

PhD Program in Physics

1st year

Required Courses

2nd year

3rd year and beyond

PHYS 8005
Math Methods (F)

PHYS 8020
Adv Electrodyn I (S)

PHYS 8010
Part Cont Mech (F)

PHYS 8040
Stat Mech (S)

PHYS 8030
Quantum Mech I (F)

PHYS 8000
Seminar (S)

PHYS
ADV CORE ELECTIVE

PHYS 8999
Non-Cand Research

PHYS 8999
Non-Cand Research

PHYS 8001
Colloquium

PHYS 8001
Colloquium

PHYS 8003
Teaching Practicum

PHYS 8003
Teaching Practicum

PHYS
ELECTIVE

PHYS
ELECTIVE

PHYS
BREADTH ELECTIVE

Qualifying
Exam:
Write and defend a
research proposal

PHYS 8999
Non-Cand Research

PHYS 8999
Non-Cand Research

PHYS 8001
Colloquium

PHYS 8001
Colloquium

PHYS 8003
Teaching Practicum

PHYS 8003
Teaching Practicum

“Work. Finish. Publish.” – M. Faraday
Publish one or more
peer-reviewed journal articles

PhD Defense:
Write and defend a
research dissertation

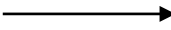
PHYS 9999
PhD Diss Research



PHYS 9999
PhD Diss Research

After reaching 72 credit hrs,
register for 0 hrs in
subsequent semesters.

PHYS 8001
Colloquium



PHYS 8001
Colloquium

Must successfully
complete 6 semesters.

Only two semesters of
Phys 8003 are required.

Formal courses: 9 hrs
Research: 3 hrs

Formal courses: 10 hrs
Research: 2 hrs

Formal courses: 9 hrs
Research: 3 hrs

Formal courses: 0 hrs
Research: 12 hrs

Research hrs up to 72 total credit hrs

Advanced Core Electives
≥ 1 required

PHYS 8021
Adv Electrodyn II (F)

PHYS 8152
Quant Mech Solids

PHYS 8031
Quantum Mech II (S)

CPBP 8306
Intro Chem Phys Biol

Examples of Other Physics Electives

PHYS 8100
Sel Top Theor Phys

PHYS 8124
Phys Meas Biol Sys

PHYS 8142
Rel Heavy Ion Phys

PHYS 8156
Surf Struct & Dynam

PHYS 8164
Many-Body QM

PHYS 8105
Spec Top Expt Phys

PHYS 8126
Theor Expt Sys Biol

PHYS 8144
Expt Nuclear Phys

PHYS 8158
Inter Phot Atom Mol

PHYS 8170
Quant Field Theor I

PHYS 8120
Biomolecular Phys

PHYS 8128
Biophys Electrodyn

PHYS 8150
Electromag Spectros

PHYS 8160
General Relativity

PHYS 8171
Quant Field Theor II

PHYS 8122
Physics Living Sys

PHYS 8140
Nuclear Theory

PHYS 8154
Nanoscale CM Phys

PHYS 8161
Cosmology

PHYS 8189
Particle Physics

Graduate courses in
ASTR and other
programs may also
count if approved
by the DGS.