Checklist for _____ by _____ Date:_____

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:

____GEOE 700 Research Methods (to be taken first fall semester of enrollment)

____GEOL 808 Fundamental Problems in Engineering and Science

____GEOL/GEOE course emphasizing field methods fulfilled by _____

____GEOL/GEOE course emphasizing analytical methods fulfilled by _____

____GEOL/GEOE course emphasizing computational methods fulfilled by _____

Groundwater and Environmental Focus:
Recommended:
____GEOE 641 Geochemistry
____GEOE 663 Groundwater Geochemistry
____GEOE 664 Advanced Groundwater
____GEOE 682 Fluvial Processes
____GEOE 766 Digital Modeling of Groundwater
____GEOL 517 Geospatial Databases
____GEOL 519 Advanced Geospatial Analysis
____GEOL 633 Sedimentation
____CEE 519 Environmental Engineering Physical/Chemical Process Design
____CEE 521 Environmental Systems Analysis
____CEE 634 Surface Water Hydrology
____CEE 730 Statistical methods in Water Resources
____CEE 731 Topics in Water Quality Assessment

Geomechanics Focus:
Recommended:
____GEOE 566 Engineering and Environmental Geology
____GEOE 664 Advanced Groundwater
____GEOE 768 Engineering Geology of Surficial Deposits
____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
____GEOL 652 Problems in Ore Deposits
____GEOL 633 Sedimentation
____GEOL 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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