

## B.S. in Computer and Cyber Security Engineering Curriculum Sheet (Total Credits : 133-134)

<b>Name:</b>				<b>CWID:</b>			
<b>PIN:</b>							
<b>First Semester</b>		Term Taken	Grade	<b>Second Semester</b>		Term Taken	Grade
ECE 100 Intro to the Profession I	3			MATH 152 Calculus II	5		
MATH 151 Calculus I	5			PHYS 123 Physics I: Mechanics	4		
CHEM 122 Chemistry I w/o Lab	3			CS 116 Object-Oriented Programming II	2		
CS 115 Object-Oriented Programming I	2			Social Sciences Elective	3		
Humanities 200, 202, 204, 206, 208	3			Science Elective <sup>[1]</sup>	3		
<b>TOTAL</b>	<b>16</b>			<b>TOTAL</b>	<b>17</b>		
<b>Third Semester</b>		Term Taken	Grade	<b>Fourth Semester</b>		Term Taken	Grade
MATH 252 Intro to Differential Equations	4			MATH 251 Multivariate & Vector Calc.	4		
PHYS 221 Physics II: Electr. & Magnetism	4			PHYS 224 Physics III for Engineers	3		
ECE 211 Circuit Analysis I	3			ECE 213 Circuit Analysis II	4		
ECE 218 Digital systems	4			ECE 242 Digital Compt. & Computing	3		
CS 331 Data Structures & Algorithm	3			CS 330 Discrete Structures	3		
<b>TOTAL</b>	<b>18</b>			<b>TOTAL</b>	<b>17</b>		
<b>Fifth Semester</b>		Term Taken	Grade	<b>Sixth Semester</b>		Term Taken	Grade
ECE 308 Signals & Systems	3			CS 450 Operating Systems	3		
ECE 311 Engineering Electronics	4			ECE 407 Intro to Computer Networks	4		
CS 351 Systems Programming	3			MATH 374 Probability/Stat. for ECE	3		
MATH 333 or 350 Matx. Alge. & Vars.	3			IPRO Elective I	3		
Humanities Elective (300+)	3			Social Sciences Elective (300+)	3		
<b>TOTAL</b>	<b>16</b>			<b>TOTAL</b>	<b>16</b>		
<b>Seventh Semester</b>		Term Taken	Grade	<b>Eighth Semester</b>		Term Taken	Grade
ECE 497 Special Problems <sup>[2]</sup>	3			ECE 441 Smart & Connected Emb. Sys. <sup>[4]</sup>	4		
ECE 485 Comp. Arch. & Org. <sup>[3]</sup>	3			ECE 442 IoT & Cyber Physical Systems	3		
ECE 443 or CS 458 Comp. Cybersecurity	3			ECE 444 Computer Network Security	3		
IPRO Elective II	3			Cyber Security Law Elective <sup>[5]</sup>	2/3		
Humanities or Social Sciences Elective	3			Humanities Elective (300+)	3		
Social Sciences Elective (300+)	3						
<b>TOTAL</b>	<b>18</b>			<b>TOTAL</b>	<b>15/16</b>		

[1] Science elective must be BIOL 105, BIOL 114, CHEM 126 or MS 201.

[2] ECE 497 with a project related to cyber security topics such as smart grid, Internet of Things, cloud computing, hardware security, or cryptography. Please see your academic adviser for more details.

[3] CS 470 may be substituted with adviser approval.

[4] Major Design Experience (M) course

[5] Choose from the following courses: LAW 252, LAW 285, LAW 295, or LAW 478