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PhD Colorado

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CONTACT INFORMATION

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One-year Professional Masters program in Applied Geohydrology in the Department of Geosciences at the University of Massachusetts Amherst

UMASS AMHERST
HYDROGEOLOGY

UNIVERSITY OF Massachusetts Amherst

UMASS AMHERST

OVERVIEW:

The Professional Masters in Geohydrology is intended to provide: (1) additional education for working professionals in the area of geohydrology as it applies to problems relating to water and the environment; and (2) an opportunity for UMass-Amherst or Five-college undergraduates to obtain, as part of a fifth year of study, a Master degree in addition to the Bachelor degree. This is a non-thesis Master degree program administered by the Geosciences department, and is intended to be completed by individuals already holding undergraduate or advanced degrees and who are interested in a graduate program that does not have the traditional research requirement. The program consists primarily of coursework in geohydrology and allied fields with an emphasis on environmental applications. No research is required though the program does allow for independent study, professional development, internship, and cooperative experience.

PREREQUISITES :

Each entering student will have an entrance interview with members of the geosciences faculty. The pre-requisite coursework required is that of a minor in geosciences. The department recognizes that entering students may not be at same level of proficiency concerning basic geosciences requisite coursework.

REQUIREMENTS :

A minimum of 30 credit hours are required, with an overall GPA of at least 3.0. The overall course requirements will depend on the background of the individual, but may be tailored to professional objectives. Importantly 21 of the 30 credits used for the degree must be taken in the Geoscinces department. These courses will be chosen in consultation with the entrance committee. GEO-SCI 701 (Professional seminar) is required for all semesters of residence. A final exit examination must be scheduled for the last semester of residence and will consist of a short series of questions pulled from the courses taken and professional licensure examinations (PG/LSP/LEP, etc.).

HOW TO APPLY :

Applicants who are applying for this non-thesis Master degree program must follow the same procedures that all prospective graduate students follow – found at this website (http://www.umass.edu/gradschool/prospective_student_ online_application.htm), including providing the university with results of the Graduate Record Exam (GRE) and two letters of reference. When applying to the program please make your intentions known to the program director that you are applying for the Professional Master degree as a non-thesis MS student. The 2018-2019 costs for the two semester program were: $16,524 (Massachusetts Resident); $33,625 (Out of State).
Applications will be accepted beginning in the fall semester only up until April 15th.

COURSEWORK:

Physical Hydrology (3 courses total)
- GEO-SCI 587 Hydrogeology
- GEO-SCI 591F Fluids in Geologic Processes
- GEO-SCI 687 Advanced Hydrogeology
- GEO-SCI 597C Groundwater/Surface Water
- GEO-SCI 597CEEcohydrology

Applicable Courses in other departments
- ECO 528 Forest and Wetland Hydrology
- ECO 597R Watershed Science and Management
- CEE 662 Water Resource Systems Analysis
- CEE 661 Subsurface Pollution
- CEE 560 Hydrology
- CEE 625 In-Situ Testing

Geochemistry (2 courses)
- GEOSCI 519 Aq. Env. Geochemistry
- GEOSCI 597I Isotope Geochemistry
- GEOSCI 615 Organic Geochemistry
- GEOSCI 517 Sedimentary Geochemistry

Geological Sciences (2 courses)
- GEO-SCI 510 Geologic Hazards
- GEO-SCI 623 Coastal Processes
- GEO-SCI 563 Glacial Geology
- GEO-SCI 631 Geophysics
- GEO-SCI 571 Brittle Fracture
- GEO-SCI 560 Geomorphology

Tools and Techniques (1 course)
- GEO-SCI 591D Spatial Data Analysis
- GEO-SCI 568 GIS and Spatial Analysis
- GEO-SCI 426 Remote Sensing and Image Interpretation
- ENVIRSCI 452 Hazardous Waste Operations and Emergency Response
- ENVIRSCI 465 Principles of Environmental Site Assessment

An additional 3-6 credit-hours of free electives may be selected to complete the 30 credit-hour requirement. Free electives may be selected from any of the courses listed above, and may also be independent study credits (GEOSCI 697) taken to fulfill a research cooperative, or other professional development experience.