

Grove City College Status Sheet

Status Sheets are provided as a convenience for the student and may be helpful for recording completed courses. However, the College Bulletin is the controlling authority on all requirements. Questions should be directed to your academic advisor or the Registrar.

(WI)=Writing Intensive, (SI)=Speaking Intensive, (IL)=Information Literacy courses.

B.S. in Physics/Computer with Software
Option
Entering in 2023
(REVISED 03-09-2023)

Name: _____
ID# _____
Year of Anticipated Graduation: _____

Date: _____
Advisor: _____

TOTAL HOURS REQUIRED FOR THIS DEGREE-----	128 HOURS
General Education + Elective Requirements-----	38-40 HOURS

Minimum CQPA and MQPA required for graduation-----	2.00
MQPA Courses-----	ASTR; COMP; PHYS; ELEE; MATH 222
Major Requirements-----	88-90 HOURS

GENERAL EDUCATION REQUIREMENTS-----			24 HOURS	
		Cr.	Sem. Taken	Grade
HUMANITIES CORE-----			15 HOURS	
HUMA 102	Civ and the Biblical Revelation (IL)*	3	_____	_____
HUMA 200	Western Civilization	3	_____	_____
HUMA 202	Civilization and Literature	3	_____	_____
HUMA 301	Civilization and the Arts	3	_____	_____
HUMA 303	Christianity and Civilization	3	_____	_____

PHYSICS CORE REQUIREMENTS-----			40 HOURS	
		Cr.	Sem. Taken	Grade
PHYS 101	General Physics I - Engineering	4	<hr/>	<hr/>
PHYS 102	General Physics II - Engineering	4	<hr/>	<hr/>
PHYS 135	Horizons in Physics	1	<hr/>	<hr/>
PHYS 234	Modern Physics	3	<hr/>	<hr/>
PHYS 242	Introduction to Theoretical Physics	3	<hr/>	<hr/>
PHYS 288	Intermediate Laboratory (WI)	2	<hr/>	<hr/>
PHYS 303	Mechanics I	3	<hr/>	<hr/>
PHYS 321	Radiation Laboratory (SI) (IL)	2	<hr/>	<hr/>
PHYS 442	Computational Methods in Physics	3	<hr/>	<hr/>
ASTR 207	Introduction to Stars, Galaxies, & Cosmology	3	<hr/>	<hr/>
COMP 141	Computer Programming I	3	<hr/>	<hr/>
COMP 244	Database Management Systems	3	<hr/>	<hr/>
COMP 342	Data Communication and Networking	3	<hr/>	<hr/>
COMP 424	Parallel and Distributed Computing	3	<hr/>	<hr/>

*The year-long sequence of RELI 211 and 212 may substitute for this course.

WRITING REQUIREMENT-----			3 HOURS
WRIT 101	Found. of Academic Discourse (IL)	3	

STUDIES IN SCIENCE, FAITH, & TECHNOLOGY (SSFT)-----		2 HOURS
Choose one course from the following:		
COMP 205/SSFT 205 Ethics, Faith, and the Conscious Mind		
PHIL 243	Science and the Human: Inquiry, Design, & the Person	
SSFT 210	Science & Religion	
SSFT 212	Science, Faith, Technology, & Origins	
	2	

FOUNDATIONS OF THE SOCIAL SCIENCES----- 3 HOURS			
Choose one course from the following:			
ECON 120	Foundations of Economics	PSYC 101	Found. of Psychology
HIST 120	Foundations of History	PSYC 200	Cross-Cultural Psychology
HIST 141	World Geography	SOCI 101	Foundations of Sociology
HIST 204	Hist/Phil Foundations of Education	SOCI 103	Found. of Cultural Anthr.
POLS 101	Foundations of Political Science	SOCW 101	Found. of Social Work
3			

QUANTITATIVE/LOGICAL REASONING-----	0 HOURS
College requirements met through major-related coursework.	

NATURAL SCIENCES (with labs) -----	0 HOURS
College requirements met through major-related coursework.	

PHYSICAL EDUCATION-----		1 HOURS
PHYE 100	Healthful Living	1

GENERAL ELECTIVES-----	14-16 HOURS

TECHNICAL ELECTIVES-----	3 HOURS
Choose ONE of the following:	
PHYS 304 Mechanics II, PHYS 305 Electricity and Magnetism; PHYS 340 Thermodynamics and Statistical Mechanics, PHYS 421 Advanced Topics, or PHYS 431 Quantum Mechanics, or ASTR 310 Astrophysics.	
	3

COMPUTER SOFTWARE REQUIREMENTS-----			25-27 HOURS	
COMP 220	Computer Programming II	3	_____	_____
COMP 222	Introduction to Data Structures/Algorithms	3	_____	_____
COMP 325	Computer Architecture and Organization	3	_____	_____
COMP 340	Operating Systems	3	_____	_____
COMP 350	Software Engineering	3	_____	_____
PHYS 210	Electronics	4	_____	_____

Choose TWO of the following (6-8 hours):			
ELEE 204; COMP 480 or PHYS 270/370/470 (Limit 3 hrs); COMP 314 or any 400-level COMP course; MATH 213*, 222*.			

*If you complete MATH 213 and 222, you will receive a minor in Mathematics.

TECHNICAL CORE REQUIREMENTS (Science, Math, etc.)-----				20 HOURS	
CHEM 105	Chemistry for Engineers	4			
MATH 161	Calculus I	4			
MATH 162	Calculus II	4			
MATH 261	Calculus III	4			
MATH 262	Differential Equations	3			
MATH 263	Numerical Differential Equations	1			

SAMPLE FOUR-YEAR PLAN for the BACHELOR OF SCIENCE IN PHYSICS/COMPUTER with SOFTWARE OPTION

Freshman Year

<u>Fall</u>	<u>Credits</u>	<u>Spring</u>	<u>Credits</u>
PHYS 101 General Physics I.....	4	PHYS 102 General Physics II.....	4
PHYS 135 Horizons in Physics.....	1	COMP 220 Computer Programming II.....	3
COMP 141 Computer Programming I.....	3	MATH 162 Calculus II.....	4
MATH 161 Calculus I.....	4	HUMA 102 Civ and the Biblical Revelation.....	3
WRIT 101 Foundations of Academic Discourse.....	<u>3</u>	PHYE 100 Healthful Living.....	<u>1</u>
	15		15

Sophomore Year

<u>Fall</u>	<u>Credits</u>	<u>Spring</u>	<u>Credits</u>
CHEM 105 Chemistry for Engineers.....	4	PHYS 234 Modern Physics.....	3
MATH 213 Discrete Mathematics for Comp. Science***...	3-4	PHYS 242 Introduction to Theoretical Physics.....	3
MATH 261 Calculus III.....	4	PHYS 288 Intermediate Laboratory.....	2
HUMA 200 Western Civilization.....	3	ASTR 207 Introduction to Stars, Galaxies, & Cosmology.....	3
Electives*.....	<u>2-3</u>	SSFT Course.....	2
	17	Electives*.....	<u>3</u>
			16

Junior Year

<u>Fall</u>	<u>Credits</u>	<u>Spring</u>	<u>Credits</u>
PHYS 210 Electronics.....	4	PHYS 321 Radiation Laboratory.....	2
PHYS 303 Mechanics I.....	3	PHYS 442 Computational Methods in Physics**.....	3
COMP 222 Data Structures and Algorithms.....	3	COMP 342 Data Communication and Networking.....	3
Technical Elective.....	3	COMP 424 Parallel and Distributed Computing.....	3
HUMA 301 Civilization and the Arts.....	<u>3</u>	HUMA 202 Civilization and Literature.....	3
	16	Electives*.....	<u>3</u>
			17

Senior Year

<u>Fall</u>	<u>Credits</u>	<u>Spring</u>	<u>Credits</u>
COMP 244 Database Management Systems.....	3	COMP 340 Operating Systems.....	3
COMP 305 Computer Architecture and Organization.....	3	COMP 350 Software Engineering.....	3
Foundations of Social Science Course.....	3	MATH 262 Differential Equations.....	3
HUMA 303 Christianity and Civilization.....	3	MATH 263 Numerical Differential Equations.....	1
Electives*.....	<u>4</u>	Electives*.....	<u>6</u>
	16		16

* 3-4 credits will be fulfilled by a Computer Software Requirement choice.

** The sequencing of MATH 262/263 and PHYS 442 may alternate because PHYS 442 is taught every other year.

*** Recommended Computer Software Requirement selection.