

BROADFIELD NATURAL SCIENCE MAJOR

College of Education and Human Services

1. Minimum Math Requirement:
Math 67-104 (will meet Math USP requirement) AND Math 67-106 OR test out of these classes.
Math 172 required for Physics 192.
2. Minor Requirement (complete one of the following minors):
 - Biology (24 credits)
 - Chemistry (22 credits)
 - Earth Science (see Geology Dept. for this minor) (33 credits including Physics/Ast.103)
 - Physics (23 credits) (requires Physics 191/192 and Math 172)
 See the University Bulletin for a complete listing of minor requirements
3. Completion of a minimum of 8 credits in the following areas: Biology, Chemistry, Earth Science and Physics (*pre-reqs. in parentheses*) ****Earth Science minors need GEOL 150 and 109**

Biology	Chemistry	Earth Science** <i>(choose <u>one</u> area either Geology or Geography)</i>	Physics	Cr. Left
Biology 105 (4cr) AND Biology 230 (4cr) <i>(Bio 105)</i> or Biology 231 (4cr) <i>(Bio 105)</i> Do NOT take BIO 104!	Chemistry 105 (5cr) <i>(Math 104 co-req.)</i> Chemistry 106 (5cr) <i>(Math 104 w/C and Chem 105 w/C)</i>	<u>Geology</u> Geology 150 or 102 (4cr), or 110 (5cr)** AND Geology 109 (4cr) <u>OR</u> <u>Physical Geography</u> Geography 121 (4cr) Geography 221 (4cr)	Physics/Astronomy 171 (Fall) (5cr) <i>(Math 106 or 108 or equiv.)</i> Physics/Astronomy 172 (Spring) (5cr) <i>(Physics 171)</i> OR Physics/Astronomy 191 (Fall) (5cr)** <i>(Math 171)</i> Physics/Astronomy 192 (Spring) (5cr)** <i>(Math 172)</i> *** <i>Required for Physics minor</i>	

4. Concentration Requirement: completion of a **minimum of 12 credits*** in Biology, Chemistry, Earth Science or Physics in one area other than the minor. **See information on back.*
Add the course(s) in one column that is not the minor area:

Biology	Chemistry	Earth Science <i>(choose <u>one</u> Physics/Astronomy course below)</i>	Physics	Cr. Left
Biology 230 (4cr) AND Biology 231 (4cr) Take which ever course has not yet been completed	Chemistry 234 (1cr) Chemistry 235 (3cr) <i>(Chem 106 w/C; co-req. Chem 234)</i>	Physics/Astronomy 103 (Fall) (4 cr) OR Physics/Astronomy 104 (Spring) (4 cr) <i>(Pre-req. for Phys/Ast 103, 104, 113, and 114: PBIS level course or Math 103 w/C; or test into Math 104 or higher)</i>	Physics/Astronomy 113 (Fall) (3cr) (Credit cannot be earned for both Phys/Ast 103 and 113) OR Physics/Astronomy 114 (Spring) (3cr) (Credit cannot be earned for both Phys/Ast 104 and 114)	

Remaining courses for minor:

_____	()	_____	()	Total
_____	()	_____	()	
_____	()	_____	()	

Credits:

BROADFIELD NATURAL SCIENCE MAJOR

College of Education and Human Services

Environmental Education Requirement will be met by one of the following courses:

Biology 349 (required for Biology minors), Geography 121, 211, OR Geology 102, 109, 110 or 150

***Secondary Education Broadfield Natural Science Major**

“A person with a broadfield science license may teach any science class at the early adolescence-adolescence level, up through grade 10, and any basic science class in grades 11-12 that is not: A) part of the college preparatory sequence; B) an advance placement course; C) an elective course with more depth of content than basic courses. To teach a course under the criteria in A, B or C, the teacher must have a concentration in that subject area.”¹

For clarification, students will complete a minimum of 12 credits in a subject subcategory to qualify as a concentration (the area chosen for a minor also meets the criteria listed above to teach a course under A, B and C). Courses must be chosen from the list of approved courses in that subject area. Courses must be natural or physical science courses.

¹State of Wisconsin Department of Public Instruction Memorandum dated August 5, 2004; Definitions related to PI 34.

Note: According to the Wisconsin Department of Public Instruction, a discrete course (e.g. offered for a semester) in a PI 34 subcategory of natural science (e.g. astronomy) offered primarily at the 11-12 grade level would typically be a college preparatory course and not considered a basic course in natural science.

GPA requirements: 3.0 minimum Combined gpa (see COEHS website for options if below 3.0); 2.75 major gpa for STEM majors