



School of Mathematics & Sciences  
LINCOLN MEMORIAL UNIVERSITY

**Bachelor of Science  
Chemical Physics  
Four Year Curriculum Plan**

The following is a suggested four year plan of study for freshmen entering LMU during the 2017 academic year. Transfer students should contact the department chair to determine how their credits will apply. This plan is to be used in conjunction with the university catalog & advice of the faculty advisor. Courses on the plan may be taken in semesters other than those listed based upon availability & course placement. This plan meets LMU's Liberal Art Common Core requirements, major requirements & 300/400 level course requirements. For more information refer to the Undergraduate Course Catalog or your advisor.

**First Year**

**Fall**

CHEM 111 General Chemistry I w/Lab	4
MATH 150 Calculus I	4
ISYS 100 Computer Literacy	2
ENGL 101 Composition 1	3
LNCN 100 Lincoln's Life & Legacy	1
UACT 100 Strategies for College Success	2

**TOTAL 16**

**Spring**

CHEM 112 General Chemistry II w/Lab	4
MATH 250 Calculus II	4
COSC 160 Intro. to Comp. Prog. for Math & Sci.	3
Elective	3
ENGL 102 Composition 2	3

**TOTAL 17**

**Second Year**

**Fall**

PHYS 211 General Physics I w/Lab	4
PHYS 215 Applic. of Calculus to Gen. Physics	1
CHEM 221 Organic Chemistry I w/Lab	4
Soc./Behav. Science Requirement	3
HIST 121 or 131	3

**TOTAL 15**

**Spring**

PHYS 212 General Physics II w/Lab	4
PHYS 216 Applic. of Calculus to Gen. Physics	1
CHEM 222 Organic Chemistry II w/Lab	4
ENGL 240, 250, or 260	3
HIST 122 or 132	3

**TOTAL 15**

**Third Year**

**Fall**

CHEM 331 Quant. & Instrumental Analy. I	4
PHYS 320 Modern Physics	3
Elective	3
Fine Art Requirement	3
CHEM 310 Mathematical Methods in Chemistry	4

**TOTAL 17**

**Spring**

CHEM 397 Junior Science Seminar	1
Elective	3
CHEM 332 Quant. & Instrumental Analy. II	4
Elective	3
LNCN 300 American Citizenship	1
Elective	3

**TOTAL 15**

**Fourth Year**

**Fall**

PHYS 350 Introduction to Electronics	3
COMM 200 Fund. of Speech Communications	3
CHEM 451 Physical Chemistry I w/Lab	4
Elective	3
Fine Art /Humanities/Ethics Requirement	3

**TOTAL 16**

**Spring**

CHEM 497 Senior Science Seminar	1
CHEM 460 Inorganic Chemistry	3
CHEM 452 Physical Chemistry II w/Lab	4
Soc./Behav. Science Requirement	3
Elective	3
Elective	3

**TOTAL 17**

**Total Hours 128**

**PHYS 215 Applications of Calculus to General Physics (1 cr. hr.)**

An extension to PHYS 211 developing the same concepts (mechanics, waves and thermal physics) from a calculus based approach. Both differential and integral calculus will be used to solve problems as well as including a more rigorous treatment of vectors. Prerequisite: PHYS 211 with the lab, MATH 150.

**PHYS 216 Applications of Calculus to General Physics II ( 1 cr.hr.)**

An extension to PHYS 212 developing the same concepts (electricity, magnetism, circuits and optics) from a calculus-based approach. Both differential and integral calculus will be used to solve problems, as well as including a more rigorous treatment of vectors. Prerequisite: PHYS 212 with the lab, MATH 250.

**PHYS 320 Modern Physics (3 cr. hrs.)**

An introduction to the concepts of modern physics. Topics include relativistic dynamics, quantum mechanics, statistical physics, particle physics and solid state physics. Prerequisites: PHYS 212, PHYS 216.

**PHYS 360 Introduction to Electronics (3 cr. hrs)**

An introductory course to serve as a survey of electronics, particularly as applicable to laboratory work. Topics include basic electronic components, circuits, op-amps, data acquisition and instrumentation interfacing. Prerequisite: PHYS 212