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Physics B.S. with Geophysics Concentration

Physics B.S. Geophysics Concentration Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see the Eight-Semester Degree Policy in the Academic Regulations chapter for university requirements of the program as well as Fulbright College requirements.

Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area. Students should consult their advisers.

| First Year | Fall | Units Spring |
|--|------|-----------------|
| ENGL 10103 Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1) | 3 | |
| MATH 24004 Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1) ^{1, 2} | 4 | |
| PHYS 20304 University Physics I (ACTS Equivalency = PHYS 2034) (Satisfies General Education Outcome 3.4) ¹ | 4 | |
| CHEM 14103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture) & CHEM 14101 University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab) | 4 | |
| ENGL 10203 Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.1) | | 3 |
| PHYS 20404 University Physics II (ACTS Equivalency = PHYS 2044 Lecture) (Satisfies General Education Outcome 3.4) ¹ | | 4 |
| MATH 25004 Calculus II ¹ | | 4 |
| GEOL 11103 Physical Geology (ACTS Equivalency = GEOL 1114 Lecture) & GEOL 11101 Physical Geology Laboratory (ACTS Equivalency = GEOL 1114 Lab) | | 4 |
| Year Total: | 15 | 15 |

| Second Year | | Units |
|--|------|--------|
| | Fall | Spring |
| PHYS 20504 University Physics III ¹ | 4 | |
| MATH 25804 Elementary Differential Equations 1,3 | 4 | |
| CHEM 14203 University Chemistry II (ACTS | 4 | |
| Equivalency = CHEM 1424 Lecture) | | |
| & CHEM 14201 University Chemistry II Laboratory | | |
| (ACTS Equivalency = CHEM 1424 Lab) | | |
| GEOS 23103 Mineralogy | 3 | |
| PHYS 36103 Modern Physics ^{1,3} | | 3 |
| | | |

| MATH 26004 Calculus III ^{1,3} | | 4 |
|--|----|----|
| GEOS 34103 Sedimentary Geology | | 3 |
| State Minimum Core Social Sciences Requirement | | 3 |
| (Select a course which satisfies both General | | |
| Education Outcomes 3.3 and 4.1) ⁴ | | |
| General Elective | | 2 |
| Year Total: | 15 | 15 |

| Third Year | | Units |
|--|------|--------|
| | Fall | Spring |
| PHYS 31103 Analytical Mechanics ³ | 3 | |
| GEOS 42203 Stratigraphy and Sedimentation | 3 | |
| State Minimum Core History or Government Requirement (Satisfies General Education Outcome 4.2) | 3 | |
| State Minnimum Core Social Sciences Requirement (Satisfies General Education Outcome 3.3) ⁵ | 3 | |
| General Elective | 3 | |
| GEOS 35104 Structural Geology | | 4 |
| State Minimum Core Social Sciences Requirement (Satisfies General Education Outcome 3.3) ⁵ | | 3 |
| General Electives | | 8 |
| Year Total: | 15 | 15 |

| Fourth Year | | Units |
|--|------|--------|
| | Fall | Spring |
| PHYS 40703 Introduction to Quantum Mechanics | 3 | |
| GEOS 44303 Geophysics | 3 | |
| State Minimum Core Humanities or Fine Arts requirement (as needed) (Select a course which satisfies both General Education Outcomes 3.2 and 5.1 or satisfies 3.1) ^{6,7} | 3 | |
| General Electives | 6 | |
| PHYS 34503 Electromagnetic Theory I ³ | | 3 |
| PHYS 49901 Physics Senior Seminar (Satisfies General Education Outcomes 1.2 and 6.1) ³ | | 1 |
| GEOS 49204 Earth System History | | 4 |
| State Minimum Core Fine Arts or Humanities Requirement (as needed) (Satisfies General Education Outcome 3.1 or select a course which satisfies both 3.2 and 5.1) ^{7,6} | | 3 |
| General Electives | | 4 |
| Year Total: | 15 | 15 |

Total Units in Sequence:

Meets 40-hour advanced credit hour requirement. See College Academic Regulations.

Students have demonstrated successful completion of the learning indicators identified for learning outcome 2.1, by meeting the prerequisites for MATH 24004.

Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations.

- The Social Sciences Elective courses which satisfy General Education Outcomes 3.3 and 4.1 include: ANTH 10203, COMM 10203, HDFS 14003, HDFS 24103, HIST 11193, HIST 111H3, HIST 11293, HIST 112H3, HIST 20903, HUMN 111H4, HUMN 211H4, INST 28103, INST 281H3, PLSC 20103, PLSC 28103, PLSC 281H3, RESM 28503, SOCI 10103, SOCI 101H3, or SOCI 20103.
- The Social Sciences Elective courses which satisfy General Education Outcome 3.3 include: AGEC 11003, AGEC 21003, ANTH 10203, COMM 10203, ECON 21003, ECON 22003, ECON 21403, EDST 20003, HDFS 14003, HDFS 24103, HDFS 26003, HIST 11193, HIST 111H3, HIST 11293, HIST 112H3, HIST 20003, HIST 20103, HIST 20903, HUMN 111H4, HUMN 211H4, INST 28103, INST 281H3, PLSC 20003, PLSC 20103, PLSC 21003, PLSC 28103, PLSC 281H3, PSYC 20003, RESM 28503, SOCI 10103, SOCI 101H3, or SOCI 20103.
- The Humanities Elective courses which satisfy General Education Outcomes 3.2 and 5.1 include: CLST 10003, CLST 100H3, CLST 10103, HUMN 112H4, PHIL 20003, PHIL 200H3, PHIL 21003.
- The Fine Arts Elective courses which satisfy General Education
 Outcome 3.1 include: ARCH 10003, ARHS 10003, COMM 10003,
 DANC 10003, LARC 10003, MUSC 10003, MUSC 100H3,
 MUSC 10103, MUSC 101H3, MUSC 13303, THTR 10003,
 THTR 10103, or THTR 101H3.