

## BS in Engineering with DragonsTeach Physics Concentration

\* Dragons Teach Courses in Blue

### General Education

ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3
ENGL 102	Composition and Rhetoric II: The Craft of Persuasion	3
ENGL 103	Composition and Rhetoric III: Thematic Analysis Across Genres	3
UNIV E101	The Drexel Experience	2

### Math and Science

BIO 141	Essential Biology	4.5
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
MATH 121	Calculus I	4
MATH 122	Calculus II	4
MATH 200	Multivariate Calculus	4
PHYS 101	Fundamentals of Physics I	4
PHYS 102	Fundamentals of Physics II	4
PHYS 201	Fundamentals of Physics III	4

### Core Curriculum

ENGR 100	Beginning Computer Aided Drafting for Design	1
ENGR 101	Engineering Design Laboratory I	2
ENGR 102	Engineering Design Laboratory II	2
ENGR 103	Engineering Design Laboratory III	2
ENGR 121	Computation Lab I	2
ENGR 122	Computation Lab II	1
ENGR 201	Evaluation & Presentation of Experimental Data I	3
ENGR 202	Evaluation & Presentation of Experimental Data II	3
ENGR 231	Linear Engineering Systems	3
ENGR 232	Dynamic Engineering Systems	3

### Engineering Requirements

CS 171	Computer Programming I	3
ENGR 210	Introduction to Thermodynamics	3
MEM 202	Statics	3
MEM 238	Dynamics	3
ECEE 304	Electromagnetic	4
ENGR Electives 200 Level		3
ENGR Electives 300 Level (8)		25
ENGR 491	Senior Project Design I	2

### Technical Electives

MATH 291	Complex and Vector Analysis for Engineers	4
PHYS 330	Intro to Nuclear Physics	2

PHYS 326	Quantum Mechanics I	4
PHYS 327	Quantum Mechanics II	4
PHYS 317	Statistical Mechanics	3
PHYS 200+		3

### DragonsTeach

ESTM 201	STEM Teacher Education Prep (STEP 1)	1.5
ESTM 210	STEM Teacher Education Prep (STEP 2)	1.5
ESTM 301	Knowing, Learning, and Classroom Interactions I	3
ESTM 302	Knowing, Learning, and Classroom Interactions II	3
ESTM 303	Knowing, Learning, and Classroom Interactions III	3
ESTM 351 (PBI Lab)	Project Based Instruction Lab	1.5
ESTM 350 (PBI)	Project Based Instruction	3
ESTM 371 (Research Methods)	Research Methods	4
EDEX 142	Spec Ed Foundations: Referral & Assessment	3
EDEX 244	Inclus Practice for Exceptional Students	3
EDEX 265	Instructing Eng Lang Learners	3
ESTM 360	Perspectives on Science and Math	3
ESTM 401	Apprentice Teaching & Seminar	6

### Free Electives

PHYS 100+		3
PHYS 100+		3
PHYS 100+		3
PHYS 100+		3

**Total Credits**

**186**