

Software Engineering MS Course Requirement Worksheet Draft

(Include in Plan of Study)

☐ **Thesis:** Submit MS Course requirement worksheet, 1 paragraph summary of proposed thesis research area, and a listing of proposed Thesis defense committee members.

☐ **Non-Thesis/Coursework:** Submit MS Course requirement worksheet

Name	
Date	
Prior Degree	
Student ID	

Required Units	Semester(s)	Grades
SFWE 507 (3) – Foundations of Software Engineering	Spring	
Additional Core – Select 3 Courses from: <ul style="list-style-type: none"> SFWE 502 (4) – Software DevSecOps (SP) SFWE 503 (3) – Software Project Management (F) SFWE 504 (3) – Software Requirements Analysis & Test (F24) SFWE 505 (3) – Software Architecture & Design (SP25) SFWE 506 (3) – Distributed Computing 		
Technical Computing Electives (Follow One Option) <i>Emphasis 1: Thesis Option</i> <ul style="list-style-type: none"> Approved Electives (12 units (~4 classes) – see page 2) SFWE 910 – Master’s Thesis (6 units) <i>Emphasis 2: Non-Thesis Option</i> <ul style="list-style-type: none"> Approved Electives (18 units (~6 classes) – see page 2) 		

TOTAL = 30 minimum

TOTAL (overall, not current) =



THE UNIVERSITY OF ARIZONA
COLLEGE OF ENGINEERING

Systems & Industrial Engineering

Approved Technical Computing Graduate Electives ()

Listed semesters offered are when they are **typically offered but subject to change**

- Any SFWE core courses not used to meet the 12-units of *Core* coursework requirement can also be used as technical electives
- SFWE 501 (3) – SW Assurance (*Spring*)
- SFWE 508 (3) –Data Mining (NEW)
- SFWE 509 (3) – Cloud Computing Principles and Practices (NEW)
- SFWE 510 (3) – Cloud Native Software Engineering (NEW)
- SFWE 511 (3) – Software for Industrial Control Systems (NEW)
- SFWE 512 (3) –Robotics (NEW)
- SFWE 513 (3) – Software Engineering Research Methods (NEW)
- CSE 501 (3) – Operating System Design
- ECE 503 (3) – Probability and Random Processes for Engineering Applications (*Fall*)
- ECE 509 (3) – Cybersecurity Concept, Theory, Practice (*Fall*)
- ECE 513 (3) – Web Development and the IoT (*Fall*)
- ECE 523 (3) – Engineering Applications of Machine Learning and Data Analytics (*Spring*)
- ECE 562 (3) – Computer Architecture and Design (*Spring*)
- ECE 576A (3) – Engineering of Computer Based Systems (*Fall*)
- ECE 576B (3) – Embedded System Design and Optimization (*Spring*)
- ECE 579 (3) – Principles of Artificial Intelligence (*Spring*)
- SIE 533 (3) – Fundamentals of Data Science for Engineers (*Spring*)
- SIE 558 (3) – Model Based Systems Engineering (*Spring*)
- SIE 577 (3) – Introduction to Biomedical Informatics (*Fall, Spring*)
- *Other courses may be added at the discretion of the faculty advisor and GSC, or as additional new SFWE courses not listed in section III. **New Courses Needed** are developed.*