

IUPUI School of Science – Bachelor of Science in Physics: Biophysics Option

FIRST-YEAR EXPERIENCE

Windows on Science SCI I120 1 cr. _____
 (With permission another Learning Community may be substituted. Waived only for students who transfer in more than 18 credit hours.)

AREA I - COMMUNICATION

A. English Composition - 6 credits total
 (grade of C or better in each course)

English Composition ENG W131 3 cr. _____

Choose from: ENG W230, W150, W231, W250, W290, W331 or W350, TCM 320 3 cr. _____

B. Speech Communication - 3 credits total
 Speech Communication COMM R110 3 cr. _____

AREA II - FOREIGN LANGUAGE - *not required*

AREA III - GENERAL REQUIREMENTS

A. Humanities, Social Sciences, & Comparative World Cultures
 12 credits total

Arts & Humanities (H) - _____ 3 cr. _____
 Social Science (S) - SOC-R100 3 cr. _____
 Cultural Understanding (C) - _____ 3 cr. _____
 Additional H or S - PSY-B110 3 cr. _____

B. Junior/Senior Integrator – *not required*

Replace with general education course 3 cr. _____

C. Physical and Biological Sciences - 4 lecture courses
 minimum 20 credits total

Principles of Chemistry I CHEM-C105 (3 cr.) _____
 Experimental Chemistry I CHEM-C125 (2 cr.) _____
 Principles of Chemistry II CHEM-C106 (3 cr.) _____
 Experimental Chemistry II CHEM-C126 (2 cr.) _____
 Concepts of Biology I BIOL-K101 (5 cr.) _____
 Concepts of Biology II BIOL-K103 (5 cr.) _____

D. Math and Computer Course Requirements
 minimum 27 credits total

Analytic Geom. & Calculus I MATH 165 (4 cr.) _____
 Analytic Geom. & Calculus II MATH 166 (4 cr.) _____
 Multidimensional Math. MATH 171 (3 cr.) _____
 Multivariate Calculus MATH 261 (4 cr.) _____
 Ordinary Differential Eqns. MATH 266 (3 cr.) _____

One course in Computer Science (3-4 cr.) _____
 (CSCI 23000 or CSCI-N 317)

NOTE: Students must have grades of C– or higher in Area IIID. A grade of D or D+ will be allowed for one course only.

AREA IV - MAJOR COURSES

A. Physics – minimum 30 credits required

Introductory Physics:
 PHYS-P201(5 cr.) or PHYS 152 (4 cr.) _____
 PHYS-P202 (5 cr.) or PHYS 251 (5 cr.) _____

Intermediate Mechanics PHYS 310 (4 cr.) _____

Intermediate E & M PHYS 330 (3 cr.) _____

Modern Physics PHYS 342 (3 cr.) _____

Electronics Lab PHYS 353 (2 cr.) _____

Quantum Mechanics PHYS 442 (4 cr.) _____

Intro to Molecular Biophysics PHYS 585 (3 cr.) _____

Capstone Experience PHYS 490 (3 cr.) _____
 (See departmental sections of bulletin for more information.)

B. Biology – minimum of 13 credits required

Area IIIC BIOL-K101/BIOL-K103 (10 cr.)

Biochemistry BIOL-K 384 (3 cr.) _____

B. Chemistry – minimum of 21 credits required

Area IIIC CHEM-C105, 125/CHEM-C106, C126 (10 cr.)

Organic Chemistry:
 CHEM-C341/C343 (5 cr.) _____

CHEM-C342 (3 cr.) _____

**CHEM-C344 not required but recommended*

Physical Chemistry: Choose one course
 CHEM-C360 (3 cr.) or CHEM-C361 (3 cr.) _____

AREA V – Electives

_____ _____ _____
 _____ _____ _____

A minimum of 124 Credits must be completed for graduation. This total must include at least 32 credit hours in course at the 300-400 level taken at the IUPUI campus. Residence of at least two semester at the IUPUI campus is also required for Graduation.