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Instructions:

This is a sample syllabus template/workbook.

Content can be re-organized to meet the preferred styles of individual instructors.

Tables are used in the document to preserve formatting.

An automatic table of content is included. In order to update the table:

Choose the references tab in the ribbon above
Choose “update table”
Choose “update entire table”

Content order can be re-ordered to best suit your course needs

University of Manitoba
CHR Faculty of Environment, Earth and Resources
Department of Environment and Geography

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COURSE DETAILS

Course Title & Number:	Introduction to Oceanography (Short title - Oceanography) GEOG-3770-T01
Number of Credit Hours:	3
Class Times & Days of Week:	11:30-12:45 Tuesday and Thursday
Location for classes/labs/tutorials:	129 St John's College
Pre-Requisites:	A minimum grade of "C" in GEOG 1290 (or Geog 1291) or GEOG 1200 (or GEOG 1201) or ENVR 1000 or GEOL 1340.

Instructor Contact Information

Instructor(s) Name:	Jens Ehn
Preferred Form of Address:	First name
Office Location:	580 Wallace Building
Office Hours or Availability:	16:00 – 17:00 Tues. and Thurs. (also by appointment)
Office Phone No.	(204) 480-1493
Email:	jens.ehn@umanitoba.ca
Contact:	For any questions please contact me by either email, phone, or in person. I will respond as soon as possible.

General Course Information

This course provides an introduction to physical, chemical, biological and geological processes in the world ocean and their interactions with the Earth system. The aim is thus for the course to be highly interdisciplinary and provide a sufficient overview to be a basis for future more in-depth topical courses.

Course Goals

By the end of the course, students will 1) be familiar with the basic descriptions of processes and terminology in each subdiscipline, 2) achieve an appreciation of the importance of the world ocean to our planet and lifes, and 3) obtain a greater interest in the oceans.

Using Copyrighted Material

Please respect copyright. We will use copyrighted content in this course. I have ensured that the content I use is appropriately acknowledged and is copied in accordance with copyright laws and University guidelines. Copyrighted works, including those created by me, are made available for private study and research and must not be distributed in any format without permission. Do not upload copyrighted works to a learning management system (such as UM Learn), or any website, unless an exception to the *Copyright Act* applies or written permission has been confirmed. For more information, see the University's Copyright Office website at http://umanitoba.ca/copyright/ or contact um_copyright@umanitoba.ca.

Recording Class Lectures

Jens Ehn and the University of Manitoba hold copyright over the course materials, presentations and lectures, which form part of this course. No audio or video recording of lectures or presentations is allowed in any format, openly or surreptitiously, in whole or in part without permission by Jens Ehn. Course materials (both paper and digital) are for the participant's private study and research.

Textbook, Readings, Materials

Required textbook:
Alan P. Trujillo, A.P, and H. V. Thurman, Essentials of Oceanography, 12th edition, Pearson, pp. 624, **ISBN-13:** 978-0134073545, 2016. However, both the 10th or 11th editions are acceptable. The textbook can be purchased at the UM bookstore or online.

Course Technology

It is the general University of Manitoba policy that all technology resources are to be used in a responsible, efficient, ethical and legal manner. The student can use all technology in classroom setting only for educational purposes approved by instructor and/or the University of Manitoba Disability Services. Student should not participate in personal direct electronic messaging / posting activities (e-mail, texting, video or voice chat, wikis, blogs, social networking (e.g. Facebook) online and offline "gaming" during scheduled class time. If student is on call

(emergency) the student should switch his/her cell phone on vibrate mode and leave the classroom before using it. (©S Kondrashov. Used with permission)

Class Communication

The University requires all students to activate an official University email account. For full details of the Electronic Communication with Students please visit: http://umanitoba.ca/admin/governance/media/Electronic_Communication_with_Students_Policy_-_2014_06_05.pdf

Please note that all communication between myself and you as a student must comply with the electronic communication with student policy (http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html). You are required to obtain and use your U of M email account for all communication between yourself and the university.

Expectations: I Expect You To

I will make every attempt to be on time for class, and will stay after class as long as required to answer any questions. You may interrupt me to ask questions any time during the lectures. If you miss a class or classes, you will be expected to independently read the textbook. The exams will only include questions that can be answered from reading the textbook. However, during lectures I will include also other material for more in depth learning. Powerpoint slides of the lectures will be provided. I will treat you with respect and would appreciate the same courtesy in return. See Respectful Work and Learning Environment Policy.

Students Accessibility Services

If you are a student with a disability, please contact SAS for academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

Student Accessibility Services http://umanitoba.ca/student/saa/accessibility/
520 University Centre
204 474 7423
Student_accessibility@umanitoba.ca

Class Schedule

This schedule is subject to change at the discretion of the instructor and/or based on the learning needs of the students but such changes are subject to Section 2.8 of the – ROASS-Procedure. In general, this course is divided into three parts: Part 1 includes lectures 1-8, Part 2 includes 9-17 and Part 3 includes 18-21 (see Table 1).

Table 1: Course outline.

MONTH	DAY	LECTURE	TOPIC	READING
September	8		Introduction	
	13	1	History of Oceanography + Ocean origins	Ch. 1
	15	2	Plate Tectonics + Structure of Earth	Ch. 2
	20	3	Marine Provinces (=Bathymetry)	Ch. 3
	22	4	Marine sediments	Ch. 4
	27		-No class-	
	29		Guest lecture or no class	
October	4		-No class-	
	6		-No class (fall term break)-	
	11	5	Coastal Processes in sediment transport	Ch. 10-11
	13	6	Climate Change	Ch. 16
	18	7	Ocean chemistry	Ch. 5
	20		Test 1 (25%)	
	25	9	Review of exam 1 + Ocean chemistry/physics	
	27	10	Seawater properties	Ch. 5
	28	11	Air - Sea interaction	Ch. 6
November	1	12	Ocean surface circulation	Ch. 7
	3	13	Deep circulation	Ch. 7
	8	14	Waves	CH. 8
	10	15	Waves	CH. 8
	15	16	Tides	Ch. 9
	17	17	Tides + Coastal Ocean + SEEQ	Ch. 10-11
	22		Test 2 (25%)	
	24	18	Review of exam 2 + Marine Life	Ch. 12
	29	19	Blue Ocean movie, episode 1	Ch. 13
December	1	20	Biological Productivity	Ch. 13
	6	21	Ocean food webs + learning objectives + questions	Ch. 13
	8		-No class-	
	(TBD)		Final Exam (50%)	

**Chapters 14-15, dealing with animals of the pelagic and benthic environments, are excluded from this course.

** Voluntary withdrawal date is November 18.

Laboratory Expectations

This course includes no laboratory component.

Course Evaluation Methods

After each of the three parts there is an examination (see Table 1); however, in the final examination a portion of the questions come from each part, i.e., it is cumulative (as outlined in Table 2). All exams will include short-answer, multiple choice and true/false type questions. The final exam is 2 hours long.

Table 2: Test structures and evaluation.

		Part 1	**Part 2**	**Part 3**
	# of classes	**8**	**8**	**4**
	% of final grade	**% of questions from parts**		
Test 1	25%	100%		
Test 2	25%		100%	
Final exam	50%	30%	30%	40%
% contributions to final grade		**40%**	**40%**	**20%**

Grading

The Grading Standard for this course is as follows:

Letter Grade	Percentage out of 100	Final Grade Point
A+	90-100	4.5
A	80-89	4.0
B+	75-79	3.5
B	70-74	3.0
C+	65-69	2.5
C	60-64	2.0
D	50-59	1.0
F	Less than 50	0

Referencing Style

Not applicable.

Assignment Descriptions

This course includes no assignments.