

**Murray State University  
Bachelor of Science/Physics Certification – Grades 8-12  
Department of Physics  
Program Guidesheet/Advising Form**

Student's Name: \_\_\_\_\_ M# \_\_\_\_\_

**UNIVERSITY STUDIES FOR B.A./B.S. (38-44 Hours)**

<b>Oral and Written Communication – 7 hours</b>	<b>Hours</b>	<b>Semester</b>	<b>Grade</b>
ENG 105 Critical Reading, Writing, and Inquiry	4	_____	_____
COM 161 Introduction to Public Speaking	3	_____	_____
<b>Global Awareness, Cultural Diversity, and the World's Artistic Traditions -3 hours</b>			
Global, Cultural, Art Elective	3	_____	_____
<b>Scientific Inquiry, Methodologies, and Quantitative Skills – 15 hours</b>			
MAT 250 Calculus and Analytic Geometry	5	_____	_____
MAT 308 Calculus and Analytic Geometry II	5	_____	_____
CHE 201 General College Chemistry	5	_____	_____
<b>Social and Self-Awareness and Responsible Citizenship – 6 hours</b>			
One Ethics, Social Responsibility and Civic Engagement course	3	_____	_____
Social Science Elective	3	_____	_____
<b>World's Historical Literary, and Philosophical Traditions – 6 hours</b>			
CIV 201 or CIV 202 World Civilization I or II	3	_____	_____
HUM 211 Western Humanities Traditions	3	_____	_____
<b>University Studies Approved Electives – 9 hours</b>			
CHE 202 General Chemistry and Qualitative Analysis	5	_____	_____
MAT 309 Calculus and Analytic Geometry III	4	_____	_____
<b>Professional Education – 33 hours</b>			
EDU 180 Exploring the Teaching Profession	3	_____	_____
EDU 280 Educating for Human Development.	3	_____	_____
EDU 380 Inclusive Teaching of Diverse Learners	3	_____	_____
EDU 480 Effective Pedagogy	2	_____	_____
EDU 485 Professional Perspectives for Teaching	1	_____	_____
SEC 420 Practicum in Secondary Schools <sup>1</sup>	3	_____	_____
SEC 421 Student Teaching in the Secondary Sch.	14	_____	_____
SEC 422 Extended Practicum <sup>2</sup>	4	_____	_____
<b>Required Courses – 38 hours</b>			
PHY 100T Transitions	1	_____	_____
EGR 140 Intro. to Comp App in Sci. & Engineering	3	_____	_____
CSC 420 Numerical Analysis I Or MAT 442 Intro. to Numerical Analysis	3	_____	_____
MAT 338 Ordinary Differential Equations	3	_____	_____
PHY 235 Mechanics, Heat and Wave Motion	4	_____	_____
PHY 236 Mechanics, Heat and Wave Motion Laboratory	1	_____	_____
PHY 255 Electricity, Magnetism and Light	4	_____	_____
PHY 256 Electricity, Magnetism and Light Laboratory	1	_____	_____
PHY 470 Optics	3	_____	_____
EGR 390 Engineering Measurements	3	_____	_____
EGR 240 Thermodynamics I	3	_____	_____
PHY 530 Mechanics I (or EGR 330)	3	_____	_____
PHY 460 Electricity and Magnetism I	3	_____	_____
PHY 580 Modern Physics I (or EGR 370)	3	_____	_____

**Required Limited Electives – 3 hours from PHY or EGR courses numbered 300 or above**

PHY \_\_\_\_\_ 3 \_\_\_\_\_

**Required Minor – 3-21 hours**

\_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 3 \_\_\_\_\_

		3		
		3		

\*CHE 201 and 202 fulfill the requirements for a minor in chemistry, MAT 250, 308, 309, 338 and 442 fulfill the requirements for a minor in math

**Total Curriculum Requirements – 125-143 hrs**

<sup>1</sup>SEC 420 and EDU 480 must be taken together and two semesters before student teaching.

<sup>2</sup>SEC 422 and EDU 485 must be taken one semester before student teaching.

\*NOTE: Check Undergraduate Bulletin for approved electives.

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**Physics Teaching Specialization\***

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The teaching specialization in physics is a path to Secondary Certification in Physics, designed to accompany certification in another science content area. (All College of Education secondary certification course requirements must be met.) **Note: Even though this program exceeds Murray State University’s requirements for a physics minor, in order for a Physics Minor to appear on your transcript, a minor must be declared, and all residential and graduation requirements must be met.**

Physics Teaching Specialization..... 36 hrs

AST 115	Introduction to Astronomy	4		
AST 116	Introduction to Astronomy Lab	1		
PHY 235	Mechanics, Heat and Wave Motion	4		
PHY 236	Mechanics, Heat and Wave Motion Laboratory	1		
PHY 255	Electricity, Magnetism and Light	4		
PHY 256	Electricity, Magnetism and Light Laboratory	1		
PHY 370 or 570	Introduction to Modern Physics	3		
Required Limited Electives – PHY/EGR courses numbered 300 or above		9		
PHY/EGR	_____ hrs.			
PHY/EGR	_____ hrs.			
PHY/EGR	_____ hrs.			

Corequisite Math Courses Required:

MAT 250	Calculus and Analytic Geometry I (with PHY 235)	5		
MAT 308	Calculus and Analytic Geometry II (with PHY 255)	5		

**Total Hours Required for Physics Specialization – 36 hrs**

Teacher certification requirements are subject to change. Before registering for the test(s), please refer to the Education Professional Standards Board (EPSB) website at [www.kyepsb.net](http://www.kyepsb.net) for current requirements or contact the Division of Internship and Assessment at 502-564-4606 or 888-598-7667.

**GRADE POINT AVERAGE REQUIREMENTS:**

Grade point averages are reviewed during three checkpoints: admission to teacher education (see Requirements for Admission to Teacher Education), admission to student teaching (requires a 2.75 average overall; a 2.75 average in content area; a 2.75 average in professional education) and at the time of completion/graduation (2.75 overall).

## Program Requirements

Faculty continuously assess candidates’ progress toward demonstrating proficiency in the Kentucky Teacher Performance Standards using a checkpoint system: admission to teacher education, admission to student teaching, and program completion. The eligibility portfolio is assessed during the student teaching semester.

Teacher certification requirements are subject to change. Before registering for test(s), please refer to the Educational Testing Service (ETS) website for current requirements or contact your academic advisor.

## **REQUIREMENTS FOR ADMISSION TO TEACHER EDUCATION AND STUDENT TEACHING AT MURRAY STATE UNIVERSITY (Revised 8-29-18)**

### **Teacher Education**

To be admitted to teacher education, students must meet these requirements.

1. Attend an admission to teacher education orientation.
2. Review the Professional Code of Ethics for Kentucky School Personnel. During the admission to teacher education orientation, sign the **Declaration of Eligibility** (pink sheet) affirming a commitment to uphold the code and acknowledging awareness of information required for state certification. If answers given on the Declaration of Eligibility change during the time of participation in the teacher education program, the Director of Teacher Education Services must be notified immediately.
3. Earn passing subject scores on one of these tests. Request ETS to send scores to Teacher Education Services electronically by using this code - R1494.
  - a) Core Academic Skills for Educators (CASE): Reading 156, Writing 162, Mathematics 150
  - b) PPST (taken before 9-2-14): Reading 176, Writing 174, Math 174
  - c) GRE (Graduate Records Exam): Verbal 150, Quantitative 143, analytical Writing 4.0. This exam is for students seeking initial certification at the graduate level
4. Earn an overall undergraduate GPA of  $\geq 2.75$  on a 4.0 scale at the point of admission to teacher education. Maintain a 2.75 GPA throughout the entire certification program.
5. Complete a minimum of 24 credit hours with a GPA  $\geq 2.75$ , including this coursework:
  - a) ENG 101, 102, 104 or 105 with a "B" or higher
  - b) MAT 117 (or higher level math) with a "B" or higher
  - c) COM 161 or HON 165 with a "B" or higher
  - d) EDU 180 or equivalent course with a "B" or higher
6. Schedule an admission to teacher education interview with academic advisor.
7. Submit application in *Recruiter*. Admission will only be granted following a successful review by Teacher Education Services.

***NOTE: Students who have not been admitted to Teacher Education will not be eligible to enroll in upper level courses that specify admission to teacher education as a prerequisite.***

### **Student Teaching**

To be admitted to student teaching, students must meet these requirements.

1. Gain admission to Teacher Education.
2. Attend an Admission to Student Teaching orientation.
3. Formally apply for admission to student teaching two semesters before they plan to student teach. Applications are initiated during student teaching orientations.
4. Complete the supplemental items required for student teaching in *Recruiter*. See the Teacher Education Services homepage- Student Resource Links – Help Documents
5. Earn and maintain GPA  $\geq 2.75$  in major/areas, professional education, and overall.
6. Demonstrate teaching ability during clinical experiences.
7. Document completion of 200 or more field hours and required components.

8. Complete all major courses and specialty areas to attain senior, post-bac, or graduate status.
9. Complete all required professional teacher education courses (EDU 180, EDU 280, EDU 380, EDU 480, EDU 485 or equivalents) with a “B” or higher.
10. File a valid and current medical examination, including a TB risk assessment within six months of student teaching.
11. Complete a criminal records background check and a Child Abuse and Neglect check.
12. Supply TES with additional information upon request (e.g. transcripts, course exception forms, etc.).

**General Requirements for Kentucky Certification**

Graduates who are seeking recommendation for initial Kentucky teaching certification must meet these requirements.

1. Complete an approved teacher education program including student teaching.
2. File an application for certification (CA-1) with Teacher Education Services at MSU.
3. Obtain passing scores on the PRAXIS II specialty area tests and the appropriate Principles of Learning and Teaching Test (PLT).
4. Complete all applicable computer literacy and applications requirements.
5. Earn a bachelor’s degree.
6. Pay certification fee to Kentucky Department of Education/Office of Educator Licensure and Effectiveness (formerly EPSB).
7. Send an official transcript to Office of Educator Licensure and Effectiveness (formerly EPSB).

To be recommended for certification in other states, all Kentucky requirements must be met.

**NOTE: Requirements for Kentucky teacher certification may occur after publication of the current Murray State University *Bulletin*. For the most current information, students should check with their academic advisor.**

Student \_\_\_\_\_ Advisor\_\_\_\_\_

Date \_\_\_\_\_ Date \_\_\_\_\_