

Physics - Concentration D (BS) Dual Degree with Electrical Engineering (BSEE) Five-Year Plan

Bachelor of Science in Physics, Concentration D: Dual Degree with Electrical Engineering (BSEE) 2022-2023 Five-Year Plan*

Freshman

First Term	Hours	Second Term	Hours
ENGN 110 ¹		2 PHYS 261N, 231N, or 226N	4
CHEM 121N		3 ECE 111 ²	2
CHEM 122N		1 CHEM 123N	3
MATH 211		4 CHEM 124N	1
ENGL 110C		3 MATH 212	4
COMM 101R		3	
		16	14

Sophomore

First Term	Hours	Second Term	Hours
PHYS 262N, 232N, or 227N		4 PHYS 319	3
ECE 201		3 ECE 202	3
ENGN 150		4 ECE 287 ³	2
MATH 307 or 280		3 ECE 241	4
ENGL 231C or 211C		3 MATH 312 or 285	4
		17	16

Junior

First Term	Hours	Second Term	Hours
PHYS 323		3 ECE 313	4
PHYS 355		3 ECE 381	3
PHYS 425 ⁴		3 ECE 323 or PHYS 453 ⁵	3
ECE 302		3 PHYS 411 or PHYS 415 or PHYS 416 or PHYS 417	3
ECE 303		3 Literature Way of Knowing	3
		15	16

Senior

First Term	Hours	Second Term	Hours
PHYS 452		3 PHYS 413	3
ECE 304		3 PHYS 456 ⁵	3

ECE 332	3	PHYS 499W or PHYS 489W and PHYS 490W	3
ECE Technical Elective I ⁶	3	ECE 387	3
ENMA 480 ⁷	3	Human Behavior Way of Knowing	3
		15	15

Fifth Year

First Term	Hours	Second Term	Hours
PHYS 420		3 PHYS 454	3
ECE 485W		3 ECE 487	2
ECE 486		2 ECE Technical elective III ⁶	3
ECE Technical Elective II ⁶		3 ECE Technical elective IV ⁶	3
Human Creativity Way of Knowing		3 Interpreting the Past Way of Knowing	3
		14	14

Total credit hours: 152

- * Does not include the University's General Education language and culture requirement. Additional hours may be required.
- 1 ENGN 110 satisfies the Physics Approved Seminar requirement in the Physics curriculum.
- 2 ECE 111 satisfies the PHYS Information Literacy & Research requirement in the Physics curriculum.
- 3 ECE 287 satisfies the PHYS 303 requirement in the Physics curriculum.
- 4 PHYS 425 satisfies the Nonmajor Engineering Elective requirement in the Electrical Engineering curriculum.
- 5 PHYS 453 and PHYS 456 offered spring semester only.
- 6 Electrical Engineering students need four technical elective courses selected from one of two options: (1) four 400-level ECE technical elective courses; (2) three 400-level ECE technical elective courses and one 300-level ECE technical elective course or one approved 300- or 400-level CS/MATH/Engineering course.
- 7 ENMA 480 satisfies the PHYS Philosophy & Ethics requirement in the Physics curriculum.

The General Education requirements in information literacy and research, impact of technology, and philosophy and ethics are met through the Electrical Engineering major/degree. The upper-division General Education requirement is met through the completion of a second major/degree.

Electrical engineering majors must earn a grade of C or better in all 200-level ECE courses prior to taking the next course in the sequence.

Any ECE course registration issues are to be resolved with the ECE Academic Coordinator and Program Manager.

The five-year plan is a suggested curriculum to complete this degree program in five years. It is just one of several plans that will work and is presented only as broad guidance to students. Each student is strongly encouraged to develop a customized plan in consultation with their academic advisor. Additional information can also be found in Degree Works.