

ANSC*3180 Wildlife Nutrition W (3-0) [0.5]

Course Outline

Winter 2018

General Information

Course Code: ANSC*3180

Course Title: Wildlife Nutrition (3-0)

Course Description: A study of the nutrition of avian and mammalian wildlife with emphasis on North American species. The role of nutrition in survival and population growth of wildlife in their natural habitat.

Credit weight: 0.5

Academic Department (or campus): Department of Animal Biosciences

Campus: Guelph

Semester Offering: W

Class Schedule and Location: Lectures: Monday/Wednesday/Friday 12:30-1:20pm THRN 1200

Specific Description: A course in which students will learn about nutrient requirements and nutritional idiosyncrasies of mammalian and avian wildlife from all over the world, but largely focused on North American species. Students will be introduced to the role that nutrition plays in the survival of individual animals, species survival and reproduction, and population dynamics of wildlife species in their natural habitats.

Students should have an established understanding of the fundamental principles of nutrition. The material in the course will build on this background to enhance the understanding of nutrient requirements and utilization in avian and mammalian wildlife species.

Instructor Information

Instructor Name: James Templeman

Instructor Email: jtemplem@uoguelph.ca

Office location: ANNU 229. Office hours: Tuesdays 9-11:30am, ANNU 229.

Instructor Name: Jim L. Atkinson

Office location: ANNU 228. Office hours: TBD

GTA Information

GTA Name: **Cale Matesic**

GTA Email: cmatesic@uoguelph.ca

Office hours: Appointment by e-mail

GTA Name: **Alexandra Camara**

GTA Email: acamara@uoguelph.ca

Office hours: Appointment by e-mail

GTA Name: **Kristen Roman**

GTA Email: romank@uoguelph.ca

Office hours: Appointment by e-mail

GTA Name: **Lauren Steffler**

GTA Email: stefflel@mail.uoguelph.ca

Office hours: Appointment by e-mail

GTA Name: **Sarah Parsons**

GTA Email: sparso01@mail.uoguelph.ca

Office hours: Appointment by e-mail

GTA Name: **Vanessa Gargano**

GTA Email: vgargano@uoguelph.ca

Office hours: Appointment by e-mail

All students will be assigned to a specific GTA (Assisting GTA) who will be available to help answer questions throughout the course.

Course Content

Specific Learning Outcomes:

The students will:

1. Identify, describe and differentiate the digestive systems of carnivorous, omnivorous and herbivorous mammals and birds. (Evaluation methods: Quiz, Project, Final Exam)
2. Develop a comparative assessment of nutrient and energy requirements for one or more wild-living homeothermic species (mammals, birds) throughout the year. (Evaluation method: Project)
3. Develop or enhance the ability to find, review, and assess the value and relevance of peer-reviewed journal articles relating to the nutrition of mammalian and/or avian wildlife species. (Evaluation methods: Project Reference List, Project)
4. Understand, develop and use one method (such as YouTube video, magazine article, website, or scrapbook) of presenting scientifically based information to either a scientific or general public audience. (Evaluation method: Project)
5. Develop an ability to integrate current scientific knowledge on food habits, food composition and digestion in mammalian and avian wild-living species, with the constraints of migration, hibernation, available food energy and potentially toxic components in food. (Evaluation methods: Project, Final Exam)

Course Objectives

For students to study and understand the following topics in the wildlife context:

- 1) Availability and requirements of nutrients by species in their natural habitats.
- 2) How species acquire and utilize nutrients in response to seasonal fluctuations in both quality and quantity of food sources.
- 3) The food habits, natural diet nutritional composition, and comparative aspects of digestion and digestive anatomy in ruminant and non-ruminant herbivores, omnivores, and carnivores.
- 4) Protein metabolism and requirements, energy requirements, and metabolism of and requirements for other potentially limiting nutrients.
- 5) How to calculate energy requirements and determine how physiology, reproduction, maintenance, growth, activity, and environment may cause requirements to differ.

The course is designed to meet the following Learning Outcomes of the University of Guelph:

1) Critical and Creative Thinking: Inquiry and Analysis, Problem Solving, Creativity, Depth and Breadth of Understanding

Critical and creative thinking is a concept in which one applies logical principles, after much inquiry and analysis, to solve problems in with a high degree of innovation, divergent thinking and risk taking. Those mastering this outcome show evidence of integrating knowledge and applying this knowledge across disciplinary boundaries. Depth and breadth of understanding of disciplines is essential to this outcome.

2) Literacy: Information Literacy, Quantitative Literacy, Technological Literacy, Visual Literacy

Literacy is the ability to extract information from a variety of resources, assess the quality and validity of the material, and use it to discover new knowledge. The comfort in using quantitative literacy also exists in this definition, as does using technology effectively and developing visual literacy.

3) Communicating: Oral Communication, Written Communication, Reading Comprehension, Integrative Communication

Communicating is the ability to interact effectively with a variety of individuals and groups, and convey information successfully in a variety of formats including oral and written communication. Communicating also comprises attentiveness and listening, as well as reading comprehension. It includes the ability to communicate and synthesize information, arguments, and analyses accurately and reliably.

4) Professional and Ethical Behaviour: Teamwork, Ethical Reasoning, Leadership, Personal Organization and Time Management

Professional and ethical behaviour requires the ability to accomplish the tasks at hand with proficient skills in teamwork and leadership, while remembering ethical reasoning behind all decisions. The ability for organizational and time management skills is essential in bringing together all aspects of managing self and others. Academic integrity is central to mastery in this outcome.

Lecture Content:

| Week | Date(s) | Topics | Lecturer(s) |
|------|------------------------|--|--|
| 1 | Jan 8, 10 and 12 | Introduction to the course (Section 1) Major project details (Section 1) TA introductions Nutritional fundamentals (Section 2) | James Templeman Jim Atkinson TA intros |
| 2 | Jan 15*, 17 and 19 | *Jan 15: Project type and species selection (start of class) Nutrition fundamentals (Section 2) | James Templeman TA intros con't |
| 3 | Jan 22, 24 and 26 | Nutrition fundamentals (Section 2) | James Templeman |
| 4 | Jan 29, 31 and Feb 2* | Nutrition fundamentals (Section 2) Energy (Section 3) *Feb 2: Initial project reference list (10 references) with annotated bibliography DUE by 5pm | James Templeman Jim Atkinson |
| 5 | Feb 5, 7 and 9 | Energy (Section 3) | James Templeman Jim Atkinson |
| 6 | Feb 12, Feb 14 and 16* | Energy (Section 3) *Feb 16: Fundamentals of nutrition quiz (in class) | James Templeman Jim Atkinson |
| 7 | Feb 19, 21 and 23 | Reading week – NO CLASSES | N/A |
| 8 | Feb 26, 28 and Mar 2 | Energy (Section 3) Food habits (Section 4) | James Templeman |
| 9 | Mar 5, 7 and 9 | Food habits (Section 4) | James Templeman Cale Matesic |
| 10 | Mar 12*, 14 and 16 | *Mar 12: Major project DUE by 5pm Food habits (Section 4) Food composition (Section 5) | James Templeman |

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|----|--------------------|--|--|
| 11 | Mar 19, 21 and 23 | Food composition (Section 5) | James Templeman Jim Atkinson |
| 12 | Mar 26, 28 and 30* | Food composition (Section 5) *Mar 30: Holiday – NO CLASS | James Templeman Jim Atkinson |
| 13 | Apr 2, 4 and 6 | Catch up Guest lecture series | James Templeman Jim Atkinson Guest lecturers (TBD) |

Labs: Not applicable

Seminars: Not applicable

Course Assignments and Tests:

| Assignment or Test | Due Date | Contribution to Final Mark (%) | Specific Learning Outcomes Assessed |
|--|-----------------------|--------------------------------|-------------------------------------|
| Quiz | Feb 16 | 25% | 1 |
| Major project | | 40% (total) | |
| A) Initial reference list & annotated bibliography B) Final project | A) Feb 2 B) Mar 12 | A) 5% B) 35% | A) 1 B) 1,2,3,4,5 |
| Final exam | TBD | 35% | 1,5 |

*** 10% per day will be assigned for late assignments. It is the student's responsibility to request consideration for a late projects/assignments or anticipated quiz absence a minimum of 5 days prior to the deadline.**

Quiz:

February 16th

Will cover all material from 'Fundamentals of Nutrition' (Section 2)

Closed book, invigilated, in-class

Final exam:

Date and time: TBD

Closed book, invigilated

Will cover all material after 'Fundamentals of Nutrition' (Sections 3, 4, and 5)

Major project:

(a) Initial Reference List with Annotated Bibliography

Due Friday February 2nd, by 5pm.

Submitted to 'Project Reference List' Dropbox in Courselink

(b) Final Project

Due Monday March 12th, by 5pm

Submitted either to 'Major Project' Dropbox in Courselink or as Hardcopy to James (rm. 229, ANNU)

Project Selection will take place Monday January 15th at the start of class.

Assignments are expected to be unique work.

Course Resources

Required Texts: Not applicable

Recommended Texts:

A good general introductory text:

- Robbins, C. T. (1993). Wildlife Feeding and Nutrition. 2nd Edition. 1 copy on reserve.
- Robbins, C. T. (1983). Wildlife Feeding and Nutrition. 1st Edition. 1 copy on reserve.
(*only 1983 version has a species index*)

A text dealing specifically with avian nutrition:

- Klasing, K. C. (1998). Comparative Avian Nutrition. 1 copy on reserve.

A text dealing with digestive physiology

- Stevens, C. E. & Hume, I. D. (1995) Comparative Physiology of the Vertebrate Digestive System. 2nd Edition. 1 copy on reserve.

Lab Manual: Not applicable

Other Resources: Electronic versions of the course notes (PDF copies of the PPT slides) will be posted to Courselink the evening prior to each lecture, all with white backgrounds. Copies of course notes are not intended to be the sole source of information, but guide an academic discussion on course material. Additional course materials (for the quiz, project and final exam) will also be posted to Courselink periodically throughout the semester.

Field Trips: Not applicable

Additional Costs: Not applicable

Course Policies

E-mail Communication:

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

When You Cannot Meet a Course Requirement:

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. [See the undergraduate calendar for information on regulations and procedures for Academic Consideration.](#)

Grading Policies:

The initial reference list with annotated bibliography is to be submitted as a word document file to the 'Project Reference List' Dropbox in CourseLink by 5 p.m., Friday February 2nd.

The final project is to be submitted either to the 'Major Project' Dropbox in CourseLink, or as a hardcopy to James Templeman's office (rm 229, ANNU) by 5pm, Monday March 12th.

*Please note that these policies are binding unless academic consideration is given to an individual student.

Quizzes, assignments and projects will be graded in a timely fashion (quiz and reference list within 10 days, project within 20 days) and they will be returned to the students (except the final exam).

Course Policy regarding use of electronic devices and recording of lectures:

Electronic recording of classes is expressly forbidden without consent of the instructor. When recordings are permitted they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor.

Course Policy on Group Work:

No group work.

University Policies

In this course, your instructor will be using Turnitin, integrated with the CourseLink Dropbox tool, to detect possible plagiarism, unauthorized collaboration or copying as part of the ongoing efforts to maintain academic integrity at the University of Guelph. All submitted projects will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site. A major benefit of using Turnitin is that students will be

able to educate and empower themselves in preventing academic misconduct. In this course, you may screen your own projects through Turnitin as many times as you wish before the due date. You will be able to see and print reports that show you exactly where you have properly and improperly referenced the outside sources and materials in your assignment.

Academic Consideration:

The University of Guelph is committed to supporting students in their learning experiences and responding to their individual needs and is aware that a variety of situations or events beyond the student's control may affect academic performance. Support is provided to accommodate academic needs in the face of personal difficulties or unforeseen events in the form of Academic Consideration.

Information on regulations and procedures for Academic Consideration, Appeals and Petitions, including categories, grounds, timelines and appeals can be found in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).

Academic Misconduct:

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Detailed information regarding the Academic Misconduct policy is available in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).

Accessibility:

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability

or a short-term disability should contact the Student Accessibility Services (SAS), formerly Centre for Students with Disabilities (CSD), as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email sas@uoguelph.ca or visit the [Student Accessibility Services website \(http://www.uoguelph.ca/csd/\)](http://www.uoguelph.ca/csd/).

Course Evaluation Information:

End of semester course and instructor evaluations provide students the opportunity to have their comments and opinions used as an important component in the Faculty Tenure and Promotion process, and as valuable feedback to help instructors enhance the quality of their teaching effectiveness and course delivery.

While many course evaluations are conducted in class others are now conducted online. Please refer to the [Course and Instructor Evaluation Website](#) for more information.

Drop period:

The drop period for single semester courses starts at the beginning of the add period and extends to the Fortieth (40th) class day of the current semester (the last date to drop a single semester courses without academic penalty) which is listed in [Section III \(Schedule of Dates\) of the Undergraduate Calendar](#).

The drop period for two semester courses starts at the beginning of the add period in the first semester and extends to the last day of the add period in the second semester.

Information about Dropping Courses can be found in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).