



Physics

UNIVERSITY OF COLORADO BOULDER

Applied Physics Application: Biophysics

Student name: _____ Year of Grad Program Entry: _____

Date: _____

Please indicate all of your planned courses for this track:

1) Comps 1 Required Courses (12 credits):

- ☐ PHYS 5250 - Quantum Mechanics 1
- ☐ PHYS 7310 - Electromagnetic Theory 1
- ☐ PHYS 7230 - Statistical Mechanics

One more from this list (*More can be taken as electives.*)

- ☐ BCHM 5770 - Fundamentals of Biochemistry 1
- ☐ BCHM 5771 - Advanced General Biochemistry 1
- ☐ BCHM 5780 - Fundamentals of Biochemistry 2
- ☐ BCHM 5781 - Advanced General Biochemistry 2
- ☐ MCDB 5312 - Quantitative Optical Imaging
- ☐ PHYS 5070 - Computational Physics
- ☐ PHYS 5210 - Theoretical Mechanics
- ☐ PHYS 5260 - Quantum Mechanics 2
- ☐ PHYS 7320 - Electromagnetic Theory 2

2) Other Required Courses (3 credits):

One from this list (*More can be taken as electives.*)

- ☐ PHYS 5550 - Cells, Molecules and Tissues: A Biophysical Approach
- ☐ PHYS 5560 - Introduction to Biophysics

3) Elective courses to bring total to 30 credits: *Note 18/30 of your credit hours must be in PHYS courses and at least 6/30 must be outside of PHYS. 3 credit hours can be outside of this list.*

- | | |
|---|---|
| <input type="checkbox"/> Any courses in the above lists List here: _____ | <input type="checkbox"/> CHEM 5801 - Advanced Signal Transduction |
| <input type="checkbox"/> PHYS 5030 - Math Methods 1 | <input type="checkbox"/> CHEM 7311 - Selected Topics in Organic Materials |
| <input type="checkbox"/> PHYS 5070 - Computational Physics | <input type="checkbox"/> CHEN 5150 - Biomolecular Kinetics, Transport, and Thermodynamics |
| <input type="checkbox"/> PHYS 5160 - Fund. of Optics and Lasers | <input type="checkbox"/> CHEN 5450 - Polymer Chemistry |
| <input type="checkbox"/> PHYS 7430 - Soft Condensed Matter Physics | <input type="checkbox"/> CHEN 5805 - Biological Interactions to Biomaterials |
| <input type="checkbox"/> GRAD 5000 - Responsible Conduct in Research (1 cred) | <input type="checkbox"/> MCDB 5520 - Bioinformatics and Genomics |
| <input type="checkbox"/> EBIO 6100 - Seminar in Environmental Biology (2 cred) | <input type="checkbox"/> MCDB 5621 - Genome Databases: Mining and Management |
| <input type="checkbox"/> BCHM 5400 - Core Concepts in Physical Chemistry for Biochemists | <input type="checkbox"/> MCEN 5021 - Introduction to Fluid Dynamics |
| <input type="checkbox"/> BCHM 5491 - Modern Biophysical Methods | <input type="checkbox"/> MCEN 5133 - Biomechanics |
| <input type="checkbox"/> BCHM 5611 - Principles of Biochemistry | <input type="checkbox"/> MCEN 6184 - Structure & Properties of Polymers |
| <input type="checkbox"/> BCHM 5661 - Advances in Molecular Biophysics | <input type="checkbox"/> MSEN 5919 - Membranes |
| <input type="checkbox"/> BCHM 5740 - Biochemistry of Gene Transmission, Expression and Regulation | <input type="checkbox"/> ECEN 5341 - Bioelectromagnetics |
| <input type="checkbox"/> BCHM 6601 - Biochemistry Seminar (1 credit; can be repeated) | <input type="checkbox"/> CSCI 5352 - Network Analysis and Modeling |
| <input type="checkbox"/> CHEM 5261 - Organic Materials: Structures & Functions | <input type="checkbox"/> CSCI 5423 - Biologically-inspired Multi-Agent Systems |
| <input type="checkbox"/> CHEM 5561 - Advances in Molecular Biophysics | <input type="checkbox"/> CSCI 7000 - Current Topics in Computer Science |
| <input type="checkbox"/> 3 credit hours can be outside of this list. List here: _____ | <input type="checkbox"/> STAT 5000 - Stat. Meth. and Application I |
| | <input type="checkbox"/> STAT 5010 - Stat. Meth. and Application II |
| | <input type="checkbox"/> PSYC 5771 - Bayesian Data Analysis |

Any changes to the above requirements are to be approved by the Track Coordinator and Physics Assoc. Chair for Graduate Studies on the next page.

Are there any exceptions to track requirements? ☐ Yes ☐ No

Exceptions to the track requirements:

Signatures are **only** required if exceptions are listed above.

Track Coordinator Name: _____

Signature _____ Date: _____

Grad Chair Name: _____

Signature _____ Date: _____

Please submit the completed form to the **Graduate Program Assistant**.