

CRUSTACEAN BIOLOGY
OCSC4920 Winter 2023

Professor: Dr. Iain McGaw

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Lecture: C2033: Wednesday 11am-2pm

Office Hours: By appointment

Pre-requisites: OCSC 1000 and 2000 (or Biology 3710), and Biology 2122 and 2600

Text: No specific book required as the course material will come from a number of different sources such as the Journal of Crustacean Biology, Invertebrate Zoology – Rupert and Barnes, Crustacean Farming – Wickens and Lee, and Journal articles

Format

Lecture format: 3 hours per week taught as 1 session. There will also be videos shown on some aspects of crustacean biology. Questions may come from these videos, so please make notes from these videos.

Rationale

This course will expose students to different aspects of Crustacean Biology. Crustaceans are a large group of arthropods ranging in size from 0.1mm to 4m. They inhabit nearly all environments' on earth ranging from deep sea vents to the top of mountains. Given the broad array of species (>68,000) and habitats this course will provide something for every student as it will investigate classification, functional morphology, behaviour, physiology, and fisheries and aquaculture. Although crustaceans are touched upon in several other courses, this will give a more detailed and thorough coverage.

Upon completion of crustacean biology students should have an understanding of the basic classification system and how it is applied to the various groups. Most of the lectures will concentrate on the decapods. By the end of the course the students should also have a thorough understanding of the behavioural and physiological reactions as well as how crustaceans are economically important.

Assessment: Assessment of the course will be in the form of three exams in the lecture session (dates given in exam section) which will mostly contain written answers, but may be some fill in the blanks and true false questions. In addition there will also be a take home exam that will account for 25% of your overall grade.

Schedule: **This is a tentative schedule**, certain topics may overlap these dates, or we may cover others in less time, so you will need to attend all lectures. If you miss a lecture for any reason you are responsible for getting the notes for that period. I do not provide notes for the lecture, please

get these from one of your colleagues.

DATE	SUBJECT
Jan 11	Classification and anatomy
Jan 18	Anatomy and Morphology
Jan 25	Reproduction, feeding and growth, migrations
Feb 01	Test 1
Feb 08	Extreme Environments - hydrothermal vents, ephemeral pools, hypoxia
Feb 15	Extreme Environments - salinity, intertidal, caves
Feb 22	Winter break - no class
Mar 01	Land crabs and isopods
Mar 08	Test 2
Mar 15	Invasive/Disruptive species – Green crabs, crayfish, sea lice
Mar 22	Crustacean fisheries
Mar 29	Crustacean aquaculture
Apr 05	Crustacean aquaculture

Finals week - **Final test- Comprehensive - Date TBA**

Exams

The exams are on the following dates. The exams will include all material we have covered in class prior to that exam.

Exam 1 - Feb 1 st	25%
Exam 2 - March 8th	25%
Final - TBA - Comprehensive	25%
Assignment (Due in 2pm April 5th)	25% - format announced at test 2

The exams are challenging, and during the lectures you will be introduced to many new terms and concepts. It is therefore, essential that you keep up with the work. Quite often I will give examples or words not included in your textbook, so you must attend all lectures. The course schedule is tentative, in some cases we may cover material in a lesser or greater time than specified. If you miss a lecture get the notes from a colleague. Most exam questions will come from my lecture notes, but you will also need to read through your textbooks to review sections as some material will come from information not necessarily covered in lecture..

For every week of lectures, you should be putting in at least 2-3 hours on your own; reading through the text and revising your notes. If you find that you are having problems "see me", in this way we can make an attempt to try and overcome them.

For each test you should start looking through the material and familiarizing yourself with it, at least a week beforehand. In most cases you will not be able to get away with a few

hours work the night before and attain a satisfactory grade.

Grading and Exam Policy

Grades will be assigned both numerically and as a letter grade. No curve will be employed in the assignment of a final grade. There is no extra credit given, so do not ask for it! All points toward the grade will come from the above listed examinations.

There will be no makeup exams given without a valid excuse. You must contact me, or get someone else to contact me by 9am the following day, if you miss an exam for any reason. Any make-up exams given will consist of essay type questions. If a make-up is given it will need to be taken I shall arrange the dates and times, not you. Failure to turn up for a make-up will result in an F for that exam. Make a note of the exam dates, if you have travel tickets booked or social events booked for these dates unbook them now. Exams are scheduled to begin promptly when the class is scheduled to start, if you arrive more than ten minutes late, for whatever reason, you will be given an essay make-up exam.

Statement on Holidays

It shall be the responsibility of the student to notify the instructor no later than the last day of late registration of their intention to participate in religious holidays which do not fall on State holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternative time would impose an undue hardship on the instructor or University that could not have been reasonably avoided.

Statement on academic integrity: Students are expected to adhere to those principles which constitute proper academic conduct. A student has the responsibility to know which actions, as described under Academic Offences in the University Regulations, could be construed as dishonest or improper. Students found guilty of an academic offence may be subject to a number of penalties commensurate with the offence including reprimand, reduction of grade, probation, suspension or expulsion from the University. For more information regarding this policy, students should refer to the University Regulations for Academic Misconduct (Section 6.12) in the University Calendar.

Statement regarding commitment to accommodation of students with disabilities: Memorial University of Newfoundland is committed to supporting inclusive education based on the principles of equity, accessibility and collaboration. Accommodations are provided within the scope of the University Policies for the Accommodations for Students with Disabilities (). Students who may need an academic accommodation are asked to initiate the request with the Glenn Roy Blundon Centre at the earliest opportunity ().

Academic supports include: *Memorial in Teaching University Libraries, The Commons (QEII Library), The Glenn Roy Blundon Centre, The Writing for Innovation and Learning, Information Technology Services, Academic Advising, and Centre.*

Memorial has the following **student life supports** that can be availed of: *Student Wellness and Counselling Centre, Student Support and Crisis Management, MUN Chaplaincy, Sexual Harassment Office, The Circle: First Nations, Inuit & Métis Students Resource Centre,*

Disability Information Support Centre, International Students Resource Centre, Sexuality and Gender Advocacy, Student Parent Assistance & Resource Centre, Students Older Than Average, Intersections – A Resource Centre for Marginalized Genders, and specific departmental societies.