PHYSICS COMPREHENSIVE, BACHELOR OF SCIENCE

Offered by Department of Physics and Astronomy (http://catalog.unk.edu/undergraduate/departments-programs/physics-astronomy)

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General Studies

*Foundational Core (Written, Math, Oral, Democracy)*

Foundational Core courses (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses)

Including:

MATH 115  Calculus I with Analytic Geometry 1

Portal

Select one course numbered 188 (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/portal-course)

Distribution

Aesthetics (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/aesthetics)

Humanities (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/humanities)

Social Sciences (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/social-sciences)

Natural Sciences (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/natural-sciences)

Including:

PHYS 275  General Physics I (Calculus) and General Physics I (Calculus) Laboratory

Analytical and Quantitative Thought (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/analytical-quantitative-thought)

Including:

CSIT 112  Programming in C

Wellness (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/wellness)

Needed to reach 27 credit hour minimum in Distribution

Capstone

Select one course numbered 388 (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/capstone-course)

BS Science-related course requirements

CHEM 160  General Chemistry

& 160L  and General Chemistry Laboratory

CHEM 161  General Chemistry

& 161L  and General Chemistry Laboratory

Major Option

Complete all required courses

Unrestricted electives

Needed to reach 120 credit hour minimum

Total Credit Hours

1  Students without sufficient preparation will also need to take the following courses, increasing the total credit hours needed:

- MATH 102
- MATH 103

2  Except CHEM 388.

3  Except CSIT 388.

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Physics Comprehensive Requirements

PHYS 123  Freshman Physics Seminar

PHYS 276 & 276L  General Physics II (Calculus) and General Physics II (Calculus) Laboratory

PHYS 346  Modern Physics I

PHYS 402  Analytic Mechanics

PHYS 407  Electricity & Magnetism

PHYS 410  Mathematical Techniques in Physics I

PHYS 419  Quantum Mechanics

PHYS 420  Advanced Physics Laboratory

PHYS 430  Optics

PHYS 435  Solid State Physics

PHYS 440  Thermodynamics and Statistical Mechanics

PHYS 495  Research in Physics

PHYS 498  Senior Seminar in Physics

Physics Comprehensive Math Requirements

MATH 202  Calculus II with Analytic Geometry

MATH 260  Calculus III

MATH 305  Differential Equations

Physics Comprehensive Math, CSIT, or Chemistry Electives

Select 3 credit hours of the following:

STAT 241  Elementary Statistics

CHEM 300-CHEM 499L 2

CSIT 200-CSIT 499 3

MATH 300-MATH 499

Total Credit Hours 61

1  Students without sufficient preparation will also need to take the following courses, increasing the total credit hours needed:

- MATH 102
- MATH 103

2  Except CHEM 388.

3  Except CSIT 388.