

## VCCS Equivalencies for EE/CPE Curriculum

The Electrical and Computer Engineering majors have new curriculum requirements. The below tables show how VCCS courses will equate to the new curriculum.

Requests for additional courses/course combinations can be reviewed and evaluated as needed. In evaluating additional courses/combinations, the following will be required based on the new ECE courses:

1. Courses that are currently accepted for ECE 2504 must include a hardware description language (HDL) component to be considered as an equivalent for ECE 2544.
2. Courses that are currently accepted for ECE 2704 must include both continuous and discrete signals to be considered as an equivalent to ECE 2714.

### ECE 1004 Equivalencies:

The table below outlines programming courses and circuit analysis courses taught at the various VCCS sites. Students should choose one course from each course type (depending on their VCCS site offerings) which will then equate to ECE 1004 plus three credits of free elective. For example, a student could take CSC 210 and EGR 260 and would receive VT credit for ECE 1004 + ECE 1XXX.

### **Course Combinations for ECE 1004**

Course Type: Programming	Course Type: Circuit Analysis
CSC 210 Programming with C++	EGR 251 Basic Electric Circuits
EGR 125 Intro to Eng Methods	EGR 260 Circuit Analysis
EGR 126 Computer Programming for Engineers	EGR 271 Circuit Theory I

### Equivalencies for Sophomore level ECE courses:

The tables below outline course groupings and single course equivalencies from Germanna (GCC), John Tyler (JTCC), J. Sargeant Reynolds (Reynolds), Northern Virginia (NVCC), Thomas Nelson (TNCC), Tidewater (TCC), and Virginia Western (VWCC) that will be equivalent to additional sophomore VT ECE courses. Students must take all courses in a grouped equivalency to receive the corresponding VT equivalent credit. Partial VT equivalent credit will not be awarded if all grouped VCCS courses are not completed for that site.

### **Germanna Community College**

GCC Courses	VT Equivalent Transfer Credit
<b>Grouped Equivalencies</b> (all indicated GCC courses must be completed to receive the indicated VT credits)	
EGR 126 Computer Programming for Engineers EGR 251 Basic Electric Circuits EGR 252 Basic Electric Circuits II EGR 255 Electrical Circuits Lab	ECE 1004 Intro to ECE Concepts ECE 2024 Circuits and Devices
<b>Single Equivalencies</b>	
EGR 270 Fundamentals of Computer Engineering	ECE 2544 Fundamentals of Digital Systems

### John Tyler Community College

JTCC Courses	VT Equivalent Transfer Credit
<b>Grouped Equivalencies</b> (all indicated JTCC courses must be completed to receive the indicated VT credits)	
EGR 126 Computer Programming for Engineers EGR 251 Basic Electric Circuits EGR 255 Electrical Circuits Lab EGR 270 Fundamentals of Computer Engineering	ECE 1004 Intro to ECE Concepts ECE 2024 Circuits and Devices ECE 2514 Computational Engineering ECE 2544 Fundamentals of Digital Systems
EGR 261 Signals & Systems EGR 263 Signals & Systems Lab	ECE 2714 Signals and Systems
<b>Single Equivalencies</b>	
EGR 270 Fundamentals of Computer Engineering	ECE 2544 Fundamentals of Digital Systems

### J. Sargeant Reynolds Community College

Reynolds Courses	VT Equivalent Transfer Credit
<b>Grouped Equivalencies</b> (all indicated JSRCC courses must be completed to receive the indicated VT credits)	
CSC 210 Programming with C++ EGR 251 Basic Electric Circuits EGR 255 Electric Circuits Laboratory	ECE 1004 Intro to ECE Concepts ECE 2024 Circuits and Devices

### Northern Virginia Community College

NVCC Courses	VT Equivalent Transfer Credit
<b>Grouped Equivalencies</b> (all indicated NVCC courses must be completed to receive the indicated VT credits)	
[EGR 125 Intro to Engineering Methods <b>OR</b> EGR 126 Computer Programming for Engineers] EGR 251 Basic Electric Circuits EGR 252 Basic Electric Circuits II EGR 255 Electrical Circuits Lab	ECE 1004 Intro to ECE Concepts ECE 2024 Circuits and Devices
<b>Single Equivalencies</b>	
EGR 125 Intro to Engineering Methods	ECE 2514 Computational Engineering

### Thomas Nelson Community College

TNCC Courses	VT Equivalent Transfer Credit
<b>Grouped Equivalencies</b> (all indicated TNCC courses must be completed to receive the indicated VT credits)	
EGR 126 Computer Programming for Engineers EGR 260 Circuit Analysis EGR 261 Signals and Systems	ECE 1004 Intro to ECE Concepts ECE 2024 Circuits and Devices
EGR 277 Digital Logic	ECE 2544 Fundamentals of Digital Systems

EGR 278 Digital Logic Laboratory	
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### Tidewater Community College

TCC Courses	VT Equivalent Transfer Credit
<b>Grouped Equivalencies</b> (all indicated TCC courses must be completed to receive the indicated VT credits)	
<b>With Circuits Lab</b> EGR 125 Introduction to Engineering Methods EGR 262 Fundamental Circuits Lab EGR 270 Fundamentals of Computer Engineering EGR 271 Circuit Theory I EGR 272 Circuit Theory II	ECE 1004 Intro to ECE Concepts ECE 2024 Circuits and Devices ECE 2514 Computational Engineering ECE 2544 Fundamentals of Digital Systems
<b>Without Circuits Lab</b> EGR 125 Introduction to Engineering Methods EGR 270 Fundamentals of Computer Engineering EGR 271 Circuit Theory I EGR 272 Circuit Theory II	ECE 1004 Intro to ECE Concepts ECE 2514 Computational Engineering ECE 2544 Fundamentals of Digital Systems
<b>Single Equivalencies</b>	
EGR 270 Fundamentals of Computer Engineering	ECE 2544 Fundamentals of Digital Systems

### Virginia Western Community College

VWCC Courses	VT Equivalent Transfer Credit
<b>Grouped Equivalencies</b> (all indicated VWCC courses must be completed to receive the indicated VT credits)	
EGR 126 Computer Programming for Engineers EGR 251 Basic Electric Circuits EGR 252 Basic Electric Circuits II	ECE 1004 Intro to ECE Concepts ECE 2024 Circuits and Devices