

Traditional Ecological Knowledge and Western Natural Resource Management
FNRM 5140
3 credits
University of Minnesota
Fall Semester 2022

General Course information

Instructor:

Dr. Mike Dockry
301K Green Hall
(612) 624-3733 | mdockry@umn.edu
Pronouns: he/him/his
Office hours: Monday 11:00-12:00, Tuesday 1:00-2:00, Wednesday
10:00-11:00. Sign up for a slot on [my calendar](#). (Office hours
appointments have a zoom link; please let me know if you want to meet
in person.)

Days and Time: Tuesdays 8:45-11:30 (after first class we may meet at 9:00am)

Room: 19 Green Hall

Course Webpage: There is a Canvas site for this course but it doesn't have much information beyond this syllabus.

Course Description:

This graduate course is designed to refine your understanding of traditional ecological knowledge, Indigenous knowledge, and the relationship to western natural resource sciences and ecology. Students read and discuss foundational and current literature on the topic. The course has a focus on Indigenous scholarship. Students will lead class discussions and prepare an individual research project (typically a research paper) related to the class topic and/or their thesis. Students will also discuss and practice how to be good relatives.

Student Learning Objectives:

Students will be able to:

- 1) Identify, define, and solve problems by
 - a. identify and define the state of the literature in traditional ecological knowledge, Indigenous knowledge, and western science.
 - b. critically examine and define similarities and differences in Indigenous and western academic knowledge
 - c. identify strategies for incorporating Indigenous knowledge into natural resource management.
- 2) Understand diverse philosophies and cultures by

- a. reading and discussing foundational and current literature on traditional ecological knowledge, Indigenous knowledge, and western natural resource management
 - b. learning about tribal and indigenous natural resource management innovations
 - c. critically examine tribal perspectives on natural resource management and traditional ecological knowledge.
- 3) Learn practical techniques and tools for incorporating indigenous research methodologies into student thesis research projects.
 - 4) Discuss and practice what it means to be a good relative.

Graduate Student Workload:

This three-credit course will require, for the average University of Minnesota student, 9 hours of academic work per week averaged over the term. Since the course meets for one 150 minute (2.5 hours) class per week, students should expect to spend an additional 6.5 hours per week on average outside the classroom. Outside activities include readings, written responses to assigned readings, class preparation, and individual research paper or project assignment. This is a graduate seminar that will typically include reading one book per week. Students are also be expected to engage in an independent research project that supports their thesis research or preliminary exams. This is typically a 10,000-15,000 word scholarly research paper, but it could be a story map, website, video, or other equally researched project. These independent research projects are due at the end of the semester with intermediate deadlines and meetings with the instructor throughout the semester. See below for more specifics.

Course Materials:

All required readings are listed on the course webpage. Readings are typically books but occasionally journal articles or reports will be assigned. These will be available as pdfs are on the course website.

Required books (please consider supporting [Birchbark Books](#)):

- Caete, G. 2015. *Indigenous community : rekindling the teachings of the seventh fire*. Living Justice Press.
- Carroll, C., 2015. *Roots of our renewal: Ethnobotany and Cherokee environmental governance*. U of Minnesota Press.
- Case, M., 2018. *Relentless Business of Treaties: How Indigenous Land Became US Property*. Minnesota Historical Society Press.
- Child, B. J. 2014. *My grandfather's knocking sticks: Ojibwe family life and labor on the reservation*. Minnesota Historical Society.
- Deloria Jr, V., Wildcat, D., & Wilkins, D. 2012. *The metaphysics of modern existence*. Fulcrum Publishing.
- Doerfler, J., Stark, H. K., & Sinclair, N. J. (Eds.). (2013). *Centering Anishinaabeg studies: Understanding the world through stories*. Univ. of Manitoba Press.

- Dunbar-Ortiz, R. (2015). *An indigenous peoples' history of the United States*. Beacon Press.
- Hernandez, J. 2022. *Fresh banana leaves: healing indigenous landscapes through indigenous science*. North Atlantic Books.
- Jarratt-Snider, K. and Nielsen, M.O. eds., 2020. *Indigenous Environmental Justice*. Indigenous Justice.
- Kimmerer, R.W., 2013. *Braiding sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants*. Milkweed Editions
- Nesper, L., 2002. *The walleye war: The struggle for Ojibwe spearfishing and treaty rights*. U of Nebraska Press.
- Norman, D. K., & Kalt, J. P. (Eds.). (2015). *Universities and Indian country: Case studies in tribal-driven research*. University of Arizona Press.
- Robidoux, M. A., & Mason, C. W. (Eds.). 2017. *A land not forgotten: Indigenous food security and land-based practices in Northern Ontario*. Univ. of Manitoba Press.
- Waziyatawin. *What Does Justice Look Like? The Struggle for Liberation in Dakota Homeland*. United States: Living Justice Press, 2008.

Course schedule:

Introductions

Week 1 Introduction to tribal perspectives, collaboration, intercultural communication.

Activity: Group discussion to set ground rules and practice active listening, respectful dialogue, and creating a safe environment for the exchange of ideas.

Activity: Goals for course

Activity: What does it mean to be a good relative?

Week 2: Traditional Ecological Knowledge from a Native Scientist's perspective

Readings: Kimmerer, R.W., 2013. *Braiding sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants*. Milkweed Editions

Week 3: Foundational Indigenous thoughts

Readings: Deloria Jr, V., Wildcat, D., & Wilkins, D. 2012. *The metaphysics of modern existence*. Fulcrum Publishing.

Week 4: Indigenous Women leading the way

Readings: Child, B. J. 2014. My grandfather's knocking sticks: Ojibwe family life and labor on the reservation. Minnesota Historical Society.

Treaties, Land and Natural Resource Management

Week 5: Broad overview of land and the United States

Readings: Dunbar-Ortiz, R. (2015). An indigenous peoples' history of the United States. Beacon Press.

Week 6: American Indian Treaties with the US Government

Readings: Case, M., 2018. *Relentless Business of Treaties: How Indigenous Land Became US Property*. Minnesota Historical Society Press.

Week 7: Treaty activism in the Great Lakes

Readings: Nesper, L., 2002. *The walleye war: The struggle for Ojibwe spearfishing and treaty rights*. U of Nebraska Press.

Traditional Ecological Knowledge

Week 8: Bridging the divide between Indigenous and western management

Readings: Robidoux, M. A., & Mason, C. W. (Eds.). 2017. A land not forgotten: Indigenous food security and land-based practices in Northern Ontario. Univ. of Manitoba Press.

Week 9: Ethnobotany and insider research

Readings: Carroll, C., 2015. *Roots of our renewal: Ethnobotany and Cherokee environmental governance*. U of Minnesota Press.

Week 10: Understanding Anishinaabeg perspectives

Reading: Doerfler, J., Stark, H. K., & Sinclair, N. J. (Eds.). (2013). Centering Anishinaabeg studies: Understanding the world through stories. Univ. of Manitoba Press.

Indigenous science, research, and methods: How do we do this?

Week 11: Foundational theory.

Readings: Norman, D. K., & Kalt, J. P. (Eds.). (2015). Universities and Indian country: Case studies in tribal-driven research. University of Arizona Press.

Week 12: Science as community

Readings: Caete, G. 2015. Indigenous community : rekindling the teachings of the seventh fire. Living Justice Press.

Week 13: Indigenous Environmental Justice

Readings: Jarratt-Snider, K. and Nielsen, M.O. eds., 2020. *Indigenous Environmental Justice*. Indigenous Justice.

Week 14: Indigenous science.

Hernandez, J. 2022. Fresh banana leaves: healing indigenous landscapes through indigenous science. North Atlantic Books.

Where do we go from here?

Week 15: Wrapping up and looking forward

Readings: Waziyatawin. What Does Justice Look Like? The Struggle for Liberation in Dakota Homeland. United States: Living Justice Press, 2008.

Student Evaluation:

Grading is based on a class discussion, written discussion questions, and one final research project (paper or other).

Preparation, participation and collaboration (50% of total grade):

You are expected to attend class. Beyond attendance, I expect that you will 1) complete readings before class, 2) be prepared to think critically in class, 3) actively participate in class discussions, 4) share your knowledge and ideas with your classmates and 5) listen attentively and respectfully to the knowledge and ideas of others. You also are expected to write one discussion question each week. This question needs to be uploaded to the course website by 5:00pm before class.

Finally, two students will lead the discussion each week. Leading the discussion includes: summarizing readings and posing questions to the group for discussion. Discussion leaders are expected to prepare for class by making connections to previous readings, developing 5-6 questions for discussion, and reviewing questions prepared by the other members of the class. Each class will count for 10 points per session for a total of 150 points (of 300 total course points).

Individual research project (50% of course grade):

Students are required to meet with the instructor at the beginning of the semester (by week three) to develop a topic and plan for an independent research paper related to the course

material or their graduate research. The paper accounts for 150 points (of 300 total course points) and is due at the end of the semester by the final exam date.

Details on Research Project:

Note: **The standard formatting requirements for written assignments in this class, unless otherwise directed, are 12 pt. font, 1-inch margins (top, bottom, left and right), page numbers and double spacing.** Please pay attention to formatting! These format settings may not be the default settings on your computer. Thus, you may need to set them yourself. Students are required to meet with the instructor by week 3 to decide on a research topic and to agree on a format for the project. While most students will do a more standard research paper, alternative projects are allowed and include formats including but not limited to: story maps, website, or a video.

Grading:

<u>Grading component</u>	<u>#points</u>
Class participation	200
Research Project	100
Total Course Points: 300	

The +/- system on an A-F grading scale will be used as follows. Grades of 'I' (incomplete) are typically not given.

- A ≥ 93%
- A- ≥ 90%
- B+ ≥ 87%
- B ≥ 83%
- B- ≥ 80%
- C+ ≥ 77%
- C ≥ 73%
- C- ≥ 70%
- D ≥ 60%
- F < 60%

If you are taking the course for S/N, you are expected to get over 70% (C or better) for a Satisfactory (S).

Special Notes:

Attendance Policy: It is extremely important that you attend all classroom sessions and show up on time. Attendance is taken and poor attendance or punctuality will affect your progress and accomplishments in this class.

Makeup work for legitimate absences follows University policy found here: <https://policy.umn.edu/education/makeupwork> . Please let me know if you have a need to make up work for these reasons.

Student Conduct Code:

The University seeks an environment that promotes academic achievement and integrity, that is protective of free inquiry, and that serves the educational mission of the University. Similarly, the University seeks a community that is free from violence, threats, and intimidation; that is respectful of the rights, opportunities, and welfare of students, faculty, staff, and guests of the University; and that does not threaten the physical or mental health or safety of members of the University community. As a student at the University you are expected to adhere to Board of Regents Policy: Student Conduct Code.

To review the Student Conduct Code, please see:

https://regents.umn.edu/sites/regents.umn.edu/files/2019-09/policy_student_conduct_code.pdf Note that the conduct code specifically addresses disruptive classroom conduct, which means "engaging in behavior that substantially or repeatedly interrupts either the instructor's ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities."

Scholastic Dishonesty:

You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis. (Student Conduct Code:

http://www1.umn.edu/regents/policies/academic/Student_Conduct_Code.html) If it is determined that a student has cheated, he or she may be given an "F" or an "N" for the course, and may face additional sanctions from the University. For additional information, please see: <http://policy.umn.edu/Policies/Education/Education/INSTRUCTORRESP.html>.

Disability Accommodations: The University is committed to providing quality education to all students regardless of ability. Determining appropriate disability accommodations is a collaborative process. You as a student must register with Disability Services and provide documentation of your disability. The course instructor must provide information regarding a course's content, methods, and essential components. The combination of this information will be used by Disability Services to determine appropriate accommodations for a particular student in a particular course. For more information, please reference Disability Services: <http://ds.umn.edu/students/Enrolled/responsibilities.html>.

Student Mental Health and Stress Management:

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. University of Minnesota services are available to assist you with addressing these and other concerns you may be experiencing. You can learn more about the broad range of confidential mental health services available on campus via <http://www.mentalhealth.umn.edu/>.

Other Policies and Services:

For information on other course policies and university services please see:

- Use of Personal Electronic Devices in the Classroom:
<http://policy.umn.edu/Policies/Education/Education/CLASSROOMPED.html>
- Makeup Work for Legitimate Absences:
<http://policy.umn.edu/Policies/Education/Education/MAKEUPWORK.html>.
- Appropriate Student Use of Class Notes and Course Materials:
<http://policy.umn.edu/Policies/Education/Education/CLASSNOTESSTUDENTS.html>.
- Grading and Transcripts:
<http://policy.umn.edu/Policies/Education/Education/GRADINGTRANSCRIPTS.html>.
- Sexual Harassment:
<http://www1.umn.edu/regents/policies/humanresources/SexHarassment.html>
- Equity, Diversity, Equal Opportunity, and Affirmative Action:
http://www1.umn.edu/regents/policies/administrative/Equity_Diversity_EO_AA.html.