Department of Civil Engineering
Master of Engineering (M.E.) Degree Requirements
Area of Study: Environmental Engineering

The Master of Engineering (M.E.) degree requires 30 credit hours of coursework. This non-thesis degree also requires a professional report whose content is determined by the advisory committee. This report can include results of research conducted by the student, or it can be a report written for a specific course or as part of CVEN/OCEN 685 - Directed Studies.

NOTE: All documents requiring departmental signatures must be submitted to the Civil Engineering Graduate Office at least one day prior to the Office of Graduate Studies deadline.

In addition to fulfilling the University requirements for the Master of Engineering (M.E.) degree, a student enrolled in the Civil Engineering graduate program in the area of Environmental Engineering must satisfy the following:

- A minimum of 24 hours must be taken from course offerings of the following colleges: Engineering, Geosciences, and Science.
- All students are required to take the core courses (13 credits):
  - CVEN 619 Environmental Engineering Processes I (3 credits)
  - CVEN 620 Environmental Engineering Processes II (3 credits)
  - CVEN 601 Environmental Engineering Processes III (3 credits)
  - CVEN 603 Environmental Engineering Management (3 credits)
  - CVEN 681 Environmental Engineering Seminar (1 credit)
- No more than 3 hours of CVEN 685 (within the 6 hours allowed for CVEN 684 / CVEN 685).
- A minimum of 15 hours must be CVEN/OCEN/BAEN coursework (exclusive of CVEN 681, CVEN 684, and CVEN 685).
- A maximum of 9 hours of advanced undergraduate coursework (must be 400-level if CVEN/OCEN/BAEN courses).
- A minimum of 18 hours of graduate level coursework taken at Texas A&M University (excluding CVEN 684 and CVEN 685).
- The combination of CVEN 684, CVEN 685, transfer credit, and permissible undergraduate coursework may not exceed the greater of 12 hours or one-third (1/3) of the total hours on the degree plan.
- Courses offered through the Business Certificate program can be used toward the M.E. degree requirements (http://maysbschool.tamu.edu/masters/businessCert.htm).

The following are requirements and/or recommendations:

**Other Suggested CVEN Courses**
Relevant Geotechnical or Ocean Engineering courses w/pre-requisites.

**Other Suggested STAT Courses**
STAT 601 Statistical Analysis
STAT 602 Statistical Methods of Regression Analysis

**Water Resources Courses**
CVEN 627 Engineering Surface Water Hydrology
CVEN 628 Advanced Hydraulic Engineering
CVEN 658  Civil Engineering Applications of GIS  
CVEN 664  Water Resources Engineering Planning and Management  
CVEN 665  Water Resources Systems Engineering  
CVEN 673  Transport Through Porous Media  
CVEN 674  Groundwater Engineering  
CVEN 675  Stochastic Hydrology  
CVEN 679  Theory of Fluid Mechanics Models  
CVEN 680  Advanced Computation Methods for Fluid Flow  
CVEN 688  Computational Fluid Dynamics  

Other Classes  
ATMO 602  Principles of Atmospheric Physics and Chemistry  
ATMO 613  Advanced Atmospheric Chemistry  
BICH 601  Fundamentals of Biochemistry I  
BAEN 651  Geographic Information Systems  
BAEN 652  Advanced Topics in GIS  
BAEN 669  Water Quality Engineering  
BAEN 670  Air Pollution Engineering  
BAEN 672  Small Watershed Hydrology  
BAEN 673  Modeling Small Watersheds  
BIOL 650  Genomics  
BIOT 601  Biotechnology Principles and Techniques I  
BIOT 602  Biotechnology Principles and Techniques II  
CHEN 651  Biochemical Engineering  
CHEN 629  Transport Phenomenon  
CHEN 624  Chemical Engineering Kinetics and Reactor Design  
OCEN 678  Fluid Dynamics for Ocean and Environmental Engineering  
GEOL 621  Contaminant Hydrogeology  
GEOL 641  Environmental Geochemistry  
MATH 601  Methods of Applied Math  
MATH 602  Partial Differential Equations  
MATH 609  Numerical Analysis  
RLEM 601  Rangeland Resource Management  
RLEM 601  Ecology and Land Uses  
RLEM 640  Wetland Delineation  
RENR 650  Leadership Development and Management of Environmental NGOs  
RENR 659  Ecological Economics  
RENR 660  Environmental Impact Analysis for Renewable Natural Resources  
RENR 662  Environmental Law and Policy  
RENR 664  Coastal Zone Management  
AGRO 614  Biodegradation and Bioremediation (VAPH 614)  
AGRO 615  Reclamation of Drastically Disturbed Lands  
AGRO 616  Land Disposal of Waste  
AGRO 670  Basic Environmental Toxicology  
WFSC 628  Wetland Ecology
• Degree Plan: An advisory committee must be formed and a Degree Plan must be submitted and approved by the advisory committee by the end of the first semester of study.

• Completion of Professional Report: A draft Professional Report must be submitted to the advisory committee chair at least 2 weeks (10 working days) prior to revision and subsequent submittal to other members of advisory committee. These other members of the advisory committee will be provided at least 2 weeks (10 working days) to review the revised draft Professional Report prior to the Final Presentation. Thus, the draft Professional Report must be submitted to the advisory committee chair at least 4 weeks (20 working days) prior to the Final Presentation.

• Final Presentation: A Final Presentation consisting of an oral examination will be scheduled with all of the advisory committee members. At this examination, the student will give a presentation of the content of the Professional Report completed for the degree.

1. 3 of these 24 hours may be outside of colleges of Engineering, Geosciences, and Science if selected from a list of courses approved by the student’s specialty area as outlined by the specialty area’s documented course work requirements.
2. Certain courses within the College of Engineering are prohibited from use on the degree plan unless written justification is made by the student’s advisor and approved by the Departmental Graduate Advisor prior to enrolling in the course. Please see Departmental Graduate Advisor for listing of prohibited courses.
3. All coursework should be discussed with advisory committee chair before enrolling in course. All coursework must be consistent with the student’s chosen field of study and commensurate with graduate study.