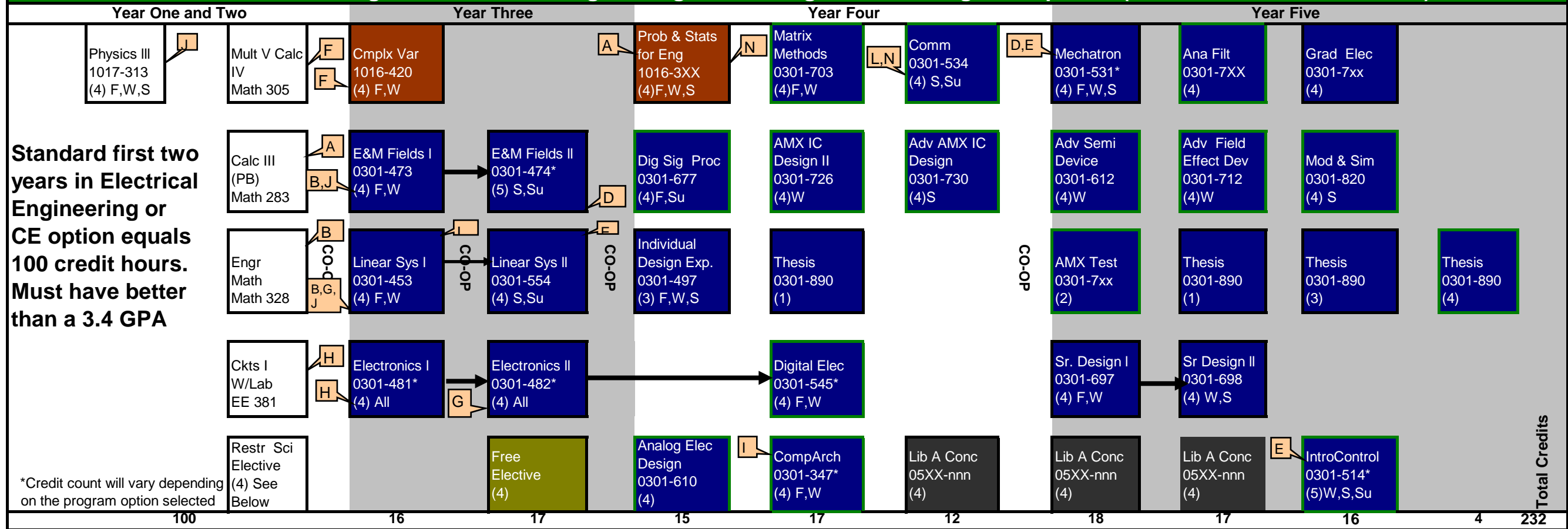


2009-2010 RIT BS/MS Program in Electrical Engineering with Analog and Mixed-Signal Emphasis (Final Release VJA 6/30/2009)



*Credit count will vary depending on the program option selected

Total Credits

Legend

- Math
- Physics
- Chemistry
- Liberal Arts
- Elect Engr
- Free Elect
- Comp Science
- Res Science

Course Name
Course #
(Cr) Quarters-
* Indicates lab included

Prerequisites
Definitions

Course
Prerequisites

Prerequisite

Analog and Mixed Signal (AMX) Design Track

The Analog and Mixed Signal track in the RIT electrical engineering program prepares the student for a career in analog and mixed-signal integrated circuit development, design, product support, and/or test. Analog and Mixed-signal engineering is required in virtually all electronic fields including aerospace, automotive electronics, biomedical, computers, consumer electronics, communications, data transmission, data conversion, instrumentation, laboratory research, multimedia, nanotechnology, power, robotics, semiconductor devices, sensors, signal processing, storage, and wireless.

EE students in the AMX track will build on their foundation in mathematics, the physical sciences, and core electrical engineering courses in circuits, electronics, communications, control, electromagnetics, linear systems, and MEMs with advanced studies in analog circuit design, matrix methods, digital signal processing, filters, semiconductor physics, and semiconductor device and process modeling.

The MS Thesis in the AMX track will address a current topic in the field.

Graduate Paper Option

Students who choose to complete the Graduate Paper Option should take an additional graduate course.

Senior Design Project (0301-697 and 698)

Senior Design Project must include an AMX integrated circuit design.

Graduate Electives (Choose Two Courses) 8 Quarter Credits

- | | |
|-----------------------------------|---|
| 0301-702 Random Signals and Noise | 0301-821 High Performance Semi Devices |
| 0301-711 Adv Carrier Inj Trans | 0301-8XX Analog/Digital Data Conversion |
| 0301-712 Adv Field Effect Devices | |
| 0301-713 Solid State Physics | |

Electives from other departments may be taken with approval of Faculty Advisor.

Restricted Science Electives

- 1017-314 Modern Physics 0301-370 Nano-Science, Engr. & Tech (S)

Cooperative Work Experience: PE Activities (2)

Four Coop quarters distributed as suggested

Liberal Arts Core	24 Quarter Credits
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Social Science Courses	Humanities Courses
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- | | |
|--|--|
| Choose two courses, one from each of two different areas:
1) 0514-210 Intro to Psychology
2) 0511-211 Principles of Microeconomics
3) 0513-211 American Politics OR
0513-214 Intro to International Relations
4) 0515-210 Foundations of Sociology
5) 0510-210 Cultural Anthropology | Choose two courses, one from each of two different areas:
1) 0507-301 American History
0507-302 Modern European History
0507-305 Special Topics History
0507-306 Special Topics European History
2) 0505-213 Visual Arts
0505-214 Musical Arts
0505-215 Film Arts
0505-216 Theater Arts
3) 0509-210 Intro. To Philosophy
0509-211 Ethics
0509-213 Critical Thinking
0509-217 Ethics in the Info Age
4) 0504-210 Literary & Cultural Studies
0508-211 Science, Tech & Values
0508-212 Intro to Environmental Studies |
|--|--|

Liberal Arts Concentration

12 Quarter Credits