

B.A. Chemistry & Physics

Department of Physics

Name: _____ BU ID: _____ Date: _____

CAS Foreign Language Requirement (4th semester proficiency is required)

☐ _____ ☐ _____ ☐ _____ ☐ _____

4th semester proficiency can be displayed via college level coursework, BU CAS proctored language placement & proficiency exams, AP, IB, or other advanced credit.

Prerequisite Courses

☐ **CH109:** Advanced General Chemistry 1

☐ **CH110:** Advanced General Chemistry 2

☐ **CH211/203:** Organic Chemistry 1

☐ **CH232:** Inorganic Chemistry

☐ **MA123:** Calculus 1

☐ **MA124:** Calculus 2

☐ **MA225:** Multivariate Calculus

☐ **PY251/211:** Physics 1

☐ **PY252/212:** Physics 2

☐ **PY351/313:** Modern Physics 1

☐ **PY355:** Methods of Theoretical Physics

Principal Required Courses (6 required, minimum 2 courses in chemistry & 2 courses in physics)

☐ **CH354:** Physical Chemistry Lab

☐ **PY405:** Electromagnetic Fields and Waves I

☐ **PY410/CH352:** Statistical Thermodynamics

☐ **PY451/CH351:** Quantum Mechanics

☐ _____

Chemistry elective options:

CH212/204 Organic Chemistry II or

CH303 Instrumental Analysis Lab or

CH455 Advanced Computational Chemistry or

CH550 Materials Chemistry

☐ _____

Physics elective options:

PY 406 Electromagnetic Fields and Waves II or

PY 408 Intermediate Mechanics or

PY 421 Computational Physics or

PY 452 Quantum Mechanics II or

PY 581 Advanced Physics Lab

DEGREE REQUIREMENT NOTES:

- A minimum of 128 credits is required for graduation (excluding PDP, ROTC, and CAS FY and SY courses.)
- Students must complete all BU Hub general education requirements
- Students are required to pursue study of a language other than English through the intermediate (fourth-semester) level or to demonstrate equivalent proficiency.
- All classes counting towards the Major in Chemistry & Physics must be completed with a grade of C or higher.
- Students may receive credit for only one sequence in general chemistry, as well as the organic chemistry sequence. Chemistry majors who start in a particular track (e.g., CAS CH 109,110) must complete that track; the same is true for CH 211, 212 and CH 203, 214.

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Academic Year	Fall Classes	Spring Classes
Academic Year	Fall Classes	Spring Classes
Academic Year	Fall Classes	Spring Classes
Academic Year	Fall Classes	Spring Classes

Notes:

BU Hub for first-year students

Only Prerequisite & Principal Required Courses are listed below

Philosophical, Aesthetic, and Historical Interpretation

☐ Philosophical Inquiry and Life's Meaning

☐ Aesthetic Exploration

☐ Historical Consciousness

PY351

Scientific and Social Inquiry

☐ Scientific Inquiry I or II

☐ Social Inquiry I or II

☐ Scientific Inquiry II or Social Inquiry II

CH109/203/211, PY211/251

CH110/232/354, MA124, PY212/252/313/351 (SI2)

Quantitative Reasoning

☐ Quantitative Reasoning I or II

☐ Quantitative Reasoning II

CH109/203/211, PY211/251

MA123/124/225, PY212/252

Diversity, Civic Engagement, and Global Citizenship

☐ The Individual in the Community

☐ Global Citizenship & Intercultural Literacy (2 units req.)

☐ Ethical Reasoning

Communication

☐ First Year Writing Seminar

☐ Writing Research, and Inquiry

☐ Writing-Intensive (2 units required)

☐ Oral and/or Signed Communication

☐ Digital/Multimedia Expression

CH232/354

PY355

Intellectual Toolkit

☐ Critical Thinking (2 units required)

☐ Research and Information Literacy (2 units req.)

☐ Teamwork/Collaboration (2 units req.)

☐ Creativity/Innovation (2 units req.)

CH109/110/211, MA123/124/225, PY211/212/251/251/313/351

CH232/354

CH211, PY211/212/251/252