

B.S. Electrical Engineering + MBA 5-Year Program Curriculum¹ — Class of 2011

1st YEAR

MAT 126	Calculus I	4	MAT 127	Calculus II	4
PHY 121	Physics for Engineers I	4	PHY 122	Physics for Engineers II	4
ECE 101	Intro to ELE and CEN Engin	4	ECE 177	Intro to Progr for Engineers	4
CHY 121	Intro to Chemistry	3	ENG 101	College Composition	3
CHY 123	Intro to Chemistry Lab	1	CMJ 103	Public Communication	3
		16			18

2nd YEAR

MAT 228	Calculus III	4	MAT 258	Diff Eq. & Linear Algebra	4
Elective	Basic Engineering	3	ECE 211	Electrical Networks II	3
ECE 210	Electrical Networks I	3	ECE 214	Electrical Networks Lab	3
ECE 275	Sequential Logic Systems	3	ECP 214	Engineering Writing I	1
ECO 120	Microeconomics (HV & SC (1))	3	ECE 271	Micro Arch & Applications	3
		16	ECO 121	Macroeconomics (HV & SC (2))	3
					17

BUA 201 ⁵	Principles of Financial Accounting	3
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3rd YEAR

Apply to MBA program and take GMAT

ECE 300	Seminar	1	ECE 401	Design Project I	1
CHB 350 ³	Statistical Process & Analysis	3	ECP 401	Engineering Writing III	1
ECE 342	Electronics I	4	ECE 343	Electronics II	4
ECP 342	Engineering Writing II	1	ECE 486	Digital Signal Processing	4
ECE 351	Fields and Waves	3	ECE 414	Feedback Control System	3
ECE 314	Linear Circuits & Systems	3	Elective ²	Basic Science	4
		15			17

BUA 202 ⁵	Principles of Managerial Acct.	3
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4th YEAR

ECE 402	Design Project II	4	ECE 403	Design Project III	2
BUA 325 or BUA 350	Technical Elective (1)	3	Elective	Technical (4)	3
Elective ⁴	Technical (2)	3	Elective	Technical (5)	3
Elective ⁴	Technical (3)	3	Elective	HV & SC (4)	3
Elective	HV & SC (3)	3	Elective	HV & SC (5)	3
		16	BUA 620 or BUA 626		3
					17

BUA Tutorials		
BUA 604	Residency	3
BUA 694	Internship	3
		6

**Receive B.S. in Electrical Engineering in May
MINIMUM CREDIT HOURS TO GRADUATE: 129**

+ 15 credit hours towards pre-requisites for MBA and 3 credit hours towards MBA

5th YEAR

BUA xxx	MBA Courses	15	BUA xxx	MBA Courses	15
May Term	International Trip	3			

Receive MBA in August

Notes:

1. This is only a sample curriculum. Adjustments, such as interchanging HV & SC and technical electives, and switching ECE 351, ECE 486, and ECE 414 between Junior and Senior years, can be made to suit individual preferences. Check with your academic advisor for assistance. Be sure all degree requirements listed on the [check-off sheet](#) are met.
2. **BIO 222/223 or ERS 102** can be used to satisfy the Basic Science Elective and the HV & SC Elective under the Population and Environment categories. If either of these courses is taken, the three credit hours that is freed up can be replaced with a technical elective.
3. CHB 350 can be replaced with either ECE 383 or MAT 332; Students are allowed to take either MAT 332 or CHB 350 with ECE 383 as a technical elective.
4. Of the five Technical Electives, three must be 300-level or higher ECE Courses excluding ECE 394.
5. BUA 201 and BUA 202 are taken over the summer and are usually offered online

November 15, 2007

Information About Elective Courses

Technical Electives: The Curriculum requires five Technical Elective courses to broaden a student's knowledge base or to specialize in an area such as: Microelectronics, Sensors, Power, Computer Hardware, Communications or Signal Processing. At least three of the Technical Electives must be 300 Level or higher ECE Courses (exclusive of ECE 394). With approval of the student's advisor, two of the Technical Electives may be ECE 394 or selected from various advanced Math, Physics, Biology, Chemistry, Engineering, Science, Computer Science, or Business courses.

Human Values and Social Context and Ethics: In addition to CMJ 103, the curriculum requires five courses to complete the General Education Requirements in Ethics and Human Values and Social Context (HV&SC). In addition to the Ethics requirement, the five areas under HV&SC are: Western Cultural Tradition, Social Contexts and Institutions, Cultural Diversity and International Perspective, Population and the Environment, and Artistic and Creative Expression. Note that CMJ 103 satisfies the Social Contexts and Institutions requirement. A list of HV&SC courses with the categories that they satisfy are available on the [Office of Student Records](#) web page. The structure of the ECE curriculum guarantees that all other General Education Requirements are met. You may elect to take ERS 102 or BIO 222/223 to satisfy your Basic Science requirement and part of the 18 credit hour HV&SC requirement. This option frees up 3 credit hours which can be used to take an additional Technical Elective.

Basic Engineering Elective: The Curriculum requires at least one engineering course, outside of the department, to broaden a student's knowledge base in engineering. Courses satisfying the Basic Engineering Elective include:

CHB 200	Fundamentals of Process Engineering	MEE 230	Thermodynamics I
CIE 231	Fundamentals of Environmental Engineering	MEE 252	Statics and Strength of Materials
MEE 150	Applied Mechanics: Statics		

Basic Science Elective: In addition to CHY 121/123, PHY 121 and PHY 121, the Curriculum requires at least one additional physical or biological science course, with a lab, to broaden a student's knowledge base in science. Courses satisfying the Basic Science Elective include:

AST 215/110	General Astronomy I	BIO 222/223	Biology
AST 216/110	General Astronomy II	ERS 101	Introduction to Geology
CHY 122/124	Molecular Basis of Chemical Change	ERS 102	Environmental Geology of Maine
PHY 236/223	Quantum Mechanics / Special Relativity		

Program Specific Requirements

1. Repeating any ECE course for which a grade of F, L, or WF has been recorded requires a grade of C- or better in prerequisites for the course.
2. Dismissal from the program will be recommended if any required course in the program is taken twice without achieving a passing grade. This includes courses where a grade of AU, L, W, or WF is received.
3. To obtain a BS in Electrical Engineering, a student must: (1) meet all University academic requirements; (2) meet all Electrical Engineering curriculum requirements; and (3) have a GPA of 2.0 or better in all ECE courses.
4. Any exceptions to the program specifics listed above require approval of the ECE faculty.

Additional Information

Check the web page of [Frequently Asked Questions \(FAQ\)](#) for additional information about the ECE program.

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