

# COMPUTER ENGINEERING: SEMICONDUCTOR ENGINEERING, BS

## REQUIREMENTS

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Code	Title	Credits
<b>Required Courses</b>		
E C E/PHYSICS 235	Introduction to Solid State Electronics <sup>1</sup>	3
E C E 271	Circuits Laboratory II <sup>2</sup>	1
E C E 305	Semiconductor Properties Laboratory <sup>2</sup>	1
E C E 335	Microelectronic Devices <sup>1</sup>	3
E C E 555	Digital Circuits and Components <sup>3</sup>	3
E C E 556	Design Automation of Digital Systems <sup>4</sup>	3
<b>Electives</b>		
Choose two as Advanced or Professional Electives:		6-7
E C E 445	Semiconductor Physics and Devices <sup>1, 5</sup>	
E C E 453	Embedded Microprocessor System Design <sup>6</sup>	
E C E 535	Introduction to Quantum Sensing <sup>1, 5</sup>	
E C E 541	Analog MOS Integrated Circuit Design <sup>1, 3</sup>	
E C E 548	Integrated Circuit Design <sup>1, 3</sup>	
E C E 549	Integrated Circuit Fabrication Laboratory <sup>1, 5</sup>	
E C E 553	Testing and Testable Design of Digital Systems <sup>4</sup>	
<b>Total Credits</b>		<b>20-21</b>

<sup>1</sup> This course can be taken as a Professional Elective.

<sup>2</sup> This course replaces a free elective.

<sup>3</sup> This course can be taken as a CMPE Advanced Elective in Electronic Circuits.

<sup>4</sup> This course can be taken as a CMPE Elective I.

<sup>5</sup> This course can be taken as a CMPE Elective II.

<sup>6</sup> This course can be taken as Capstone Design.