Bachelor of Science in Electrical and Computer Engineering : MiraCosta College

To earn a bachelor's degree from National University students must complete a minimum of 180 quarter units. Requirements include but are not limited to the university's general education program (to include upper division and cultural diversity), the preparatory courses listed below, major core coursework and any additional courses necessary to fulfill overall program requirements.

The table below maps National University's courses to equivalencies identified at MiraCosta College.

MiraCosta College	National University
Equivalent Transfer Course	**Preparatory Courses Required** (8 courses; 33 quarter units)
MATH 126 Pre-Calculus I: College Algebra **and** MATH 131 Pre-Calculus II: Trig & Analytic Geometry	MTH 215 College Algebra & Trigonometry
Completion of the following sequence will waive PHYS 111 Introductory Physics I **and** PHYS 112 Introductory Physics II	PHS 104 Introductory Physics
No Equivalent MiraCosta College Course	PHS 130A Physics Lab for Engineering (1.5 quarter units)
MATH 150 Calculus and Analytic Geometry I	CSC 208 Calculus for Comp. Science I
MATH 155 Calculus and Analytic Geometry II	CSC 209 Calculus for Comp. Science II
MATH 103 Statistics	CSC 220 Applied Probability & Stats.
CS 150 C++ Programming	CSC 242 Intro to Programming Concepts
CS 151 Advanced C++ Programming	CSC 252 Programming in C++

Additional Requirements for the Major (2 courses; 9 quarter units)	
PHYS 151 Principles of Physics I PHYS 152 Principles of Physics II PHYS 253 Principles of Physics III	PHS 231 Calculus-based Physics 1
	PHS 232 Calculus-based Physics 2
Requirements for the Major at National University (22 courses; 84 quarter units)	
CSC 300 Object Oriented Design	CEE 340 Embedded Systems
CSC 310 Linear Algebra and Matrix Comp	CEE 340L Embedded Systems Lab (1.5 quarter units)
CEE 300 Engineering Numerical Methods	CEE 324 Linear Systems and Signals
CSC 331 Discrete Structures and Logic	CEE 324L Linear Systems and Signals Lab (1.5 quarter units)
CEE 310 Circuit Analysis	CEE 420 Microelectronics
CEE 310L Circuit Analysis Lab (1.5 quarter units)	CEE 420L Microelectronics Lab (1.5 quarter units)
CSC 340 Digital Logic Design	CEE 430 Digital Signal Processing
CSC 340L Digital Logic Design Lab (1.5 quarter units)	CEE 440 VLSI Design
CSC 342 Computer Architecture	CEE 498 Capstone Design Project I
CSC 350 Computer Ethics	CEE 499A Capstone Design Project II
CSC 436 Comp. Communication Networks	CEE 499B Capstone Design Project III

Note: There requirements are subject to change. Please see National University's online General Catalog for official record of requirements for the year you are admitted.