SENATE PROGRAM PROPOSAL FORM for:						(Do not write in this space)		
<ul> <li>CHECK ONE: ☐ Add, ☐ Change, ☐ Combine, ☐ Drop, ☐ Archive</li> <li>CHECK ONE: ☐ Degree program, ☐ Minor, ☐ Certificate, ☐ Emphasis area</li> </ul>						ROUTING:	Initials	Date
•	CHECK ONE:  ☐ Degree program, ☐	Certificate,   ☐ Emphasis area	a		Academic Affairs	BAT	3/14/13	
From:	Physics & Astronomy App	roved By:	Bernard Feldman	Date:	10/17/12	Graduate School (if applicable)		_
_	Department		Department Chair			Senate C & I	MTA	4/12/13
						Reported to Senate		
From:	Arts & Sciences App	proved By:	Ronald E. Yasbin	Date:	3/13/13	Academic Affairs		
	School or College		Dean					
Title of Degree, Minor, or Certificate Program: Degrees with Certification to teach Physics in Secondary Schools								
Page(s) and year of the current Bulletin listing.								
If other departments are affected by this proposal, please secure "sign-offs" and indicate for each department the following:								
Department Contact Person Phone #								
1.Chemistry			Chris Spilling	hris Spilling 5437 Proposal received:   No major objections,   Obj				Objections
2.Teaching & Learning, College of ED			Carole Basile			oposal received:   No major obj		
3.				Pr	oosal received:   No major objections,   Objections			
	<b>Current Bulletin listing:</b>	Proposed Bulletin listing:			Rationale:			
B.S. degree in Physics, Physics Education Option and B.S. degree in Secondary Education with an Emphasis in Physics. The course sequence below meets the science requirements for Missouri certification for teaching physics at the secondary school level. All candidates must enroll in a program that includes Levels I, II, and III coursework in the College of Education, which includes one semester as a Teacher Intern and one semester of full-time Student Teaching. In addition, students must complete the following Science Core Courses and the courses listed under Physics Endorsement:			B.S. degree in Physics, F. Option and B.S. degree is Education with an Emph The course sequence below requirements for Missouri of teaching physics at the secondidates must enroll in a Levels I, II, and III courses Education, which includes of Teacher Intern and one set Student Teaching. In addit complete the following Sciette courses listed under Physics 1.	in Second lasis in Pl w meets the certification condary so in program work in the one semes mester of ion, stude ence Core	lary nysics. e science n for hool level that include c College tter as a full-time nts must Courses a	des of nd		
Science	Core Courses:	Science Core Courses:						
Philosophy PHIL 3380, Philosophy of Science			Philosophy PHIL 3380, Philosophy of Science					
BIOL 1811, Introductory Biology I: From Molecules to Organisms BIOL 2102, General Ecology or another Environmental Science CHEM 1111, Introductory Chemistry I CHEM 1121, Introductory Chemistry II PHYSICS 2111, Physics: Mechanics and Heat PHYSICS 2112, Physics: Electricity, Magnetism,			BIOL 1811, Introductory Biology I: From Molecules to Organisms BIOL 2102, General Ecology or another Environmental Science CHEM 1111, Introductory Chemistry I CHEM 1121, Introductory Chemistry II PHYSICS 2111, Physics: Mechanics and Heat PHYSICS 2112, Physics: Electricity, Magnetism					

and Optics

**GEOL 1001,** General Geology or **ATM SCI 1001,** Elementary Meteorology or **ASTRON 10xx** 

Physics Endorsement
Physics
PHYSICS 3200, Mathematical Methods of
Theoretical Physics
PHYSICS 3221, Mechanics

**PHYSICS 3223,** Electricity and Magnetism **PHYSICS 3231,** Introduction to Modern Physics

PHYSICS 4310, Modern Electronics PHYSICS 4311, Advanced Physics Laboratory I PHYSICS 4802, or SEC ED 3240, Methods of

Teaching Science in Secondary Schools **PHYSICS 4837,** Teaching Intern Seminar

and Optics

**GEOL 1001,** General Geology or **ATM SCI 1001,** Elementary Meteorology or **ASTRON 10xx** 

Physics Endorsement
Physics
PHYSICS 3200, Mathematical Methods of
Theoretical Physics

PHYSICS 3221, Mechanics

**PHYSICS 3223,** Electricity and Magnetism **PHYSICS 3231,** Introduction to Modern Physics

PHYSICS 4310, Modern Electronics

PHYSICS 4311, Advanced Physics Laboratory I SEC ED 3240, Methods of Teaching Science in

Secondary Schools

SEC ED 4837, Chemistry/Physics Teaching Seminar

Dropping Phy 4802 & Phy 4837; because of changes to Sec. ED with which the courses are cross-listed. Physics is dropping its versions and they are being replaced by Secondary Ed versions

Revised: October, 2008