2006-2007 Graduate Calendar

The information published in this Graduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2006-2007 academic years, including the Summer Semester 2006, the Fall Semester 2006, the Winter Semester 2007 and the Summer 2007.

For your convenience the Graduate Calendar is available in PDF format.

If you wish to link to the Graduate Calendar please refer to the Linking Guidelines.

The University is a full member of:

- The Association of Universities and Colleges of Canada

Contact Information:

University of Guelph
Guelph, Ontario, Canada
N1G 2W1

519-824-4120
http://www.uoguelph.ca

Revision Information:	
May 9, 2006	Initial Publication
February 8, 2007	Revision I

Disclaimer

The Office of Graduate Program Services has attempted to ensure the accuracy of this on-line Graduate Calendar. However, the publication of information in this document does not bind the university to the provision of courses, programs, schedules of studies, fees, or facilities as listed herein.

Limitations

The University of Guelph reserves the right to change without notice any information contained in this calendar, including any rule or regulation pertaining to the standards for admission to, the requirements for the continuation of study in, and the requirements for the granting of degrees or diplomas in any or all of its programs.

The university will not be liable for any interruption in, or cancellation of, any academic activities as set forth in this calendar and related information where such interruption is caused by fire, strike, lock-out, inability to procure materials or trades, restrictive laws or governmental regulations, actions taken by the faculty, staff or students of the university or by others, civil unrest or disobedience, or any other cause of any kind beyond the reasonable control of the university.

The University of Guelph reaffirms section 1 of the Ontario Human Rights Code, 1981, which prohibits discrimination on the grounds of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, handicap, age, marital status or family status.

The university encourages applications from women, aboriginal peoples, visible minorities, persons with disabilities, and members of other under-represented groups.

Table of Contents

Aquaculture

The university offers an interdepartmental program of study leading to the degree of master of science in aquaculture [MSc (Aquaculture)]. The participating units are the Departments of Food, Agricultural and Resoure Econonmics, Animal and Poultry Science, Biomedical Sciences, Food Science, Human Health and Nutritional Sciences, Integrative Biology, Marketing and Consumer Studies, Molecular and Cellular Biology, Pathobiology, Philosophy, and Population Medicine.

Administrative Staff

Chair and Graduate Co-ordinator
Richard D. Moccia (135 Animal & Poultry Science, Ext. 56216)
rmoccia@uoguelph.ca

Graduate Faculty

James L. Atkinson
Associate Professor, Animal and Poultry Science

James S. Ballantyne
Professor, Integrative Biology

Dominique Bureau
Associate Professor, Animal and Poultry Science

David Castle
Assistant Professor, Philosophy

Moira M. Ferguson
Professor and Chair, Integrative Biology

John F. Leatherland
Professor, Biomedical Sciences

John Lumsden
Associate Professor, Pathobiology

Ian McMillan
Professor, Animal and Poultry Science

Richard D. Moccia
Professor, Animal and Poultry Science

Wayne C. Pfeiffer
Associate Professor, Food, Agricultural and Resource Economics

Rosalynn M.W. Stevenson
Associate Professor, Molecular and Cellular Biology

Margaret Thorburn
Associate Professor, Population Medicine

Glen J. Van Der Kraak
Professor, Integrative Biology and Associate Dean, Research, CBS

Patricia A. Wright
Professor, Integrative Biology

Rickey Y. Yada
Professor, Food Science

MSc Program

Aquaculture is the production of biomass of any aquatic plant or animal, including algae, molluscan, crustacean, and fish species, through artificial cultivation techniques. The MSc (Aquaculture) program is a non-thesis degree consisting of courses and a special project related primarily to the production of cool water and cold water fin-fish species. The objective of the degree is to provide an intensive, multidisciplinary program of study, without areas of sub-specialization. Graduates will obtain an integrated, technical knowledge of the concepts of animal production, agribusiness and state-of-the-art technology as they relate to aquaculture. The program includes a wide range of courses, a special project requirement and a practicum intended to provide essential experience in applied fish-production systems.

Admission Requirements

Students may be admitted to the MSc (Aquaculture) program from a variety of undergraduate backgrounds, including honours degree programs in animal or agricultural science, environmental biology, fisheries biology, marine biology, microbiology, nutritional sciences, wildlife biology, and zoology. The adequacy of a student's background and experience will be assessed by an admissions committee before a student is permitted to enter the program. All applicants must meet the university minimum criteria for admission to graduate studies. In addition, the admissions committee will look for relevant work experience or recognized educational training in agrifood systems and aquatic or fisheries science.

Applications must be accompanied by a letter of intent expressing the student's reasons for wanting to enter the program. Prior completion of introductory basic science courses will be expected. All applicants will require an academic program advisor prior to an offer of admission.

Degree Requirements

The program requires the completion of a minimum of 6.5 course credits. Students will be permitted to take additional, elective course credits if desired. At least 4.5 of the course credits will be at the graduate level and all undergraduate courses must be eligible for graduate credit. The selection of the courses will be dependent, in part, on the courses completed in the student's undergraduate program. The total duration of the program is expected to be 3-4 full-time semesters, or longer if part-time study is undertaken. Detailed schedules of studies are available from the program coordinator or from any member of the graduate faculty in the program. The student's advisor will provide leadership in making arrangements for, and providing advice on, the student's overall program, including the special project. Students in the program will be under the guidance of the Aquaculture Interdepartmental Group, and will register both in the interdepartmental program and in the department of their advisor. The Aquaculture Interdepartmental Group consists of members of the graduate faculty whose teaching or research interests are wholly or partly related to aquaculture.

Courses

AQUA*6000 Special Project in Aquaculture F,S,W [1.00]

An intensive learning opportunity focusing on an applied problem in the aquaculture industry. Completion of a literature review and project, in concert with hands-on experience with live animals, either in a research or commercial setting, form the basis of a final report and oral presentation to be made to a committee of the Aquaculture Inter\departmental Group. Practical experience is also gained through on-site training at the Alma Aquaculture Research Station.

AQUA*6100 Science and Technology in Aquaculture F [0.50]

A formal lecture, student seminar and essay course designed to examine the role of science and technology in the aquaculture industry. Latest advances in the scientific community are explored, with special attention to those developments having promise for commercialization and technology transfer to the private sector. The course will explore the relationships between basic and applied science, and the development of new technology for the industry.

AQUA*6200 Practicum in Aquaculture: Culture of Salmonids S [0.50]

Using a problem-solving approach, students will complete a series of modules at the Alma Aquaculture Research Station covering topics in water management, hatchery operations, propagation techniques, feeding and nutrition, health and disease, economics and regulatory issues. Students will solve practical problems from both a theoretical and applied perspective.

Graduate Courses Eligible for Credit in the MSc (Aquaculture) Program:

Animal Science

ANSC*2200	0.5	Principles of Aquaculture
ANSC*6450	0.5	Topics in Animal Biotechnology

Capacity Development and Extension

REXT*6190	0.5	Fundamentals of Interpersonal and Intercultural Communication
REXT*6311	0.5	Extension Theory and Methods

Economics

ECON*6750	0.5	Managerial Economics
ECON*6770	0.5	Financial Management

Food, Agricultural and Resource Economics

AGEC*6120	0.5	Marketing Management
AGEC*6130	0.5	Special Topics in Financial Management
AGEC*6430	0.5	Case Studies in Farm Management

Food Safety and Quality Assurance

FSQA*6600	0.5	Principles of Food Safety and Quality Assurance

Geography

GEOG*6281	0.5	Environmental Resource Evaluation

Hospitality and Tourism Management

HTM*6110	0.5	Foundations of Leadership

Integrative Biology

ZOO*6550	0.5	Aquaculture

Marketing and Consumer Studies

COST*6010	0.5	Product Development and Management Systems
COST*6150	0.5	Quality Assurance Management

Rural Planning and Development

RPD*6310	0.5	Environmental Impact Assessment

Undergraduate Courses Eligible for Graduate Credit

(Students must not have received credit for these courses as part of their undergraduate programs):

Food, Agricultural and Resource Economics

AGEC*4220	0.5	Advanced Farm Management

Animal Science

ANSC*3120	0.5	Introduction to Animal Nutrition

ANSC*3150	0.5	Principles of Farm Animal Care and Welfare
ANSC*4050	0.5	Recombinant DNA in Animal Science
NUTR*3340	0.5	Nutrition of Fish and Crustacea

Biology

BIOL*3450	0.5	Introduction to Aquatic Environments

Environmental Sciences

ENVB*3360	0.5	Waste Management and Utilization
ENVB*4020	0.5	Water Quality and Environmental Management

Food Science

FOOD*4700	0.5	Food Product Development

Marketing and Consumer Studies

COST*3010	0.5	Quality Management

Pathobiology

PATH*3610	0.5	Principles of Disease
PATH*4100	0.5	Diseases of Aquatic Animals

Integrative Biology

ZOO*4110	0.5	Principles of Fish and Wildlife Management
ZOO*4020	0.5	Ichthyology
ZOO*4330	0.5	Environmental Biology of Fishes
ZOO*4350	0.5	Biology of Polluted Waters
ZOO*4390	0.5	Environmental Physiology

Note

Other relevant graduate and undergraduate courses may be taken for credit subject to the approval of the student's advisory committee.