Tech Electives

Cours Name	Course	Units	Column1
Introduction to Biomedical Informatics	SIE 577	3	
Systems Cyber Security Engineering	SIE 571	3	
Model Based Systems Engineering	SIE 558	3	
Fund of Data Science for Engineers	SIE 533	3	
Simulation Modeling & Analysis	SIE 531	3	
Engineering Stats	SIE 530	3	
Technical Sales & Marketing	SIE 515	3	
The Systems Engineering Process	SIE554A	3	
Software Assurance	SFWE 501	3	
Software DevSecOps	SFWE 502	4	*
Software Project Management	SFWE 503	3	*
Software Requirements Analysis & Test	SFWE 504	3	*
Software Architecture & Design	SFWE 505	3	*/**
Cloud Computing Principles and Practices	SFWE 509	3	**
Cloud Native Software Engineering	SFWE 510	3	**
Software for Industrial Control Systems	SFWE 511	3	
Distributed Computing	SFWE 506	3	*/**
Software Engineering Research Methods	SFWE 513	3	
Artificial Intelligence	ECE 579	3	
Probability and Random Processes for Engineering Ap	ECE 503	3	
Web Development & the IoT	ECE 513	3	
Engineering Applications of Machine Learning and Da	ECE 523	3	
Engineering of Computer Based Systems	ECE 576A	3	
Computer Architecture & Design	ECE 562	3	
Embedded System Desing and Optimization	ECE 576B	3	
Digital Signal Processing	ECE 529	3	
Fund of Computer Networks	ECE 578	3	
Computer Aided Logic	ECE 574A	3	
Knowledge System Engineering	ECE 566	3	
Fund Info Theory & Network security	ECE 571	3	

* If not used as core course

** Not in the catalogue yet

Prerequisites- Graduate Software C

Cours Name	Course
Software Assurance	SFWE 501
Software DevSecOps	SFWE 502
Software Project Management	SFWE 503
Software Requirements Analysis & Test	SFWE 504
Software Architecture & Design	SFWE 505
Distributed Computing	SFWE 506
Foundations of Software Engineering	SFWE 507
Cloud Computing Principles and Practices	SFWE 509
Cloud Native Software Engineering	SFWE 510
Software for Industrial Control Systems	SFWE 511
Software Engineering Research Methods	SFWE 513

Prerequisites
None
ECE 275 recommended prior to enrollment.
SFWE 302(Software Architecture & Design) Recommended prior to enrollment.
Prerequisite or concurrent enrollment in SFWE 507.
TBD
TBD
Programming experience (in any language) is strongly recommended for graduate students.
ECE 369A or CSC 252 required. Prior knowledge in data structures, operating systems, distributed systems,
SFWE 302(Software Architecture & Design) Recommended prior to enrollment.
ECE 275 and SFWE 401 recommended.
None

and computer networks is recommended.