ZOO*4570 Marine Ecological Processes - DRAFT

Winter 2022
Section(s): C01

Department of Integrative Biology
Credit Weight: 0.50
Version 1.00 - December 09, 2021

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1 Course Details

1.1 Calendar Description

This course provides an advanced analysis of the physical and biogeochemical processes in the world's oceans and the dependence of biological processes on physical and chemical processes from micro- to macro-scales. Topics to be discussed include production and energy transfer within pelagic food webs, export of energy to the benthos, and structure and dynamics of marine communities.

Pre-Requisites: BIOL*2060, BIOL*3450, PHYS*1080

1.2 Course Description

ZOO*4570 will be taught remotely with synchronous lectures and lab sessions for winter 2021. While we will not be able to physically be with you as you delve into the wonderful world of marine science, we will virtually meet several times a week (see below) as we explore the study of marine ecological processes. The labs will involve online demonstrations as well as worksheets.

1.3 Timetable

- Note that the entire course will be taught remotely with synchronous lab and lecture sessions.
- Lectures: Monday, Wednesday, and Friday 10:30AM - 11:20AM via ZOOM Online (Synchronous)
    - All lecture materials will be uploaded to Courselink prior to scheduled lecture times.
    - Live Q&A sessions during scheduled lecture times.
- Laboratory: Friday 12:30PM - 01:20PM via ZOOM online (Synchronous)

- See Courselink for additional information

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

1.4 Final Exam

7:00PM - 9:00PM Thursday April 15, 2021: ONLINE

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

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2 Instructional Support

2.1 Instructional Support Team

Instructor: Professor Josef Ackerman
Email: ackerman@uoguelph.ca
Telephone: +1-519-824-4120 x58268
Office: SC1 2468
Office Hours: via email

2.2 Teaching Assistants

Teaching Assistant (GTA): Al Lu
Email: alu03@uoguelph.ca

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3 Learning Resources

3.1 Required Resources

Courselink (Website)
https://courselink.uoguelph.ca

- This course will make use of the University of Guelph's course website on D2L (via Courselink). You are responsible for all information posted on the Courselink page for ZOO*4570.
- Links to additional required readings will be posted on CourseLink.
- PDFs of Lecture Presentations will be posted on Courselink prior to each lecture. Please check for any revisions to the PDF files (indicated by "-R.pdf), which may be posted after the lecture.

ZOOM (Software)

https://zoom.us

Students registered in the course must register for a free basic Zoom account in order to attend the synchronous Zoom meetings for lectures, labs and virtual office hours.

Please visit https://zoom.us to register for a free basic Zoom account **using your University of Guelph email address (Gryphmail).**

It is VERY IMPORTANT that you use your Gryphmail to register for your account and **NOT** any other email address (e.g., gmail, hotmail, yahoo, or Facebook).

Webcam needed for midterm and final (Equipment) (Equipment)

We will be using Respondus Lockdown Browser for midterm and final exams. Please ensure that you have a working webcam and the software which will be available via Courselink.

Readings in marine Ecological Processes (Textbook)

- CourseLink: Please check the course D2L site under:
  - "Required Textbooks": ***"Readings in Marine Ecological Processes 2017*** (ZOOL*4570). ISBN-13: 978-0-17-6774257 (Nelson).

Course Technologies and Technical Support (Software)

This course will be offered entirely online using CourseLink (powered by D2L's Brightspace), the University of Guelph's online learning management system (LMS). By using this service, you agree to comply with the University of Guelph's Access and Privacy Guidelines. Please visit the D2L website to review the Brightspace privacy statement and Brightspace Learning Environment web accessibility standards.

- http://www.uoguelph.ca/web/privacy/
- https://www.d2l.com/legal/privacy/
- https://www.d2l.com/accessibility/standards/

CourseLink System Requirements (Equipment)

You are responsible for ensuring that your computer system meets the necessary system requirements. Use the browser check tool to ensure your browser settings are compatible and up to date. (Results will be displayed in a new browser window).

- http://spaces.uoguelph.ca/ed/system-requirements/
- https://courselink.uoguelph.ca/d2l/systemCheck

3.2 Recommended Resources

Lecture Material Sources (Readings)

- CourseLink: Please check the course D2L site under:
  - ***Lecture Material Sources*** (most available on 4 hour reserve in McLaughlin Library):
  - Arias, AH and Menendez, MC. 2013. ***Marine ecology in a changing world***. CRC Press 270 pp. (online)
  - Beckman, DW. 2013. Marine environmental biology and conservation. Jones & Bartlett Learning.
  - Bertness, MD., Bruno, JF., Silliman, BR., Stachowicz, JJ. 2014. ***Marine community ecology and conservation.*** Sinauer Associates
  - Boulding, EG. and Ackerman J.D. 2017. Readings in Marine Ecological Processes 2017, ZOOL4570
  - Colling, A. (Open University) 2001. ***Ocean circulation. 2nd Ed.*** Butterworth-Heinemann of Elsevier. 286 pages, (online)
  - James, R. (Open University). 2005. ***Marine biogeochemical cycles.*** Butterworth-Heinemann of Elsevier
  - Karleskint, G. 2010. ***Introduction to marine biology.*** Cengage.
  - Levinton, JS. 2009. ***Marine biology. 3rd Ed.*** Oxford Press
  - Mann, K. H., Lazier, J. R. N. 2006. ***Dynamics of marine ecosystems 3rd edition***, Blackwell.
  - Miller, CB.; and Wheeler, P. 2012. ***Biological Oceanography, 2nd. Ed***. Wiley (online)
  - Nybakken, JW. & Bertness MD. 2005. ***Marine biology : 6th Ed.*** Pearson/Benjamin Cummings
  - Open University. 2002. ***Seawater its composition, properties, and behaviour 2nd Ed.*** Butterworth-Heinemann. 168 pages (online)
  - Valiela, I. 2015. ***Marine ecological processes. 3rd ed.***, Springer-Verlag, (online)

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4 Learning Outcomes

The course goal is to integrate introductory Marine Geology, Marine Chemistry, Marine Physics, Marine Biology and Marine Ecosystem Processes with the existing Zoology background of Marine and Freshwater Biology majors.

4.1 Course Learning Outcomes

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

1.
   - Topic: Ocean geology
   - Expectations (input), students entering this class should be able to describe:Factors affecting species distribution and abundance
   - Learning Outcomes (output), students successfully finishing this class should be able to: Describe how plate tectonics affects the distribution of vent fauna

2.
   - Topic: Ocean geography
   - Expectations (input), students entering this class should be able to describe: The major oceans and continents
   - Learning Outcomes (output), students successfully finishing this class should be able to: Explain spatial and depth variation in composition of ocean sediments

3.
   - Topic: Water movements
   - Expectations (input), students entering this class should be able to describe: Major ocean currents
   - Learning Outcomes (output), students successfully finishing this class should be able to: Understand factors affecting ocean basin circulation

4.
   - Topic: Ocean stratification
   - Expectations (input), students entering this class should be able to describe: Seasonal thermal stratification in lakes and perhaps oceans
   - Learning Outcomes (output), students successfully finishing this class should be able to: Explain seasonal nutrient availability in euphotic zone

5.
   - Topic: Convergence/Divergence
   - Expectations (input), students entering this class should be able to describe: Seasonal nutrient regeneration in lakes and perhaps oceans
   - Learning Outcomes (output), students successfully finishing this class should be able to: Predict where major upwelling/downwelling regions are located

6.
   - Topic: Seawater Composition

- Expectations (input), students entering this class should be able to describe: Freezing point depression, boiling point elevation with increasing salinity
- Learning Outcomes (output), students successfully finishing this class should be able to: Understand constancy of composition of seawater and how halocline density gradients form

7.
- Topic: Nutrient limitation
- Expectations (input), students entering this class should be able to describe: Nitrogen and phosphorous cycles
- Learning Outcomes (output), students successfully finishing this class should be able to: Use Redfield ratio to predict which nutrient is limiting

8.
- Topic: Primary production
- Expectations (input), students entering this class should be able to describe: Understand reactions involved in photosynthesis
- Learning Outcomes (output), students successfully finishing this class should be able to: Predict factors which limit primary production in a particular environment

9.
- Topic: Phytoplankton diversity
- Expectations (input), students entering this class should be able to describe: Secondary pigments and metabolites in plants
- Learning Outcomes (output), students successfully finishing this class should be able to: Understand how the absorption spectrum of a water mass affects critical depth & how armour and chemical warfare affect herbivory

10.
- Topic: Zooplankton diversity
- Expectations (input), students entering this class should be able to describe: Life at low Reynolds numbers
- Learning Outcomes (output), students successfully finishing this class should be able to: Understand feeding mechanisms of small copepods

11.
- Topic: Predator-prey
- Expectations (input), students entering this class should be able to describe: Functional responses to prey density
- Learning Outcomes (output), students successfully finishing this class should be able to: Describe feeding efficiency changes with relative predator-prey size

12.
- Topic: Pelagic ecosystems
- Expectations (input), students entering this class should be able to describe: Food chains and food webs
- Learning Outcomes (output), students successfully finishing this class should be able to: Understand how food chain length affects fish production

13.
- Topic: Oceanographic Processes
- Expectations (input), students entering this class should be able to describe: Population and Community Ecology
- Learning Outcomes (output), students successfully finishing this class should be able to: Describe the effects of ocean circulation on community structure

14.
- Topic: Coastal Processes
- Expectations (input), students entering this class should be able to describe: Plate tectonics
- Learning Outcomes (output), students successfully finishing this class should be able to: Understand the relationship between tectonics and coasts/estuaries

15.
- Topic: Tides and Wave
- Expectations (input), students entering this class should be able to describe: Tides and waves
- Learning Outcomes (output), students successfully finishing this class should be able to: Understand how tides and waves affect abiotic and biotic processes

16.
- Topic: Benthic ecosystems
- Expectations (input), students entering this class should be able to describe: Larval forms of marine invertebrates and fishes
- Learning Outcomes (output), students successfully finishing this class should be able to: Predict when benthic-pelagic coupling is important

17.
- Topic: Marine communities
- Expectations (input), students entering this class should be able to describe: Disturbance, species diversity and succession
- Learning Outcomes (output), students successfully finishing this class should be able to: Describe factors affecting zonation and succession

18.
- Topic: Ecosystem engineers
- Expectations (input), students entering this class should be able to describe: Global distribution of Coral reefs, seagrass beds, mangroves, and kelp forests
- Learning Outcomes (output), students successfully finishing this class should be able to: Predict changes in species richness when ecosystem engineers are added to or removed from a section of coastline

19.
- Topic: Reproductive Systems
- Expectations (input), students entering this class should be able to describe: Algal and plant reproduction, Larvae of marine invertebrates
- Learning Outcomes (output), students successfully finishing this class should be able to: Understand reproductive strategies and tradeoffs in benthic ecosystems

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5 Teaching and Learning Activities

5.1 Course Content & Readings

Week	Lecture Area	Lecture Topic	Lab Topic	Textbook Reading

(1)	(A) Marine Geology and Processes:	Plate tectonics (crust, types of plates, paleomagnitism, hot spots, terranes)	Plate Tectonics	Ch1 - Plate Tectonics Ch2 - Ocean Floor
(2)		Seafloor (continental margins, ocean basins, hydrothermal vents, sediments)	Seafloor	
(3)		Marine Sediments (size, origin, distribution)	Marine Sediments	
(4)	(B) Marine Physics and Processes:	Atmospheric Circulation (Coriolis effect, Circulation cells, up/downwelling, Storms, ENSO, NAO)	Ocean-Atmosphere	Ch4 – Atmospheric Circulation Ch5 – Circulation of the Ocean Ch6 – Waves and Tides
(5)		Ocean Circulation (Forces, Surface Currents – Ekman transport, eostrophic gyres,convergence/divergence zones;	Ocean circulation	
(6)		Waves (structure, classification, types, wind waves, interactions, other)	Waves	
(7)		Tides (equilibrium model, forces, structure); Tides (patterns, amphidromic system, currents)	Tides	
(8)	(C) Marine Chemistry and Processes:	Seawater, Salinity, Nutrient, Gases	Chemistry	Ch3 - Water and Ocean Structure
(9)	(D) Pelagic Ecosystems	Pelagic Ecology (primary production, Phytoplankton diversity,	Marine Plankton	Ch7 – Marine Microbes

	and Processes:	Zooplankton diversity, trophic interactions)		Ch9 – Marine Communities
(10)	(E) Benthic Ecosystems and Processes:	Coasts & Estuaries (Tectonic coasts, erosion, deposition, biology, waves/storms)	Marine macrophytes	Ch8 - Multicellular Primary Producers Ch9 – Marine Communities
(11)		Marine Macrophytes (diversity, ecology) Benthic Ecology **-** Rocky substrate (benthos, zonation [stressors, competition, disturbance], keystone sp, kelps, corals, hydrothermal vents)	No Lab	
(12)		Benthic Ecology - Soft substrates (sand mudlats, salt marshes, mangroves, seagrasses, continental shelf, deep sea	No lab scheduled	

6 Assessments

6.1 Marking Schemes & Distributions

Name	Scheme A (%)
Laboratory	15
Midterm	25
Peer assessment of draft of term paper	5
Quality of peer assessment of another student	5
Final version of term paper	20
Final Exam	30

Name	Scheme A (%)
Total	100

6.2 Assessment Details

Laboratory (15%)
Date: 10 Weekly assignment due at end of each 1-hour laboratory
Learning Outcome: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19

- Course content: Laboratory and computer activities
- Regular attendance and successful completion of Laboratory assignments is required to obtain credit for course.
- No alternative times are available for missed labs

Midterm (25%)
Date: Mon, Mar 1, ONLINE (during class time)

- Course content: Lectures, Laboratories, and assigned readings
- Not all information will be posted on D2L and some important points are made orally by the instructor. It is, therefore, important to take notes during class and tutorial lectures.
- No alternative date is available for midterm exam

Peer assessment of draft of Term paper (5%)
Due: Fri, Mar 12, 11:59 PM, Posted to PEAR before 11:59 PM
Learning Outcome: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19

- Hand in the draft of your paper, which will be assessed by a peer next week (5% of your final grade).

Quality of peer assesment of another student (5%)
Due: Fri, Mar 19, 11:59 PM, Posted to PEAR before 11:59 PM
Learning Outcome: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19

- submit the assessment of a peer's paper based on the term paper rubric -- the quality of your peer assessment will be evaluated by the teaching team (5% of your final grade)
- submission of peer assessment is required to receive a peer assessment grade

Final Version of Term Paper (20%)
Due: Thu, Apr 1, 11:59 PM, 1. Posted to Pear & 2. posted to Courselink before 11:59 PM
Learning Outcome: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19

- Submit the final version of your term paper (incorporate the comments from the peer assessment and use your experience as a peer assessor)
- Draft term paper must be peer-assessed electronically by another student assigned by PEAR before we will grade your submission

- **Possible term paper topics** include:
    - Effect of a Physical Oceanographic (or a Biogeochemical) Process on (1) a population(s) of a marine species or (2) community of marine species or (3) a marine ecosystem(s),
    - How changes in a Physical Oceanographic (or Biogeochemical) Process caused by human activities are affecting marine ecosystems.

    - Please check with professor before doing other topics.

- **Format and Style**: IMRAD Reporting style
- Maximum of 6 pages of text excluding Title page, ***References***, Figures, and Tables. (Penalties for too long or too short);
- Double-spaced text, font size = 12 pt, 2.54 mm (1 inch) margins, Figures and Tables should be placed after ***References***.
- In-text citations and ***References*** should be in the style of the journal, ***Limnology & Oceanography***.
    - Minimum 10 references from articles taken from the primary literature in peer-reviewed scientific journals with at least five being from the past three years. You can include recent review articles but (1) government websites are not counted towards total and (2) do not cite from Predatory Journals.
- Submit final version: (1) post one final electronic pdf copy on PEAR for the teaching team to read and (2) post one pdf copy on D2L for your classmates to read.

- **Grading:** Final paper is worth 30% of course grade: You will receive a grade out of 20% for the term paper (marked by the teaching team) + a grade out of 5% from the peer assessment (marked by a peer assessor) + a grade out of 5% for the quality of your peer assessment of another student (marked by the

teaching team) as described above.

- The Grading Rubric will be used by a peer assessor to grade your draft version and by your teaching team to grade your (1) peer assessment of another student and (2) the final version of your term paper.
    - Scientific Content: 50%
    - Creativity and Synthesis of ideas: 20%
    - Logical Organization and Writing Style: 20%
    - English/grammar, Punctuation: 10%
    - Total: 100%

Final Exam (30%)
Date: Thu, Apr 15, 7:00 PM - 9:00 PM, ONLINE
Learning Outcome: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19

- Course content: Lectures, Laboratory & Readings
- Multiple choice and written short answers – the final exam will cover all lectures, labs, and assigned readings, including the ones before the midterm but the emphasis will be on topics from after the midterm
- Not all material discussed in lecture is contained in lecture slides
- **Exam time and location is subject to change. Please see WebAdvisor for the latest information.**

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7 Course Statements

7.1 Time Zones

PLEASE NOTE ALL TIMES REPORTED IN THIS COURSE OUTLINE AND ON COURSELINK ARE EASTERN TIME (GUELPH, ONTARIO, CANADA)

If you are joining us from another time zone, please ensure that you take into account the time change when joining lectures or labs, when submitting assignments, and when completing the midterm and final exam.

7.2 Appropriate Use of Discussions and ZOOM

This course has been designed to foster interaction between students, student teams and with the instructors. The Discussions in Courselink, and our synchronous ZOOM sessions provide a means for team members to share ideas, opinions, and resources. Please show respect for the opinions of others at all times, even if you do not agree with their ideas. We

encourage you to disagree, critique and add new insights, but this must be done in a positive manner. Discussions in the online conferences and synchronous learning sessions must be treated the same as face-to-face discussions. In the conferences others cannot see such things as facial expression and body language, both of which we normally take into account when talking face-to-face with someone. Therefore, be very careful in the phrasing of your contributions and responses, as they may be interpreted differently than what you had intended. Please respect your fellow students and Teaching Team Members.

7.3 Late Policy

Late lab assignments are not accepted without prior arrangement with Dr. Ackerman. Please do not hesitate to reach out if you are struggling to meet deadlines for ANY reason. Work that is handed in late will be penalized 10% each day that it is late unless valid compassionate or medical exemptions apply (Please see “When You Cannot Meet a Course Requirement” section below).

It is incumbent on the student to inform the instructor of the course within the first two weeks of class if there is a conflict between a student's religious observations (Holy Days) and a scheduled lab component, or lecture / lab evaluations.

7.4 Rights and Responsibilities When Learning Online (Netiquette)

For online courses, the course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply, plus other policies and considerations that come into play specifically because these courses are online.

For more information on your rights and responsibilities when learning in the online environment, visit Rights and Responsibilities.

- http://uoguelph.ca/student-resources/rights-and-responsibilities

Inappropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include:

- Posting inflammatory messages about your instructor, TA's or fellow students;
- Using obscene or offensive language online;
- Copying or presenting someone else's work as your own;
- Adapting information from the Internet or other sources without using proper citations or references;
- Buying or selling term papers or assignments;
- Posting or selling course materials to course notes (or other) websites;
- Having someone else complete your quiz or completing a quiz for/with another

student;
- Stating false claims about lost quiz answers or other assignment submissions;
- Threatening or harassing a student, TA or instructor online;
- Attempting to compromise the security or functionality of the learning management system
- Discriminating against fellow students, instructors, and/or TAs;
- Using the course website to promote profit-driven products or services;
- Attempting to compromise the security or functionality of the learning management system; and
- Sharing your username and password.
- Recording lectures or other information without consent of course instructor

7.5 Use of Social Media

The university is aware that many students use Facebook Groups and other social media to communicate with their peers about course work. These media can be useful for communicating about and learning course material. However, please we aware that:

- Discussion boards on courselink are also beneficial as they are monitored by instructors who can provide guidance and factual information about a course and avoid false or misleading information.
- All students have a responsibility to behave with the utmost of integrity when in a class Facebook group just as in other forms of course interaction.
- Any behaviour that violates the course expectations and the trust upon which all learning depends, constitutes academic misconduct (see Undergraduate Calendar).
- Academic misconduct includes sharing answers from online quizzes or sharing information about exams with those who have yet to complete them. Accepting answers distributed by students also makes you complicit in academic misconduct.
- All potential forms of misconduct on social media are taken as seriously as any other form of misconduct on campus and will be investigated vigorously.

Please consider the potential impact of academic misconduct on your record. Take all steps to avoid instigating or participating in this kind of activity. It's not worth it.

7.6 Recording of Course Material

- Instructors will record their Zoom lectures and post to Courselink following each lecture.
- Background lab content given by instructors or TA's will be recorded and shared with students in Courselink. Breakout rooms and group discussions may be recorded but will not be shared with students on Courselink
- Electronic recording of lectures or labs by students is expressly forbidden without consent of the instructors.
- 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 instructors.

7.7 Copyright Notice

Content within this course is copyright protected. Third party copyrighted materials (such as book chapters and articles) have either been licensed for use in this course, or have been copied under an exception or limitation in Canadian Copyright law.

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

8 Department of Integrative Biology Statements

8.1 Academic Advisors

If you are concerned about any aspect of your academic program:

- Make an appointment with a program counsellor in your degree program. B.Sc. Academic Advising or Program Counsellors

8.2 Academic Support

If you are struggling to succeed academically:

- Learning Commons: There are numerous academic resources offered by the Learning Commons including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams,

and general study skills. You can also set up individualized appointments with a learning specialist. http://www.learningcommons.uoguelph.ca/

- Science Commons: Located in the library, the Science Commons provides support for physics, mathematic/statistics, and chemistry. Details on their hours of operations can be found at: http://www.lib.uoguelph.ca/get-assistance/studying/chemistry-physics-help and http://www.lib.uoguelph.ca/get-assistance/studying/math-stats-help

8.3 Wellness

If you are struggling with personal or health issues:

- Counselling services offers individualized appointments to help students work through personal struggles that may be impacting their academic performance. https://www.uoguelph.ca/counselling/
- Student Health Services is located on campus and is available to provide medical attention. https://www.uoguelph.ca/studenthealthservices/clinic
- For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations. http://www.selfregulationskills.ca/

8.4 Personal information

Personal information is collected under the authority of the University of Guelph Act (1964), and in accordance with Ontario's Freedom of Information and Protection of Privacy Act (FIPPA) http://www.e-laws.gov.on.ca/index.html. This information is used by University officials in order to carry out their authorized academic and administrative responsibilities and also to establish a relationship for alumni and development purposes.

For more information regarding the Collection, Use and Disclosure of Personal Information policies please see the Undergraduate Calendar. (https://www.uoguelph.ca/registrar/calendars/undergraduate/current/intro/index.shtml)

8.5 Course Offering Information Disclaimer

Please note that course delivery format (face-to-face vs online) is subject to change up to the first-class day depending on requirements placed on the University and its employees by public health bodies, and local, provincial and federal governments. Any changes to course format prior to the first class will be posted on WebAdvisor/Student Planning as they become available.

9 University Statements

9.1 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.

9.2 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 grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals
https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml

Graduate Calendar - Grounds for Academic Consideration
https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions
https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml

9.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses
https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml

Graduate Calendar - Registration Changes
https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml

Associate Diploma Calendar - Dropping Courses
https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml

9.4 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.

9.5 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 make a booking at least 14 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time.

For Guelph students, information can be found on the SAS website
https://www.uoguelph.ca/sas

For Ridgetown students, information can be found on the Ridgetown SAS website
https://www.ridgetownc.com/services/accessibilityservices.cfm

9.6 Academic Integrity

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 encourages academic integrity. 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.

Undergraduate Calendar - Academic Misconduct
https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml

Graduate Calendar - Academic Misconduct
https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml

9.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student,

or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

9.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars
https://www.uoguelph.ca/academics/calendars

9.9 Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (https://news.uoguelph.ca/2019-novel-coronavirus-information/) and circulated by email.

9.10 Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g.. final exam or major assignment).

9.11 Covid-19 Safety Protocols

For information on current safety protocols, follow these links:

- https://news.uoguelph.ca/return-to-campuses/how-u-of-g-is-preparing-for-your-safe-return/
- https://news.uoguelph.ca/return-to-campuses/spaces/#ClassroomSpaces

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.
