



ANSC*4280 Poultry Nutrition

Fall 2018

Section(s): C01

Department of Animal Biosciences

Credit Weight: 0.50

Version 1.00 - August 30, 2018

1 Course Details

1.1 Calendar Description

This course is designed to evaluate basic and applied poultry nutrition. Students will learn nutrient requirements of poultry, feeding value of ingredients used in poultry feed formulation and how feeding affects the environment, growth, reproduction, health, and composition of poultry products for human consumption.

Pre-Requisite(s): ANSC*3120

1.2 Course Description

The course is designed to evaluate the nutrient requirements of poultry, the feeding value of ingredients used in poultry feed formulation and how feeding affects poultry growth and reproduction, health and composition of poultry products for human consumption.

1.3 Timetable

Timetable is subject to change. Please see WebAdvisor for the latest information.

Class Schedule and Location: Tuesdays and Thursdays 10:00-11:20, Alexander Hall (ALEX) Room 259

1.4 Final Exam

8:30am -10:30am, December 13th, 2018 Room TBA

Exam time and location is subject to change. Please see WebAdvisor for the latest information.

2 Instructional Support

2.1 Instructor(s)

Elijah Kiarie

Email: ekiarie@uoguelph.ca

Telephone: +1-519-824-4120 x53746

Office: ANNU 226

Office Hours: Students are asked to email for appointment times.

2.2 Teaching Assistant(s)

Teaching Assistant: Emily Kim

Email: ekim02@uoguelph.ca

Office: ANNU 132

Office Hours: Students are asked to email for appointment times.

3 Learning Resources

3.1 Recommended Resource(s)

Scott's Nutrition of the Chicken, 4th Edition, 2001. S. Leeson and J.D. Summers, University Books, Guelph, Ontario. (Textbook)

3.2 Additional Resource(s)

Poultry Science, British Poultry Science, Journal of Applied Poultry Research, World's Poultry Science Journal (Other)

4 Learning Outcomes

Understand nutrients requirements for poultry and feeding strategies used in raising poultry for meat and egg production

4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. Appreciate anatomical and physiological factors that influences feeding and nutrient requirements in poultry
 2. Understand nutrients requirements for poultry and feeding strategies used in raising poultry for meat and egg production
 3. Understand feedstuffs used in poultry feeding, their evaluation and potential limitations, processing and complete feed manufacture
 4. Appreciate application of least cost feed formulation in the development of poultry feeding program
 5. Appreciate emerging areas of interest and concern in poultry feeding and nutrition.
 6. Critically evaluate the scientific and technical literature related to poultry feeding and nutrition.
 7. Demonstrate proficiency on personal and professional integrity by respecting diverse points of view and the intellectual contribution of others in a group discussion
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5 Teaching and Learning Activities

5.1 Lecture

Thu, Sep 6

Topic(s): Course introduction, labs, feed mill tour & review paper

Reference(s): E. Kiarie

Tue, Sep 11

Topic(s): Avian digestive tract anatomy and physiology I

Reference(s): J. Atkinson

Thu, Sep 13

Topic(s): Avian digestive tract anatomy and physiology II

Reference(s): J. Atkinson

Tue, Sep 18

Topic(s): Nutrients and anti-nutrients, nutrient availability I

Reference(s): E. Kiarie

Thu, Sep 20

Topic(s): Nutrients and anti-nutrients, nutrient availability II

Reference(s): E. Kiarie

Tue, Sep 25

Topic(s): Feed ingredients I

Reference(s): E. Kiarie

Thu, Sep 27

Topic(s): Feed ingredients II

Reference(s): E. Kiarie

Tue, Oct 9

Topic(s):	NO CLASSES-Fall Study Break
Thu, Oct 11	
Topic(s):	Midterm
Reference(s):	E. Kiarie, E. Kim
Tue, Oct 16	
Topic(s):	Feed manufacturing: processing, formulation I
Reference(s):	E. Kiarie
Thu, Oct 18	
Topic(s):	Feed manufacturing: processing, formulation II
Reference(s):	E. Kiarie
Thu, Oct 25	
Topic(s):	NO CLASSES- Study day
Thu, Nov 1	
Topic(s):	Integrated Broiler nutrition (Lisa)
Reference(s):	L. Hodgins
Tue, Nov 6	
Topic(s):	Integrated Broiler nutrition (Lisa)
Reference(s):	L. Hodgins
Thu, Nov 8	
Topic(s):	Integrated Layers nutrition (David)
Reference(s):	D. Trott
Tue, Nov 13	
Topic(s):	Integrated Layers nutrition (David)
Reference(s):	D. Trott
Thu, Nov 22	
Topic(s):	Emerging issues in poultry feeding and nutrition
Reference(s):	E. Kiarie

Tue, Nov 27

Topic(s): Course review, questions and answers

Reference(s): E. Kiarie

5.2 Lab

Tue, Oct 23

Topic(s): Lab I-Feed particle size analyses, CFC feed formulation

Reference(s): E. Kim

Tue, Oct 30

Topic(s): Lab II-Feed mill tour-Wallenstein Feeds Supply Ltd

Reference(s): E. Kiarie, E. Kim

5.3 Field Trip

Feed mill tour - optional

5.4 Learning Activities, Role of Activity in Course, and Student Responsibility

Learning Activity	Role of Activity in Course	Student's responsibility
Lectures	Presentations of topics relevant to course objectives in an organized lecture format (see lecture schedule), accompanied by relevant class handouts. Development of student/professor dialogue within the lecture format will be encouraged.	Appropriate background reading in preparation for participation in classroom discussion.
Review paper on a topic in poultry nutrition OR feed mill tour report	Become familiar with relevant scientific literature on one specific aspect of poultry nutrition. OR	Work independently or in pairs to identify a relevant aspect of poultry nutrition, identify and interpret appropriate scientific literature and write a critical analyses review paper.
FURTHER DETAIL TO BE PROVIDED	Understand the fundamentals of feed manufacturing operations, good feed manufacturing practices and importance of optimal feed particle size in poultry nutrition	OR Join designated feed mill tour on October 30, working in a group of 2 or 3 gather relevant information related to feed

Learning Activity	Role of Activity in Course	Student's responsibility
		manufacturing. Use the collected information and appropriate scientific literature to write a detailed report on feed manufacturing processes and write a brief report on the importance of feed particle size in poultry nutrition
Reading, evaluation and discussion of scientific papers	To encourage the critical evaluation of scientific publications via group discussions and preparation of written reports	Critically evaluate scientific and technical publications and discuss them knowledgably. Prepare concise and reasoned written critiques of the scientific article (1 page)

5.5 Journal Paper Review and Discussion

The purpose of this component of the course is to learn how to read journal articles critically and effectively while assessing the relevance to the discipline. In addition, it encourages students to become familiar with the recent literature in poultry nutrition and gain expertise and confidence in evaluating their relevance.

Discussion #	Topic	Date	
		Group A	Group B
1	Introductory lecture: reading the literature critically	September 11*	
2	Macro-nutrients: energy and amino acids	Oct 2	Oct 4
3	Macro nutrients: vitamins, trace minerals and feed additives	Nov 15	Nov 20

*The entire class will attend the first review session. Subsequently the class will be split into two equal groups to facilitate individual student input.

- The papers will be distributed at least one week prior to the planned discussion group meeting
- Individual summary due 1 day before the group discussion (no exception)
- The discussion will begin with presentation of nutrition concept by the instructor providing relevant background to the paper
- During the remainder of the discussion students are expected to contribute to the discussion about the content and effectiveness of the paper
- Participation in the discussion will require appropriate understanding of the papers and background reading

5.6 Guidelines

- Guidelines for review papers will be posted in the dropbox of CourseLink and accessible throughout the term
- Guidelines for feed mill tour will be posted in the dropbox of CourseLink and accessible throughout the term

- Guidelines for critical review of journal papers will be posted in the dropbox of CourseLink and accessible throughout the term

6 Assessments

6.1 Assessment Details

Midterm (15%)

Date: Thu, Oct 11

Feed formulation laboratory (20%)

Due: Thu, Nov 22, 5:00 PM, via Dropbox

Review paper on a topic in poultry nutrition or report on commercial feed mill visit (15%)

Choice for feedmill or review paper: September 21 at 5:00 p.m. (email: ekim02@uoguelph.ca)

Report Submission due November 27 at 5 PM, via Dropbox

Final Exam (30%)

Date: , TBA

Critical Evaluation of Journal Papers (15%)

Date: Due date varies by section, via Dropbox

Participation in Journal Reviews (5%)

Date: Due date varies by section

6.2 Summary of Assessments and Tests

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
Midterm	Oct 11	15	1,2
Feed formulation laboratory	Due: Nov 22, 5 PM via dropbox	20	1,2,3,4
Review paper on a topic in poultry nutrition or report on commercial feed mill visit	Choice for feed mill or review paper: Sept 20, 5 pm (email: ekim02@uoguelph.ca) Due: Nov 27, 5 PM via dropbox	15	1,2,3,4,5
Final examination	Date: December 13th Time: 8:30am-10:30am Room: TBA	30	1,2,3,4,5
Critical evaluation of journal papers	Varies by section Via dropbox	15	6
Participation in journal	Varies by section	5	7

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
reviews			

7 Course Statements

7.1 Grading Policies

Since journal reviews constitute a significant fraction of the course effort and grade, it is essential that they represent your personal efforts.

Identical individual projects: Plagiarism will be strongly suspected if two or more students submit individual projects that are substantially identical, whether in the text of the initial overview sections, the choice of strengths and weaknesses discussed or the selection of supporting references.

Quotation and references: Plagiarism has occurred if the author does not place quotation marks around word-for-word copying of print or electronic format source material even if the source is correctly cited. To further reduce the possibility that a quotation will be misrepresented or mistaken as one's own work, direct quotations should be italicized where used. Such direct quotations should be used sparingly at most.

Degree of fidelity to source: Plagiarism has occurred if the author's writing is clearly recognizable as essentially derived from cited or uncited print or electronic format sources, even though the author has altered the original source material by inverting word or sentence order, or substituting synonyms. Authors should summarize and synthesize ideas and concepts rather than interchange words. Failure to follow these guidelines will result in referral of the offending students to the Associate Dean of O.A.C. who will assign the appropriate penalty.

7.2 Group Work

For the Journal review assignments, students are encouraged to consult, but assignments need to be handed in and will be marked for individual students.

For the Feed mill tour report, students are expected to work in groups of 2 or 3 and one report is expected from each group. Students within groups will be given the same marks, unless students within the group all agree - in writing - to an uneven distribution of marks. The same arrangements apply if review papers are prepared by more than one student.

7.3 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.

7.4 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.

7.5 Additional Costs

Not Applicable

8 University Statements

8.1 Email Communication

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

8.2 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 (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The regulations and procedures for [Academic Consideration](#) are detailed in the Undergraduate Calendar.

8.3 Drop Date

Courses that are one semester long must be dropped by the end of the fortieth class day; two-semester courses must be dropped by the last day of the add period in the second semester. The regulations and procedures for [Dropping Courses](#) are available in the Undergraduate Calendar.

8.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

8.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance, and not later than the 40th Class Day.

8.6 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.

The [Academic Misconduct Policy](#) is detailed in the Undergraduate Calendar.

8.7 Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

8.8 Resources

The [Academic Calendars](#) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.
