M.S. in Software Engineering

Admission Requirements
See the introduction to the College of Engineering for information about general requirements. Additionally, to be admitted to the Master of Science in Software Engineering (MSSwE), applicants must have a bachelor degree in any field of science or engineering from a regionally accredited institution in the U.S., or proof of equivalent education in a foreign institution. Students, who do not have the appropriate background may be required to complete leveling coursework at the undergraduate level. These courses will not be counted towards the MSSwE degree.

Students must apply through the Graduate School, submitting an application form and the following supporting materials:

- Official transcripts of all previous academic work.
- Applicants from countries where English is not the first language are required to demonstrate English proficiency. Please consult the graduate school (http://catalog.utep.edu/admissions/graduate/graduate-student/) website for required scores.
- Official Graduate Record Examination (GRE) scores.
- Personal statement.
- Letters of recommendation, including one from the company sponsoring the student (if appropriate).
- Other evidence of relevant personal or professional experience.

Recommendation for admissions will be made on the basis of the following:

- Grade point average in the appropriate upper-division or graduate course work.
- Professional commitment and interest as demonstrated by the personal statement and other supporting materials as available.
- Letters of recommendation.

Degree Requirements
The MSSwE is a 30-semester-credit-hour (SCH) non-thesis professional program. Coursework includes:

- 15 SCH in the Software Engineering field (required courses)
- 12 SCH prescribed electives in Software Engineering and Computer Science
- 3 SCH Practicum Experience
- Students have the option of completing the Secure Cyber-Systems Track
- Students will have the option of requesting MSSwE Program Director’s approval for inclusion of up to six credits from other programs in lieu of six credits from a prescribed elective.

Degree Plan
Required Credits: 30

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 5374</td>
<td>Software Construction</td>
<td>3</td>
</tr>
<tr>
<td>CS 5385</td>
<td>Software Requirements Engr</td>
<td>3</td>
</tr>
<tr>
<td>CS 5386</td>
<td>Software Architecture &amp; Design</td>
<td>3</td>
</tr>
<tr>
<td>CS 5387</td>
<td>Software Integration and V&amp;V</td>
<td>3</td>
</tr>
<tr>
<td>CS 5388</td>
<td>Software Project Management</td>
<td>3</td>
</tr>
<tr>
<td>CS 5389</td>
<td>Software Engineering Practicum</td>
<td>3</td>
</tr>
</tbody>
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Prescribed Electives:
Select four courses from CS graduate courses
(All courses require a grade of C or better) Students have the option of requesting departmental approval for inclusion of up to six credits from other programs in lieu of six credits from prescribed electives.

Total Hours 30

Concentration in Secure Cyber-Systems

Required Credits: 30
All students are required to complete the following seven core courses with a B average or better and with no more than one C.

**Required Courses:**
- CS 5352 Computer Security 3
- CS 5374 Software Construction 3
- CS 5385 Software Requirements Engr 3
- CS 5386 Software Architecture & Design 3
- CS 5387 Software Integration and V&V 3
- CS 5388 Software Project Management 3
- CS 5389 Software Engineering Practicum 3

**Prescribed Electives:**
Select three courses of the following:
- CS 5313 Computer Networks
- CS 5339 Secure Web-Based Systems
- CS 5371 Software Safety & Risk Analysis
- CS 5372 Spec. & Design of Real-Time Sys
- CS 5373 Graduate Student Internship
- CS 5375 Software Reverse Engineering
- CS 5376 Comp. Dec Making & Risk Anal
- CS 5323 Wireless Networks

**Total Hours** 30

* With the approval of the MSSwE program director.