8-2.10

WEEK 4: February 11–15, 2018

Lec: Sampling fish and wildlife (JV)
Lec: Dynamics of fish and wildlife populations (JV)
Lec: Sampling forest resources (RH)
Lab: Fish and Wildlife Population Assessment

WS&F Ch. 7
WS&F Ch. 3
Y&G pp. 249-260, WS&F 13.5

WEEK 5: February 18–22, 2018

Lec: Determining age, growth, and sex of fish and wildlife (JV)
Lec: Uses of marked animals in fisheries and wildlife science (JV)
Lec: 1st LECTURE EXAM
Lab: The Scientific Method - Testing Hypotheses

WS&F Ch. 8
WS&F Ch. 9.10 – 9.14

WEEK 6: February 25–March 1, 2018

Lec: Forest regions of North America (RH)
Lec: Factors influencing forest growth: tree morphology (RH)
Lec: Forest ecology and the forest ecosystem (RH)
Lab: Distance and Direction Using Compass and Pacing

Y&G Ch. 3
Y&G pp. 75-85
Y&G pp. 114-118, 127-130

WEEK 7: March 4–8, 2018

Lec: Environmental physiology of tree growth (RH)
Lec: Modeling and statistics in fish and wildlife populations (JV)
Lec: Population Genetics in fisheries and wildlife (JV)
Lab: Comparing GPS to Compass and Pacing

Y&G pp. 85-86, 261
WS&F Ch. 9
WS&F Ch. 4

WEEK 8: March 11–15, 2018

Lec: Silviculture and stand regeneration techniques (RH)
Lec: Case study – crane research in Wisconsin (SD)
Lec: Even vs. uneven-aged approaches to forest mgmt. (RH)
Lab: MIDTERM LAB EXAM

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

LECTURE AND LAB SEQUENCE (continued)

SPRING BREAK: March 18–22, 2018

WEEK 9: March 25–29, 2018

Lec: Impacts of diseases on forests, fish, and wildlife (SD)
Lec: Wildlife and Forest Management I (SD)
Lec: Wildlife and Forest Management II (SD)

Reading Assignments

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

Lab: Tree Identification

WEEK 10: April 1-5, 2018

Lec: Jobs in Natural Resources (Sue Kissinger)
Lec: Intermediate forest management practices (RH)
Lec: Attend CNR Undergraduate Research Symposium
Lab: Timber Resource Measurements

Y&G pp. 293-312, Ch. 16

WEEK 11: April 8–12, 2018

Lec: 2nd LECTURE EXAM

Lec: Lake and reservoir habitat management (JV)
Lec: Agricultural practices and wildlife management (SD)
Lab: Timber Cruising (Schmeckle Reserve)

WS&F Ch. 15.3

WS&F 2.11, 14.4, 18.9

WEEK 12: April 15–19, 2018

Lec: Range management and grazing systems (SD)
Lec: Wetland management (ALL)
Lec: Urban forestry and urban forest ecosystems (RH)
Lab: Snags and Woody Debris (Schmeckle Reserve)

Y&G Ch. 15; WS&F 15.1

WS&F 12.2, 14.6, 15.2, 15.6

Y&G Ch. 22

WEEK 13: April 22–26, 2018

Lec: Trout stream management (JV)
Lec: Wildlife mgmt. in urban settings: benefits and problems (SD)
Lec: Manipulating fish & wildlife resources: stocking & removals (JV)
Lab: Forest Succession (Schmeckle Reserve)

WS&F Ch. 15.4

WS&F 14.3

WS&F Ch. 10

WEEK 14: April 29–May 3, 2018

Lec: Manipulating fish & wild. resources: harvest mgmt. (JV)
Lec: Harvest management Case studies (JV)
Lec: Case study: Lake whitefish in Lake Michigan (JV)
Lab: **FINAL LAB EXAM**

WS&F Ch. 17, 19

WEEK 15: May 6–10, 2018

Lec: Forest protection and managing natural resources (RH)
Lec: Sustainable forestry, Ecosystem Management & BMPs (RH)
Lec: Management of depleted species (SD)
Lab: NO LAB

WS&F, pp. 290-291

Y&G pp. 181-193, 307-312

WS&F Ch. 11

FINAL LECTURE EXAM: Wednesday, May 15 from 12:30-2:30 PM (third exam, not cumulative)

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:

<https://www.uwsp.edu/dos/Documents/CommunityRights.pdf>

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:

<https://www.uwsp.edu/acadaff/HLCSelfStudy/Community%20Rights%20and%20Responsibilities%202011.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:

<https://www.uwsp.edu/hr/Directors/Americans%20with%20Disabilities%20Act%20Policy.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:

<https://www.uwsp.edu/disability/Pages/default.aspx>