

SECONDARY SCIENCE EDUCATION/PHYSICS
B.S. PHYSICS / TERRAPIN TEACHERS SECONDARY CERTIFICATION

Name: _____

Note: A minimum of 120 credits are required for a degree in addition to satisfactory completion all course and other degree requirements. The total number of credits actually earned for the degree may exceed 120 depending on the number of "elective" and "double count" courses taken.

UID: _____

PRE-PROFESSIONAL CONTENT REQUIREMENTS

GENERAL EDUCATION REQUIREMENTS

Fundamental Studies

Requirements: ___ credits	Course	Credits	Grade
Academic Writing (AW)		3	
Professional Writing (PW)		3	
Oral Communication (OC)		3	
Mathematics (MA)*	MATH 140	3	
Analytic Reasoning (AR)	MATH 140	3	

*Math 212 and 213 do not fulfill MA

Distributive Studies

Requirements: ___ credits	Course	Credits	Grade
Natural Science Lab (NL)	PHYS 272/275	4	
Natural Sciences (NS)	PHYS 171	3	
History/Social Sciences (HS)	TLPLxx KL	3	
History/Social Sciences (HS)			
Humanities (HU)	TLPLxxPerS	3	
Humanities (HU)		3	
Scholarship in Practice (SP)	TLPLxx CI	3	
Scholarship in Practice (SP)		3	

I-Series (double count with Distributive Studies and/or Diversity)

Requirements: ___ credits	Course	Credits	Grade
I-Series (IS)		3	
I-Series		3/4	

Diversity (double count with Distributive Studies and/or Diversity)

Requirements: ___ credits	Course	Credits	Grade
Understanding Plural Soc. (UP)	TLPLxx CI	3	
Understanding Plural Soc. Or Cultural Competency (CC)		3	

Experiential Learning - optional

Requirements: ___ credits	Course	Credits	Grade
		3	
		3	

Physics Major

Please see a Physics advisor for details on coursework (must earn a "C-" or better)

*PHYS 171 Introductory Physics: Mechanics and Relativity (NS)	3	
*PHYS 272 Introductory Physics: Fields (NL when taken with PHYS 275)	3	
PHYS 273 Introductory Physics: Waves	3	
PHYS 274 Mathematical Methods for Physics I	3	
*PHYS 275 Experimental Physics I: Mechanics, Heat & Fields (NL when taken with PHYS272)	2	
PHYS 276 Experimental Physics II: Electricity and Magnetism	2	
PHYS 174 Physics Laboratory Introduction	1	
PHYS 411 Intermediate Electricity & Magnetism	4	
*PHYS 375 Experimental Physics III: Electromagnetic Waves, Optics and Modern (SP)	4	
PHYS 373 Mathematical Methods for Physics II	3	
PHYS 371 Modern Physics	3	
*MATH 140 Calculus I	4	
*MATH 141 Calculus II	4	
MATH 241 Calculus III	4	

PRE-PROFESSIONAL EDUCATION COURSES

TLPL 101	Inquiry Teaching of STEM in Elementary	1	
TLPL 102	Inquiry Teaching of STEM in Middle School	2	
EDHD 426	Reading	3	
TLPL xxx	Perspectives in Science	3	
TLPLxxx	*Knowing & Learning	3	

PROFESSIONAL PROGRAM

All Gen Ed, pre-professional and professional coursework must be completed with a "C-" or better prior to student teaching. Students must be admitted to the Professional Program in order to register for the courses below. Students must maintain a 2.75 GPA while completing these courses.

PROFESSIONAL COURSES (Fall Only)

TLPL xxx	Research Methods**	3	
EDCI 488P	*Project Based Instruction (HU-CC)	3	
EDCI 470	Classroom Interactions	3	
EDCI 375	Student Teaching Internship	1	

**** counts as elective in upper level physics; lab research plus Res Methods Seminar.**

STUDENT TEACHING SEMESTER (Spring Only)

EDCI 480	Student Teaching Seminar in Sec Science	2	
EDCI 471	Student Teaching in Science	12	
EDCI 474	Inclusion, Diversity and Professionalism	2	

Secondary Major

Advisor: _____

Dean: _____

Primary Major

Advisor: _____

Dean: _____

Secondary Education Science/Physics Four-Year Plan

NOTE: This is a proposed plan and the College of Education does not guarantee that these courses will be offered in the designated semester. Consult the *Schedule of Classes* for class availability and meeting times. A minimum of 120 credits are required for a degree in addition to satisfactory completion all course and other degree requirements. The total number of credits actually earned for the degree may exceed 120 depending on the number of “elective” and “double count” courses.

FRESHMAN YEAR:

<i>Fall Semester:</i>	<i>Cr.</i>	<i>Spring Semester:</i>	<i>Cr.</i>
ENGL 101 (AW)	3	MATH 141 (AR)	4
MATH 140 (MA/AR)	4	PHYS171 Intro Physics: Mechanics	3
PHYS170 Professional Physics Seminar	1	PHYS174 Physics Lab Intro	1
TLPL 101	1	ORAL COMMUNICATION (OC)	3
GENED (HS / I-SERIES/UP)	3	TLPL 102	2
ELECTIVE	3	Elective	2
<i>Total Credits</i>	15	<i>Total Credits</i>	15

SOPHOMORE YEAR: Apply to the College of Education after completion of TLPL Knowing & Learning. Begin identification of research experience to prepare for Research Methods Seminar to be taken junior year.

<i>Fall Semester:</i>	<i>Cr.</i>	<i>Spring Semester:</i>	<i>Cr.</i>
MATH241 Calculus III	4	PHYS273 Intro Physics: Waves	3
PHYS272 Intro Physics: Fields	3	PHYS274 Math Methods for Physics I	3
PHYS275 Experimental Physics I	2	PHYS276 Experimental Physics II	2
TLPL Knowing & Learning (HS) (currently EDCI 488M)	3	Electives	3
HUMANITIES (HU/ I series/SP)	3	TLPL reading currently EDHD 426	3
<i>Total Credits</i>	15	<i>Total Credits</i>	14

JUNIOR YEAR

<i>Fall Semester:</i>	<i>Cr.</i>	<i>Spring Semester:</i>	<i>Cr.</i>
PHYS371 Modern Physics	3	TLPLxxx Perspectives in Science (HU)	3
PHYS373 Math Methods for Physics II	3	TLPL Research Methods Seminar plus lab research counts in upper level PHYS	3
	3	Electives	3
TLPL Project based Instruction (currently EDCI 488P)	3	PHYS375 Experimental Physics III	3
	2	PHYS401 Quantum Physics I	4
<i>Total Credits</i>	14	<i>Total Credits</i>	16

SENIOR YEAR:

<i>Fall Semester:</i>	<i>Cr.</i>	<i>Spring Semester:</i>	<i>Cr.</i>
TLPL Classroom Interactions currently (SP/UP) (currently EDCI 470)	3	EDCI 480	2
TLPL Field Experience in Science Education (currently EDCI 375)	1	EDCI 471	12
Professional Writing (PW)	3	EDCI 474	2
PHYS411 Intermediate E&M	4	No other courses taken this semester	
PHYS4xx Physics Elective**	3		
<i>Total Credits</i>	14	<i>Total Credits</i>	16

Total Credits: 120

* All students must complete two Distributive Studies courses that are approved for **I-series** courses. Students must complete **Understanding Plural Society** and **Cultural Competence** courses that may also fulfill a Distributive Studies category.

*** All remaining Gen Ed and Pre-Professional courses not listed on this plan must still be completed to earn the Physics/Physics Education Double Major degree*