

Certificate

Embedded Systems

This program offers practical, hands-on experience in universal connectivity and embedded systems, allowing you to develop core design skills while creating function-specific computer and communication systems for leading companies in the Valley. The Embedded Systems program consists of three required courses and two to three elective courses.

Total Units: 14
Completion Time: 9-12 months (full-time)
Modality: Online, in person, or choose a mix of both.
Special Programs: F-1 Compliant and WIOA/TAA Funding Approved.



Courses may have prerequisites; review the course page before enrolling. A checkmark indicates the course is typically offered during that term. *

Required Courses

8 Units | 3 Courses

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Embedded System Hardware Architectures, Introduction EMBD.X415	3.0	✓		✓	
Embedded Firmware Essentials EMBD.X403	2.0		✓		✓
Embedded Linux Design and Programming EMBD.X423	3.0		✓		✓

Elective Courses

6 Units | Choose 2 to 3 Courses

Embedded Software

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Linux Systems Programming EMBD.X420	3.0	✓		✓	
Linux Kernel & Drivers EMBD.X421	3.0	✓		✓	
Linux Kernel & Drivers, Advanced EMBD.X422	3.0		✓		✓
Real-Time Embedded Systems Programming, Introduction EMBD.X410	3.0		✓		✓
The Internet of Things: Big Data Processing and Analytics EMBD.X412	3.0	✓		✓	

Embedded Hardware

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Wireless Infrastructure: from Antenna Design to 5G, Fundamentals EMBD.X419	3.0		✓		✓
IO Concepts and Protocols: PCI Express and Ethernet EMBD.X406	3.0	✓		✓	
Printed Circuit Board Design for Signal Integrity and EMC Compliance EMBD.X409	1.5	✓		✓	
Comprehensive Signal and Power Integrity for High-Speed Digital Systems EMBD.X400	3.0		✓		✓
High Efficiency Switch-mode Power Supply, Design Overview EMBD.X405	3.0		✓		
Practical Design with Xilinx FPGAs EMBD.X408	3.0		✓		✓

Completion Review

Once all certificate requirements have been met and your final grades are posted, please access your Student Portal to enroll in the "[Certificate Completion Fee](#)" to begin the review process. Please allow 4-6 weeks to receive your certificate.

Note: You need a degree in a technical field or equivalent knowledge acquired through training and experience in system design and development. We recommend you have experience in C programming.