

[1] CIT/ECE First-Year Requirements

Introductory Engineering Classes

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First-Year Writing: *Interpretation and argument selection or two mini writing courses (9 units total).*

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Calculus 1 (21-120)

Calculus 2 (21-122)

Physics 1 (33-141)

Physics 2 (33-142)

Fundamentals of Programming (15-112)

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[2] ECE Technical Requirements

Core Courses: Required introductory courses to explore the various areas available in ECE.

Computer Systems (18-213)

Analog Circuits (18-220)

Digital Systems (18-240)

Signals (18-290)

Areas: Two courses (24 units) in one area, one course (12 units) in another. Areas stem from the cores - nanofabrication, analog circuits, digital systems, computer systems, and signals.

Coverage: Extra technical course (12 units) from a list of approved options.

Capstone: Final cumulative hands-on design experience.

[3] Other Technical Requirements

ECE Sophomore Seminar (18-200)

Probability: 36-225, 36-219, or 21-325.

Concepts of Mathematics (21-127)

Principles of Imperative Programming (15-122)

ECE Math: 18-202 or a combination of any two of 21-254, 21-259, 21-260, 21-241, 21-242, or 21-268.

Math/Science Electives: 2 courses (18 units) from MCS or statistics, with some exclusions.

[4] General Education Requirements

“Category” Courses: At least 9 units from each category. Classes cannot double-count towards multiple categories.

PPC

SDM

I&I

W&E

Electives: At least 27 units (3 classes) of non-technical courses. Up to 18 units can be fulfilled by AP/IB/Cambridge credit.

Miscellaneous: Other courses required by CIT. Experiential Learning courses do not contribute to unit count.

C@CM/Core@CMU

Experiential Learning 1

Experiential Learning 2

Experiential Learning 3

[5] Free Electives + Unit Count

Free Electives: Any courses required to get to the 379 total unit minimum. Up to 9 units can be taken as pass/fail.

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Total Unit Tally:

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YEAR 1

YEAR 2

YEAR 3

YEAR 4

[6] (Optional) Integrated Master's-Bachelor's (IMB)

Note: *Introduction to Graduate Studies (18-989) can be skipped if pursuing the IMB track. A total of 97 units are required for the degree, of which 27 units (12 ECE Core units, 15 CIT Elective units) can be satisfied via research project coursework.*

CIT Electives: *2 courses (24 units) at the graduate level or above from ECE, CIT, BmE, ChemE, CivE, EPP, INI, III, MatSci, MechE, or CMU-Africa.*

General Technical Elective

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ECE Core: *5 courses (60 units) of graduate level or above ECE courses. If pursuing the IMB track, 1 undergraduate level course (12 units) can be counted towards this requirement. Courses cannot double count, but can be done prior to finishing the undergraduate degree.*

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