NAME: _____   **CYBER-PHYSICAL ENGINEERING**

UID: _____   __ **A.A.**   __ **A.S.E.**   __ **Post-Bac**

GENERAL EDUCATION REQUIREMENTS			
Fundamental Studies			
Academic Writing (AW)	ENGL 101		3
Professional Writing (PW)	ENGL 39X		3
Oral Communication (OC)			3
Mathmatics (MA)	MATH 140		4
Analytic Reasoning (AR)	MATH 140		0
Distributive Studies			
History/Social Sciences (HS*)			3
History/Social Sciences (HS*)			3
Humanities (HU*)			3
Humanities (HU*)			3
Natural Sciences No Lab (NS)	PHYS 161		3
Natural Sciences w/Lab (NL)	PHYS 260/261		4
Scholarship in Practice (SP*) in major	ENES 100		3
Scholarship in Practice (SP*) out major			3
Big Question Courses			
Big Question (SCIS*)			3
Big Question (SCIS*)			3
Diversity			
Understanding Plural Societies (UP*)			3
Understanding Plural Societies (UP*) OR Cultural Competency (CC*)			3
MAJOR REQUIREMENTS			
Basic Sciences			
CHEM 135-Chem Engr **or** 131 & 134 -Fund & Prin			3/3&1
PHYS 161 - General Physics I (NS)			0
PHYS 260 and PHYS 261 - Gen Physics II & Lab (NL)			0
MATH 140- Calculus I (MA/AR)			0
MATH 141 - Calculus II			4
MATH 241/246/240			3 or 4
Programming Course			3
Engineering Sciences			
ENES 100 - Intro to Eng Design (SP)			0

Major Requirements		
ENEB 302- Analog Circuits		4
ENEB 340- Inter Prgrmming /Embedded Systems		3
ENEB 341 - Intro Internet of Things		3
ENEB 344 - Digital Logic Design Embedded Systems		4
ENEB 345 - Probability & Statistical Inference		3
ENEB 346 - Linear Algebra for Machine Learning		3
ENEB 354 - Discrete math for Info Technology		3
ENEB 304 - Microelectronics & Sensors		3
ENEB 352 - Intro Networks & Protocols		3
ENEB 353 - Computer Orgganization Embedded Sys		3
ENEB 355 - Algorithms in Python		3
ENEB 408A - Capstone Design Lab I		3
ENEB 408B - Capstone Design Lab II		3
ENEB 444 - Operating Systems Embedded Systems		3
ENEB 454 - Embedded Systems		3
Hardware, Computational, Security, or General Track		12

Requirements for Graduation:

• Final 30 credits must be earned at UMD

• 15 of the final 30 credits must be earned at the 300-400 level

• 12 upper level major credits must be earned at UMD

• A minimum 2.00 cumulative UM GPA, and satisfactory completion of all degree requirements, is required for graduation

• Students matriculating in Fall 2012 or after must have a 2.0 minimum GPA for all degree requirements, minor requirements, and undergraduate certificate requirements

(Major courses are defined as: departmental courses, basic sciences, engineering sciences, specified degree tracks, technical requirements/ technical electives and Professional Writing (PW)

•A minimum of 120 credits is required to earn the degree

* May satisfy more than one requirement. See www.gened.umd.edu

**For a complete list of approved electives, please see:

www.ece.umd.edu/home

Cyber-Physical Systems Engineering Graduation Plan

Name:_____   **UID:**_____

Year 1*

Fall Course	Credit	Grade	Spring Course	Credit	Grade
Total	**0**		**Total**	**0**	

Year 2*

Fall Course	Credit	Grade	Spring Course	Credit	Grade
Total	**0**		**Total**	**0**	

Year 3

Fall Course	Credit	Grade	Spring Course	Credit	Grade
ENEB 302	4		ENEB 304	3	
ENEB 340	3		ENEB 352	3	
ENEB 341	3		ENEB 353	3	
ENEB 344	4		ENEB 355	3	
ENEB 354	3		ENEB 345	3	
Total	**17**		**Total**	**15**	

Year 4

Fall Course	Credit	Grade	Spring Course	Credit	Grade
ENEB 408A	3		ENEB 408B	3	
ENEB 454	3		ENEB 4XX	3	
ENEB 444	3		ENEB 4XX	3	
ENEB 346	3		ENEB 4XX	3	
ENGL 3** (PW)	3		ENEB 4XX	3	
Total	**15**		**Total**	**15**	

*Students are expected to satisfy all general education requirements including fundamental studies, distributive studies, big question, and diversity courses, before entry into the CPSE major.