



UMBC
AN HONORS UNIVERSITY IN MARYLAND

SYSTEMS ENGINEERING GRADUATE PROGRAMS

Master of Science and Post-Baccalaureate Certificate: Systems Engineering Academic Planning Form

General Information

Student Name: _____

Program Advisor: Tom Moore, Ph.D., 410-455-3617 | mooretg@umbc.edu

Admission Date: _____ Projected Graduation Date: _____

NOTE: This form serves as unofficial guidance in planning your program. In coordination with the Program Director you may edit or modify your desired courses (where possible & appropriate) at any point while at UMBC.

Academic Plans and Record (Program requires 10 courses, 30 credits)

Course	Course Title	Semester Planned/Completed
Required Core Systems Engineering courses and required courses to complete Post-Baccalaureate Certificate (5 courses, 15 credits)		
ENEE 660	Systems Engineering Principles	
ENEE 661	System Architecture and Design	
ENEE 669 (1 credit) <i>prerequisite for ENEE 662</i>	Mathematics and MATLAB Fundamentals for Engineers	
ENEE 662	System Modeling, Simulation and Analysis	
ENEE 663	System Implementation, Integration and Test	
ENEE 670	Systems Engineering Project	

SYSTEMS ENGINEERING BREADTH AND DEPTH ELECTIVES (15 CREDITS)

Systems Engineering Breadth - (Up to 9 credits) - Choose up to three courses from a range of engineering management cybersecurity and related courses. Some suggestions are listed below.

ENMG 652	Management, Leadership, and Communication	
ENMG 668	Project and Systems Engineering Management	
ENMG 664*	Quality Engineering and Management	
CYBR 620*	Introduction to Cybersecurity	
CYBR 621	Cyber Warfare	

Systems Engineering Depth – At least 6 credits) - Choose at least two courses from the following fields: Systems Engineering, Electrical Engineering, Computer Engineering, Computer Science, Mechanical Engineering or other related fields with permission of program director. Some suggestions are listed below.

ENEE 664	Advanced Systems Architecture	
ENEE 666	Architecting Security	
ENEE 667 (2 credits)	Advanced Systems Engineering Processes	
ENEE 672*	Decision and Risk Analysis	
CMPE 685	Principles of Communication Networks	
CMPE 687	Introduction to Network Security	
CMPE 691	Wireless Sensor Networks	
CMSC 626	Principles of Computer Security	

* Course can be counted as breadth or depth course.

Special Note: For more details on SE courses, please visit: umbc.edu/se/coursedescriptions

Note: The Graduate School has a “continuous registration” policy which states you must register each fall and spring semester until you have completed your program of study. If you do not register you are automatically placed on a Leave of Absence (LOA). After three consecutive semesters of LOA, your student account will be discontinued. You may have to reapply to the Graduate School to be reinstated.