

BIOPHYSICS BS PATHWAY

Total Units Required: 190 units

Required Course Listings

This breakdown shows a Biophysics BS Pathway to be completed in 4 years at La Sierra University. All courses with a star (*) indicate a prerequisite or multiple prerequisites for the class. Courses with a dagger (†) are only offered in years ending with an odd number (e.g. 2022-2023 school year) and courses with a double dagger (‡) are only offered in years ending with an even number (e.g. 2023-2034 school year). By following the suggested/required sequencing all necessary prerequisite courses will be fulfilled. Please consult the Bulletin, Records, or your Guided Pathways Advisor for more information about prerequisites.

| Major Requirements (106 units) | | |
|--------------------------------|--------------------------------------|-------|
| Course | Course Title | Units |
| BIOL 111 | General Biology I* | 4 |
| BIOL 111A | General Biology Seminar | 0 |
| BIOL 111L | General Biology I Lab* | 1 |
| BIOL 112 | General Biology II* | 4 |
| BIOL 112L | General Biology II Lab* | 1 |
| BIOL 113 | General Biology III* | 4 |
| BIOL 113L | General Biology III Lab* | 1 |
| BIOL 301 | Cell & Molecular Biology* | 4 |
| PHYS 219 | Introduction to Biophysics | 1 |
| PHYS 231A/B | Physics I (General or University)* | 4 |
| PHYS 231L | General Physics I Lab* | 1 |
| PHYS 232A/B | Physics II (General or University)* | 4 |
| PHYS 232L | General Physics II Lab* | 1 |
| PHYS 233A/B | Physics III (General or University)* | 4 |
| PHYS 233L | General Physics III Lab* | 1 |
| PHYS 301 | Mathematical Physics* | 4 |
| PHYS 326 | Human Body Mechanics* | 4 |
| PHYS 336 | Physics of Biomaterials*‡ | 4 |
| PHYS 346 | Biomedical Imaging*‡ | 4 |
| PHYS 356 | Cellular Physics*† | 4 |
| PHYS 385 | Physics Seminar I | 1 |
| PHYS 389 | Rhetorical Experiences in Physics | 0 |
| PHYS 415 | Advanced Physics Lab I* | 2 |
| PHYS 464 | Statistical & Thermal Physics*† | 4 |
| PHYS 485 | Physics Seminar II | 1 |
| PHYS b00 | Biophysics Elective* | 6 |
| CHEM 111 | General Chemistry I | 4 |
| CHEM 111L | General Chemistry I Lab | 1 |
| CHEM 112 | General Chemistry II* | 4 |
| CHEM 112L | General Chemistry II Lab* | 1 |
| CHEM 113 | General Chemistry III* | 4 |
| CHEM 113L | General Chemistry III Lab* | 1 |
| CHEM 281 | Organic Chemistry I* | 4 |
| CHEM 281L | Organic Chemistry I Lab* | 1 |
| CHEM 282 | Organic Chemistry II* | 4 |
| CHEM 282L | Organic Chemistry II Lab* | 1 |
| MATH 131 | Calculus I* | 4 |
| MATH 132 | Calculus II* | 4 |
| MATH 133 | Calculus III* | 4 |

| General Education Requirements (84 units) | | |
|---|---|-------|
| Course | Course Title | Units |
| UNST 101 | First Year Seminar | 3 |
| ENGL 111 | College Writing I | 3 |
| ENGL 112 | College Writing II* | 3 |
| ENGL 113 | College Writing III* | 3 |
| WDLG 151 | World Language I | 4 |
| WDLG 152 | World Language II* | 4 |
| WDLG 153 | World Language III* | 4 |
| HLSC 120 | Lifetime Fitness | 2 |
| SSCI 20X-SL | SSCI Theme Course (with Service Learning) | 4 |
| THM1 X00 | Theme I Elective | 4 |
| HUMN 10X | HUMN Theme Course | 4 |
| THM2 X00 | Theme II Elective | 8 |
| RLGN 304 | Adventism in Global Perspective* | 4 |
| RELB X00 | Theme IIIBiii - Scripture Elective | 4 |
| THM3 3/400 | Theme III Elective Upper Division* | 4 |
| THM3 X00 | Theme III Elective | 4 |
| NSCI 40X-SL | NSCI Theme Course (with Service Learning)* | 4 |
| UNST 404U-SL | Senior Seminar: Religion, Values & Social Responsibility (with Service Learning)* | 4 |
| elct 3/400 | Upper Division Elective | 12 |
| elct X00 | Elective | 2 |

Sequencing

Biophysics BS Pathway in 4 years at La Sierra University.

| Year 1 | | | Year 1 | | | Year 1 | | |
|-------------------------|--|-------|---------------------------|-------------------------------------|-------|---------------------------|---|-------|
| Fall Quarter (15 units) | | | Winter Quarter (17 units) | | | Spring Quarter (17 units) | | |
| Course | Course Title | Units | Course | Course Title | Units | Course | Course Title | Units |
| BIOL 111 | General Biology I* | 4 | BIOL 112 | General Biology II* | 4 | BIOL 113 | General Biology III* | 4 |
| BIOL 111A | General Biology Seminar | 0 | BIOL 112L | General Biology II Lab* | 1 | BIOL 113L | General Biology III Lab* | 1 |
| BIOL 111L | General Biology I Lab* | 1 | MATH 132 | Calculus II* | 4 | MATH 133 | Calculus III* | 4 |
| MATH 131 | Calculus I* | 4 | ENGL 112 | College Writing II* | 3 | ENGL 113 | College Writing III* | 3 |
| ENGL 111 | College Writing I | 3 | UNST 101 | First Year Seminar | 1 | UNST 101 | First Year Seminar | 1 |
| HLSC 120 | Lifetime Fitness | 2 | HUMN 10X | HUMN Theme Course | 4 | THM2 X00 | Theme II Elective | 4 |
| UNST 101 | First Year Seminar | 1 | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Year 2 | | | Year 2 | | | Year 2 | | |
| Fall Quarter (14 units) | | | Winter Quarter (14 units) | | | Spring Quarter (15 units) | | |
| Course | Course Title | Units | Course | Course Title | Units | Course | Course Title | Units |
| PHYS 231A/B | Physics I (General or University)* | 4 | PHYS 232A/B | Physics II (General or University)* | 4 | PHYS 219 | Introduction to Biophysics | 1 |
| PHYS 231L | General Physics I Lab* | 1 | PHYS 232L | General Physics II Lab* | 1 | PHYS 233A/B | Physics III (General or University)* | 4 |
| CHEM 111 | General Chemistry I | 4 | CHEM 112 | General Chemistry II* | 4 | PHYS 233L | General Physics III Lab* | 1 |
| CHEM 111L | General Chemistry I Lab | 1 | CHEM 112L | General Chemistry II Lab* | 1 | CHEM 113 | General Chemistry III* | 4 |
| SSCI 20X-SL | SSCI Theme Course (with Service Learning) | 4 | THM1 X00 | Theme I Elective | 4 | CHEM 113L | General Chemistry III Lab* | 1 |
| | | | | | | elct 3/400 | Upper Division Elective | 4 |
| | | | | | | | | |
| | | | | | | | | |
| Year 3 | | | Year 3 | | | Year 3 | | |
| Fall Quarter (16 units) | | | Winter Quarter (16 units) | | | Spring Quarter (17 units) | | |
| Course | Course Title | Units | Course | Course Title | Units | Course | Course Title | Units |
| BIOL 301 | Cell & Molecular Biology* | 4 | PHYS 336 | Physics of Biomaterials*‡ | 4 | PHYS 346 | Biomedical Imaging*‡ | 4 |
| PHYS 301 | Mathematical Physics* | 4 | PHYS 385 | Physics Seminar I | 1 | CHEM 282 | Organic Chemistry II* | 4 |
| PHYS 326 | Human Body Mechanics* | 4 | PHYS 415 | Advanced Physics Lab I* | 2 | CHEM 282L | Organic Chemistry II Lab* | 1 |
| THM2 X00 | Theme II Elective | 4 | CHEM 281 | Organic Chemistry I* | 4 | RELB X00 | Theme IIIBiii - Scripture Elective | 4 |
| | | | CHEM 281L | Organic Chemistry I Lab* | 1 | elct 3/400 | Upper Division Elective | 4 |
| | | | elct 3/400 | Upper Division Elective | 4 | | | |
| | | | | | | | | |
| Year 4 | | | Year 4 | | | Year 4 | | |
| Fall Quarter (16 units) | | | Winter Quarter (17 units) | | | Spring Quarter (16 units) | | |
| Course | Course Title | Units | Course | Course Title | Units | Course | Course Title | Units |
| PHYS b00 | Biophysics Elective* | 4 | PHYS 464 | Statistical & Thermal Physics*† | 4 | PHYS 356 | Cellular Physics*† | 4 |
| WDLG 151 | World Language I | 4 | PHYS 485 | Physics Seminar II | 1 | PHYS 389 | Rhetorical Experiences in Physics | 0 |
| NSCI 40X-SL | NSCI Theme Course (with Service Learning)* | 4 | PHYS b00 | Biophysics Elective* | 2 | UNST 404U-SL | Senior Seminar: Religion, Values & Social Responsibility (with Service Learning)* | 4 |
| RLGN 304 | Adventism in Global Perspective* | 4 | WDLG 152 | World Language II* | 4 | WDLG 153 | World Language III* | 4 |
| | | | THM3 X00 | Theme III Elective | 4 | THM3 3/400 | Theme III Elective Upper Division* | 4 |
| | | | elct X00 | Elective | 2 | | | |