

We want to add the following courses as foundation electives:

CPEG 323, Introduction to Computer Systems Engineering

ELEG 404, Digital Imaging and Audio Signal Processing

ELEG 456, Electric Power II

ELEG 492, Radar Systems and Technology

Explain, when appropriate, how this new/revised curriculum supports the 10 goals of undergraduate education: <http://www.ugs.udel.edu/gened/>

NA

Identify other units affected by the proposed changes:

(Attach permission from the affected units. If no other unit is affected, enter "None")

None

Describe the rationale for the proposed program change(s):

(Explain your reasons for creating, revising, or deleting the curriculum or program.)

This change is designed to give our students additional flexibility in selecting their Foundation Electives.

Program Requirements:

(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the current curriculum and **include a side-by-side comparison** of the credit distribution before and after the proposed change.)

ROUTING AND AUTHORIZATION: (Please do not remove supporting documentation.)

Department Chairperson _____ Date _____

Dean of College _____ Date _____

Chairperson, College Curriculum Committee _____ Date _____

Chairperson, Senate Com. on UG or GR Studies _____ Date _____

Chairperson, Senate Coordinating Com. _____ Date _____

Secretary, Faculty Senate _____ Date _____

Date of Senate Resolution _____ Date to be Effective _____

Registrar _____ Program Code _____ Date _____

Vice Provost for Academic Affairs & International Programs _____ Date _____

Provost _____ Date _____

Board of Trustee Notification _____ Date _____

Current		Revised	
DEGREE: BACHELOR OF ELECTRICAL ENGINEERING		DEGREE: BACHELOR OF ELECTRICAL ENGINEERING	
MAJOR: ELECTRICAL ENGINEERING		MAJOR: ELECTRICAL ENGINEERING	
CURRICULUM	CREDITS	CURRICULUM	CREDITS
Parenthesized figures indicate year and semester in which the course should be taken. (1 = freshman, 2 = sophomore, 3 = junior, 4 = senior) and semester (F= fall, S = spring)		Parenthesized figures indicate year and semester in which the course should be taken. (1 = freshman, 2 = sophomore, 3 = junior, 4 = senior) and semester (F= fall, S = spring)	
UNIVERSITY REQUIREMENTS		UNIVERSITY REQUIREMENTS	
ENGL 110 Critical Reading and Writing (minimum grade C-)	3(1F)	ENGL 110 Critical Reading and Writing (minimum grade C-)	3(1F)
First Year Experience (FYE)	0-4	First Year Experience (FYE)	0-4
Discovery Learning Experience (DLE)	3	Discovery Learning Experience (DLE)	3
Breadth Requirements	12	Breadth Requirements	12
Multi-cultural Course(s)	3	Multi-cultural Course(s)	3
Major Requirements		Major Requirements	
Breadth Requirements	21	Breadth Requirements	21
 <u>College of Engineering Breadth Requirements</u> The College of Engineering requires 21 total Breadth Requirement credits (essentially 9 credits in addition to the University Breadth Requirement.) • If chosen carefully, up to 3 credits from each of the University Breadth Requirement categories may be used to simultaneously satisfy the College of Engineering Breadth Requirements for this major. • Of the 21 credits, 6 credits must be at the Upper Level (usually 300-level or higher) as designated on the College of Engineering Breadth Requirement list. • Of the 21 credits, 3 credits may be used to satisfy the University Multicultural Requirement (recommended for timely progress toward degree completion.) • All Breadth Requirement coursework must be passed with a minimum grade of C-		 <u>College of Engineering Breadth Requirements</u> The College of Engineering requires 21 total Breadth Requirement credits (essentially 9 credits in addition to the University Breadth Requirement.) • If chosen carefully, up to 3 credits from each of the University Breadth Requirement categories may be used to simultaneously satisfy the College of Engineering Breadth Requirements for this major. • Of the 21 credits, 6 credits must be at the Upper Level (usually 300-level or higher) as designated on the College of Engineering Breadth Requirement list. • Of the 21 credits, 3 credits may be used to satisfy the University Multicultural Requirement (recommended for timely progress toward degree completion.) • All Breadth Requirement coursework must be passed with a minimum grade of C-	
One of the following four courses must be taken:	3(3F)	One of the following four courses must be taken:	3(3F)
ENGL 301 Expository Writing		ENGL 301 Expository Writing	
ENGL 312 Written Communications in Business		ENGL 312 Written Communications in Business	
ENGL 410 Technical Writing		ENGL 410 Technical Writing	
ENGL 413 Topics in Professional Writing		ENGL 413 Topics in Professional Writing	
EGGG 101 Introduction to Engineering	2(1F)	EGGG 101 Introduction to Engineering	2(1F)
MATH 241 Analytic Geometry and Calculus A	4(1F)	MATH 241 Analytic Geometry and Calculus A	4(1F)
MATH 242 Analytic Geometry and Calculus B	4(1S)	MATH 242 Analytic Geometry and Calculus B	4(1S)
MATH 243 Analytic Geometry and Calculus C	4(2F)	MATH 243 Analytic Geometry and Calculus C	4(2F)
MATH 341 Differential Equations with Linear Algebra I	3(2S)	MATH 341 Differential Equations with Linear Algebra I	3(2S)
MATH 342 Differential Equations with Linear Algebra II	3(3F)	MATH 342 Differential Equations with Linear Algebra II	3(3F)
CHEM 103 General Chemistry	4(1F)	CHEM 103 General Chemistry	4(1F)
PHYS 207 Fundamentals of Physics I	4(1S)	PHYS 207 Fundamentals of Physics I	4(1S)
PHYS 208 Fundamentals of Physics II	4(2F)	PHYS 208 Fundamentals of Physics II	4(2F)
CISC 106 General Computer Science for Engineers	3(1F)	CISC 106 General Computer Science for Engineers	3(1F)
CISC 181 Introduction to Computer Science II	3(1S)	CISC 181 Introduction to Computer Science II	3(1S)
CISC 220 Data Structures	3(2F)	CISC 220 Data Structures	3(2F)
CPEG 202 Introduction to Digital Systems	3(1S)	CPEG 202 Introduction to Digital Systems	3(1S)
CPEG 222 Microprocessor Based Systems	4(2S)	CPEG 222 Microprocessor Based Systems	4(2S)
ELEG 205 Analog Circuits I	4(2F)	ELEG 205 Analog Circuits I	4(2F)
ELEG 305 Signals and Systems	3(2S)	ELEG 305 Signals and Systems	3(2S)
ELEG 309 Electronic Circuit Analysis I	4(2S)	ELEG 309 Electronic Circuit Analysis I	4(2S)
ELEG 310 Random Signals and Noise	3(3S)	ELEG 310 Random Signals and Noise	3(3S)
ELEG 320 Field Theory I	4(3F)	ELEG 320 Field Theory I	4(3F)
ELEG 340 Solid State Electronics	3(3F)	ELEG 340 Solid State Electronics	3(3F)

ELEG 491 Ethics and Impacts of Engineering	3(4S)	ELEG 491 Ethics and Impacts of Engineering	3(4S)
Three of the following five foundation elective courses must be taken: 3S, 4F ELEG 306 Digital Signal Processing ELEG 312 Electronic Circuit Analysis II ELEG 403 Communication Systems Engineering ELEG 413 Field Theory II ELEG 418 Digital Control Systems	9	Three of the following nine foundation elective courses must be taken: 3S, 4F CPEG 323 Introduction to Computer Systems Engineering ELEG 306 Digital Signal Processing ELEG 312 Electronic Circuit Analysis II ELEG 403 Communication Systems Engineering ELEG 404 Digital Imaging and Audio Signal Processing ELEG 413 Field Theory II ELEG 418 Digital Control Systems ELEG 456 Electric Power II ELEG 492 Radar Systems and Technology	9
Design Requirement (DLE)	6(4F&S)	Design Requirement (DLE)	6(4F&S)
In addition to the content of the normal program, every student must take at least six credits in ELEG course designated as "design." Regularly offered ELEG design courses include ELEG 498 offered in the fall and ELEG 499 offered in the spring.		In addition to the content of the normal program, every student must take at least six credits in ELEG course designated as "design." Regularly offered ELEG design courses include ELEG 498 offered in the fall and ELEG 499 offered in the spring.	
Technical Electives	15	Technical Electives	15
In addition to the design requirement, each student, in consultation with their advisor, must select a program of technical electives satisfying the following: (1) With some exceptions, technical electives consist of 300-level or above engineering, mathematics, natural sciences, and computer science courses. With the permission of the student's advisor, certain 200-level courses, such as PHYS 211, are permitted. (2) At least 15 technical elective credits must be taken. (3) Of the 15 technical elective credits, at least 9 must be in CPEG or ELEG courses. (4) Of the 9 credits in ELEG or CPEG, at least 6 must be in 400-level or above ELEG or CPEG courses.		In addition to the design requirement, each student, in consultation with their advisor, must select a program of technical electives satisfying the following: (1) With some exceptions, technical electives consist of 300-level or above engineering, mathematics, natural sciences, and computer science courses. With the permission of the student's advisor, certain 200-level courses, such as PHYS 211, are permitted. (2) At least 15 technical elective credits must be taken. (3) Of the 15 technical elective credits, at least 9 must be in CPEG or ELEG courses. (4) Of the 9 credits in ELEG or CPEG, at least 6 must be in 400-level or above ELEG or CPEG courses.	
CREDITS TO TOTAL A MINIMUM OF	126	CREDITS TO TOTAL A MINIMUM OF	126

Current
DEGREE: HONORS BACHELOR OF ELECTRICAL ENGINEERING

MAJOR: ELECTRICAL ENGINEERING

CURRICULUM CREDITS

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UNIVERSITY REQUIREMENTS

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Discovery Learning Experience (DLE)	3
Breadth Requirements	12
Multi-cultural Course(s)	3

Major Requirements

Breadth Requirements	21
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College of Engineering Breadth Requirements

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CPEG 222 Microprocessor Based Systems	4(2S)
ELEG 205 Analog Circuits I	4(2F)
ELEG 305 Signals and Systems	3(2S)
ELEG 309 Electronic Circuit Analysis I	4(2S)
ELEG 310 Random Signals and Noise	3(3S)
ELEG 320 Field Theory I	4(3F)

Revised
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MAJOR: ELECTRICAL ENGINEERING

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CREDITS TO TOTAL A MINIMUM OF 126

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HONORS BACHELOR OF ELECTRICAL ENGINEERING

A recipient of the Honors Bachelor of Electrical Engineering must satisfy the following:

1. All requirements for the Bachelor of Electrical Engineering degree.
2. All generic University requirements for the Honors Degree. Graduate courses approved for this purpose by the department may be counted as Honors courses