# ==Master of Science Degree in Systems Engineering==
## ==Course of Study Requirements==
## Missouri University of Science and Technology (Missouri S&T)

|  | **==Non-Thesis==** | **==Thesis==** |
|---|---|---|
| **Core Courses** ==*Required for all students*== | 18 credit hours | 18 credit hours |
| **Graduate Research Course** *SYS ENG 6099* | 0 credit hours | 6 credit hours |
| **Systems Engineering Electives** ==*(Approved by Advisor)*== | 12 credit hours | 12 credit hours |
| **Total Credit Hours Required** | **30 credit hours** | **36 credit hours** |

## Required Non-Thesis Core Courses

SYSE 5101 - System Engineering and Analysis
SYSE 6196 - Systems Engineering Capstone
SYSE 6542 - Model Based Systems Engineering
SYSE 6103 - Systems Life Cycle Costing
SYSE 6102 – Information Based Design
SYSE 6104 - Systems Architecting

## Required Thesis Core Courses

SYSE 6412 - Mathematical Programming
SYSE 6110 - Optimization Under Uncertainty
SYSE 5101 - System Engineering and Analysis
SYSE 6104 - Systems Architecting
SYSE 6542 - Model Based Systems Engineering
SYSE 6196 - Systems Engineering Capstone

- With the advisor's approval, thesis students can apply to the Systems Engineering Graduate Certificate to be included in their MS program.
- Non-Thesis students can choose a certificate area depending on their interests. (certificate rules apply) Courses can be chosen from more than one area. Students must apply separately for each graduate certificate.
- Students must submit a typed and signed **Form 1** to **Theresa Busch tbusch@mst.edu (A-K)** or **Karen G. Swope swopekg@mst.edu (L-Z)** by advising week of their first semester. Forms can be submitted in person or scanned and emailed.

  - **Thesis students:**
    - Form 1 must be on file before students register for Graduate Research SYS ENG 6099.
    - Must take **two** 6000-level courses (in addition to 6 hours SYS ENG 6099).
    - Form 1 must be signed by student, Advisor, & committee members in the signature section.
  - **Non-Thesis students:**
    - Must take **three** 6000-level courses.
    - Form 1 must be signed by student & Advisor in the signature section.
- If you take courses that vary from your Form 1, you must file a **Form 1A prior to enrolling in the course**.
- Students must meet all requirements for graduation as specified in the Graduate Catalog for Systems Engineering.

## Staff Support Information

| **Theresa Busch** | **Karen G. Swope** |
|---|---|
| **tbusch@mst.edu** | **swopekg@mst.edu** |
| Last Names: A-K | Last Names: L-Z |

## Website
**http://emse.mst.edu**