

# RIVER STUDIES AND LEADERSHIP CERTIFICATE, UNDERGRADUATE

Note: courses taken to satisfy core requirements **cannot** be used to satisfy emphasis area courses, i.e. no double dipping.

## Required Core Courses

### Geographic Information Science

GEOG 323	GEOGRAPHIC INFORMATION SYSTEMS I: SPATIAL ANALYSIS FOR ENVIRONMENTAL SCIENCES	3
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### River Science—choose one

BIOL 445	STREAM ECOLOGY	5
or GEOG 203	FUNDAMENTALS OF SURFACE HYDROLOGY	
or GEOG 413	RIVERS AND FLOODS	

### River Policy

POLI 324	COMPARATIVE AND INTERNATIONAL WATER POLICY	5
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### Swiftwater Rescue—choose one

RCLS 330	INTERMEDIATE WHITEWATER KAYAKING	2-4
or RCLS 375	WHITEWATER RAFTING GUIDE TECHNIQUES	

<b>Emphasis Coursework—complete one of the following emphasis areas</b>	<b>7-10</b>
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### River Science Emphasis Area—choose two courses

BIOL 405	LIMNOLOGY
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BIOL 445	STREAM ECOLOGY
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BIOL 446	RIPARIAN ECOLOGY
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BIOL 462	ICHTHYOLOGY
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GEOG 203	FUNDAMENTALS OF SURFACE HYDROLOGY
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GEOG 413	RIVERS AND FLOODS
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### River-based Policy and Management Emphasis Area—choose two courses

BIOL 442	CONSERVATION BIOLOGY
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BIOL 463	FISHERIES BIOLOGY AND MANAGEMENT
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GEOG 235	ENERGY/WATER NEXUS
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GEOG 315	WATER RESOURCES
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GEOG 317	RESOURCES AND CONSERVATION
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### River-based Recreation, Education, and Tourism Emphasis Area—choose both

RCLS 313	PUBLIC LANDS AND OUTDOOR RECREATION
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RCLS 370	OUTDOOR RECREATION AQUATIC PROGRAMS
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Total Credits

22-27