

**Environmental Science EESB03H3 S**  
***PRICIPLES OF GEOMORPHOLOGY***

The earth's surface form and its dynamic behavior at range of spatial and temporal scales is an integral part of the physical, biological and human environment. It is strongly influenced by human activity, while at the same time imposing severe constraints upon that activity. The study of the earth's surface forms and their morphodynamic behavior, both naturally and under the impact of human habitation, is the field of Geomorphology. It is the human interaction with the surface of the earth that gives rise to a number of environmental concerns: e.g., surface erosion, catastrophic floods, sea-level rise, landslides, water resources and water extraction, etc. This introductory course combines aspects of geology, climatology, hydrology, and soil science to present a coherent introduction to the surface of the Earth, with emphasis on both fundamental concepts and practical applications, as a basis for understanding and intelligent management of the Earth's physical and chemical environment.

**Textbook:** Easterbrook, D.J., 1999. Surface processes and landforms, 2<sup>nd</sup> ed. Prentice-Hall, Inc., New Jersey, 546pp.

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**Technician:** Chai Chen, Room 222

**Lectures:** Tuesday 9:00 – 11:00, Room BV 264

**Practicals:** Thursday 9:00 – 11:00, 11:00 – 13:00, and 14:00-16:00

Room: SW313 and computer lab (Room TBA)

Field component of the practicals will be carried out in the Highland Creek

|                |                           |     |
|----------------|---------------------------|-----|
| <b>Grades:</b> | Practicals (4 x 10% each) | 40% |
|                | Mid-term Exam (2 hours)   | 20% |
|                | Final Exam                | 40% |

**Note:**

1. Check intranet regularly for lecture notes, announcements etc.
2. The mid-tem exam will be held during class time on February 15<sup>th</sup>.
3. Emphasis is placed on practical work in this course, which will involve some time commitment. However, this is reflected positively in your final grade.

**N.B. If you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible (Tel: 416-287-7560, Email: [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca), Website: [www.utsc.utoronto.ca/ability](http://www.utsc.utoronto.ca/ability)). The AccessAbility Services staff (located in S302) are available by appointment to access specific needs, provide referrals, and arrange appropriate accommodations. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.**

## ***Tentative Lecture Schedule***

- Jan. 11            Physics and chemistry of the Earth's surface
- Jan. 18            The solid materials of the Earth's surface
- Jan. 25            Topography
- Feb. 01            Rivers
- Feb. 08            Groundwater
- Feb. 15            Mid-term exam
- Mar. 01            Lakes
- Mar.08            Mass Wasting
- Mar. 15            Glaciers: Guest lecture by Dr. Nick Eyles
- Mar. 22            Coasts
- Mar. 29            Deserts
- Apr. 05            Landscapes and/or Physical and chemical cycles