



U.S. Fish & Wildlife Service

National Conservation Training Center

Conserving the Nature of America

CSP3210 - Applied Fluvial Geomorphology

Course Code	CSP3210
Course Title	Applied Fluvial Geomorphology
Description	<p>All non-FWS participants, including DOI agencies, must register through Wildland Hydrology (Phone: 970/568-0003).</p> <p>This introductory course is designed to familiarize students with the fundamentals of river behavior, the general principles of: fluvial geomorphology, sedimentation, hydraulics, restoration, fish habitat improvement, riparian grazing management, and stream bank erosion. Applications of these principles are presented utilizing a stream classification system. Problem solving techniques for watershed management, riparian assessment, fish habitat structure evaluation, stream restoration, non-point source pollution and the integration of ecosystem concepts into watershed management are taught. A combination of both lecture and field applications are provided.</p> <p>Prerequisite: CSP3200 Stream Habitat Measurement Techniques</p> <p>Objectives:</p> <ul style="list-style-type: none">•Discuss geomorphology and the role of the river including discharge and flood frequency, meander geometry/channel dimension and pattern, riffle/pool relations, bankfull discharge, and valley morphology;.•Perform extrapolation and prediction of hydrologic characteristics including hydraulic geometry relations, basin character/discharge relations, and channel morphology as predictors;.•Discuss sedimentation including role of sediment-aggradation/degradation processes, bedload/suspended load relations, sediment rating curves, stream flow relations to sediment size and load, and analysis and prediction;.•Determine and define stream classification including purpose of classification, delineation criteria, influences, interpretations of stream types, and applications such as Manning's roughness and riparian management guidelines;.•Analyze watershed management implications including cumulative effects procedures (HYSED, WRENS, etc.), stream threshold concepts and procedures, and streamside management guidelines. . <p>Target Audience: Field staff involved in stream habitat assessment and restoration. This course is a pre-requisite to the CSP3310 River Morphology & Applications - Level II course.</p>
Delivery Method	Instructor Led
Non-FWS Fee	\$1,195.00
Instructional Hours	36
Credits/CEUs	3.0
Course Content Contact	Gary Schetrompf: gary_schetrompf@fws.gov; (304) 876-7255; gary_schetrompf@fws.gov
Curriculum Category	Habitat Assessment Restoration and Management
Course Frequency	Once per year
Registration Link	Register in DOI Talent
DOI TALENT Course Type	ILT
College Credit Name	Semester Hours
College Credit Value	2

Schedule: CSP3210 - Applied Fluvial Geomorphology

Start	End	Session Information	Location	Session Contact
4/8/2019	4/12/2019	For registration questions: michele_atha@fws.gov For course content questions: gary_schetrompf@fws.gov Class starts at 8:00 am on the first day and ends at Noon on the last day	National Conservation Training Center (NCTC)	michele_atha@fws.gov