Checklist for _____ by _____ Date:_____

PHD IN GEOLOGY AND GEOLOGICAL ENGINEERING

GEOLOGICAL ENGINEERING SPECIALIZATION

Curriculum

____ A minimum of 80 credit hours is required beyond the B.S. degree.
____ At least fifty of these credits must be for course work. Up to 30 course credits from the M.S. degree can be applied toward this requirement 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
____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 Ground Water
____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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