

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.

Total Units: 16

## First Year

### Semester 1

9 Units

COURSE	UNITS	PRE-REQS <sup>^</sup>	SEMESTERS OFFERED*
<b>MAKR 100</b> Introduction to Microcontrollers and Physical Computing	3		F, S
<b>MAKR 101</b> The Internet of Things	3		F, S
<b>MAKR Elective *</b>	3		F, S

\* See List under Semester 3

### Semester 2

6 Units

COURSE	UNITS	PRE-REQS <sup>^</sup>	SEMESTERS OFFERED*
<b>MAKR 111</b> Digital Fabrication	3		F, S
<b>MAKR 110</b> 3D Design for Additive Manufacturing	3		F, S

## Second Year

### Semester 3

1 Units

COURSE	UNITS	PRE-REQS <sup>^</sup>	SEMESTERS OFFERED*
<b>MAKR 290</b> Modern Making Capstone Project	1		F, S

### MAKR Elective List

**A minimum of 3 units from the following:**

BUS 357: Entrepreneurship, Innovation, and New Enterprise Development (3 units)

ECE 452: Making for Educators (3 units)

SOC 379: Making Social Change (3 units)

TA 420: Stagecraft (3 units)

TA 423: Introduction to Scene Design for the Stage (3 units)

## Notes

- The certificate in Modern Making combines hands-on experience in modern making technologies with design thinking, enabling the development of creative prototypes and projects.
- Students will gain experience in modern making technologies, techniques, materials and production processes, including digital fabrication and physical computing.
- The Modern Making certificate is ideal for entrepreneurs developing products and services, artists creating interactive installations, educators developing STEM activities for use in the classroom, hobbyists, makers, inventors, and anyone interested in enhancing job skills and solving real-world problems.

## Zero Textbook Costs (ZTC):

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the [Zero Textbook Costs](#) page of the college website.

Catalog Year: 2025-2026

Published April 09, 2025