



**BACHELOR of SCIENCE in Physics and in Science and Math Education #754/774**

Ogden College of Science and Engineering  
 Physics Department  
 College of Education and Behavioral Sciences  
 School of Teacher Education  
 Western Kentucky University

The suggested program of study shown below should be used in consultation with your advisor(s). Every student will finish with a unique plan of his/her own depending on the electives selected.

**Success Markers**

SAMPLE - 4 year plan

FIRST YEAR	Fall Semester		Spring Semester	
	PHYS 180/181 Intro Modern Physics/Lab (E-NS, SL)	4	PHYS 255/256 University Physics I & Lab	5
MATH 136 – Calculus I (F-QR)	4	MATH 137 – Calculus II	4	
ENG 100 Intro to College Writing (F-W1)	3	PHIL 215 Symbolic Logic <b>OR</b> EE 180 Digital Circuits	3	
COMM 145 Intro to Public Speaking (F-OC)	3	HIST 101 World History I OR HIST 102 World History II (F-SB)	3	
Arts & Humanities (E-AH)	3	SMED 102 Step 2: Intro to Inquiry Based Lesson Design	2	
SMED 101 Step 1: Intro to Inquiry Based Teaching (E-SB)	1			
<b>TOTAL CREDIT HOURS</b>	<b>18</b>	<b>TOTAL CREDIT HOURS</b>	<b>17</b>	

SECOND YEAR	Fall Semester		Spring Semester	
	PHYS 265/266 University Physics II & Lab	5	PHYS 321 Modern Physics II	3
MATH 237 Multivariable Calculus	4	PHYS 301 Electrical Measures Lab	1	
ENGL 200 Intro to Literature Studies (F-AH)	3	MATH 307 Linear Algebra	3	
SMED 310 Knowing & Learning	3	CHEM 120/121 College Chemistry I & Lab (E-NS)	5	
		SMED 320 Classroom Interactions	3	
<b>TOTAL CREDIT HOURS</b>	<b>15</b>	<b>TOTAL CREDIT HOURS</b>	<b>15</b>	

**World Language Proficiency:** All students entering in Fall 2014 or later must demonstrate proficiency in a world language at the Novice High level before completing 60 credit hours. Novice high is the ability to communicate in writing and speaking on familiar topics in simple sentences. To meet this requirement, students may take college language courses or take a proficiency test. For more information go to

[www.wku.edu/modernlanguages/placement/](http://www.wku.edu/modernlanguages/placement/).

**Colonnade Program:** All students entering in fall 2014 or later must complete 39 hours in 13 specific Colonnade areas. Colonnade areas are listed in parentheses marked in blue after the corresponding classes. Some areas may have specific course requirements while others can be chosen from selected lists of options. For more details and to see lists of options, go to [http://www.wku.edu/colonnade/documents/approved\\_colonnade\\_courses\\_website.pdf](http://www.wku.edu/colonnade/documents/approved_colonnade_courses_website.pdf)

THIRD YEAR	Fall Semester		Spring Semester	
	PHYS 302 Atomic Physics Lab	1	PHYS 440 Electricity & Magnetism I	3
	ENGL 300 Writing in the Disciplines (F-W2)	3	PHYS 398 Junior Seminar	0.5
	PHYS 350 Classical Mechanics I	3	Connections: Social & Cultural (K-SC)	3
	MATH 331 Diff Equations	3	Connections: Local to Global (K-LG)	3
	PHYS 316 Computational Physics OR PHYS 318 Data Acquisition Using Labview	3	SMED 360 Research Methods for Science and Math Teachers	3
	SMED 340 Perspectives on Science and Mathematics	3	SPED 330 Intro to Exceptional Education: Diversity in Learning	3
	<b>TOTAL CREDIT HOURS</b>	<b>16</b>	<b>TOTAL CREDIT HOURS</b>	<b>15.5</b>

FOURTH YEAR	Fall Semester		Spring Semester	
	Upper Division Physics Elective (see advisor)	3	SEC 490 Student Teaching	10
	Upper Division Physics Elective (see advisor)	3	SMED 489 Student Teaching Seminar	3
	PHYS 498 Senior Seminar	0.5		
	Connections: Systems (K-SY)	3		
	SMED 470 Project Based Instruction	3		
	LTCY 421	3		
	<b>TOTAL CREDIT HOURS</b>	<b>15.5</b>	<b>TOTAL CREDIT HOURS</b>	<b>13</b>
<b>Total Credit Hours: 125</b>				

- Denotes prerequisite courses before admission
- Students seeking admission to the SMED program must earn a grade of C or higher in SMED 101/102 and must meet [requirements for admission to the Teacher Education Program](#).
- The SMED program requires completion of 34 hours of professional education courses taught by SKyTeach Faculty and Master Teachers.
- All professional education courses in Science and Mathematics Education (SMED) require clinical field experiences in order to meet Kentucky Educational Professional Standards Board (EPSB) guidelines

**PLEASE NOTE:** Prerequisites, Course Numbers, and Course Titles are subject to change.  
Consult your advisor each semester.

**For more Information:** Department: School of Teacher Education Phone: 270-745-5414  
Website: [www.wku.edu/ste](http://www.wku.edu/ste)  
Course Descriptions: <http://www.wku.edu/undergraduatecatalog/>

**For more Information:** Department: Physics Phone: 270-745-4357  
Website: [www.wku.edu/physics](http://www.wku.edu/physics)

Course Descriptions: <http://www.wku.edu/undergraduatecatalog/>