Learning Outcomes and Objectives

(1) To engage team building in the context of outdoor adventure and experiential education
(2) To acquire knowledge of the regional geologic, hydrologic, and geomorphic setting of western Oregon
(3) To apply spatial and temporal scaling concepts to watershed systems
(4) To develop skills in field-based observation, data collection, analysis, and hypothesis testing
(5) To gain experience with techniques of landscape analysis and interpretation of the geologic record

Course Activities and Student Assessment

I. Pre-Trip Reading Assignment (distributed arrival week)
   a. Review questions due before start of field trip (during arrival week)

II. Pre-Trip Orientation Meeting (OSU campus)
   a. Group introductions
   b. Fieldtrip orientation and logistical planning (“what to expect”)
   c. Introduction to Deschutes River Module Content
      i. Regional physiographic setting; field trip itinerary
      ii. Review / introduction: fundamental concepts of geology, geomorphology, and watershed systems

III. Field Trip Content
   a. Regional physiographic setting of western Oregon-Cascades-central Oregon (tectonic setting, topography, climate)
   b. Regional geology, geomorphology and hydrology of central Oregon / Deschutes Basin
   c. Introduction to geologic observation and landscape analysis
   d. Fundamental principles of hydrology and geomorphology
   e. Fundamentals of Oregon fisheries, habitat, watershed assessment, and river restoration

IV. Active Learning Assignments (i.e. 3-4 “lab assignments” completed in field; TBD)
   a. Field observation and hypothesis development
   b. Map reading and cartographic analysis
   c. Hydrogeomorphic data analysis
   d. Conceptual modeling

V. Field Trip Reflection Paper (3-5 page double spaced)
   a. “take-home” exam questions
   b. open-ended reflection

Required materials: field guide (provided), calculator, writing/drawing implements, rulers/engineers scale, protractor, note book, camera, waterproof ziplocks / small drybags

Deschutes River Module student deliverables: (1) pre-trip reading questions, (2) active learning assignments, (3) post-trip reflection paper