

EISI Deschutes River Module - Summer 2009
Steve Taylor – Western Oregon University

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 week of June 15)
 - a. Review questions due before start of field trip (during week of June 15)
- II. Pre-Trip Orientation Meeting (Rm 234 Gilmore, OSU; Friday June 19, 10 AM – 12 PM)
 - a. Group introductions (Tullos, Taylor)
 - b. Fieldtrip orientation and logistical planning (“what to expect”) (Taylor, Tullos)
 - c. Introduction to Deschutes River Module Content (Taylor)
 - i. Regional physiographic setting; field trip itinerary
 - ii. Review / introduction: fundamental concepts of geology, geomorphology, and watershed systems
- III. Field Trip Content (June 21-June 24)
 - a. Regional physiographic setting of western Oregon-Cascades-central Oregon (tectonic setting, topography, climate) (Taylor)
 - b. Regional geology, geomorphology and hydrology of central Oregon / Deschutes Basin (Taylor)
 - c. Introduction to geologic observation and landscape analysis (Taylor)
 - d. Fundamental principles of hydrology and geomorphology (Taylor, Tullos)
 - e. Fundamentals of Oregon fisheries, habitat, watershed assessment, and river restoration (Tullos, Taylor)
- 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

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