

## VII. UNIVERSITY COURSES

### Courses

University courses are designed for students from different fields and disciplines to engage in course work that is not discipline based.

#### **UNIV\*6000 The Structure and Function of Muscle Unspecified [0.50]**

An interdisciplinary course covering basic aspects of muscle from a range of viewpoints: structure, metabolism, protein content, energetics, mechanics, biological adaptations, growth and development. The course is designed for graduate students from a wide range of specific disciplines and will provide a broad background to muscle biology as well as more detailed insights into specific aspects of each area covered.

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

#### **UNIV\*6010 Regulation in Muscle Metabolism Unspecified [0.50]**

An interdisciplinary course emphasizing the regulation of muscle metabolism in vivo. The course focuses on the integration of metabolic fuel utilization to meet cellular energy demands under a variety of conditions in the whole animal. Topics include: sources of energy demand, integration of energy supply to meet energy demands, and regulation of cell growth, maintenance and adaptation.

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

#### **UNIV\*6020 Experimental Design and Applied Data Analysis for the Agricultural Sciences Fall and Winter Reg Required [0.50]**

This two-semester course focuses on statistical principles, experimental designs, and communication of findings to research peers within the agricultural field. Students apply statistical techniques and perform data analyses.

**Department(s):** Department of Plant Agriculture

**Location(s):** Guelph

#### **UNIV\*6030 Seminars and Analysis in Animal Behaviour and Welfare Fall and Winter Reg Required [0.50]**

This seminar-based course offers an interdisciplinary forum for the discussion of broad topics in animal welfare and human-animal relationships. Students analyze topics presented by visiting guest lecturers using perspectives from various disciplines such as animal science, philosophy, history, psychology, ethics, and biology.

**Department(s):** Department of Animal Biosciences

**Location(s):** Guelph

#### **UNIV\*6050 Innovation and Entrepreneurship in Agri-Food Systems Fall and Winter Reg Required [1.00]**

This course is designed for students from the Arrell Food Institute, and scholars from Food from Thought, and, space permitting, is open to any graduate student working on a thesis topic related to agri-food. Students work in groups to collaborate with NGOs, government agencies, or businesses on agri-food projects. Through these projects and a series of modules, students build knowledge and competencies in business development, communication, social innovation, project management, and entrepreneurship. This course is limited to 36 students. Priority Arrell Scholars, and Food from Thought funded graduate students.

**Department(s):** School of Hospitality, Food and Tourism Management

**Location(s):** Guelph

#### **UNIV\*6060 Mechanisms of Tissue and Cellular Mechanotransduction in Health and Disease Fall Only [0.50]**

This course explores fundamental mechanisms and signalling pathways that dynamically regulate cell and tissues responses to physical forces in health and disease. It is relevant to a wide range of areas of study, from biomechanics and tissue engineering to gastro-intestinal health, food and nutrition.

**Restriction(s):** Instructor consent required.

**Department(s):** Department of Food Science

**Location(s):** Guelph

#### **UNIV\*6080 Computational Thinking for Artificial Intelligence Fall Only [0.25]**

This course will provide students with an overview of the mathematical and computational foundation that is required to undertake artificial intelligence and machine learning research. Students will also gain an understanding of the historical context, breadth, and current state of the field. Students are expected to have already taken undergraduate courses in probability & statistics, calculus, linear algebra, and data structures & algorithms (STAT\*2120, MATH\*1210, ENGG\*1500, and CIS\*2520, or equivalents).

**Offering(s):** Offered through Distance Education format only.

**Department(s):** Dean's Office, College of Engineering and Physical Sciences

**Location(s):** Guelph

#### **UNIV\*6090 Artificial Intelligence Applications and Society Unspecified [0.50]**

This multidisciplinary, team-taught course provides an in-depth study of how artificial intelligence methodologies can be applied to solve real-world problems in different fields. Students will work in groups to propose solutions whilst considering social and ethical implications of artificial intelligence technologies.

**Prerequisite(s):** UNIV\*6080

**Restriction(s):** Restricted to students in the collaborative specialization in Artificial Intelligence

**Department(s):** Dean's Office, College of Engineering and Physical Sciences

**Location(s):** Guelph

#### **UNIV\*6120 Communications and Outreach in Biology Winter Only [0.50]**

What are the best ways to share biological knowledge with non-scientists, including user groups wishing to apply this knowledge? Students learn to be accurate, credible, inclusive and engaging communicators in a variety of media (from written articles or policy documents to tweets and podcasts).

**Offering(s):** Annually. First offering Winter 2024.

**Restriction(s):** Restricted to Master of Wildlife Biology students.

**Department(s):** Department of Integrative Biology

**Location(s):** Guelph

#### **UNIV\*6200 Special Student Research Unspecified [0.25]**

**Location(s):** Guelph

#### **UNIV\*6500 International Study Option Unspecified [0.00]**

A period of study in another country as part of a graduate program at the University of Guelph. Details may be obtained from the Office of Graduate and Postdoctoral Studies.

**Department(s):** Office of Graduate Studies

**Location(s):** Guelph

**UNIV\*6600 Animal Care Short Course Summer, Fall, and Winter [0.00]**

The course includes on-line training modules covering the following topics: Legislation, Regulation & Guidelines, Ethological Considerations in Animal Management, Ethics in Animal Experimentation, Research Issues, The Three Rs of Humane Animal Experimentation, Occupational Health and Safety when Working with Animals, Euthanasia, Recognition and Alleviation of Pain and Distress in Animals. Graduate students using or caring for live animals or assisting in teaching courses involving live vertebrate animals also must attend the Animal Care Services species-specific Workshops as part of the Animal User Training Program.

**Department(s):** Office of Graduate Studies

**Location(s):** Guelph

**UNIV\*6710 Commercialization of Innovation Fall Only [0.50]**

This course is designed to help participants better understand the process, the analytical tools that can assist the process and how best to prepare technologies to survive commercialization. The course includes elements of entrepreneurship, relationship building, organizational change, as well as project and personnel management.

**Department(s):** Department of Management

**Location(s):** Guelph

**UNIV\*6800 University Teaching: Theory and Practice Winter Only [0.50]**

This course focuses on the relationship between pedagogical theory and instructional practice. The course addresses two major teaching and learning competencies; firstly, it introduces learners to the foundational theory in pedagogy and explores recent disciplinary theory that informs instructional practice. Secondly, the course provides an opportunity for learners to develop and deliver a micro-teaching lesson, to develop the fundamental skills of providing peer-feedback and develop approaches to becoming a reflective instructional practitioner.

**Restriction(s):** Credit may be obtained for only UNIV\*6800, BIOL\*6500 or BIOL\*6510.

**Department(s):** Office of Teaching and Learning

**Location(s):** Guelph

**UNIV\*6900 Special Topics Unspecified [0.50]**

This special topics course explores selected themes, topics, and/or applied practices that are not covered by existing courses and do not have a natural disciplinary home. Any unit may request an offering through the Office of Graduate and Postdoctoral Studies.

**Department(s):** Office of Graduate Studies

**Location(s):** Guelph

**UNIV\*7000 Qualifying Examination Unspecified [0.00]**

Doctoral students are required to pass an examination to assess their knowledge of the subject area and related fields. Upon completing it satisfactorily, the student is deemed to have met the departmental standards and becomes a candidate for the PhD degree. Students are not responsible for registering in UNIV\*7000; the Office of Graduate and Postdoctoral Studies records students as having passed or failed UNIV\*7000 upon receipt of the qualifying examination report.

**Department(s):** Office of Graduate Studies

**Location(s):** Guelph

**UNIV\*7010 Qualifying Examination (Second Attempt) Unspecified [0.00]**

Doctoral students who fail the Qualifying Examination may be given a second opportunity to pass the examination. This opportunity to repeat it will be no later than six months after the failed attempt. Upon completing it satisfactorily, the student is deemed to have met the departmental standards and becomes a candidate for the PhD degree. Students are not responsible for registering in UNIV\*7010; the Office of Graduate and Postdoctoral Studies records students as having passed or failed UNIV\*7010 upon receipt of the qualifying examination report.

**Prerequisite(s):** Take UNIV\*7000

**Department(s):** Office of Graduate Studies

**Location(s):** Guelph

**UNIV\*7100 Academic Integrity for Graduate Students Summer, Fall, and Winter [0.00]**

Academic integrity is a code of ethics for teachers, students, researchers, and writers. It is fundamental to the University of Guelph's educational mission and to ensuring the value of the scholarly work conducted here. This course provides definitions, examples, and exercises to help graduate students understand the importance of academic integrity and learn how to avoid academic misconduct in their own work. All graduate students must take this course and complete it within 20 days of commencing their graduate program. Students are not responsible for registering in this course; the Office of Graduate and Postdoctoral Studies will enroll students in their first semester in the graduate program.

**Department(s):** Office of Graduate Studies

**Location(s):** Guelph

**UNIV\*7500 Research/Writing Unspecified [0.00]**

This course code signifies ongoing research and writing activities related to the completion of graduate degree programs. Students register for UNIV\*7500 in each semester that they are working towards their master's or doctoral thesis and/or are not taking any other courses for which an active section exists.

**Department(s):** Office of Graduate Studies

**Location(s):** Guelph