GEOMORPHOLOGY
GEOS/GEOG/CSES 3304
Spring 2007

CRN: 13047 (GEOG); 11768 (CSES); 13106 (GEOS)
3 Credits

MWF: 11:15-12:05
Hutcheson 209

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GEOL/GEOG/CSES 3304: GEOMORPHOLOGY examines the variety of landforms that exist at the earth's surface. Detailed investigation of major processes operating at the earth's surface including: tectonic, weathering, fluvial, coastal, eolian, and glacial processes. Field Excursion. Pre: GEOG 1104 or GEOL 1004 or GEOL 2104.

- Recommended Text: Ritter, D.F., R.C. Kochel, and J.R. Miller. **Process Geomorphology.** 4th ed. Waveland Press. 560 p.
- Readings will be placed on reserve in the Newman Library; class handouts and PDFs of PowerPoints from lecture will be placed on the class Blackboard web site (https://learn.vt.edu/)

Week	Date	Topic
1.	15 Jan	Global Morphology & Tectonics (KAE: 2)
2.	22 Jan	Landforms & Plate Tectonics (KAE: 3)
3.	29 Jan	Slope Processes & Mass Wasting (JBC: 2; WLD 1)
4.	5 Feb*	Weathering regimes and soil features (WLD: 2)
	9 Feb	**Examination I**
5.	12 Feb	Fluvial Processes (JBC:3)
6.	19 Feb	Fluvial Landforms (JBC:3)
7.	26 Feb*	Arid Region Processes & Landscapes (KAE: 2)
	5 Mar	**Spring Break**
8.	12 Mar	Glacial Processes, Alpine Glaciation, Periglacial (JBC: 3)
9.	19 Mar	Continental Glaciation & Loess (WLD: 3)
10.	26 Mar	Coastal Processes & Landforms (JBC: 3)
	30 **Mar**	**Examination II**
11.	2 Apr*	Endogenic/Exogenic; Uplift & Sea Level (KAE: 3)
12.	9 Apr	Geological Evolution of Virginia (KAE: 3)
	14 Apr (Sat)	Field Trip, approx 8:00 am -5:00 pm
	15 Apr (Sun)	Back-up date for field trip
13.	16 Apr*	Landscapes of Virginia and Adjoining Regions (WLD: 3)
14.	23 Apr	Landscapes of Virginia and Adjoining Regions (WLD: 3)
15.	30 Apr	Landscapes of Virginia and Conclusions (WLD: 2)
	9 May (Wed)	**Final Examination 10:05 – 12:05**

Geomorphology is the study of the landforms of the earth's surface, and the physical, chemical, and biological processes that create these landforms. This course presents an overview of principal topics of the field of geomorphology, with a focus, when appropriate, upon landforms of Virginia. Although geomorphology is closely related to fields such as geology, geography, and pedology, it does not fall clearly within any single discipline. As a result, students should recognize that in addition to presentation of its subject matter, this course is intended to introduce the methods and perspectives of three different disciplines. Because the study of geomorphology requires direct observation in the field, requirements for this course include participation in a field trip, and completion of written materials as assigned.

Field Trip: Please plan ahead to participate in a required fieldtrip scheduled as follows:

Saturday, 14 April, 8 am – 5 pm. A required field trip report will be based upon our experiences and discussions during this event.
Please hold Sunday April 15th (the back-up date) open from other obligations.

Student participation in field trips is a required portion of this course, as is submission of written assignment for the trip.

Evaluation: Your grade will be assigned based upon the following:

Examination I:	20%
Examination II:	25%
Written Fieldtrip Report:	15%
Final Examination	30%
Clipping Portfolio	10% (four portfolios, each due on dates marked with * on side 1)
	100%

Students who cannot meet requirements for this class (such as examinations or field trips) as outlined in this syllabus should discuss matters with the instructors well in advance of scheduled dates.

SELECTED REFERENCES

Bloom, Arthur, 1978. **Geomorphology: A Systematic Survey of Late Cenozoic Landforms**. Englewood Cliffs, New Jersey: Prentice-Hall. 510 p.

Carson, MA, and M.J. Kirkby. 1972. **Hillslope Form and Processes**. New York: Cambridge University Press. 475 p.

Dury, G.H. (ed) 1966. **Essays in Geomorphology**. New York: Elsevier. 404 p.

Dury, G.H. 1959. **The Face of the Earth**. Baltimore: Penguin. 225p.

Goudie, Andrew (ed.) 1981. **Geomorphological Techniques.** London: Allen and Unwin. 395pp.

Leopold, L.B., M.H. Wolman, and J.P. Miller. 1964. **Fluvial Processes in Geomorphology**. San Francisco: W.H. Freeman. 522 p.

Summerfield, Michael A. 1991. **Global Geomorphology: An Introduction to the Study of Landforms.** Longman. (ISBN 0-470-21666-2)

Thornbury, William D. 1965. **Regional Geomorphology of the United States.** New York: Wiley. 609 p.

Thornbury, William D. 1969. **Principles of Geomorphology**. New York: Wiley. 594 p.

Young, Antony. 1972. **Slopes.** Edinburgh: Oliver and Boyd. 288 p.