

BIOPHYSICAL CHEMISTRY MAJOR

Typical Schedule (*TENTATIVE - Expect changes, consult with your advisor*)

<p>First Year Fall (14-17 cr)</p> <p>CHEM 131^{ap, pph} (General Chemistry I) [3] CHEM 135L^{pph} (Special Gen Chem Lab I) [1] MATH 235^{pph} (Calculus I) [4] GenEd Cluster 1 [3] WRTC 103 &/or other GenEd [3-6] ^{ap}If AP Chem = 3-5, CHEM 131/132 [6]</p>	<p>First Year Spring (16 cr)</p> <p>CHEM 132^{ap, pph} (General Chemistry II) [3] CHEM 136L^{pph} (Special Gen Chem Lab II) [2] MATH 236 (Calculus II) [4] BIO 140/140L^{pph} (Foundations of Biology I) [4] GenEd Cluster 1 [3] ^{ap}If CHEM 131/132 is complete, consider CHEM 270 [3]</p>
<p>Second Year Fall (15-17 cr)</p> <p>CHEM 241^{pph} (Organic Chemistry I) [3] CHEM 287L^{pph} (Inorganic/Organic Lab I) [2] PHYS 240^{pph} (University Physics I) [3] PHYS 240L^{pph} (University Physics Lab I) [1] GenEd &/or electives^{e,pph} [6-8] ^eSuggestions: Research, BIO 150^{pph} (Foundtns II) [4]</p>	<p>Second Year Spring (16 cr)</p> <p>CHEM 242^{pph} (Organic Chemistry II) [3] CHEM 270 (Inorganic Chemistry I) [3] CHEM 288L (Inorganic/Organic Lab II) [2] PHYS 250^{pph} (University Physics II) [3] PHYS 250L^{pph} (University Physics Lab II) [1] BIO 240/240L (Genetics) [4] <i>Non-PPH students contact biodept@jmu.edu for permission to enroll in BIO240 w/o the BIO150 pre-req.</i></p>
<p>Third Year Fall (15-18 cr)</p> <p>BIO 480/480L (Adv Molecular Biology) [4] CHEM 351 (Analytical Chemistry) [4] CHEM 361^{pph} (Biochemistry I) [3] MATH 237 (Calculus III) [4] Electives^e [0-3] ^eSuggestions: Research [1-2], MATH 220^{pph} [3]</p>	<p>Third Year Spring (15-17 cr)</p> <p>CHEM 331 (Physical Chemistry I) [3] CHEM 336L (Appl Physical Chemistry Lab) [2] MATH 238 (Linear Algebra with Diff Eq) [4] GenEd &/or electives^e [6-8] ^eSuggestions: Research [1-2]</p>
<p>Fourth Year Fall</p> <p>CHEM 363 (Biophys Chem w/Lit&Sem) [3] CHEM 367L (Biochemistry Lab) [2] CHEM 432 (Physical Chemistry II) [3] Approved elective^e [3-4] GenEd &/or electives^e [3-6] ^eSuggestions: Research, more BIO^{pph}</p>	<p>Fourth Year Spring</p> <p>CHEM 368L (Biophysical Chemistry Lab) [2] Approved elective^e [3-4] GenEd &/or electives^e [10-12] ^eSuggestions: Research, more BIO^{pph}</p>

^eApproved elective courses include: Research (390, 497-499), Chem Hazards (CHEM 325 -F,odd), Environmental Chem (CHEM 353 -Sp,odd), Environmental Field Camp (CHEM 354 -Su), Geochem (CHEM 355 -F), Biochem II (CHEM 362,366L -Sp), Materials (CHEM 375 -F), Intermediate Organic (CHEM 440-F,even), Polymers (CHEM 445,445L -F,odd), Lasers (CHEM 455 -F even), Inorganic II (CHEM 470 -F), Human Genetics (BIO 324 -F), Neurobiology (BIO 445 -V), Math. Models in Bio (BIO/MATH 342-Sp), Biometrics (BIO/MATH 454 -Sp), Prob & Stats (MATH 318), Biophysics (PHYS 326), Physics III (PHYS 260), Modern Physics (PHYS 270), Materials Characterization (PHYS/MATS 381), etc. [See Undergrad Catalog]

^{pph}Most pre-Professional health programs (pre-med, pre-pharm, etc) require: BIO 140,150, CHEM 131,132,135L (or 131L),136L (or 132L), 241, 242, 242L or 287L, MATH 220, 235, PHYS 240, 240L, 250, 250L.

PPH recommendations: CHEM 361 and additional Bio courses.

Pre-med GenEd recommendations: PHIL 120 (C1CT), SOCI 110 (C4GE), PSYC 101 (C5SD).

Pre-Pharm GenEd recommendations: PHIL 150 (C1CT), SCOM 122 (C1HC), ECON (C4GE), PSYC 101 or 160 (C5SD). [See Undergrad Catalog]