Physical Computing and the Internet of Things, Certificate

FULL TIME

This program roadmap represents one possible pathway to complete the program. ***Please see a counselor*** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability. For counseling appointments call 916.608.6510.

FIRST YEAR

Semester 1: ***6 units***

CAT.	COURSE	TITLE		GE AREA
Req	MAKR 100	Introduction to Microcontrollers and Physical Computing	3	
Req	MAKR 101	The Internet of Things	3	

Notes:

- Physical Computing and the Internet of Things (IoT) are terms used to describe the internetworking of physical devices, vehicles, buildings and other items embedded with electronics, software, sensors, actuators, and network connectivity that enable these objects to collect and exchange data. Examples of physical computing and IoT devices include home automation systems, remote monitoring solutions, and "smart" devices of all kinds.
- Upon completing this hands-on certificate, students will have a solid foundation in physical computing and IoT techniques and technologies, including evaluating devices and services, the use of microcontrollers, developing and modifying programming code, using sensors to record and evaluate environmental data, and employing various kinds of actuators to respond to user and environmental inputs.

EXPLANATION OF CATEGORIES

Req	Required Core	A course that is required for this degree
GE	General Education	A course that fulfills a specific general education requirement for this degree, which can be replaced with another course that meets the same requirement
Elec	Elective	A degree-applicable course that is part of a degree roadmap to ensure that there is a total of at least 60 units, which is a requirement for an associate degree