The Master of Science (M.S.) degree requires 32 credit hours of approved courses and research. At least 25 credit hours must be coursework, and a thesis is required.

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 and requirements for the Master of Science (M.S.) degree, a student enrolled in the Civil Engineering graduate program in the area of Materials Engineering must satisfy the following department requirements:

- A minimum of 15 hours must be CVEN/OCEN/MEMA coursework (exclusive of CVEN 681 and CVEN 691).
- A minimum of 24 hours must be taken from course offerings of the following colleges: Engineering, Geosciences, and Science.
- A maximum of 9 hours of advanced undergraduate coursework (must be 400-level if CVEN/OCEN/MEMA courses).
- A minimum of 18 hours of graduate level coursework taken at Texas A&M University (excluding CVEN 691).
- A maximum of 7 hours of CVEN 691 or combination of CVEN 691 and CVEN 685.
- The combination of CVEN 691, 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.

And the following area requirements and/or recommendations:

- **Required Coursework:** CVEN 681 Seminar in Materials and 3 of following 4 Courses:
  - CVEN 622 Properties of Concrete
  - CVEN 653 Bituminous Materials
  - CVEN 615 Structural Design of Pavements
  - CVEN 616 Systems Design of Pavements

- **Recommended Coursework:** CVEN 624 Infrastructure Engineering
  - CVEN 614 Stabilization of Soil-Aggregate Systems
  - CVEN 637 Rigid Pavement Analysis and Design
  - CVEN 613 Micromechanics of Civil Materials
  - CVEN 689 Aggregates in Civil Engineering
  - STAT 601 Statistical Analysis
  - STAT 602 Statistical Methods of Regression Analysis

Relevant CVEN, MEMA, and other Graduate Courses per recommendations of the advisory committee and department requirements.
• 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.

• Research Proposal: A draft Research Proposal 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 the advisory committee. These other members of the advisory committee will be provided at least 2 weeks (10 working days) to review the revised draft Research Proposal prior to the end of the second semester of study. Thus, the draft Research Proposal must be submitted to the advisory committee chair at least 4 weeks (20 working days) prior to the end of the second semester of study.

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

• Final Defense: A Final Defense 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 research work completed for the degree and documented in the Thesis.

1 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.