B.S. ELECTRICAL ENGINEERING / M.S. ELECTRICAL AND COMPUTER ENGINEERING

Overview

This is a structured and integrated program of 151 credit hours. Students may pursue this program from either of the undergraduate option available for Electrical Engineering Majors. It includes two required courses, ECE 715 and ECE 716, as well as the selection of advanced technical electives.

Note the following:

- At least 30 credit hours must be at the graduate (600 or 700) level. Of these, at least 12 credit hours must be at 700 level. More specifically, in
 addition to ECE 715 (M.S. Design Project I) and ECE 716 (M.S. Design Project II), at least 6 credit hours must be in courses open to graduate
 students only (700 level).
- Interested ECE Juniors with cumulative GPA above 3.0 may declare their intent to participate by submitting an official application to the Departmental Graduate Committee for admission into the M.S.E.C.E. portion of the program.
- A student wishing to drop out of the five-year program without the M.S.E.C.E. degree could receive the B.S.E.E. degree after completing all its requirements, including the senior design project.
- To qualify for the M.S.E.C.E. degree, students must meet all the pertinent Graduate School requirements, including an acceptable G.R.E. score and a minimum of 3.0 GPA in the 30 credit hours applied towards the M.S.E.C.E. degree.
- The student is awarded both the B.S.E.E. and the M.S.E.C.E. degrees after the requirements for both degrees are satisfied.

For more information about the BS/MS Program please refer to the College of Engineering Section (http://bulletin.miami.edu/undergraduate-academic-programs/engineering/#fiveyearbsmsprogramtext).

This program is intended for exceptional students to acquire both a Bachelor of Science and a Master of Science degree simultaneously, in five years rather than the 4 plus 2 years (approximately) it normally requires.

Requirements

You must be an undergraduate student in the College of Engineering (CoE). A master's degree is considered the first professional degree in engineering. The Admission Committee will carefully review academic credentials for admission into our M.S. program. Students should discuss the program and possibility of entering with an academic adviser. Completed applications are due prior to the beginning of the final exams in your junior year.

Get the application form (it is different for US students and International students) from the CoE Office of Research and Graduate Studies, fill it out and then return it to the same office. The application fee is waived for currently enrolled students in the CoE.

Take the GRE Examination before the end of your senior year and attain a combined score of more than 1000 on the Verbal and Quantitative portions. You must have a cumulative GPA of at least 3.0 at the time of application.

For further information about admission into the graduate school see the Bulletin of the Graduate School (http://bulletin.miami.edu/graduate-academic-programs/engineering/).

For more detailed information about the CoE Five-Year programs, please refer to the College of Engineering Bulletin section (http://bulletin.miami.edu/ undergraduate-academic-programs/engineering/#fiveyearbsmsprogramtext).

Curriculum Requirements: B.S. in Electrical Engineering / M.S. Electrical and Computer Engineering

Code	Title	Credit Hours
B.S. IN ELECTRICAL ENGINEERING REQUIREMENTS (121 CREDIT HOURS)	
Engineering Courses		
EGN 110	Innovation and Entrepreneurship in Engineering	3
or EGN 114	Global Challenges Addressed by Engineering and Technology	
or EGN 123	Computing and Digital Solutions for the future	
ECE 112	Introduction to Engineering II	2
ECE 118	Introduction to Programming	3
ECE 201	Electrical Circuit Theory	3
ECE 202	Electronics I	3
ECE 203	Electrical Circuits Laboratory	1

ECE 206	Circuits, Signals, and Systems	3
ECE 211	Logic Design	3
ECE 212	Processors: Hardware, Software, and Interfacing	3
ECE 218	Data Structures	3
ECE 301	Electromagnetic Field Theory	3
ECE 302	Electronics II	3
ECE 303	Electronics Laboratory	1
ECE 315	Digital Design Laboratory	1
ECE 316	Structured Digital Design	1
ECE 336	Discrete-Time Signals and Systems	3
ECE 481	Senior Project I	1
EE Core Electives ¹		6
EE Design Elective ¹		3
ECE Electives ^{1,3}		9
Technical Electives ¹		9
Math and Science Courses		
ECE 310	Introduction to Engineering Probability	3
MTH 151	Calculus I for Engineers	5
MTH 162	Calculus II	4
MTH 210	Introduction to Linear Algebra	3
MTH 311	Introduction to Ordinary Differential Equations	3
CHM 151	Chemistry for Engineers	3
CHM 153	Chemistry Laboratory for Engineers	1
PHY 221	University Physics I	3
PHY 222	University Physics II	3
PHY 223	University Physics III	3
PHY 224	University Physics II Lab	1
PHY 225	University Physics III Lab	1
General Education Requirements		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
WRS 107	First-Year Writing II: STEM	3
Quantitative Skills:		
MTH 151	Calculus I for Engineers (fulfilled through the major)	
Areas of Knowledge:		
Arts and Humanities Cognate		9
People and Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the major)		
M.S. IN ELECTRICAL AND COMPUTER ENGINEERING REQU	IIREMENTS (30 CREDIT HOURS)	
ECE 715	M.S. Design Project I	3
ECE 716	M.S. Design Project II	3
ECE Electives		9
ECE 600 Level Electives ^{1,3}		6
700 Level Technical Electives ^{1,3}		6
Total Credit Hours		151

Curriculum Requirements: B.S. in Electrical Engineering / M.S. Electrical and **Computer Engineering - Audio Engineering Option**

Code Title **Credit Hours** B.S. IN ELECTRICAL ENGINEERING REQUIREMENTS (121 CREDIT HOURS) **Common Engineering Requirements** 3

or EGN 114	Global Challenges Addressed by Engineering and Technology	
or EGN 123	Computing and Digital Solutions for the future	
ECE 112	Introduction to Engineering II	2
ECE 118	Introduction to Programming	3
ECE 201	Electrical Circuit Theory	3
ECE 202	Electronics I	3
ECE 203	Electrical Circuits Laboratory	1
ECE 206	Circuits, Signals, and Systems	3
ECE 211	Logic Design	3
ECE 212	Processors: Hardware, Software, and Interfacing	3
ECE 218	Data Structures	3
ECE 302	Electronics II	3
ECE 303	Electronics Laboratory	1
ECE 315	Digital Design Laboratory	1
ECE 316	Structured Digital Design	1
ECE 336	Discrete-Time Signals and Systems	3
ECE 436	Digital Signal Processing	3
ECE 481	Senior Project I	1
ECE 502	Engineering Acoustics	3
ECE 540	Digital Speech and Audio Processing	3
EE Core Electives		3
ECE Design Elective		3
Audio Engineering Courses		
MMI 172	Audio Design Workshop III	1
MMI 220	Introduction to Music Recording	3
MMI 501	Transducer Theory	3
MMI 502	Digital Audio Theory	3
MMI 503	Audio Software Development I	3
Math & Basic Science Credit Hours		
ECE 310	Introduction to Engineering Probability	3
MTH 151	Calculus I for Engineers	5
MTH 162	Calculus II	4
MTH 210	Introduction to Linear Algebra	3
MTH 311	Introduction to Ordinary Differential Equations	3
CHM 151	Chemistry for Engineers	3
CHM 153	Chemistry Laboratory for Engineers	1
PHY 221	University Physics I	3
PHY 222	University Physics II	3
PHY 224	University Physics II Lab	1
PHY 223	University Physics III	3
PHY 225	University Physics III Lab	1
General Education Requirements		1
Written Communication Skills:		
WRS 105	First-Year Writing I	3
WRS 107	First-Year Writing II: STEM	3
Quantitative Skills:]
MTH 151	Calculus I for Engineers (fulfilled through the major)	
Areas of Knowledge:		
Arts and Humanities Cognate		9
People and Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the major)		
M.S. IN ELECTRICAL AND COMPUTER ENGINEERING REQU	IREMENTS (30 CREDIT HOURS)	

Total Credit Hours		152
700 Level Technical Electives		6
ECE 600 Level Electives		9
Audio or Technical Electives		9
ECE 716	M.S. Design Project II	3
ECE 715	M.S. Design Project I	3

Suggested Plan of Study: B.S. in Electrical Engineering / M.S. Electrical and Computer Engineering

Freshman Year		
Fall		Credit Hours
EGN 110, 114,	Innovation and Entrepreneurship in Engineering	3
or 123	or Global Challenges Addressed by Engineering and Technology or Computing and Digital Solutions for the future	
WRS 105	First-Year Writing I	3
MTH 151	Calculus I for Engineers	5
PHY 221	University Physics I	3
	Credit Hours	14
Spring		
ECE 112	Introduction to Engineering II	2
ECE 118	Introduction to Programming	3
WRS 107	First-Year Writing II: STEM	3
MTH 162	Calculus II	4
PHY 222	University Physics II	3
PHY 224	University Physics II Lab	1
	Credit Hours	16
Sophomore Year		
Fall		
ECE 201	Electrical Circuit Theory	3
ECE 218	Data Structures	3
MTH 311	Introduction to Ordinary Differential Equations	3
PHY 223	University Physics III	3
PHY 225	University Physics III Lab	1
Arts and Humanities Cognate ¹		3
	Credit Hours	16
Spring		
ECE 202	Electronics I	3
ECE 203	Electrical Circuits Laboratory	1
ECE 206	Circuits, Signals, and Systems	3
ECE 211	Logic Design	3
MTH 210	Introduction to Linear Algebra	3
CHM 151	Chemistry for Engineers	3
CHM 153	Chemistry Laboratory for Engineers	1
	Credit Hours	17
Junior Year		
Fall		
ECE 301	Electromagnetic Field Theory	3
ECE 302	Electronics II	3
ECE 303	Electronics Laboratory	1
ECE 315	Digital Design Laboratory	1
ECE 336	Discrete-Time Signals and Systems	3
ECE 310	Introduction to Engineering Probability	3

Credit Hours 17 Spring 17 Spring 17 Spring 1 ECE 212 Processors: Hardware, Software, and Interfacing 3 ECE 212 Structured Digital Design 1 ECE Core Elective 1 3 EC core Elective 2 3 EC core Elective 3 3 People and Society Cognate 1 3 Senior Vear 16 Sect Elective 1 1 ECE Elective 1 3 ECE All Senior Project 1 ECE Elective 1 3 Spring 3 ECE 715 M.S. Design Project 1 ECE 705 M.S. Design Project 1	People and Society Cognate ¹		3
Spring ECE 212 Processors: Hardware, Software, and Interfacing 3 ECG 216 Structured Digital Design 1 EE Core Elective ¹ 3 EC Core Elective ¹ 3 EE Core Elective ¹ 3 Credit Hours 3 Senior Year 3 Fall 5 ECE Elective ¹ 3 Credit Hours 16 Senior Year 3 Fall 5 ECE Elective ¹ 3 ECE All Senior Project I 3 ECE Elective ¹ 3 ECE All Clective ¹ 3 ECE All Clective ¹ 3 ECE All Clective ¹ 3 Spring 3 ECE TOS M.S. Design Project I		Credit Hours	17
ECE 212 Processors: Hardware, Software, and Interfacing 3 EC 20 a Elective ¹ 3 EC Core Elective ¹ 3 EC E bete tective ¹ 3 EC E bete tective 3 People and Society Cognate ¹ 3 EC E bete tective ¹ 3 People and Society Cognate ¹ 3 Technical Elective ¹ 3 Technical Elective ¹ 3 Ats and Humanities Cognate ¹ 3 EC T 15 M.S. Design Project 1 3 EC T 16 M.S. Design Project 1 3 EC T 16 M.S. Design	Spring		
ECE 316 Structured Digital Design 1 EE Core Elective ¹ 3 EE Core Elective ¹ 3 ECE Elective ¹ 3 People and Society Cognate ¹ 3 Credit Hours 3 Senior Year 16 Senior Year 16 Senior Year 16 Senior Year 1 ECE 401 Senior Project 1 1 ECE Elective ¹ 3 ECE Elective ¹ 3 ECE 600 Level Elective ¹ 3 ECE 600 Level Elective ¹ 3 ECE 600 Level Elective ¹ 3 ECe food Level Elective ¹ 3 People and Society Cognate ¹ 3 Technical Elective ¹ 3 Spring 3 Technical Elective ¹ 3 ECE 600 Level Elective 3 ECE 715 M.S. Design Project 1 ECE 705 Level Elective 3 ECE 700	ECE 212	Processors: Hardware, Software, and Interfacing	3
EE Core Elective 1 3 EE Core Elective 1 3 People and Society Cognate 1 3 Credit Hours 3 Senior Year 3 Fall 3 ECE Elective 1 3 Technical Elective 1 3 Technical Elective 1 3 Ats and Humanities Cognate 1 3 Ats and Humanities Cognate 1 3 ECE Elective 1 3 ECE Elective 1 3 Secti Elective 1 3 Technical Elective 1 3 Ats and Humanities Cognate 1 3 ECE Elective 1 3 ECE Elective 1 3 ECE Elective 1 3 ECE FOL Level Elective 1 3	ECE 316	Structured Digital Design	1
EEC Core Elective ¹ 3 Core Elective ¹ 3 People and Society Cognate ¹ 3 Senior Vear 16 Fall 5 ECE 481 Senior Project 1 ECE Elective ¹ 3 ECE Col Level Elective 3 People and Society Cognate ¹ 3 Ecehnical Elective ¹ 3 People and Society Cognate ¹ 3 People and Society Cognate ¹ 3 Echnical Elective ¹ 3 Technical Elective ¹ 3 Echnical Elective ¹ 3 Ece Ecol Level Elective 3 Eco	EE Core Elective ¹		3
ECE Elective 1 3 People and Society Cognate 1 3 Credit Hours 16 Senior Year 1 Fall 3 ECE 431 Senior Project 1 1 ECE Elective 1 3 ECE 600 Level Elective 1 3 ECE 600 Level Elective 1 3 People and Society Cognate 1 3 People and Society Cognate 1 3 Technical Elective 1 3 Section Level Elective 3 ECE 000 Level Elective 3 Section Level Elective 3 Section Le	EE Core Elective ¹		3
People and Society Cognate ¹ Credit Hours Credit Hours Fall ECE 481 Senior Project I ECE 481 Senior Project I ECE 481 Senior Project I ECE 184 Senior Project I ECE 184 Senior Project I ECE 600 Level Elective Credit Hours Credit Hours Credit Hours Senior Credit Hours Credit Hours Senior Credit Hours Senior Credit Hours Senior Credit Hours Senior Senior Credit Hours Senior Senior Credit Hours Senior Senior Senior Credit Hours Senior	ECE Elective ¹		3
Credit Hours 16 Senior Year 78 Fall Senior Project I 1 ECE 481 Senior Project I 1 ECE 481 Senior Project I 1 ECE 481 Senior Project I 1 ECE Elective 1 3 ECE 00 Level Elective 1 3 Ece could be evel Elective 1 3 Technical Elective 1 3 People and Society Cognate 1 3 People and Society Cognate 1 3 Technical Elective 1 3 Atts and Humanities Cognate 1 3 Atts and Humanities Cognate 1 3 Atts and Humanities Cognate 1 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 700 Level Elective 3 <td>People and Society Cognate ¹</td> <td></td> <td>3</td>	People and Society Cognate ¹		3
Senior Year Fall ECE 481 Senior Project 1 CE Elective 1 SEE TI SEE SEE SEE SEE SEE SEE SEE SEE SEE SE		Credit Hours	16
Fall Senior Project I 1 ECE 4811 Senior Project I 3 ECE Elective 1 3 3 ECE Design Elective 1 3 3 ECE 600 Level Elective 1 3 3 ECE 000 Level Elective 1 3 3 People and Society Cognate 1 3 3 Technical Elective 1 3 3 Spring 19 3 Technical Elective 1 3 3 Technical Elective 1 3 3 Technical Elective 1 3 3 Spring 3 3 Technical Elective 1 3 3 Spring 3 3 ECE 600 Level Elective 1 3 3 Spring 3 3 ECE 705 M.S. Design Project I 3 3 ECE 700 Level Elective 3 3 Spring 3 3 3 ECE 700 Level Elective 3 3 ECE 700 Level Elective 3 3 ECE 700 Level Elective 3 3 <	Senior Year		
ECE 481 Senior Project I 1 ECE Elective 1 3 ECE Design Elective 1 3 ECE 600 Level Elective 1 3 ECE 600 Level Elective 1 3 ECE 600 Level Elective 1 3 People and Society Cognate 1 3 Technical Elective 1 3 Technical Elective 1 3 Spring 3 Technical Elective 1 3 Stat and Humanities Cognate 1 3 Arts and Humanities Cognate 1 3 Stat Ce 600 Level Elective 3 Stat Cool Level Elective 3 Stat Cool Level Elective 3 Stat Gool	Fall		
ECE Elective 1 3 ECE Design Elective 1 3 ECE 600 Level Elective 3 3 Technical Elective 1 3 People and Society Cognate 1 3 Credit Hours Spring 3 Technical Elective 1 3 ECE 600 Level Elective 2 3 Tech Fild Year 3 ECE 700 Level Elective 2 3 Tech 715 M.S. Design Project I Spring 3 ECE 700 Level Elective 3 3	ECE 481	Senior Project I	1
ECE Design Elective 1 3 ECE 600 Level Elective 1 3 ECE 600 Level Elective 1 3 People and Society Cognate 1 3 Pople and Society Cognate 1 3 Technical Elective 1 3 Spring 19 Spring 3 Technical Elective 1 3 Arts and Humanities Cognate 1 3 Arts and Humanities Cognate 1 3 ECE 600 Level Elective Elective 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 715 M.S. Design Project I ECE 700 Level Elective 3 ECE 716 M.S. Design Project II Spring 3 ECE 716 M.S. Design Project II Soring 3 ECE 716 M.S. Design Project II SCE 700 Level Elective 3 ECE 716 M.S. Design Project II SCE 700 Level Elective 3 ECE 716 M.S. Design Project II SCE 700 Level Elective 3 ECE 716 M.S. Design Project II SCE 700 Level Elective 3 SCE 700 Level Elective <td>ECE Elective ¹</td> <td></td> <td>3</td>	ECE Elective ¹		3
ECE 600 Level Elective 3 ECE 600 Level Elective 3 Technical Elective 1 3 Spring 19 Spring 3 Technical Elective 1 3 Technical Elective 1 3 Arts and Humanities Cognate 1 3 Arts and Humanities Cognate 1 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 715 M.S. Design Project I 3 ECE 700 Level Elective 3 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II 3 ECE 700 Level Elective 3 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II 3 ECE 716 M.S. Design Project II 3 ECE 716 M.S. Design Project II 3 ECE 700 Level Elective 3 3 ECE 716 M.S. Design Project II 3 ECE 700 Level Elective 3 3 ECE 700 Level Elective <t< td=""><td>ECE Design Elective ¹</td><td></td><td>3</td></t<>	ECE Design Elective ¹		3
ECE 600 Level Elective 3 Technical Elective 3 People and Society Cognate 3 Credit Hours 3 Spring 3 Technical Elective 3 Arts and Humanities Cognate 3 Arts and Humanities Cognate 3 Arts and Humanities Cognate 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 Fifth Year 3 Fall 3 ECE 715 M.S. Design Project I 3 ECE 716 M.S. Design Project II 3 Spring 3 3 ECE 716 M.S. Design Project II 3	ECE 600 Level Elective ¹		3
Technical Elective 1 3 People and Society Cognate 1 3 Credit Hours 19 Spring 3 Technical Elective 1 3 Technical Elective 1 3 Technical Elective 1 3 Arts and Humanities Cognate 1 3 Arts and Humanities Cognate 1 3 ECE 600 Level Elective 3 ECE 715 M.S. Design Project I Spring 3 ECE 716 M.S. Design Project II Sce 700 Level Elective 3 ECE 716 M.S. Design Project II Sce 700 Level Elective 3 S	ECE 600 Level Elective		3
People and Society Cognate 1 3 Credit Hours 19 Spring 3 Technical Elective 1 3 Arts and Humanities Cognate 1 3 Arts and Humanities Cognate 1 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 715 M.S. Design Project I ECE 716 M.S. Design Project II Spring 3 ECE 716 M.S. Design Project II ECE 716 M.S. Design Project II Spring 3 ECE 716 M.S. Design Project II ECE 716 M.S. Design Project II Spring 3 ECE 716 M.S. Design Project II ECE 716 M.S. Design Project II Spring 3 ECE 716 M.S. Design Project II String 3 ECE 700 Level Elective 3 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II String 3 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II String 3 ECE 700 Level Elective 3 <td>Technical Elective ¹</td> <td></td> <td>3</td>	Technical Elective ¹		3
Credit Hours 19 Spring 3 Technical Elective 1 3 Technical Elective 1 3 Arts and Humanities Cognate 1 3 Arts and Humanities Cognate 1 3 Arts and Humanities Cognate 1 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 715 M.S. Design Project I ECE 700 Level Elective 3 ECE 715 M.S. Design Project I SCE 600 Level Elective 3 ECE 716 M.S. Design Project II Spring 3 ECE 716 M.S. Design Project II SCE 600 Level Elective 3 ECE 716 M.S. Design Project II SCE 600 Level Elective 3 ECE 716 M.S. Design Project II SCE 600 Level Elective 3 SCE 700	People and Society Cognate ¹		3
Spring Technical Elective 1 3 Technical Elective 1 3 Arts and Humanities Cognate 1 3 Arts and Humanities Cognate 1 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 Fifth Year Fall ECE 715 M.S. Design Project I 3 ECE 700 Level Elective 3 ECE 700 Level Elective 3 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II 3 ECE 716 M.S. Design Project II 3 ECE 716 M.S. Design Project II 3 ECE 700 Level Elective 3 ECE 700 Level 8 ECE 700 Level 9 ECE 700 Level 8 ECE 700 Level 8 ECE 700 Level 9 ECE 700 Level 9		Credit Hours	19
Technical Elective 1	Spring		
Technical Elective 3 Arts and Humanities Cognate 3 Arts and Humanities Cognate 3 Arts and Humanities Cognate 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 ECE 600 Level Elective 3 Frift Year 78 Fall 5 ECE 715 M.S. Design Project I ECE 700 Level Elective 3 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II Spring 3 ECE 716 M.S. Design Project II ECE 716 M.S. Design Project II ECE 700 Level Elective 3 ECE 716 M.S. Design Project II ECE 710 Spring ECE 710 M.S. Design Project II ECE 700 Level Elective 3 ECE 716 M.S. Design Project II IECE 700 Level Elective 3 ECE 716 M.S. Design Project II IECE 700 Level Elective 3	Technical Elective ¹		3
Arts and Humanities Cognate 1 SECE 600 Level Elective Credit Hours Fifth Year Fall ECE 715 M.S. Design Project 1 SECE 700 Level Elective Credit Hours Spring ECE 716 M.S. Design Project II SECE 700 Level Elective SECE 700 Level Flevel Flevel Flevel 700 Level	Technical Elective ¹		3
Arts and Humanities Cognate ¹ SECE 600 Level Elective Credit Hours Total Credit Hours Sece 700 Level Elective Sece 716 M.S. Design Project II Credit Hours Sece 700 Level Elective Sece 716 Credit Hours Sece 700 Level Elective Sece 710 Sece 700 Level Elective Sece 710 Sece 700 Level Elective Sece 710 Sece 700 Level Elective Sece 700 Level Elective Sece 700 Level	Arts and Humanities Cognate ¹		3
ECE 600 Level Elective 3 ECE 600 Level Elective 3 Fifth Year 18 Fall 7 ECE 715 M.S. Design Project I ECE 700 Level Elective 3 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II Spring 3 ECE 716 M.S. Design Project II ECE 716 M.S. Design Project II ECE 710 Level Elective 3 ECE 716 M.S. Design Project II ECE 700 Level Elective 3 ECE 716 M.S. Design Project II ECE 700 Level Elective 3 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II ECE 700 Level Elective 3	Arts and Humanities Cognate ¹		3
ECE 600 Level Elective 3 Fifth Year 18 Fall 7 ECE 715 M.S. Design Project I 3 ECE 600 Level Elective 3 ECE 700 Level Elective 3 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II 9 Spring 3 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II 3 ECE 700 Level Elective 3	ECE 600 Level Elective		3
Credit Hours 18 Fifth Year 76 Fall 715 ECE 715 M.S. Design Project I ECE 700 Level Elective 3 ECE 700 Level Elective 3 Credit Hours 9 Spring 9 ECE 700 Level Elective 3 ECE 716 M.S. Design Project II ECE 700 Level Elective 3	ECE 600 Level Elective		3
Fifth Year Fall ECE 715 M.S. Design Project I 3 ECE 600 Level Elective ECE 700 Level Elective Credit Hours 9 Spring ECE 716 M.S. Design Project II ECE 716 M.S. Design Project II ECE 700 Level Elective Credit Hours 9 Total Credit Hours 9 Total Credit Hours 151		Credit Hours	18
Fall ECE 715 M.S. Design Project I 3 ECE 600 Level Elective 3 3 ECE 700 Level Elective 3 3 Credit Hours 3 Spring ECE 716 M.S. Design Project II 3 ECE 700 Level Elective 3 3 ECE 700 Level Elective <	Fifth Year		
ECE 715 M.S. Design Project I 3 ECE 600 Level Elective 3 ECE 700 Level Elective 3 Spring ECE 716 M.S. Design Project II ECE 700 Level Elective 3 ECE 700 Level Elective <t< td=""><td>Fall</td><td></td><td></td></t<>	Fall		
ECE 600 Level Elective 3 ECE 700 Level Elective 3 Credit Hours 9 Spring 3 ECE 716 M.S. Design Project II ECE 700 Level Elective 3 Total Credit Hours 9 Total Credit Hours 151	ECE 715	M.S. Design Project I	3
ECE 700 Level Elective 3 Credit Hours 9 Spring 9 ECE 716 M.S. Design Project II 3 ECE 600 Level Elective 3 ECE 700 Level Elective 3 ECE 700 Level Elective 3 Credit Hours 3 Total Credit Hours 151	ECE 600 Level Elective		3
Credit Hours 9 Spring 70 ECE 716 M.S. Design Project II 3 ECE 600 Level Elective 3 ECE 700 Level Elective 3 Credit Hours 3 Total Credit Hours 151	ECE 700 Level Elective		3
Spring ECE 716 M.S. Design Project II 3 ECE 600 Level Elective 3 ECE 700 Level Elective 3 Credit Hours 9 Total Credit Hours 151		Credit Hours	9
ECE 716 M.S. Design Project II 3 ECE 600 Level Elective 3 ECE 700 Level Elective 3 Credit Hours 9 Total Credit Hours 151	Spring		
ECE 600 Level Elective 3 ECE 700 Level Elective 3 Credit Hours 9 Total Credit Hours 151	ECE 716	M.S. Design Project II	3
ECE 700 Level Elective 3 Credit Hours 9 Total Credit Hours 151	ECE 600 Level Elective		3
Credit Hours 9 Total Credit Hours 151	ECE 700 Level Elective		3
Total Credit Hours 151		Credit Hours	9
		Total Credit Hours	151

¹ See description of electives under the Departmental Electives Section.

² Offered only in the Fall semester.

Suggested Plan of Study: B.S. in Electrical Engineering / M.S. Electrical and Computer Engineering - Audio Engineering Option

Freshman Year		
Fall		Credit Hours
EGN 110, 114, or 123	Innovation and Entrepreneurship in Engineering or Global Challenges Addressed by Engineering and Technology or Computing and Digital Solutions for the future	3
WRS 105	First-Year Writing I	3

MTH 151	Calculus I for Engineers	5
PHY 221	University Physics I	3
MMI 220	Introduction to Music Recording	3
	Credit Hours	17
Spring		
ECE 112	Introduction to Engineering II	2
ECE 118	Introduction to Programming	3
WRS 107	First-Year Writing II: STEM	3
MTH 162	Calculus II	4
PHY 222	University Physics II	3
PHY 224	University Physics II Lab	1
	Credit Hours	16
Sophomore Year		
Fall		
ECE 201	Electrical Circuit Theory	3
ECE 218	Data Structures	3
MTH 311	Introduction to Ordinary Differential Equations	3
PHY 223	University Physics III	3
PHY 225	University Physics III Lab	1
Arts and Humanities Cognate ¹		3
	Credit Hours	16
Spring		
ECE 202	Electronics I	3
ECE 203	Electrical Circuits Laboratory	1
ECE 206	Circuits, Signals, and Systems	3
ECE 211	Logic Design	3
MTH 210	Introduction to Linear Algebra	3
CHM 151	Chemistry for Engineers	3
CHM 153	Chemistry Laboratory for Engineers	1
	Credit Hours	17
Junior Year		
Fall		
ECE 302	Electronics II	3
ECE 303	Electronics Laboratory	1
ECE 315	Digital Design Laboratory	1
ECE 336	Discrete-Time Signals and Systems	3
ECE 310	Introduction to Engineering Probability	3
MMI 502	Digital Audio Theory	3
People and Society Cognate ¹		3
	Credit Hours	17
Spring		
ECE 212	Processors: Hardware, Software, and Interfacing	3
ECE 316	Structured Digital Design	1
ECE 436	Digital Signal Processing	3
EE Core Elective ¹		3
MMI 172	Audio Design Workshop III	1
MMI 503	Audio Software Development I	3
People and Society Cognate ¹		3
	Credit Hours	17
Senior Year		
Fall		
ECE 481	Senior Project I	1

ECE Design Elective ¹		3
Audio Engineering or Techinical Elective ¹		3
ECE 602	Engineering Acoustics	3
Audio Engineering or Techinical Elective ^{1, 3}		3
People and Society Cognate ¹		3
	Credit Hours	16
Spring		
MMI 501	Transducer Theory	3
MMI 503	Audio Software Development I	3
ECE 640	Digital Speech and Audio Processing	3
ECE 600 Level Elective ¹		3
Arts and Humanities Cognate ¹		3
Arts and Humanities Cognate ¹		3
	Credit Hours	18
Fifth Year		
Fifth Year Fall		
Fifth Year Fall ECE 715	M.S. Design Project I	3
Fifth Year Fall ECE 715 ECE 600 Level Elective	M.S. Design Project I	3
Fifth Year Fall ECE 715 ECE 600 Level Elective ECE 700 Level Elective	M.S. Design Project I	3 3 3
Fifth Year Fall ECE 715 ECE 600 Level Elective ECE 700 Level Elective	M.S. Design Project I Credit Hours	3 3 3 9
Fifth Year Fall ECE 715 ECE 600 Level Elective ECE 700 Level Elective Spring	M.S. Design Project I Credit Hours	3 3 3 9
Fifth Year Fall ECE 715 ECE 600 Level Elective ECE 700 Level Elective Spring ECE 716	M.S. Design Project I Credit Hours M.S. Design Project II	3 3 <u>3</u> 9 3
Fifth Year Fall ECE 715 ECE 600 Level Elective ECE 700 Level Elective Spring ECE 716 ECE 600 Level Elective	M.S. Design Project I Credit Hours M.S. Design Project II	3 3 3 9 3 3 3 3
Fifth Year Fall ECE 715 ECE 600 Level Elective ECE 700 Level Elective Spring ECE 716 ECE 600 Level Elective ECE 700 Level Elective	M.S. Design Project I Credit Hours M.S. Design Project II	3 3 3 9 3 3 3 3 3 3
Fifth Year Fall ECE 715 ECE 600 Level Elective ECE 700 Level Elective Spring ECE 716 ECE 600 Level Elective ECE 700 Level Elective	M.S. Design Project I Credit Hours M.S. Design Project II Credit Hours	3 3 3 9 3 3 3 3 9

¹ See description of electives under the Departmental Electives Section.

² Offered only in the Fall semester.

³ Should be taken as Graduate (G) credits