PHD IN GEOLOGY AND GEOLOGICAL ENGINEERING

GEOLOGICAL ENGINEERING SPECIALIZATION

Curriculum
____ A minimum of 72 credit hours is required beyond the B.S. degree.
____ At least 36 of these credits must be for course work. Up to twenty-four (24) course credits and six (6) research credits from the M.S. degree can be applied toward the total required credits if the student’s committee agrees.
____ It is recommended that six (6) to twelve (12) hours of course work be taken outside the department.

The student’s committee is responsible for assisting the student in developing a program of study that prepares the student for advanced work in his/her chosen specialty field.

Required of all GEOE students:

____GEOL 700 Research Methods (to be taken first fall semester of enrollment)
____GEOL 808 Fundamental Problems in GEOL/GEOE

____GEOL/GEOE course emphasizing field methods fulfilled by _________
____GEOL/GEOE course emphasizing analytical methods fulfilled by _________
____GEOL/GEOE course emphasizing computational methods fulfilled by _________

Ground Water and Environmental Focus:

Recommended:
--- GEOE 641 Geochemistry
--- GEOE 663 Ground Water Geochemistry
--- GEOE 664 Advanced Ground Water
--- GEOE 682 Fluvial Processes
--- GEOE 766 Digital Modeling of Ground Water
--- GEOE 517 Geospatial Databases
--- GEOE 519 Advanced Geospatial Analysis
--- GEOE 633 Sedimentation
--- CEE 519 Environmental Engineering
--- CEE 521 Environmental Systems Analysis
--- CEE 634 Surface Water Hydrology
--- CEE 730 Statistical methods in Water Resources
--- CEE 731 Topics in Water Quality Assessment

--- GEOL 633 Sedimentation
--- CEE 643 Advanced Soil Mechanics I
--- CEE 645 Advanced Foundations
--- CEE 646 Stability of Soil and Rock Slopes
--- CEE 647 Earth Retaining Structures
--- MEM 525 Advanced Rock Mechanics
--- MEM 533 Computer Applications in Geoscience Modeling
--- MEM 550 Rock Slope Engineering

Energy and Mineral Resources Focus:

Recommended:
--- GEOE 641 Geochemistry
--- GEOE 663 Groundwater Geochemistry
--- GEOL 576 Petroleum Geology
--- GEOE 652 Problems in Ore Deposits
--- GEOE 633 Sedimentation
--- GEOE 650 Seminar in Ore Deposits
--- CEE 627 Treatment, Disposal, and Management of Hazardous Waste
--- CEE 784 Modeling and Comp. in Civil Engineering
--- MEM 533 Comp Applications in Geoscience Modeling

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