## ACCELERATED PLAN

# Bachelor of Science in Biomedical Physics (BS) to Master of Science in Medical Physics (MS)

| FALL COURSES | CREDITS | SPRING COURSES | CREDITS | SUMMER, TRANSFER AND PRE-CU COURSES | CREDITS |
|---|---|---|---|---|---|
| RSP: Intro to Collegiate Life | 0.5 | RSP: Intro to Collegiate Life | 0.5 | | |
| Critical Issues | 3 | Composition | 3 | | |
| Oral Communications | 1 | Philosophical Ideas | 3 | | |
| General Physics I (PHY 213 -***OR***- 221) | 3 | General Physics II (PHY 214 -***OR***- 222) | 3 | | |
| General Physics Lab (PHY 205 -***OR***- PHY 223) | 1 | General Physics Lab (PHY 206 -***OR***- PHY 224) | 1 | | |
| MTH 245 Calculus I | 4 | CHM 205 General Chemistry II | 3 | | |
| CHM 203 General Chemistry I | 3 | CHM 206 General Chemistry Lab II | 1 | | |
| CHM 204 General Chemistry Lab I | 1 | MTH 246 Calculus II | 4 | | |
| **TERM SUBTOTAL:** | **16.5** | **TERM SUBTOTAL:** | **18.5** | | |
| | | Biblical Traditions | 3 | | |
| | | Understanding Social Science | 3 | | |
| Christian Tradition | 3 | PHY 471 Classical Mechanics | 3 | | |
| Global Perspectives | 3 | PHY 497 Directed Independent Research | 1 | | |
| BIO 201 General Biology I | 3 | BIO 202 General Biology II | 3 | | |
| BIO 205 General Biology I Lab | 1 | BIO 206 General Biology II Lab | 1 | | |
| MTH 347 Calculus III | 3 | MTH 350 Applied Linear Algebra and Differential Equations | 3 | | |
| PHY 301 Modern Physics | 3 | | | | |
| PHY 397 Research Methods | 2 | | | | |
| **TERM SUBTOTAL** | **18** | **TERM SUBTOTAL:** | **17** | | |
| Doing Social Science | 3 | Ethics | 3 | | |
| BIO 333 Comparative Vertebrate Anatomy | 3 | Fine Arts | 3 | | |
| PHY 531 Quantum Mechanics | 3 | PHY 481 Electricity and Magnetism -***OR***- Elective | 3 | | |
| PHY 541 Thermo and Stat Mech -***OR***- Elective | 3 | PHY 351 Physics in Medicine -***OR***- PHY 353 Intro to Biological Physics | 3 | | |
| PHY Elective | 3 | PHY 449 Animal Physiology | 4 | | |
| **TERM SUBTOTAL:** | **15** | **TERM SUBTOTAL:** | **16** | | |
| Literature | 3 | Ultimate Questions | 3 | | |
| Foreign Language | 4 | PHY 499 Research Capstone | 1 | | |
| Intersections | 3 | PHY 553 -and- 662 -***OR***- PHY 561 -***AND***- 566** | 6 | | |
| PHY 491 Seminar | 1 | PHY 792 Medical Physics Seminar | 0.5 | PHY 798 Medical Physics Clinical Rotation | 3 |
| PHY 567 -***AND***- 661 -***OR***- PHY 562 -***AND***- 565* | 6 | Electives | 5 | | |
| **TERM SUBTOTAL:** | **17** | **TERM SUBTOTAL:** | **15.5** | **TERM SUBTOTAL:** | **3** |
| PHY 567 -***AND***- 661 -***OR***- PHY 562 -***AND***- 565* | 6 | PHY 553 -***AND***- 662 -***OR***- PHY 561 -***AND***- 566** | 6 | | |
| PHY 797 Directed Independent Research | 2 | PHY 792 Medical Physics Seminar | 1 | | |
| PHY 799 Master's Thesis | 2 | PHY 799 Master's Thesis | 4 | | |
| PHY 792 Medical Physics Seminar | 0.5 | PHY 792 Medical Physics Seminar | 0.5 | | |
| **TERM SUBTOTAL:** | **10.5** | **TERM SUBTOTAL:** | **11.5** | | |

**GRAND TOTAL: 160.5**

116 Undergraduate + 42.5 Graduate Credit Hours

*18.5 credit hours used by both BA and MS Degree*

## ACCELERATED PLAN

# Bachelor of Science in Biomedical Physics (BS) to Master of Science in Medical Physics (MS)

| CORE REQUIREMENTS | CREDITS | COURSES IN MAJOR THAT SATISFY THE CORE REQUIREMENT |
|---|---|---|
| **MAGIS CORE—FOUNDATIONS** | | |
| Composition | 3 | |
| Critical Issues* | 3 | |
| Oral Communication | 1 | |
| Math Reasoning | 2 | MTH 245 Calculus I |
| Philosophical Ideas | 3 | |
| Christian Tradition | 3 | |
| **MAGIS CORE—EXPLORATIONS** | | |
| Understanding Natural Science | 4 | General Physics I (PHY 213 ***-OR-*** PHY 221) |
| Understanding Social Science | 3 | |
| Global Perspectives | 3 | |
| Literature | 3 | |
| Ethics | 3 | |
| Biblical Tradition | 3 | |
| Fine Arts | 3 | |
| Foreign Language | 4 | |
| **MAGIS CORE—INTEGRATIONS** | | |
| Intersections | 3 | |
| Doing Natural Science | 4 | General Physics with Lab II (PHY 206 ***-OR-*** PHY 224) |
| Doing Social Science | 3 | |
| Ultimate Questions | 3 | |
| **DESIGNATED COURSES** | | |
| Oral Communication | | PHY 491 Seminar |
| Written Communication | | PHY 499 Research Capstone |
| Statistical Reasoning | | PHY 397 Research Methods |
| Ethics | | PHY 491 Seminar |
| Technology | | PHY 499 Research Capstone |

| MAJOR | CREDITS |
|---|---|
| General Physics I (PHY 213 ***-OR-*** 221) | 3 |
| General Physics Lab I (PHY 205 ***-OR-*** PHY 223) | 1 |
| General Physics II (PHY 214 ***-OR-*** 222) | 3 |
| General Physics Lab II (PHY 206 ***-OR-*** PHY 224) | 1 |
| PHY 301 Modern Physics | 3 |
| PHY 303 Electronics Lab ***-OR-*** Elective | 1 |
| PHY 351 Physics in Medicine ***-OR-*** PHY 353 Intro to Biological Physics | 3 |
| PHY 397 Research Methods | 2 |
| PHY 471 Classical Mechanics | 3 |
| PHY 497 Directed Independent Research | 1 |
| PHY 481 Electricity and Magnetism ***-OR-*** Elective | 3 |
| PHY 499 Research Capstone | 1 |
| PHY 531 Quantum Mechanics | 3 |
| PHY 541 Thermo and Stat Mech ***-OR-*** Elective | 3 |
| PHY 553 Computational Physics | 3 |
| PHY 561 Nuclear Physics | 3 |
| PHY 562 Nuclear Instruments/ Methods Lab | 2 |
| PHY 565 Radiation Biophysics | 3 |
| PHY 566 Physics of Medical Imaging I | 3 |
| PHY 567 Physics of Medical Imaging II | 3 |
| MTH 245 Calculus I | 4 |
| MTH 246 Calculus II | 4 |
| MTH 347 Calculus III | 3 |
| MTH 350 Applied Linear Algebra and Differential Equations | 3 |
| CHM 203 General Chemistry I | 3 |
| CHM 204 General Chemistry Lab I | 1 |
| CHM 205 General Chemistry II | 3 |
| CHM 206 General Chemistry Lab II | 1 |
| BIO 201 General Biology I | 1 |
| BIO 205 General Biology Lab I | 3 |
| BIO 202 General Biology II | 1 |
| BIO 206 General Biology Lab II | 3 |
| BIO 333 Comparative Vertebrate Anatomy | 3 |
| BIO 449 Animal Physiology | 4 |

Masters classes shown in **LIGHT BLUE** will be taken while an undergraduate student. Masters classes shown in **GRAY** will be taken while a graduate student.

**OTHER NOTES**

This plan is an example of Creighton's **Accelerated Bachelor's to Master's program** and how one might accomplish this path. Please note, each student will have a unique background and set of circumstances that must be considered in their plan.

Students will complete six (6) credit hours based on the identified courses offered per semester:
*PHY 567 Physics of Medical Imaging II ***-AND-*** PHY 661 Physics of Radiation Therapy
***-OR-*** PHY 562 Nuclear Instruments and Methods Lab ***-AND-*** PHY 565 Radiation Biophysics

**PHY 553 Computational Physics ***-AND-*** PHY 662 Dosimetry and Radiation Protection
***-OR-*** PHY 561 Nuclear Physics ***-AND-*** PHY 566 Physics of Medical Imaging I

**FOR MORE INFORMATION**
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Graduate School