Degree Requirements for the B.S. in Chemical Physics

The B.S. in Chemical Physics requires at least 120 credit hours, including at least 73 credit hours of chemistry requirements (listed below in a checklist format).

General Chemistry

Course	Title	Credits
CHEM 121	General Chemistry I	3
CHEM 122	General Chemistry II	3
CHEM 123	General Chemistry Laboratory I	1
CHEM 124	General Chemistry Laboratory II	1

Chemistry Foundation

Course	Title	Credits
CHEM 211 and 213 or CHEM 219	Organic Chemistry I and Organic Chemistry Discussion I *or* Organic Chemistry I Honors	3
CHEM 215 or 365	Organic Chemistry Laboratory	2
CHEM 301*	Physical Chemistry I	3
CHEM 302*	Physical Chemistry II	3

*CHEM 301 and 302 have a prerequisite of PHYS 101/125/111 or AP/IB equivalent.

Physics Foundation

Course	Title	Credits
PHYS 101 and 103 or PHYS 111	Mechanics (with lab) and Mechanics Discussion *or* Honors Mechanics (with lab)	3
PHYS 102 and 104 *or* PHYS 112	Electricity and Magnetism (with lab) and Discussion *or* Honors Electricity and Magnetism (with lab)	4
PHYS 201	Waves, Lights, and Heat	3
PHYS 202	Modern Physics	3
PHYS 231	Elementary Physics Lab	1
PHYS 301	Intermediate Mechanics	4
PHYS 302	Intermediate Electrodynamics	4

Mathematics Foundation

Course	Title	Credits
MATH 101 *or* 105	Single Variable Calculus I *or* AP/OTH credit in Calculus I	3
MATH 102 *or* 106	Single Variable Calculus II *or* AP/OTH credit in Calculus II	3
MATH 211 *or* 220, *or* MATH 221	Ordinary Differential Equations and Linear Algebra *or* Honors Ordinary Differential Equations *or* Honors Calculus III	3
MATH 212 *or* 222 *or* MATH 232	Multivariable Calculus *or* Honors Calculus IV *or* Honors Multivariable Calculus	3

Additional Lecture Courses – 9 Credit Hours

	Course
Select three from:	PHYS 311 – Introduction to Quantum Physics PHYS 312 *or* CHEM 430 – Intro to Quantum Physics II *or* Quantum Chemistry CHEM 360 – Inorganic Chemistry CHEM 415 *or* CHEM 420 *or* PHYS 425 – Chemical Kinetics and Dynamics *or* Classical and Statistical Thermodynamics *or* Statistical and Thermal Physics

Additional Laboratory Courses*– 4 Credit Hours

Course	Credits
Select two from:	CHEM 366* – Inorganic Chemistry Lab CHEM 367* – Materials Chemistry Lab CHEM 368* – Chemical Measurement Lab CHEM 491 or PHYS 461** – Research for Undergraduates *or* Independent Research (up to 2 hours) PHYS 332 – Junior Physics Lab II

*CHEM 365 is a prerequisite to CHEM 366, 367, 368.
Note: Up to two (2) hours of CHEM 391, CHEM 491, PHYS 461, or PHYS 462 may be counted toward this requirement.

Additional Mathematics Courses

Course	Credits
Select two from:	300 level or above MATH or CMOR course