Geology 2310

Understanding Geology Through Maps

Fall 2013

Class times:

Monday, Wednesday: 1:00-2:30p.m.; Tuesday: 12:30-2:30p.m. CB3031

Instructor:

Dr. P.H. Gillies Department of Geology CB2022B (807) 343-8328 pgillies@lakeheadu.ca

office hours: Wednesday, 2:30-4:00p.m.

TEXTBOOK (to be brought to every class):

An Introduction to Geological Structures and Maps, Dr. George M. Bennison, Dr. Paul Olver and Keith Moseley, Eighth Edition (2011)

REQUIRED MATERIALS (TO BE BROUGHT TO EVERY CLASS):

Pencils (HB is good)

Eraser

Coloured pencils

30cm ruler (transparent is best; roller is good, too)

Protractor &/or drawing triangle

Metric graph paper

Tracing paper / blank white paper

MARKS:

Attendance 5%

Assignments: 25%

Final Project 10% [due last class of term – Mon., 2 Dec., 2013)]

Mid-term exam: 20% [29 October, 2013]

Final exam: 40% [during exam period (5-18 Dec., 2013)]

TOTAL COURSE MARK: 100%

Assignment Deadline Policy: Late assignments will not be accepted for marking.

<u>Missed Mid-term Exam Policy</u>: Absence only for University recognized activities (one week advance notice) & illness (same day notice, prior to test), supported by appropriate documentation, will be excused & re-scheduled.

Course Objectives:

This course deals with the interpretation of the three-dimensional configuration of rock bodies from their distribution at the surface as represented on geological maps. Topics will include: the distinction of various stratigraphic and secondary contacts between rock bodies, the attitudes of rock bodies at depth, the construction of geological maps from borehole or seismic profile data, the determination of displacements on faults, the construction of subcrop maps below unconformities, the construction and interpretation of isopachs, a brief overview of the techniques used to determine both relative and absolute ages of geological bodies and of geological events.

This course outline & marks distribution represent a plan for the course. The instructor reserves the right to modify the timing, grading, & the contents of the course in order to satisfy better the needs & abilities of the class.