UNIVERSITY OF REGINA
Department of Biology
Biology 335 - Limnology - Fall 2025

Instructors:	Lecture	Dr. Peter Leavitt	LB 265.1	306 591-2659 (cell)
		Peter.Leavitt@uregina.ca		
	Laboratory	Liam Numrich	LB 268.1	306 541-4223
		Liam.Numrich@gmail.com		
		Ryan Rimas	LB 265.2	647 970-9082
		ryanivanrimas@gmail.com		

Lectures:	Tues-Thurs	10:00-11:15	Room: ED 230
Labs:	Weds	14:30 - 17:20	Room: LB 427

Texts: Optional: Wetzel, R.G. 2001. Limnology (3rd Ed.). Academic Press.
Mandatory: Limnology Laboratory Manual - includes lecture notes.
Note: copies are available in the UR Bookstore. There are 1-2 copies available in the library, but given demand, these may not be routinely available. Consider buying the text, either 2nd, 3rd, or 4th edition (called Wetzel's Limnology). This year, all laboratory materials will be provided via UR courses, so there will not be a laboratory manual used in 2025.

Grading: Your grade will be based on in person laboratory exercises (debates 5%, 26 November; 10% exam, 05 November), a short presentation of a research publication (5%, 03 December), a term paper (25%, due 18 Nov, 5 pm - NO EXTENSIONS), a mid-term exam (20%; 21 October), and a final exam (35%, **tentatively 11 December 09:00 h**). You must write the final exam to receive a passing grade. N**ote: the midterm, debates, and lab midterm occur close to each other – please plan accordingly. Also note that the final will likely be 2 hours duration instead of the scheduled 3 hr. Scheduling of the final (in class, on line) to be determined.**

Regulations: Please note that Biology 335 falls under the Academic Regulations of the University of Regina. If you are unfamiliar with these regulations, see the University of Regina General Calendar at the website:
http://www.uregina.ca/gencal/ugcal/

Special Notes: There will be a **compulsory** **'Limnology Weekend'** to be held **27-28 September 2025**. This will account for the majority of the field work and will be the subject of the term paper. This year the project will be based in Regina and will examine the ecology of Wascana Lake. You should expect to be on the lake by 8 am and not finished until 6 pm. Dress for cool, damp conditions as we will be sampling rain or shine. There will be a $10 service charge for the weekend. A simple lunch will be provided Saturday.

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Date* M-D	**#**	**Day**	**Text Chapter****	**Topic**
09-02	1	Tu	1,3,8	- Introduction, Origin of Lakes, Terms
09-04	2	Th	2,4,5	- Water properties, Light
09-09	3	Tu	6	- Heat, Stratification
09-11	4	Th	7	- Movement of water
09-16	5	Tu	9,14	- Oxygen, Oxidation-Reduction
09-18	6	Th	11	- Inorganic carbon
09-23	7	Tu	10	- Salinity
09-25	8	Th	12	- Nitrogen
09-30		*Tu*		*- Truth and Reconciliation Day (no lectures)*
10-02	9	Th	13	- Phosphorus
10-07	10	Tu	13	- Eutrophication
10-09	11	Th	8,15	- Primary production
10-14	14	Tu	15	- Phytoplankton taxonomy
10-16	16	Th	15	- Ecology of phytoplankton
10-21		**Tu**		**MIDTERM EXAM (20% of Final Grade)**
10-23	14	Th	15	- Population regulation, Seasonality
10-28	15	Tu	16	- Zooplankton and their ecology
10-30	16	Th	16	- Zooplankton-phytoplankton interactions
11-04	17	Tu	16	- Zooplankton-Fish interactions & adaptation
11-06	18	Th	16	- Biomanipulation
11-18	19	Tu	18,22	- Littoral zone – patterns
11-18		**Tu**		**TERM PAPER DUE (25% of Final Grade**; no late papers)
11-20	20	Th	18,20	- Macrophyte biology
11-25	21	Tu	19	- Periphyton biology
11-27	22	Th	23	- Organic carbon cycle
12-02	24	Tu	23,25	- Lake development
12-04		Th		- Catch up/review
12-11		**Th**	**09:00h**	**tentative date FINAL EXAM (35% of Final Grade)**.

* Pre-recorded lectures will be presented in smaller 'mini-lectures' and archived according to the subject and by approximate date. Class lectures will probably vary in terms of which days certain topics will be covered on, to allow for questions, delays, etc. Live lectures will not be recorded. Pre-recorded lectures will be archived on UR Courses unless otherwise noted during class. Instructors will attempt to cover the same material in both archived and live lectures. In case of difference, live lectures will be considered definitive.

**Chapter in Wetzel. Limnology. 3rd edition. Chapters may differ in 2nd Edition or 4th edition.

Biology 335 - Laboratory Schedule
2025 Schedule

Date	#	Tentative Topic
09-10	1	Limnological Equipment, Sampling Concepts
09-17	2	Wascana Sampling
09-24	3	Preparation for Field Weekend
09-27/28	**-**	**Field Weekend**
10-08	4	Phytoplankton Identification
10-15	5	Zooplankton Identification
10-22	7	Plankton Identification
10-29	8	Data analysis
11-05	**9**	**Lab Mid-term (10% of final grade)**
11-19	10	Nutrient Limitation Lab /Littorial Invertebrate ID (tentative)
11-26	**11**	**Team Debates* (5% of final grade)**
12-03	**12**	**Research Paper presentations** (5% of final grade)**

*****Possible topics N v. P; climate change v. humans; economy v. environment; Indigenous knowledge v. Western science; current issues in water management, etc.

******Pick any *short* paper on a topic in limnology or aquatic ecology (normally that is covered by the course) and present a 5 min overview. Who did it, why did they do it, how did they do it, what did they find, what did they conclude, and what do <u>you</u> think about the paper (your expert opinion). These should be done in Powerpoint and will be presented in the lab room.