



CHANGING GRADUATION REQUIREMENTS IN A MAJOR

The addition or removal of any graduation requirement in a major requires that this form, accompanied by any supporting documentation, be completed and approved as indicated below.

College/School College of Science and Liberal Arts

Department Physics and Space Sciences

Degree level Undergraduate

Program title Physics

To be initiated with catalog year 2005/2006

APPROVALS

Upon completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee for approval below and forward to Registrar's Office.

<u>Bundy</u>	<u>10/1/03</u>	_____	_____
Originator	Date	Chair, Graduate Council	Date
<u>Bundy</u>	<u>10/1/03</u>		
Department Head/Program Chair	Date	OR	
<u>R. H. Ford</u>	<u>10/16/03</u>	_____	_____
Dean or Associate Dean	Date	Chair, Undergraduate Curriculum Committee	Date

Registrar's Use Only

Operator Init _____

Date _____

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Department of Physics and Space Sciences
M E M O R A N D U M

TO: Chair, Undergraduate Curriculum Committee

FROM: Dr. Laszlo Baksay, Head, Professor, Physics and Space Sciences LB

DATE: August 27, 2003

SUBJECT: Changing Graduation Requirements in a Major
Program Title: Physics

The Department of Physics and Space Sciences requests a change in the Physics Program Degree Requirements for the 2005/2006 university catalog as follows:

Senior Year
Spring

Change Humanities or Social Science elective (3) credits
to
Free Elective (3) credits

(See attached copy of 2003/2004 catalog, page 110)

Reason: The Humanities and Social Science university core requirements are already fulfilled in the PSS curriculum. A free elective will allow students a broader spectrum of choices.

Florida Institute of Technology

Visiting Assistant Professor

Sandra Clements, Ph.D., *observational astronomy, variability studies of quasars, blazars and other active galactic nuclei.*

Adjunct Professor

Marcelo Alonso, Ph.D.

Professors Emeriti

Joel H. Blatt, Ph.D.; Jay Burns, Ph.D.; James D. Patterson, Ph.D.

Director of Undergraduate Laboratories

J.A. Gering, M.S.

Bachelor of Science Degree Program

Physics is the discipline most directly concerned with understanding the physical world on a fundamental level. As such, it covers an extremely broad range of subjects and areas of specialization that seek to unify and understand this diversity in terms of the smallest possible number of laws and principles. A physicist must, therefore, receive a broad, general training in science. Mathematics, a primary tool, must be developed, as well as experimental laboratory skills. Most important is the development of a variety of problem-solving skills and a critical, incisive approach to physical problems. The curriculum includes core courses in physics, mathematics and related sciences, plus a liberal mixture of applied courses from engineering fields and an enriching selection of humanities electives. Students considering a career in medicine or other health sciences should consider the physics preprofessional option detailed below. A degree in physics provides an excellent background for entering the health sciences.

Undergraduate Research

A major activity of the department is research. The department possesses good instrumentation required for research in selected areas of physics. Participation in research programs by undergraduates is strongly encouraged. A maximum of six semester hours of research can be used to fulfill technical and free elective requirements.

Degree Requirements

Candidates for the Bachelor of Science in Physics must complete the course requirements listed in the following sample curriculum. Because the subject matter of general physics forms a critically important foundation for all advanced physics courses, the minimum grade for satisfying the prerequisite requirements for a physics major is a grade of C for each of the following courses: PHY 1001, PHY 2002, PHY 2003, PHY 2091 and PHY 2092.

Freshman Year

	CREDITS
FALL	
CHM 1101 Chemistry 1	4
COM 1101 Composition and Rhetoric	3
MTH 1001 Calculus 1	4
PHY 1050 Physics and Space Science Seminar	1
SPS 1010 Introduction to Astronomy	3
	15
SPRING	
CHM 1102 Chemistry 2	4
COM 1102 Writing about Literature	3
MTH 1002 Calculus 2	4
PHY 1001 Physics 1	4
PHY 2001 Physics Lab 1	1
	16

Sophomore Year

	CREDITS
FALL	
CSE 15xx Restricted Elective (Computer Science)	3
HUM 2051 Civilization 1	3
MTH 2001 Calculus 3	4
PHY 2002 Physics 2	4
PHY 2092 Physics Lab 2	1
	15
SPRING	
HUM 2052 Civilization 2	3
MTH 2201 Differential Equations/Linear Algebra	4
PHY 2003 Modern Physics	3
Social Sciences Elective	3
Free Elective	3
	16

Junior Year

	CREDITS
FALL	
COM 2223 Scientific/Technical Communication	3
MTH 3101 Complex Variables	3
PHY 3011 Physical Mechanics	4
PHY 3060 Thermodynamics, Kinetic Theory and Statistical Mechanics	4
Free Elective	3
	17
SPRING	
MTH 3201 Boundary Value Problems	3
PHY 3035 Quantum Mechanics	4
PHY 3152 Electronic Measurement Techniques	4
PHY 3440 Electromagnetic Theory	3
Humanities Elective	3
	17

Senior Year

	CREDITS
FALL	
PHY 4200 Optics	3
PHY 4021 Experiments in Optics	1
PHY 4033 Introduction to Solid State Physics	3
PHY 4200 Senior Seminar 1	1
Restricted Elective (MTH or CSE)	3
Technical Elective or Senior Research	3
Free Elective	3
	17
SPRING	
PHY 4030 Introduction to Subatomic Physics	3
PHY 4071 Senior Lab 2	2
PHY 4210 Senior Seminar 2	1
Free Elective	3
Humanities or Social Science Elective	3
Technical Elective or Senior Research	3
	15
TOTAL CREDITS REQUIRED 128	

Preprofessional Physics Option

This option offers the courses needed to meet the entrance requirements of essentially all schools of medicine, dentistry, osteopathic medicine, podiatry and optometry, as well as the nonagricultural courses for veterinary medicine. The preprofessional adviser has up-to-date information on admission requirements for most professional schools, including appropriate admission tests. The preprofessional committee provides the professional schools with required evaluations of student performance. A student contemplating admission to a professional school should consult the preprofessional adviser early in the program.

Copy from 2003-2004
Catalog