DEPARTMENT OF ENVIRONMENT AND GEOGRAPHY

COURSE OUTLINE

GEOG 2310 (A01) Introduction to Process Hydrology

September (2015)

Instructor:

Name: Tim Papakyriakou
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Lectures: 10:00 am to 11:15 am Tue/Thurs
Room: 202 St. John's College
Office hours: By appointment

Course Literature: Davie, T., 2008: Fundamentals of Hydrology, Second Edition. Routledge Fundamentals of Physical Geography, pp. 200.

Course Objectives and Description: Hydrology is the geoscience dealing with the terrestrial waters of the Earth-Atmosphere system, their occurrence, distribution, and circulation, their chemical and physical properties and their interaction with the environment. The course will expose students to the fundamental processes that dictate the occurrence and distribution of water in the hydrologic cycle, its quality, and its role in shaping both living and non-living components of the planet's climate and environment. Within the course students will be exposed to quantitative representations of hydrologic processes (e.g., evapotranspiration, precipitation, infiltration, runoff, stream flow, etc.), and learn how to address and resolve basic hydrologic problems.

Course format: This is a lecture only course (no laboratory section). Activities (for credit and not for credit) will be scheduled periodically over the term to practice the application of theory and methods discussed in class. Although the instructor will provide many of the power point slides that make-up lectures, most of the problem solving exercises will be done interactively in class and not included in the slides made available to the students. Class attendance is compulsory. Students with excessive unexcused absences may be subject to debarment. The required textbook is for your independent study. Not all textbook material will be covered in class, and vice versa. You are responsible for all material covered in class lectures, readings, assignments and designated areas of the textbook.

Classroom etiquette: Please be courteous to your fellow students by showing up on time, refrain from social talk and turn off cell phones and other electronic devices.

Allocation of Marks:

- 1 mid-term test: 20%
- Four term assignments: 4 @ 10% = 40%
  (details surrounding the term assignments will be outlined in class.)
- Final Exam: 40%
- Total is 100%

Tentative date for term test is: Oct. 22

Assignments will consist of short- and long-answer questions often involving basic calculations and spreadsheet operations. In some instances students will be asked to complete short reviews on current research topics and initiatives. While you can discuss details pertaining to assignments with your peers, you are expected to work individually on the document that you hand in. Unless otherwise stated, assignments are due at the beginning of class and submitted as hard copies.

Policy regarding late assignments: Students will not be permitted to write make-up tests or hand in assignments late, except for documented medical or compassionate reasons. Assignments will be penalized -10% each day late.

The final **date for voluntarily withdraw** from this course is **Nov. 18**. Students may have access to their marks prior to this date and are encouraged to talk with the instructor before a decision to withdraw is made.

An assigned grade will correspond to the corresponding range in marks:

A+	90% and over;	C+	65-69%
A	80-89%;	C	60-64%
B+	75-79%	D	50-59%
B	70-74%	F	49% or less

Avoiding Academic Dishonesty: Students should acquaint themselves with the University's policy on plagiarism and cheating and examination impersonation. (http://umanitoba.ca/student/studentdiscipline/academic_misconduct.html). Below are some tips:

- Learn what is meant by plagiarism, cheating, impersonation and academic fraud
- Keep track of references and sources of information used in written assignments (including web references with date)
- Attribute the source of ideas and material in your written submission
- If in doubt, consult your instructor.

General course outline and schedule:

Course material will be organized according to the following modules. Some modules require more than one lecture to cover. Modules may be substituted, removed or presented in a different order depending on the class dynamics. Text chapters associated with the module are given.

Module	Topic
1	Introduction to Hydrology (Chapter 1)
2	Water in the Atmosphere (Chapters 1 & 3)
3	Precipitation (Chapter 2)
4	Evaporation (Chapter 3)
5	Snow Hydrology (Chapter 4)
6	Soil Water (Chapter 4)
7	Groundwater (Chapters 4-5)
8	Run-off (Chapter 5)
9	Stream Flow (Chapter 6)
10	Catchment Hydrology (Chapters 5 &6)
11	Water Quality (Chapter 7)
12	Contemporary Issues (drought, climate change)