

# UNLV \*B.S. Physics (PHY) 2012-2014 Catalog

## \*UNLV UNIVERSITY AND COLLEGE OF SCIENCES GRADUATION REQUIREMENTS\*

120 total credits:	The minimum number of semester credits required for a bachelor's degree for a student graduating under the regulations of the 2012 - 2014 Undergraduate Catalog is 120.
Last 30 credits @ NSHE school:	A candidate for the baccalaureate degree must complete the last 30 UNLV semester credits in uninterrupted resident credit as a declared major in the degree-granting college. A student must declare a major prior to enrolling in the last 30 UNLV resident credits. (Special examination, physical education activity courses, or correspondence credits are exempted.)
½ credits from a four-year school:	At least half of the total credits required for a baccalaureate degree at the institution must be earned at a four-year institution.
Graduation GPA 2.0:	In order to graduate, an undergraduate student shall have a minimum cumulative grade point average of 2.00 for the total of all college-level credit attempted at the University of Nevada, Las Vegas (UNLV GPA). College and department GPA requirements must also be met. The College of Sciences requires a cumulative GPA of at least 2.00 for all courses in the major field.
40 upper division credits (300-400):	The College of Sciences requires that of the total 120 credits required for the degree, at least 40 credits must be in courses numbered 300 or higher. These include all 300 and 400 level classes taken at UNLV, including those required for the major.

## \*UNLV GENERAL EDUCATION CURRICULUM REQUIREMENTS\*

	30-45 credits
General education curriculum requirements for students with majors in the College of Sciences. With the exception of the Multicultural/International course requirement, UNLV general education core courses cannot be duplicated across general education core curriculum requirements.	12-21 credits
<b>FIRST YEAR SEMINAR (FYS) REQUIREMENT:</b> Any first year seminar class; (required for First-time Freshmen or change of majors with less than 30 credits, or any student that attended community college high school); must be completed by the end of the freshman year; SCI-101 strongly recommended for science and math majors.	2-3 credits
<b>SECOND YEAR SEMINAR (SYS) REQUIREMENT:</b> Any second year seminar class (currently ENG 231 or 232); required of all Sophomores, including transfer students and change of majors with less than 60 credits.	3 credits
<b>ENGLISH COMPOSITION REQUIREMENT:</b> ENG 101 or ENG 101W or ENG 113 or [ENG 101E+101F], and ENG 102, ENG 114 or HON – see Advisement Report in MyUNLV. Must be completed by the end of the sophomore year.	3-9 credits
<b>CONSTITUTIONS REQUIREMENT:</b> Satisfactory completion of courses examining the constitutions of both the United States and the State of Nevada. <i>Transfer</i> students who have already successfully completed a satisfactory 3 semester-credit U.S. Constitutions course from a regionally-accredited institution must successfully complete a satisfactory Nevada Constitutions course (PSC 100 recommended). See Advisement Report in MyUNLV.	4-6 credits
<b>MATHEMATICS REQUIREMENT:</b> The General Education Mathematics requirement will be filled by the math course(s) required in the student's major. Must be completed by the end of the sophomore year. Please see the catalog Admissions Section for current ACT/SAT placement test scores that will guide placement in the appropriate MATH class. Students interested in alternate placement testing should contact the Department of Mathematical Sciences at 702-895-3567.	shown in major below
<b>DISTRIBUTION REQUIREMENTS:</b>	18 credits
<b>HUMANITIES AND FINE ARTS</b> Two courses (three credits each) from two different humanities areas. See Advisement Report in MyUNLV for course choices. One introductory or appreciation course (three credits) from a fine arts area. See Advisement Report in MyUNLV for course choices.	6 credits 3 credits
<b>LIFE AND PHYSICAL SCIENCES AND ANALYTICAL THINKING:</b> Science and Mathematics majors are exempt from this requirement.	N/A
<b>SOCIAL SCIENCES</b> One course each from three different fields for a total of nine credits. Courses used to satisfy the Constitutions requirement may not be used to meet Social Sciences distribution requirements. Note: AAS and ANTH constitute one field. See Advisement Report in MyUNLV for course choices.	9 credits
<b>MULTICULTURAL AND INTERNATIONAL REQUIREMENTS:</b> A minimum of six credits to be composed of a three-credit multicultural requirement and a three-credit international requirement that <i>may simultaneously fulfill other general education core requirements</i> depending on course choices. A single course may not simultaneously meet the multicultural and international requirements. See Advisement Report in MyUNLV for course choices.	6 credits unless simultaneously filling Hum, FA or SocSCI

## \*PHYSICS DEGREE REQUIREMENTS\*

	82-84
<b>PHYSICS REQUIREMENTS:</b> GRADES $\geq$ C REQUIRED	46-48
PHYS 180 Physics for Engineers & Scientists I	3 credits
PHYS 180L Physics for Engineers & Scientists I Lab	1 credit
PHYS 181 Physics for Engineers & Scientists II	3 credits
PHYS 181L Physics for Engineers & Scientists II Lab	1 credit
PHYS 182 Physics for Engineers & Scientists III	3 credits
PHYS 182L Physics for Engineers & Scientists III Lab	1 credit
PHYS 411 Modern Physics I	3 credits
PHYS 413 Intermediate Lab I	3 credits
PHYS 414 Intermediate Lab II	3 credits
PHYS 421 Electricity & Magnetism I	3 credits
PHYS 422 Electricity & Magnetism II	3 credits
PHYS 423 Mechanics I	3 credits
PHYS 424 Mechanics II	3 credits
PHYS 467 Thermodynamics	3 credits
PHSY 481 Quantum Mechanics I	3 credits
PHYS 493 Special Problems	1-3 credits
Choose 6 additional credits of upper division Physics Courses (300 and above)	6 credits
<b>SCIENCE, MATHEMATICS, COMPUTER SCIENCE OR ENGINEERING COURSES:</b>	16 credits with at least 6 credits in upper division courses (300 or above)
<b>MATHEMATICS:</b>	4 credits
MATH181 Calculus I [Prerequisite $\geq$ C in MATH 127 or 128]	4 credits
MATH 182 Calculus II	4 credits
MATH 283 Intermediate Calculus	4 credits
<b>CHEMISTRY:</b>	4 credits
CHEM 121/121L General Chemistry I	4 credits
CHEM 122/122L General Chemistry II	4 credits