AMERICAN INSTITUTE OF HYDROLOGY

Educational Criteria

Basic Requirements

Completion of a full course of study leading to a bachelor's or higher degree at an accredited college or university with a major in hydrology, physical or natural science or engineering.

The study must have included a minimum of:

- 4-5 semester hours or 8 quarter hours in Chemistry AND
- 4-5 semester hours or 8 quarter hours in Physics AND
- 4-5 semester hours or 8 quarter hours in Differential and Integral Calculus AND
- 25 semester hours or 37 quarter hours in the specialty areas.

Specialty Requirements

Completion of 25 semester hours or 37 quarter hours of which at least 10 semester or 15 quarter hours must come from Category I listing of courses and the rest from a combination of Category II and Category III listing of courses. Twenty semester hours or 30 quarter hours must be in the third or fourth year or graduate course studies.

Category I. Courses in hydrology, hydrogeology, or water quality - minimum of 10 semester or 15 quarter hours.

Category II. Courses in allied subjects in which hydrology, hydrogeology or water quality constitutes more than 10 percent of the course work - minimum of 9 semester or 13 quarter hours.

Category III. Supplemental courses - minimum of 6 semester or 9 quarter hours.

Note: The course titles listed are only indicative and are not all inclusive.

Category I. A. - Titles of Courses in Hydrology

Advanced Geohydrology

Advanced Ground-Water Hydrology

Advanced Hydraulics

Advanced Hydraulic Problems

Advanced Hydrologic Analysis

Advanced Hydrologic Analysis & Design

Advanced Hydrologic Laboratory
Advanced Hydrology
Advanced Water Chemistry
Agricultural Hydrology
Analytical Geohydrology
Applied Hydraulics
Applied Hydrology
Applied Subsurface Hydrology
Arctic Hydrology
Arid Zone Hydrology
Deterministic Methods in Hydrology
Drainage & Irrigation
Dynamic Hydrology
Dynamics of Flow Systems of the Earth
Engineering Hydrology
Field Hydrology
Floods & Droughts
Flow in Porous Media
Fluid Flow in Porous Media
Fluid Mechanics
Fluvial Hydraulics
Forest Hydrology
Free Surface Flows
Geohydrology
Geohydrology of Drainage Basins
Ground-Water Hydrology
Hydraulics
Hydraulics of Open Channel
Hydraulics of Pipeline
Hydrochemistry
Hydrodynamics of Free Surface Flows
Hydrologic Forecasting
Hydrologic Investigations
Hydrologic Measurements
Hydrologic Models
Hydrologic Processes & Cybernetics
Hydrologic Properties of Soils
Hydrologic Simulation
Hydrologic Systems & Analysis
Hydrologic Transport Processes
Hydrology, I & II
Hydrology Field Camp
Hydrology Laboratory
Hydrology for Engineers
Hydrology of Lakes & Reservoirs
Hydrology Seminar
Hydrometeorologic Observations
Hydrology, Water Control
Hydrometeorology
Hydroscience
Land-Mass Hydrology
Numerical Methods in Hydrology
Open Channel Flow
Physical Hydrology
Range Hydrology
River Hydrology
Rural Hydrology
Seepage
Seminar in Geohydrology
Seminar in Hydrology
Simulations Methods in Surface & Subsurface
Snow Hydrology
Soil Hydrology
Soil Water Movement
Special Topics in Hydraulics & Fluid Mechanics
Special Topics in the Hydrology of Ground Water & Low Flows
Statistical Methods in Hydrology
Stochastic Methods in Hydrology
Stream Analysis
Subsurface Fluid Dynamics
Surface Water Dynamics
Surface & Subsurface Hydrology
Surface Water Hydrology
Surface Water Quality & Analysis
Urban Hydrology
Use of Computes in Hydrology
Water Chemistry
Water Resources Calculations
Watershed Hydrology
Watershed Modeling

Category I. B. - Titles of Courses in Groundwater Hydrology (Hydrogeology)

Advanced Ground Water Geology
Advances Ground Water Problems
Advanced Hydrogeology
Analysis of Ground Water Flow
Analysis of Ground Water Systems
Analytical Methods in Ground Water
Analytical Techniques of Ground Water Flow
Application of Hydrogeology Concepts
Applied Hydrogeology
Appraisal and Development of Ground Water
Aquifer Mechanics
Assessment of Ground Water Resources
Case Histories in Hydrogeology
Chemistry of Ground Water
Computer Modeling of Hydrogeologic Systems
Contaminant Hydrogeology
Development of Ground water Resources
Environmental Hydrologic Tracers
Field Hydrogeology
Field Methods in Hydrogeology
Field Methods in Contaminant Hydrogeology
Fundamental of Well Test Analysis
Geology of Underground Water Ground Water
Ground Water & Engineering Geology
Ground Water & Seepage
Ground Water Chemistry
Ground Water Contamination
Ground Water Dating
Ground Water Development
Ground Water Exploration and Development
Ground Water Flow & Drainage Design
Ground Water Flow Systems
Ground Water Geology
Ground Water Hydraulics
Ground Water Investigations
Ground Water Management
Ground Water Pollution
Ground Water Problems in Mining
Ground Water Resources Evaluation and Modeling
Ground Water Resources Management
Hydrogeochemistry Seminar
Hydrogeochemistry
Hydrogeologic Mapping
Hydrogeologic Measurements
Hydrogeologic Problems
Hydrogeologic Systems
Hydrogeology I & II
Hydrogeology & Human Affairs
Hydrogeology of Ground Water Pollution & Protection
Hydrothermal Fluids
Intro to Ground Water
Intro to Ground-Water Geology
Laboratory Methods in Hydrogeology
Mathematical Models of Hydrogeologic Systems
Mathematics of Ground Water Movement
Mechanics of Flow Through Soils
Mechanics of Underground Fluids
Methods of Ground Water Investigations
Modeling Subsurface Flow Systems
Monitoring Network Design
Numerical Methods in Hydrogeology
Numerical Methods in Subsurface Hydrology
Optimal Ground Water Management
Paleohydrogeology
Physics of Underground Fluids
Pollution of Ground Water
Principles of Ground Water
Principles of Hydrogeology
Prospecting for Ground Water
Quantitative Determination of Aquifer Performance
Quantitative Ground Water Hydrology
Quantitative Methods in Hydrogeology
Regional Ground Water Geology
Sedimentary Aquifers
Seminar in Ground Water
Seminar in Hydrogeology
Solutions to Ground Water Problems
Statistical Methods in Hydrogeology
Subsurface Hydrogeologic Methods
Subsurface Water Quality
Theory of Flow Through Porous Media
Theory of Ground Water Flow
Theory of Ground Water Motion/Movement
Transient Flow of Ground Water
Theory of Ground Water Motion/Movement
Transient Flow of Ground Water
Transient Phenomena in Natural Porous Media
Underground Fluids
Water Well Analysis
Water Well Design
Water Wells

**Category I. C. - Titles of Courses in Water Quality**

Advanced water chemistry
Analysis and design of Wastewater treatment
Aquatic chemistry
Aqueous geochemistry
Assessing ecological effects of pollution
Biological and chemical processes for wastewater treatment
Chemistry of aquifer systems
Chemistry and biology of natural waters
Ecology of polluted water
Environmental water chemistry
Environmental chemistry
Environmental health aspects of ground water systems
Geochemistry of aqueous systems
Geochemistry of natural water
Geochemistry of pollution
Geochemistry of river management
Geochemistry of sediments
Introduction to geochemistry
Land application of wastewater
Limnology
Low-temperature geochemistry
Modeling aquatic environments
Sanitary engineering
Solute transport geochemistry
Stream ecology
Water pollution biology
Water pollution control
Water quality
Water quality analysis
Water quality control
Water quality dynamics
Water quality engineering
Water quality management
Water quality investigations
Water quality measurements
Water quality for engineers
Water supply and pollution control
Water supply and treatment
Water supply and wastewater collection
Water supply and wastewater disposal
Water Well Design
Water Wells
Well Test Analysis

**Category II. A. & B. - Hydrology and Hydrogeology**

Advanced Hydrologic Engineering
Advanced Mechanics of Fluids
Advanced Sanitary Engineering
Advanced Subsurface Fluids Engineering
Advanced Meteorology
Applied Environmental Geology
Applied Physics
Applied Meteorology
Applied Environmental Geology
Climate and Weather
Conservation of Aquatic Resources
Drainage & Irrigation Engineering
Drainage & Irrigation Practice
Drainage Systems Design
Drilling Engineering
Drilling Practice & Well Completion
Ecology of Polluted Water
Engineering Geology
Engineering Hydraulics
Environmental Geochemistry
Environmental Geology
Environmental Health Aspects of Ground Water Systems
Evapotranspiration
Fluvial Geomorphology
Fluid Dynamics
Flood Control Engineering
Forest influences
Fundamental of Geological Engineering
Geochemistry of Aqueous Systems
Geochemistry of Natural Water
Geochemistry of Pollution
Geography of River Development
Geological Engineering
Geological Oceanography
Geology in Engineering Construction
Geology of Fluids
Geology in Engineering Construction
Geomorphology
Ground-water Engineering
Ground-water Protection
Hydraulic Engineering
Hydrochemical Systems
Hydrography
Hydrologic & Hydraulic Engineering
Hydrodynamics
Hydromechanics
Land Application of Wastewater
Limnology
Low-Temperature Geochemistry
Meteorology (micro, dynamic)
Microclimatology
Ocean & Coastal Engineering
Permafrost
Petroleum Engineering
Petroleum Geology
Petroleum, Natural Gas & Ground Water
Physical Aspects of Sedimentology
Physical Geology
Physical Oceanography
Physiography
Physics of Soil Water Movement
Plant/Water Relationship
Pollution of Natural Waters
Public Water Supplies
Quaternary (Surficial) Geology
Remote Sensing of the Environment
River & Harbor Engineering
Road Drainage
Rural Water Supplies
Sanitary Engineering
Sedimentation
Sediment Transport
Small Watershed Engineering
Soil & Water Conservation
Soil Drainage
Soil Moisture
Soil, Water & Air
Soil Water Dynamics
Solute Transport Geochemistry
Stream Ecology
Stream Pollution
Thermodynamics
Urban Water Systems
Water Analysis
Water Chemistry Laboratory
Water Conservation
Water Microbiology
Water Pollution Control
Water Power Engineering
Water Quality Analysis
Water Quality Dynamics
Water Quality in Water Resources Development
Water Quality Investigations & Control
Water Quality Measurements
Water Quality Seminar
Water Resources
Water Resources Development
Water Resources Engineering
Water Resources Instrumentation
Water Resources Investigation & Development
Water Resources Management
Water Resources Microbiology, Bacteriology
Water Resources Science and Technology
Water Analysis & Problems
Watershed Management
Water Supply & Pollution Control
Water Supply & Treatment
Water Supply & Wastewater Collection
Water Supply & Wastewater Disposal
Water Supply & Engineering
Water Supply Geology
Water Supply - Water Wells
Water Utilization
Waves & Coastal Processes
Well Completion & Simulation
Well Drilling
Well Logging

**Category II. C. Allied Courses in Water Quality**

Algae physiology
Analytical chemistry
Aquatic entomology
Aquatic plants
Biology of algae
Ecology of animal plankton
Ecology of fish
Freshwater algae
General microbiology
Ichthyology
Microbial ecology
Organic chemistry
Production biology of fishery environments

Wetland Ecology

Category III. A. B. & C. - Titles of Supplemental Courses

Advanced Geology

Advanced Soil Science

Agricultural Engineering

Air-photo Interpretation

Analysis & Design of Water Res. Systems

Aquatic Ecology for Nonbiologists

Aquatic Environments

Bioclimatology

Biology of Water & Water Treat. Res.

Biostratigraphy

Chemical Properties of Soils

Chemistry of Soil & Water Systems

Civil Engineering Technology

Conservation of Natural Resources

Earth Science

Earth & Physical Sciences

Ecological Dimensions of Environ. Impact

Ecology

Economics of Water Supply

Engineering Properties of Soils

Environmental Conservation
Environmental Economics
Environmental Health
Environmental Health Engineering
Environmental Impact Analysis
Environmental Impact Statement
Environmental law, Toxic Subs. & Conservation
Environmental Legislation
Environmental Management
Environmental Planning
Environmental Pollution Control
Environmental Quality Management
Environmental Radiation
Environmental Toxicology
Exploration Geology
Exploration Geophysics
Field Geology
General Geography
General Geology
Geochemistry
Geology for Engineers
Geophysical Exploration
Geophysical Prospecting
Geophysics
Glacial Geology
Government & Natural Resources
Ground Water Law
Heat Transfer
Hydrotechnical Structures
Hydropower Engineering
Intro to Statistical Methods
Intro to Water Resources
Land & Water Use Policy
Land Use Controls
Lithology
Man, Chemicals & Environment
Maps & Airphotos
Marine Environments/Ecology
Marine Engineering
Marine Geology
Mining Geology
Modeling & Analysis of Environ. Systems
Natural Resources Economics
Natural Resources Law
Natural Resources Management
Natural Resources Planning
Numerical Methods in Geoscience
Optimization & Simulation of Water Resources Systems
Petrography
Petrology
Petroleum
Photogeology
Physical Climatology
Physics of Soil & Water
Principles of Electric Exploration
Protection of Natural Resources
Public Health Engineering
Radiochemical Laboratory
Regional Geology
Reservoir Engineering
Reservoir Operation
Science & Government
Seminar in River Basin Planning
Seminar in Water Resources
Sewage and Sewage Treatment
Soil Mechanics
Soil Physics/Chemistry
Soil Rock Behavior
Soil Science
Soils & Environmental Pollution
Soils & Land Use
Soils Mapping & Evaluation
Stratigraphy
Stream Sanitation
Structural Geology
Subsurface Exploration
Stream Sanitation
Structural Geology
Subsurface Exploration
Surface & Subsurface Geology
Wastewater Treatment
Water Law
Water Resources Economics
Water Resources Institutions & Policies
Water Resources Planning
Water Resources Systems Simulations
Water Quality & Water Resources Development
Water Rights Law
Watershed Instrumentation
Watershed Problems/Operations
Water, Society & the Environment
Water Studies Seminar
Waterways Engineering
Waterways & Ports