

## Engineering Dual Degree Requirements

### Electrical Engineering & Environmental Studies

#### University Core Curriculum

##### Common Core Requirements

	Credits
FYS 101 First Year Seminar	3
FYS 102 First Year Seminar	3
GHS 201-209 Global and Historical Studies	3
GHS 201-209 Global and Historical Studies	3

##### General Core Requirements

	Credits
TI Text and Ideas	3
PCA Perspectives in the Creative Arts	3
SW <i>The Social World (exempt)</i>	3
AR <i>Analytical Reasoning (exempt)</i>	3
NW <i>The Natural World (exempt)</i>	5
PWB Physical Well-Being	1
<b>Core Credits</b>	<b>19(30)</b>

##### Additional Core Requirements

BCR Butler Cultural Requirement	8 events
ICR Indianapolis Community Requirement	1 course
SAC Speaking Across the Curriculum	1 course
WAC Writing Across the Curriculum	1 course

##### Liberal Arts and Science Requirements

	Credits
Foreign Language (min 6 cr 200 level or above) Spanish, French, German, Chinese, Latin	6-14
<b>Credits</b>	<b>25-33</b>

#### Common Engineering

##### Mathematics

	Credits
MA 106 Calculus & Analytical Geometry 1	4
MA 107 Calculus & Analytical Geometry 2	4
MA 208 Calculus & Analytical Geometry 3	4
MA 215 Linear Algebra	3
MA 334 Differential Equations	3

##### Science

	Credits
CH 105 General Chemistry 1	5
CH 106 General Chemistry 2	5
PH 201 Introduction to Analytical Physics 1	5
PH 202 Introduction to Analytical Physics 2	5

##### Engineering

	Credits
DD 190 Elementary Engineering Design	3
DD 297 MATLAB	1
CS 142 Intro to Computer Science & Prog	3

##### Other

	Credits
COM 101 Rhetoric and the American Demo	3
TCM 250 Career Planning for Engineers	1
TCM 360 Comm in Engineering Practice (WAC/SAC)	2
ENGR 200 Engineering Internship	1
<b>Credits</b>	<b>52</b>

#### Environmental Studies

ENV 200 Introduction to Environmental Studies	3
ST 200 Intro to Science & Technology Studies	3
ST 205 Science and Society Speaker Series	3
This is a 1 credit course to be taken 3 times.	
ENV 330 Geographic Information Systems	4
Select 1 of the following 3 courses:	3
ST 310 Social Studies of Science and Technology	
ST 320 Philosophy of Science	
ST 330 Language, Rhetoric and Science	
Practical Experience	3
Satisfied by ENV 400, an approved community-based internship, or another experiential learning course as approved.	
STS Electives (*credits used toward 15 cr req) Of these credits 12 must be at the 300-400 level, 6 must be social science related, and 6 must be humanities related. Three hours of independent study/internship credit can be used. One research methods course is allowed.	15
Natural Science Courses	5
BI 230 Ecology and Evolutionary Biology	
NW 207 Ecology and the Natural Environment	
CH 105 <i>General Chemistry 1</i>	-
CH 106 <i>General Chemistry 2</i>	-
<b>Credits</b>	<b>39</b>

#### Electrical Engineering

	Credits
ECON 201 Microeconomics <sup>1</sup>	3
PH 351 Analog Electronics (WAC)	4
ME 295 Mechanics and Heat	3
ECE 202 Circuit Analysis II	3
ECE 208 Electronic Devices & Design Lab	1
ECE 210 Sophomore Seminar	1
ECE 255 Intro to Electronics Analysis & Design	3
ECE 264 Advanced C Programming	2
ECE 270 Digital Logic Design	4
ECE 301 Signals and Systems	3
ECE 302 Probabilistic Methods	3
ECE 311 Electric and Magnetic Fields	3
ECE 362 Microprocessors Systems & Interface	4
ECE 382 Feedback Systems Analysis	3
ECE 401 Engineering Ethics	1
ECE 440 Intro to Communication System Analysis	4
ECE 487 Senior Design I	1
ECE 488 Senior Design II	2
EE Electives	15
<b>Credits</b>	<b>63</b>

#### 179 - 187 Total Credits

<sup>1</sup> SW 220-EC used as equivalents for degree requirements