

**Graduate Program of Hydrologic Sciences
(Course Offerings - Updated Spring - 2016)**

This list contains anticipated scheduling for those courses that may be related to the Hydrologic Sciences according to the online course catalog. The listing of courses is not meant to limit student choices and you are encouraged to seek out other courses that are appropriate for your research and studies. Instructors and offerings shown may change. Check the current course catalog for the most up-to-date information

DEPT.	#	CRED	TITLE	INSTRUCT.	SP16	FA16	SP17	FA17	SP18	FA18	NOTES
AGSC	608	5	Rangeland Ecosystems	Perryman			XX				See also NRES 608
AGSC	667	3	Natural Resource and Environmental Economics			XX		XX		XX	See ECON 667. May not be scheduled
AGSC	668	3	Economic Impact Analysis				XX				See ECON 668. May not be scheduled
APST	663	3	Design and Analysis of Experiments	Evans	XX	XX		XX		XX	May not be scheduled
APST	670	3	Linear Regression and Time Series	Evans			XX		XX		May not be scheduled
APST	705	3	Linear and Nonlinear Regression Models			XX		XX		XX	May not be scheduled
APST	755	3	Multivariate Statistical Methods				XX		XX		May not be scheduled
ATMS	610	3	Airflow and Weather Dynamics				XX		XX		May not be scheduled
ATMS	611	3	Intro. Atmospheric Physics	Bailey		XX		XX		XX	
ATMS	612	4	Intro. To Air Pollution	Gertler		XX		XX		XX	May not be scheduled
ATMS	613	3	Intro. Synoptic Meteorology	Kaplan		XX		XX		XX	May not be scheduled
ATMS	614	3	Physical Climatology	Lewis	XX		XX		XX		
ATMS	617	4	Airflow, Weather Dynamics, and Forecasting	Kaplan	XX		XX		XX		
ATMS	706	3	Applied Data Analysis			XX				XX	
ATMS	744	3	Advanced Synoptic Meteorology				XX				May not be scheduled
ATMS	746	3	Atmospheric Modeling						XX		May not be scheduled
ATMS	747	3	Atmospheric Chemistry	Samburova			XX				
ATMS	792	1-6	Special Problems								Depends on topic
BIOL	620	3	Aquatic Ecology	Peacock	XX				XX		
BIOL	631	3	Ichthyology	Peacock			XX				
BIOL	672	3	Limnology	Chandra		XX		XX		XX	
BIOL	712	3	Ecological Modeling				XX				May not be scheduled
CEE	364R	3	Engineering Hydrology	Marchand		XX		XX		XX	Will not get graduate credit
CEE	390R	3	Environmental Engineering Systems: Principles & Designs	Marchand	XX	XX	XX	XX	XX	XX	Will not get graduate credit
CEE	604	3	Open Channel Flow	Dennett	XX		XX		XX		
CEE	611	3	Environmental Law	Harris		XX		XX		XX	See NRES 612, PSC 403E. May not be scheduled
CEE	613	3	Water Resources Engineering I	Dennett			XX		XX		May not be scheduled
CEE	614	3	Water Resources Engineering II	Dennett							Not regularly scheduled
CEE	617	3	Quantitative Water Quality Analysis			XX		XX		XX	
CEE	618	3	Principles of Water Quality Modeling	Hiibel	XX		XX		XX		
CEE	653	3	Environmental Microbiology	Marchand		XX		XX		XX	
CEE	656	3	Design of Water Treatment Facilities	Dennett		XX		XX		XX	
CEE	657	3	Design of Wastewater Treatment and Reuse Systems	Pagilla	XX		XX		XX		
CEE	658	3	Environmental Chemistry Concepts and Design	Yang	XX		XX		XX		
CEE	659	3	Hazardous & Solid Waste Manag. & Control								Not scheduled
CEE	741	3	Geotechnical Eng. Seepage/Slopes/Embankments	Siddharthan	XX		XX		XX		
CEE	742	3	Advanced Soil Mechanics								Not regularly scheduled
CEE	750	1-3	Graduate Seminar	Variable	XX	XX	XX	XX	XX	XX	
CEE	751	4	Biological Unit Operations	Hiibel							Not regularly scheduled
CEE	752	4	Physicochemical Unit Processes	Hiibel							Not regularly scheduled
CEE	756	3	Environmental Chemical Kinetics	Yang	XX		XX		XX		
CEE	771	1-3	Special Engineering Problems	Variable	XX	XX	XX	XX	XX	XX	May not be water-related
ECON	615	3	Water Resource Economics and Policy	Stoddard				XX			
ECON	667	3	Natural Resource and Environmental Economics								Not scheduled
ECON	668	3	Economic Impact Analysis	Harris			XX				
ECON	767	3	Environmental Economics	Rollins	XX				XX		
ECON	769	3	Advanced Natural Resource Economics	Rollins			XX				May not be scheduled
ENG	691A	3	Major Texts of the Environmental Movement						XX		May not be scheduled
ENGR	600	3	Alternative Energy Fundamentals	Moltz	XX	XX	XX	XX	XX	XX	
ENGR	670	3	Geology of Geothermal Energy Resources	Boden	XX		XX		XX		
GE	684	3	Groundwater Hydrology	Tyler			XX		XX	XX	
GE	685	4	Waste Containment	Breitmeyer	XX		XX		XX		
GE	742	3	Debris and Snow Avalanches	Watters	XX						Not regularly scheduled
GE	743	3	Geostatistics	Carr			XX		XX		Not scheduled
GEOG	600	3	International Issues for Water Development	Berry/Saito		XX		XX		XX	Same as NRES 600
GEOG	605	4	Geographic Information Systems I	Bassett	XX		XX		XX		
GEOG	607	4	Advanced GIS Analyses	Heaton		XX		XX		XX	
GEOG	609	3	GIS Design Studio	Patil			XX		XX		not scheduled
GEOG	611	3	Remote Sensing: Principles and Applications			XX				XX	
GEOG	616	3	Spatial Analysis	Biondi	XX		XX		XX		
GEOG	621	3	Climatology						XX		not scheduled
GEOG	622	3	Climate Solutions: Local to Global	Albright	XX		XX		XX		
GEOG	635	3	Conservation of Natural Resources	Albright	XX	XX		XX			
GEOG	637	3	Geography of Past Environments				XX		XX		not scheduled
GEOG	638	3	Western Water Resources Management	Ormerod	XX			XX			
GEOG	664	3	Identity and the Environment	Berry				XX			
GEOG	666	3	Environmental Planning and Policy						XX		not scheduled
GEOG	672	3	Geography of Arid Lands	Wigand	XX	XX				XX	
GEOG	701R	3	Advanced Geography (Climatology)	Csank	XX						Not regularly scheduled
GEOG	721	3	Advanced Climatology			XX				XX	
GEOG	737	3	Past Environmental Change	Mensing							Not regularly scheduled
GEOL	602	3	The Oceans			XX		XX		XX	
GEOL	614	3	Hydrologic Fluid Dynamics	Saito		XX		XX		XX	Same as NRES 614
GEOL	616	3	Environmental Geochemistry	Poulson	XX		XX		XX		
GEOL	641	3	Advanced Geomorphology	McCoy	XX		XX		XX		
GEOL	661	3	Paleobiology	Noble				XX			
GEOL	662	4	Micropaleontology			XX				XX	
GEOL	668	4	Advanced Sedimentology	Trexler					XX		Not regularly scheduled

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DEPT.	#	CRED	TITLE	INSTRUCT.	SP16	FA16	SP17	FA17	SP18	FA18	NOTES
GEOL	701H	1-5	Climate Change - Past, Present and Future								Not scheduled
GEOL	701J	3	Fluvial Geomorphology or Sedimentology	Adams/Bullard/McCoy					XX		
GEOL	701S	3	Field Methods in Hydrology	Breitmeyer/Sustalk			XX		XX		
GEOL	712	3	Isotope Geochemistry					XX			
GEOL	713	2	Hydrothermal Geochemistry	Arehart	XX	XX				XX	
GEOL	716	3	Low Temperature Aqueous Geochemistry	Stillings			XX				not scheduled
GEOL	719	3	Geochemical Modeling Methods						XX		not scheduled
GEOL	763	3	Paleolimnology						XX		not scheduled
GEOL	771	3	Hydrothermal Mineral Deposits	Muntean		XX				XX	Not regularly scheduled
GEOL	772	2	Hydrothermal Alteration and Vein Petrology			XX				XX	
GEOL	776	2-3	Fluid Inclusions in Hydrothermal Systems								Not Scheduled
GEOL	780	3	Isotope Hydrology	Thomas/Hershey		XX				XX	
GEOL	781	3	Advanced Surface Water Hydrology	Rajagopal			XX				
GEOL	782	1-2	Hydrology Seminar	Pohl/Schumer		XX		XX		XX	same as NRES 782
GEOL	783	3	Ground Water Hydraulics	Schumer	XX				XX		
GEOL	784	3	Vadose Zone Hydrology	Tyler				XX			
GEOL	785	3	Introduction to Groundwater Modeling	Pohl	XX		XX		XX		
GEOL	786	3	Ground Water Contaminant Transport	Cooper			XX				
GPH	692	3	Applied Geophysics	Louie	XX		XX		XX		
HIST	688	3	Creating North American Landscapes	Raymond/Randlett	XX				XX		
HIST	688B	3	Landscape of Lake Tahoe								Not regularly scheduled
MATH	620	3	Mathematical Modeling	Zaliapan/Telyakovskiy	XX	XX	XX	XX	XX	XX	Summer Session also occasionally
MATH	661	3	Probability Theory	Song	XX	XX	XX	XX	XX	XX	
MATH	666	3	Numerical Methods I	Solin		XX		XX		XX	
MATH	667	3	Numerical Methods II	Mortensen	XX		XX		XX		
MATH	688	3	Partial Differential Equations	Pinsky	XX		XX		XX		
MATH	753	3	Stochastic Models/Simulation					XX			
MATH	761	3	Methods Applied Math I	Telyakovskiy							Not scheduled
MATH	762	3	Methods in Applied Math II								Not scheduled
MATH	767	3	Advanced Mathematics for Earth Sciences								Not scheduled
ME	614	3	Intermediate Heat Transfer	Wirtz		XX		XX		XX	
ME	667	3	Intermediate Fluid Mechanics	Padilla	XX		XX		XX		
MINE	350	3	Applied Fluids, Pumping and Drainage	Danko		XX		XX		XX	Will not get graduate credit
MINE	725	3	Heat Mass Transport	Danko		XX				XX	Not regularly scheduled
NRES	600	3	International Issues for Water Development	Berry/Saito		XX		XX		XX	Same as GEOG 600
NRES	606	4	Ecophysiology of Forest and Range Plants	Nowak	XX		XX		XX		
NRES	608	5	Rangeland Ecosystems	Perryman			XX				See also AGSC 608
NRES	612	3	Environmental Law	Harris		XX		XX		XX	Same as CEE 611, PSC 403E. Not regularly scheduled
NRES	614	3	Hydrologic Fluid Dynamics	Saito		XX		XX		XX	Same as GEOL 614
NRES	622	3	Soil Physics	Sullivan	XX		XX		XX		
NRES	630	3	Analysis of Environmental Contaminants	Miller, G.			XX				
NRES	631	1	Analysis of Environmental Contaminants Laboratory	Miller, G.			XX				
NRES	632	3	Advanced Environmental Toxicology	Miller, G.		XX		XX		XX	
NRES	633	3	Environmental Chemicals:Exposure, Transport, Fate	Miller, G.	XX				XX		
NRES	640	4	Wetland Ecology and Management	Qualls	XX		XX		XX		
NRES	660	3	Rangeland Resource Management	Perryman			XX				
NRES	682	4	Small Watershed Hydrology	Harpold	XX		XX		XX		
NRES	693	3	Range and Forest Ecology	Weisberg	XX				XX		
NRES	694	3	Range and Forest Administration and Policy	Swanson	XX		XX		XX		
NRES	697	3	Forest and Range Soils	Sullivan	XX		XX		XX		
NRES	698	3	Rangeland Restoration Ecology						XX		
NRES	701C	1-3	Advanced Resource Management (various topics)	Various	XX	XX	XX	XX	XX	XX	
NRES	701D	1-3	Hydrology (various topics)	Various	XX	XX	XX	XX	XX	XX	not a regular course
NRES	702	3	Soil Biogeochemistry						XX		
NRES	720	3	Survivor Skills for Graduate Students in the Sciences	Gustin	XX		XX		XX		
NRES	730	3	Interdisciplinary Modeling	Saito					XX		Typically offered summer
NRES	765	3	Biogeochemical Cycles	Gustin		XX		XX		XX	
NRES	782	1-2	Hydrology Seminar	Pohl		XX		XX		XX	Same as GEOL 782
NRES	783	1	Water Conference Organization	Saito		XX		XX		XX	
NRES	784	3	Vadose Zone Hydrology	Tyler				XX			Same as GEOL 784
PHYS	604	3	Computational Techniques in Physics	Mancini				XX			
PHYS	701	3	Mathematical Physics	Case		XX		XX		XX	
PHYS	740	3	Fluid Dynamics	Guyer				XX			
PSC	603C	3	Environmental Policy	Wilds	XX	XX	XX	XX	XX	XX	
PSC	603D	3	Global Environmental Policy	Wilds	XX		XX		XX		Not scheduled
PSC	603E	3	Environmental Law	Harris		XX		XX		XX	see CEE 611 / NRES 612. Not regularly scheduled
PSC	603G	3	Land and Water Resource Policy								Not regularly scheduled
PSC	603M	3	Climate Change Mitigation and Adaptation Policy					XX			Not regularly scheduled
STAT	652	3	Continuous Statistics	Ahn	XX		XX		XX		
STAT	653	3	Discrete Statistics			XX		XX		XX	
STAT	753	3	Stochastic Models and Simulation				XX		XX		Not scheduled
STAT	755	3	Multivariate Data Analysis	Zaliapin			XX				
STAT	757	3	Applied Regression Analysis	Hurtado	XX		XX		XX		
STAT	758	3	Time Series Analysis	Zaliapin		XX				XX	