MASTER OF SCIENCE IN SYSTEMS ENGINEERING, DATA ANALYTICS CONCENTRATION NON-THESIS (MS)

CIP: 14.2701.00

A student applying to the MS SENG program should submit and/or meet the following requirements:

1. A minimum 3.0 GPA, which will require the submission of official transcripts from all universities or colleges attended.
2. A B.S. in Systems Engineering, other engineering degrees, or closely related degrees on a case-to-case basis (i.e., Computer Science, Mathematics, Applied Physics, and Statistics) from an accredited institution.
3. A minimum GRE Quantitative score of 152 and a minimum GRE Verbal score of 148 (total GRE score of 300).
4. Submission of a 750-word essay outlining the applicant's background, education, and professional goals.
5. A professional resume of no more than two pages.
6. Two letters of recommendation (professional and/or academic references)

International students who are neither U.S. citizens nor U.S. permanent residents (or green card holders) should submit and meet the following as per the graduate school requirements at TAMIU.

1. A TOEFL score of at least 79 is required.
2. Bank statement
3. Copy of current U.S. visa
4. Copy of I-20
5. Financial Statement Form
6. International Student Transfer Form

Admitted students deemed by the program's admissions committee to possess a background in either science, mathematics, and/or related disciplines may be asked to enroll for one or several online foundational courses offered in sub-terms (7 week duration) prior to beginning the MS SENG program. These foundational courses are designed to provide admitted students the prerequisite statistical, mathematical, programming, and/or basic engineering knowledge and skills to engage the content of the MS SENG program. These foundational courses include, but are not limited to:

1. Numerical Methods of Engineering
2. Foundations of Programming and Computational Tools
3. Foundations of Engineering

The MS SENG program's admissions committee will determine the need for admitted students to enroll for and complete a foundational course, or courses, on a case-by-case basis. Note, more foundational courses may be created as necessary and determined by the graduate program director to provide admitted students the knowledge and skills necessary to engage the MS SENG program's content.

Degree Plan

Major Curriculum - Systems Engineering, Data Analytics Concentration Non Thesis

Code	Title	Semester Credit Hours
Required Courses		
SENG 5300	Systems Engineering Management	3
SENG 5310	Engr Computational Tools	3
SENG 5320	Logistics & Quality Ctrl Engr	3
SENG 5330	Advanced Systems M&S	3
Concentration		
SENG 5340	Applied Multivariate Stats	3
SENG 5342	Data Analytics Foundations	3
SENG 5344	Machine Learning Algorithms	3
SENG 5346	Big Data	3
Capstone Project		
SENG 5397	Capstone Project	3
Restricted Electives		
Select 3 hours from the following:		3
SENG 5380	Information Security	
SENG 5381	High-Performance Computing	
SENG 5382	Renewable Energy Systems	
SENG 5383	Advanced Software Engineering	
SENG 5384	Cloud Computing	
SENG 5385	Semiconductor Testing	
SENG 5386	Mechatronics Systems	
SENG 5387	Advanced Seminar	
SENG 5388	Special Topics	
Total Semester Credit Hours		**30**