


# Electrical & Computer Engineering

## Associate in Science

 MassBay courses are offered days, evenings, weekends, and online. View the complete list of online courses at <https://mbccweb.massbay.edu/online/>.

Check current course availability at [www.massbay.edu/courses](http://www.massbay.edu/courses)

### DIVISION OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

This comprehensive program provides students an overview of the electrical and computer engineering field. Students explore such areas as computer hardware, digital electronics, computer science, and engineering.

Upon successful completion, the Associate in Science Degree in Electrical and Computer Engineering is awarded.

#### PROGRAM FOOTNOTES

**Computer Science Electives:** CS 120 Programming I, CS 212 Systems Programming with "C," CS 116 Fundamentals of Cyber Security

**Humanities Electives:** Art, Communication, English (EN 103 or higher), Film, Foreign Language, Humanities, Literature, Music, Oral Communication, Philosophy, Photography, Sign Language, Theater Arts

**Social Science Electives:** Anthropology, Economics, Geography, Government, History, LA 200 Media and the Law, LA230 Law and Society, Psychology, Sociology

Competency in mathematics is a MassBay graduation requirement. Prior to graduation, students must demonstrate competency at 100-level math. This may be accomplished by an appropriate placement test score or completion of any 100-level mathematics course or higher, except mathematics courses with a MAC prefix.

This program qualifies as an Alternative Transfer Agreement (MassTransfer) with select public institutions in Massachusetts. For more information, visit [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer).

COURSE	COURSE TITLE	CREDITS
<i>First Year</i>		<i>Semester 1</i>
CH 110	Principles of Chemistry I w/ Lab	4
CS 110	Introduction to Computer Science	4
CT 100	Critical Thinking	3
EE 120	Digital Electronics	4
EN 101	Freshman English I	3
MA 200	Calculus I	4
		<b>credits:</b>
		22
<i>First Year</i>		<i>Semester 2</i>
CH 120	Principles of Chemistry II w/ Lab	4
EE 125	Digital Computer Systems	4
EN 102	Freshman English II	3
MA 201	Calculus II	4
	Computer Science Elective	4
		<b>credits:</b>
		19
<i>Second Year</i>		<i>Semester 1</i>
EE 110	Circuit Analysis I	4
EE 150	Microprocessors	4
MA 202	Calculus III	4
PY 103	Engineering Physics I w/ Lab	4
	Humanities Elective	3
	Social Science Elective	3
		<b>credits:</b>
		22
<i>Second Year</i>		<i>Semester 2</i>
EE 115	Circuit Analysis II	4
EE 231	Hardware Organization and Design	4
MA 211	Differential Equations	4
PY 104	Engineering Physics II w/ Lab	4
	Humanities Elective	3
		<b>or</b>
	Social Science Elective	3
		<b>credits:</b>
		19
		<b>Total Credits:</b>
		<b>82</b>