2014-2015 undergrad bulletin

Senior Checklist

Department of Electrical Engineering

B.S. in Electrical Engineering

Students entering Fall 2014

Last Name	First Name	ID Number	Date

Engineering Core

Course	Lec. Grade	Lab Grade	Units
ENGR 1			1
CENG 41			4
COEN 44 or 11			5
COEN 12			5
MECH 121			4
Total			19

Electrical Engineering Core

Course	Lec. Grade	Lab Grade	Units
ELEN 20			3
ELEN 21			5
ELEN 33			5
ELEN 50			5
ELEN 100			5
ELEN 104			5
ELEN 110			5
ELEN 115			5
ELEN 116, 130, 133, 141, 151 or 153 **circle course taken**			5
Total			43

Technical Electives *(three required)*

SEE LIST ON BACK SIDE OF FORM

Course	D	M	C	Lec. Grade	Lab Grade	Units
Total						

Professional Development

SEE OPTIONS ON BACK SIDE OF FORM

Option	Units
Total	

Design Project

Course	Lec. Grade	Lab Grade	Units
ELEN 192			2
ELEN 194			2
ELEN 195			2
ELEN 196			1
Total			7

Additional Electives

Course	Grade	Units

Courses for credit for MSEE degree

Course	Grade	Units

Advisor's Signature **Date**

Humanities and Social Sciences

Subject	Course	Grade	Units
CTW 1			
CTW 2			
English 181			
English 182A			
English 182B			
C&I 1			
C&I 2			
C&I 3			
Social Science			
Diversity			
Ethics			
RTC 1			
RTC 2			
RTC 3			
Exp. Learning Social Justice			
Total (min. 41)			

Mathematics and Natural Science

Subject	Lec. Grade	Lab Grade	Units
Math 11			4
Math 12			4
Math 13			4
Math 14 or 21			4
AMTH 106 (or MATH 22)			4
AMTH 108 (or MATH 122)			4
PHYS 31			4
PHYS 32			5
PHYS 33			5
PHYS 34			5
CHEM 11			5
Select one of the following and write option below:			
CHEM 12, BIO 21, PHYS 112, Phys 121, Math 53, 105 or 123			
			5
Total			53

Pathway Courses

Pathway Title:			
	Course 1	Course 2	Course 3
Courses:			

TOTAL UNITS

Engineering Core	
ELEN Core	
Technical Electives	
Professional Development	
Design Project	
Additional Electives	
Humanities & Social Science	
Mathematics & Science	
Total (min. 190)	

List any approved substitutes for requirements

Course	Grade	Units

Department Chair's Signature **Date**

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Technical Electives

Select three technical electives from the following options:

- Upper-division electrical engineering elective courses
- COEN 120, 122, 146
- First-year graduate level electrical engineering coursework approved by the advisor
  (2-unit graduate courses count as one-half of an undergraduate course)

At least one course must be selected from each of the three categories:

Design Team Emphasis (D)	Advanced Mathematics Emphasis (M)	Computer-Aided Design Emphasis (C)
116 Electronic Circuits II	105 Electromagnetics II	112 Modern Network Synthesis and Design
117 Electronic Circuits III	112 Modern Network Synthesis and Design	116 Electronic Circuits II
123 Mechatronics	118 Fund. of Computer Aided Circuit Simulation	117 Electronic Circuits III
127 Advanced Logic Design	130 Control Systems	118 Fund. of Computer Aided Circuit Simulation
144 RF and Microwave Components	131 Introduction to Robotics	123 Mechatronics
152 Semiconductor Devices and Technology	133 Digital Signal Processing	127 Advanced Logic Design
153 Digital Integrated Circuit Design	134 Applications of Signal Processing	131 Introduction to Robotics
156 Introduction to Nanotechnology	141 Communication Systems	133 Digital Signal Processing
161 Bioinstrumentation	144 RF and Microwave Components	141 Communication Systems
162 BioSignals and Processing	156 Introduction to Nanotechnology	153 Digital Integrated Circuit Design
164 Introduction to Power Electronics	160 Chaos Theory, Metamathematics and...	164 Introduction to Power Electronics
182 Energy Systems Design	183 Power Systems Analysis	180 Introduction to Information Storage

Professional Development

Select one of the following options:

- Four or more units in a study abroad program that does not duplicate other coursework
- Cooperative education experience with enrollment in ELEN 188 and ELEN 189
- Two units in ENGR 110 (Engineering Projects for the Community)
- Preparation for graduate study in electrical engineering with completion of four or more additional units of upper-division or graduate-level courses
- Completion of an approved minor or second major in any field of engineering or science
- Peer education experience

How to fill out this form

- For engineering and science courses with laboratories, include the grade for both the class and the lab. If the course was taken as a 5-unit course with the lab included, write the same grade in both the lecture and laboratory column.
- If a course was taken elsewhere and appears as a transfer credit, write "T" for the grade and modify the number of units if needed to match the number of units transferred.
- For technical electives enter the course number and check the D,M, and C columns based on the lists above.
- For professional development, write in the option that was selected from the list above. If the option is a course, such as another TE or COOP, write the course number, grade, and units. If the option is an approved minor or participation in the BS/MS program it is not necessary to list all the additional courses taken.
- For the university core, list the specific course used to satisfy each requirement and include the units and grade. If a single course satisfies more than one requirement, list it with the full unit value only once and list it as 0 units for the second requirement.
- Additional electives not listed elsewhere should include the course name, grade, and units.
- Pathway courses not included in major or core requirements should be listed with grade under "Additional Electives".
- For the "Pathway Course" section, list the title of the pathway and the three courses taken. These courses will appear elsewhere in the checklist, so it is not necessary to include the grade or units.
- Courses not used for BS requirements that will transfer to the MS program as part of the combined BS/MS should be listed in the lower left section.