UNIVERSITY OF CALGARY DEPARTMENT OF GEOSCIENCE COURSE OUTLINE

1. Course: GEOLOGY 607 – ADVANCED PHYSICAL HYDROLOGY

Lecture Section: L01 R 12:30-15:20 SS 008 WINTER 2014

Instructor(s): Dr. M. Hayashi ES 278 220-2794 hayashi@ucalgary.ca

Course website: www.ucalgary.ca/~hayashi/glgy607/index.htm

Geoscience Department ES 118; (403) 220-5841; geoscience.ucalgary.ca

2. PREREQUISITE(S): Mathematics 253 or 283 or Applied Mathematics 219 and Geography 415 and Geology 401; or consent of the Department.

See section 3.5.C in the Faculty of Science section of the online Calendar (http://www.ucalgary.ca/pubs/calendar/current/sc-3-5.html)

3. GRADING: The University policy on grading and related matters is described in "Academic Regulations, sections F.1 and F.2" of the online University Calendar (http://www.ucalgary.ca/pubs/calendar/current/f-1.html and http://www.ucalgary.ca/pubs/calendar/current/f-2.html) In determining the overall grade in the course the following weights will be used:

Assignments (5) 20%

Each piece of work (assignment, laboratory report, midterm test or final examination) submitted by the student will be assigned a percentage score. The student's average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

- 4. Missed Components of Term Work. The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in section 3.6: http://www.ucalgary.ca/pubs/calendar/current/sc-3-6.html. It is the student's responsibility to familiarize himself/herself with these regulations. See also http://www.ucalgary.ca/pubs/calendar/current/e-3.html.
- 5. Dates and times of class exercises held outside of class hours: N/A

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY. If you have a clash with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

Department Approval: ORIGINAL SIGNED Date: January 20 2014

6. EXAMINATION POLICY

Students should read the Calendar, Section G, on Examinations: http://www.ucalgary.ca/pubs/calendar/current/g.html.

7. In this course, the quality of the student's writing in laboratory reports will be a factor in the evaluation of those reports. See also http://www.ucalgary.ca/pubs/calendar/current/e-2.html.

8. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) ACADEMIC MISCONDUCT (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under K. Student Misconduct (http://www.ucalgary.ca/pubs/calendar/current/k.html) to inform yourself of definitions, processes and penalties
- (b) ASSEMBLY POINTS in case of emergency during class time. Be sure to FAMILIARIZE YOURSELF with the information at http://www.ucalgary.ca/emergencyplan/assemblypoints.
- (c) ACADEMIC ACCOMMODATION POLICY. Students with documentable disabilities are referred to the following links: Calendar entry on students with disabilities: http://www.ucalgary.ca/pubs/calendar/current/b-1.html
 Student Accessibility Services: www.ucalgary.ca/access
- (d) SAFEWALK: Campus Security will escort individuals day or night http://www.ucalgary.ca/security/safewalk/). Call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- (e) FREEDOM OF INFORMATION AND PRIVACY: This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also http://www.ucalgary.ca/secretariat/privacy.
- (f) STUDENT UNION INFORMATION: VP Academic Phone: 220-3911 Email: suvpaca@ucagary.ca.

 SU Faculty Rep. Phone: 220-3913 Email: sciencerep@su.ucalgary.ca Website http://www.su.ucalgary.ca/home/contact.html.

 Student Ombudsman: www.ucalgary.ca/provost/students/ombuds; ombuds@ucalgary.ca/20-6420
- (g) INTERNET and ELECTRONIC COMMUNICATION DEVICE Information. You can assume that in all classes that you attend, your cell phone should be turned off. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.

UNIVERSITY OF CALGARY DEPARTMENT OF GEOSCIENCE COURSE OUTLINE

GEOLOGY 607 ADVANCED PHYSICAL HYDROLOGY

TERM: Winter 2014

PREREQUISITE(S): Mathematics 253 or 283 or Applied Mathematics 219 and Geography 415 and Geology 401; or consent of

the Department.

LECTURER(S): Dr. M. Hayashi ES 278 220-2794 hayashi@ucalgary.ca

LECTURE: L01 R 12:30-15:20 SS 008

TEXT: Recommended, but not required. These are made available in the Gallagher Library reserve.

(1) Jury, W.A. and Horton, R., 2004. Soil physics, 6th edition. John Wiley & Sons.

(2) Brutsaert, W., 2005. Hydrology: an introduction. Cambridge University Press.

(3) Dingman, S.L., 2002. Physical hydrology, 2nd edition. Prentice Hall.

(4) McCuen, R.H., 2005. Hydrologic analysis and design, 3rd edition. Pearson Education

MARK DISTRIBUTION: A. <u>Composition of Final Grade</u>

Assignments (5) 20% each

D. Grading Scheme

96 - 100%A+90 - 95%Α 85 - 89%A-80 - 84%B+75 - 79%B 70 - 74%B-66 - 69%C+62 - 65% \mathbf{C} C-58 - 61% D+54 - 57%D 50 - 53%F < 50%

TENTATIVE LECTURE SCHEDULE:

Week 1: Watershed as a leaky reservoir Week 2-6: Vadose zone hydrology Week 7-10: Evapotranspiration Week 11-12: Hillslope hydrology Week 13: Watershed hydrology