



COURSE IMPLEMENTATION DATE: September 1986
 COURSE REVISED IMPLEMENTATION DATE: September 2010
 COURSE TO BE REVIEWED: January 2014
(four years after UPAC approval) *(month, year)*

OFFICIAL UNDERGRADUATE COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.
 Shaded headings are subject to change at the discretion of the department – see course syllabus available from instructor

GEOG 271	Geography	3
COURSE NAME/NUMBER	FACULTY/DEPARTMENT	UFV CREDITS
Field Techniques in Physical Geography		
COURSE DESCRIPTIVE TITLE		

CALENDAR DESCRIPTION:

This course provides a field-based introduction to a variety of tools and techniques used by physical geographers to describe and analyze the physical environment. Students will complete library and field research related to a specific area of interest. GEOG 271 is usually offered as an independent study and may, with instructor permission, be completed as part of a study tour or *Adventures in Geography* field excursion.

PREREQUISITES: GEOG 101 or GEOG 102
 COREQUISITES:
 PRE or COREQUISITES:

SYNONYMOUS COURSE(S):

- (a) Replaces: _____
- (b) Cross-listed with: _____
- (c) Cannot take: _____ for further credit.

SERVICE COURSE TO: *(department/program)*

TOTAL HOURS PER TERM: 45

STRUCTURE OF HOURS:

Lectures: 3 Hrs
 Seminar: _____ Hrs
 Laboratory: _____ Hrs
 Field experience: 30 Hrs
 Student directed learning: 12 Hrs
 Other (specify): _____ Hrs

TRAINING DAY-BASED INSTRUCTION:

Length of course: _____
 Hours per day: _____

OTHER:

Maximum enrolment: N/A
 Expected frequency of course offerings: On demand
(every semester, annually, every other year, etc.)

WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only) Yes No
 WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department) Yes No
 TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE: Yes No

Course designer(s): <u>Steven Marsh</u>	Date approved: <u>November 2009</u>
Department Head: <u>Dr. Ken Brealey</u>	Date of meeting: <u>November 27, 2009</u>
Supporting area consultation (Pre-UPAC)	Date approved: <u>January 2010</u>
Curriculum Committee chair: _____	Date approved: <u>January 2010</u>
Dean/Associate VP: <u>Dr. Jacqueline Nolte</u>	Date of meeting: <u>January 29, 2010</u>
Undergraduate Program Advisory Committee (UPAC) approval	

LEARNING OUTCOMES:

Upon successful completion of this course, students will be able to:

- demonstrate practical applicability of classroom theories to field problems;
- operate a variety of field equipment commonly used in physical geography;
- evaluate and select the appropriate research techniques or methods needed for completing a research project in physical geography;
- demonstrate skills in the planning, design, and execution of field research projects;
- combine primary and secondary source information into visual, written, or oral presentations;
- identify the larger significance of their case study and field research, as well as the transferability of their research designs and findings to new research situations.

METHODS: (Guest lecturers, presentations, online instruction, field trips, etc.)

Limited lecture; field exercises and data collection; study tour participation or field excursions; reporting of findings in visual or written form.

METHODS OF OBTAINING PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Examination(s) Portfolio assessment Interview(s)

Other (specify): Prior completion of a research project in physical geography (e.g. a previously completed equivalent credit course in research methods from another university).

TEXTBOOKS, REFERENCES, MATERIALS: [Textbook selection varies by instructor. Examples for this course might be:]

Highly variable, depending on the nature of the research project and/or study tour. Previous study tour materials used to support GEOG 271 on the Mt. St. Helens Adventures in Geography study tour have included:

Alt, David, 2001. *Glacial Lake Missoula and its Humongous Floods*. Missoula: Mountain Press Publishing Company.

Robeck, Alan, 2000. Volcanic Eruptions and Climate. *Reviews of Geophysics*, Vol. 38(2), pp.191-219.

Schilling, Steve P., Paul E. Carrara, Ren A. Thompson, and Eugene Y. Iwatsubo, 2004. Posteruption glacier development within the crater of Mount St. Helens, Washington, USA. *Quaternary Research*, Vol. 61, pp. 325-329.

Major, Jon J., 2004. Posteruption suspended sediment transport at Mount St. Helens: Decadal-scale relationships with landscape adjustments and river discharges. *Journal of Geophysical Research*, Vol. 109.

Kelly, P.M., P.D. Jones, and JIA Pengquin, 1996. The Spatial Response of the Climate System to Explosive Volcanic Eruptions. *International Journal of Climatology*, Vol.16, pp. 537-550.

Bretz, J Harlen, 1969. The Lake Missoula Floods and the Channeled Scablands. *Journal of Geology*, Vol. 77, pp.505-543

Sadler, J.P. and J.P. Grattan, 1999. Volcanoes as agents of past environmental change. *Global and Planetary Change*, Vol. 21, pp. 181-196.

Dale, Virginia H. and Wendy M. Adams, 2003. Plant reestablishment 15 years after the debris avalanche at Mount St. Helens, Washington. *The Science of the Total Environment*, Vol. 313, pp. 101-113.

Shaw, John, Mandy Munro-Stasiuk, Brian Sawyer, Claire Beaney, Jerome-Etienne Lesemann, Alberto Musacchio, Bruce Rains, and Robert R. Young, 1999. The Channeled Scabland: Back to Bretz? *Geology*, Vol. 27(7), pp. 605-608.

Baker, Victor R. and Russell C. Bunker, 1985. Cataclysmic Late Pleistocene Flooding from Glacial Lake Missoula: A Review. *Quaternary Science Reviews*, Vol. 4, pp. 1-41.

Sparks, R.S.J., 2003. Forecasting volcanic eruptions. *Earth and Planetary Science Letters*, Vol. 210, pp.1-15.

Craig, Richard G., 1987. Dynamics of a Missoula Flood. In, *Catastrophic Flooding*, L. Mayer and D. Nash (eds.). Boston: Allen & Unwin.

SUPPLIES / MATERIALS:

Supplies required are specific to research project and/or study tour.

Example: Materials and supplies required for the Mt. St. Helens and Channeled Scablands Adventures in Geography study tour have included:

- Reading list
- Carry-on sized suitcase or backpack (approx. 55 cm x 23 cm x 40 cm)
- Daypack (waterproof)
- TWO (2) water bottles (should be larger than 500 ml)
- Rain jacket and rain pants
- Rite-in-rain books (available at UFV bookstore)
- Hiking boots (high-ankles are recommended)
- Sleeping bag
- Small pillow
- Camera with extra batteries and film/memory card (cell phone photos are not acceptable)
- Sunscreen
- Insect repellent
- Passport or Driver's License AND birth certificate
- Photocopy of passport or driver's license and birth certificate
- Fleece jacket or similar
- Hat and gloves
- Mess kit (non-breakable plate, bowl, mug, and cutlery)
- Flashlight/lantern
- Personal gear (including medications etc.)
- Spending money

Locally-based and completed research projects developed as part of GEOG 271 would likely require most items above, except for those related to long-distance travel.

STUDENT EVALUATION: *[An example of student evaluation for this course might be:]*

Literature review	30%
Field trip report	30%
Research poster/video presentation	15%
Field trip journal	15%
Participation	10%

COURSE CONTENT: *[Course content varies by instructor. An example of course content might be:]*

When completed as part of a study tour, GEOG 271 course content may include:

- Pre-trip meetings that cover an introduction to the region under study and its major issues;
- Identification of themes related to research project;
- Discussion of library techniques needed for hypothesis development;
- Discussion of field techniques appropriate to the research project, and the reporting structure for the research findings;
- Travel to research locations, and collection of data;
- Compilation of research and presentation.