Checklist for _____ by _____ Date:_____

MASTER OF SCIENCE IN GEOLOGY AND GEOLOGICAL ENGINEERING

GEOLOGICAL ENGINEERING SPECIALIZATION

General Requirements:
The student must complete the following minimum course credits:

	Thesis Degree	Non-Thesis Option
____Coursework (500 or above)**	24-26 credits	34 credits
____GEOL/GEOE 798 MS Thesis (minimum)***	6-8 credits	2 credits
	32 credits	36 credits

** With thesis committee approval, up to 6 credits may be out-of-department 300- or 400-level courses.
***With the consent of the student's graduate committee, a student may count up to 8 credit hours of thesis research (GEOL/GEOE 798) toward the degree credit requirements. This allows the student to exchange a 700-level (or 600-level or above) course for 3 extra hours of thesis work. However, the student may register for additional research credits for continuing registration purposes.

M.S. Course Work Requirements for Geological Engineering Specialization

The candidate's committee is responsible for assisting the student in developing a program of study that prepares the student for his/her intended field.

Course Requirements:

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

____GEOL/GEOE course emphasizing field methods fulfilled by _____

____GEOL/GEOE course emphasizing analytical methods fulfilled by _____

____GEOL/GEOE course emphasizing computational methods fulfilled by _____

Three focus areas are offered to M.S. candidates in the Geological Engineering Specialization. The recommended courses for each area are listed below.

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 Eng Process Design
____CEE 521 Environmental Systems Analysis
____CEE 634 Surface Water Hydrology
____CEE 730 Statistical Methods Water Resources
____CEE 731 Topics in Water Quality Assessment

Geomechanics Focus:
Recommended:
____GEOE 566 Engineering and Env Geology
____GEOE 664 Advanced Ground Water
____GEOE 768 Eng 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 Comp. Apps 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 Apps Geoscience Modeling