

## PHYSICS EDUCATION (PHED)

### FIRST YEAR

#### First Semester

CHEM 101	General Chemistry I	(4-2)5
ENG 101	English for Academic Purposes I	(4-0)4
MATH 117	Calculus I	(4-2)5
EDS 200	Introduction to Education	(3-0)3
PHYS 111	Physics I (Mechanics)	(4-2)5

#### Second Semester

CHEM 102	General Chemistry II	(4-2)5
ENG 102	English for Academic Purposes II	(4-0)4
MATH 118	Calculus II	(4-2)5
PHYS 112	Physics II (Electricity and Magnetism)	(4-2)5
MSE 210	Theories of Teaching and Learning in Science and Mathematics	(3-0)3
IS 100	Introduction to Information Technologies and Applications	NC

### SECOND YEAR

#### Third Semester

HIST 201	Principles of Kemal Atatürk I	NC
PHYS 203	Introductory Electronics	(3-2)4
PHYS 209	Mathematical Methods in Physics I	(4-0)4
PHYS 221	Optics and Waves	(4-0)4
MSE 326	Curriculum Dev. and Instruction in Science and Mathematics Education	(3-0)3

#### Fourth Semester

ENG 211	Academic Oral Presentation Skills	(3-0)3
HIST 202	Principles of Kemal Atatürk II	NC
MSE 305	Assessment of Learning in Science and Mathematics	(3-0)3
PHYS 202	Modern Physics	(4-0)4
PHYS 210	Mathematical Methods in Physics II	(4-0)4
PHYS 222	Optics and Waves Laboratory	(1-4)3

### THIRD YEAR

#### Fifth Semester

PHYS 307	Applied Modern Physics	(1-4)3
PHYS 335	Classical Mechanics I	(4-0)4
MSE 443	High School Physics Curriculum Review I	(3-0)3
TURK 305	Oral Communication	(2-0)2
	Free Elective I	

#### Sixth Semester

ENG 311	Advanced Communication Skills	(3-0)3
MSE 310	Methods of Secondary Science Teaching I	(2-2)3
MSE 405	Laboratory Applications in Secondary Science Education I	(2-2)3
TURK 306	Written Expression	(2-0)2
	Free Elective II	
	Restricted Elective I	

### FOURTH YEAR

#### Seventh Semester

EDS 304	Classroom Management	(3-0)3
MSE 411	Methods of Secondary Science Teaching II	(2-2)3
MSE 329	Instructional Technology and Material Development	(2-2)3
MSE 417	School Experience	(1-4)3
	Restricted Elective II	

#### Eighth Semester

EDS 424	Guidance	(3-0)3
MSE 418	Practice Teaching	(2-6)5
	Restricted Elective III	
	Departmental Elective	

Departmental, restricted and free electives must be at least 3 METU credits and 5 ECTS credits each.

Restricted Elective: Must be chosen from PHYS or ASTR courses.

Departmental Elective: Courses offered by Department of Mathematics and Science Education (either with MSE or SSME codes)