

Decision Analysis in Wildlife Conservation

Prefix + Number Section: WIS 6934

Class Periods: June 22-26 9AM – 4PM

Location: TBD

Academic Term: Summer C 2026

Instructor:

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Office Phone Number: NA

Office Hours: By Appointment

Course Description

WIS 6934 Decision Analysis for Wildlife Conservation. Reading, Lectures, exercises and discussion on Decision analysis techniques in wildlife conservation.

Course Pre-Requisites / Co-Requisites

NA

Course Objectives

To understand and love the concepts of decision analysis in wildlife conservation and management.

Materials and Supply Fees

NA

Required Textbooks and Software

No required textbooks. Reading from primary literature will be provided as needed.

Recommended Materials

- Title: Structured Decision Making: Case Studies in Natural Resource Management
- Author: Edited by Runge, Converse, Lyons and Smith.
- Publication date and edition: April 2020, 1st
- <https://jhupbooks.press.jhu.edu/title/structured-decision-making>

Course Schedule

Monday June 22:

9-10 am: Introductions and Syllabus, SDM basics – ProACT

10-11AM: Problem framing - (Smith ch 2 Runge book, Paxton and Kraus ch 4)

11AM -12PM: Stakeholder engagement in decision making

12 – Lunch break

1-4PM: Objectives

- Hierarchies, value/utility functions (Keeney and Gregory 2005, Keeney 1996)
- Multi attribute / competing objectives (Converse Ch 5, McGowan et al 2015)
 - o Utility curves and reward functions

Tuesday June 23:

9-10: Alternative

10-11:30: Modeling in decision / applied contexts (Starfield 1999, Nicholson et al 2001)

- Developing conceptual models and quantitative models from conceptual ones (Simple spreadsheet projection modeling exercise)

12PM – Lunch break

1PM : Mathematical models, Matrix models, landscape transition models Basic population model in a harvest decision context, predicting extinction

3-4PM Predicting consequences with little or no data

Wednesday June 24:

9-11:30: Expert elicitation – Methods and aggregation tools

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- Elicitation exercise in class

12: Lunch break

1-2: Sensitivity analyses

2-4: Expected value of information and Constructed value of information

Thursday June 25th:

9-11AM: Tradeoffs analysis and optimization

- Developing value/reward functions
- Solver exercises

12PM: Lunch

1-4PM: Iterated decisions and adaptive management

Friday June 26th

One day rapid prototype of PrOACT cycle

Attendance Policy, Class Expectations, and Make-Up Policy

Attendance is required at each class meeting unless and appropriate excuse is provided. Excused absences must be consistent with university policies in the [Graduate Catalog](#) and require appropriate documentation. Additional information can be found in [Attendance Policies](#). If class is missed, students are expected to write and turn in a summary of that week’s reading assignment and or complete the scheduled homework/exercise in a timely manner.

Evaluation of Grades

<i>Assignment</i>	<i>Total Points</i>	<i>Percentage of Final Grade</i>
In Class assignments	30 points	20%
Class projects	100 points	66.7%
Class participation	20 points	13.3%
Total	150	100%

Grading Policy

The following is given as an example only.

<i>Percent</i>	<i>Grade</i>	<i>Grade Points</i>
90.0 - 100.0	A	4.00
87.0 - 89.9	A-	3.67
84.0 - 86.9	B+	3.33
81.0 – 83.9	B	3.00
78.0 - 80.9	B-	2.67
75.0 - 79.9	C+	2.33
72.0 – 74.9	C	2.00
69.0 - 71.9	C-	1.67
66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:

[UF Graduate Catalog](#)
[Grades and Grading Policies](#)

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. [Click here for guidance on how to give feedback in a professional and respectful manner](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. [Summaries of course evaluation results are available to students here](#).

University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” [The Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

Campus Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

[Writing Studio](#), 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

[Student Complaints Campus](#)

[On-Line Students Complaints](#)