
NATURAL SCIENCE

Coordinators: Andreas Madlung, *Biology*; James Evans, *Physics*; Dan Burgard, *Chemistry*; Mike Valentine, *Geology*

This major is designed to serve the needs of students who desire a broad background in the natural sciences. It may serve students who plan to teach (see the School of Education section of this *Bulletin*). It is a useful major for students considering post graduate studies in health professions. Other students who wish a broad, interdisciplinary approach will want to look closely at the benefits offered by this major. In addition to meeting requirements for a Bachelor of Science degree, it provides for moderately in-depth study in one field of science as well as a background in other areas of mathematics and the natural sciences. Natural Science majors are not eligible for a double major in Biochemistry, Biology, Chemistry, Geology, Molecular and Cellular Biology, or Physics, nor for a double major in Natural Science.

Students interested in pursuing a major in Natural Science should consult with one of the coordinators listed above.

The coordinators of the program reserve the right to require a student earning a Natural Science major to comply with the time limit rules required by the department of the Natural Science emphasis.

General Requirements for the Major

General university degree requirements stipulate that 1) at least four units of the major be taken in residence at Puget Sound; 2) students earn a GPA of 2.0 in courses taken for the major; and 3) all courses taken for a major must be taken for graded credit. Any exceptions to these stipulations are indicated in the major degree requirements listed below.

Natural Science Majors

One of the following areas of emphasis is required. See departmental listings for course descriptions.

Biology

Completion of a minimum of 14 units, two units of which must be at the 300/400 level, to include

1. Seven units of Biology 111, 112, 211, 212, 213, and two units upper-division Biology electives numbered from 312-496 excluding BIOL 398; at least one of the electives must include a lab and at least one of the electives must be completed on the Puget Sound campus;
2. Two units of Chemistry: 110 and 120; or 115 and 230;
3. One unit in Mathematics (150 or higher) or Computer Science (141 or higher);
4. Four additional units from the following (at least two units must be taken from a department/program other than biology): BIOL 312-496 (excluding BIOL 398); CHEM 250 or higher; CSCI 141 or higher; ENVR 105; EXSC 221, 222; GEOL 101 or higher; MATH 150 or higher; NRSC 201, 350; or PHYS 111 or higher.

Chemistry

Completion of a minimum of 14 units, to include

1. CHEM 115, 230; or 110, 120, 231;
2. Four additional units of Chemistry (all courses must be those normally counted toward a major);
3. Two units of Mathematics (180 or higher);
4. Two units of Physics (111/112 or 121/122) or Biology (111/112);
5. Four additional units of Biology, Chemistry, Geology, Physics, or Mathematics/Computer Science. (All courses must be those normally counted toward a major. No more than two of these may be Chemistry courses.)

Geology

Completion of a minimum of 14 units, to include

1. Six units of Geology to include either GEOL 101 or 104 or 110 (only one of these will count toward the major) and GEOL 200. GEOL 105 and ENVR 301 may also count toward the major;
2. No more than two 100-level courses will count toward the major, *excluding the required Chemistry and Math courses*;
3. Two units Mathematics, MATH 110 or higher; may include CSCI 161;
4. Two units Chemistry, to include either CHEM 110 and 120 or CHEM 115 and 230;
5. Four additional units of Physics, Biology, Chemistry, Mathematics/Computer Science, Geology (206 or higher), or ENVR 105.

Physics

Completion of a minimum of 14 units, to include

1. Six units of Physics (all courses must be those normally counted toward a major);
2. Four units of Mathematics, MATH 180, 181, 280 and one additional upper division (300-400 level) unit;
3. Four additional units of Biology, Geology, Chemistry, Physics, or Mathematics/Computer Science. (No more than two of these may be Physics courses.)

Notes

1. The coordinators of the program reserve the right to require a student earning a Natural Science major to comply with the time limit rules required by the department of the Natural Science emphasis.
2. For the Biology, Geology, and Physics emphases, the grade criterion within the Natural Science major will follow the requirement of the department corresponding to the emphasis. For the Chemistry emphasis, the grade criterion is the university requirement rather than the requirement for the Chemistry Department.