

Chemistry & Physics

BS Ed Unified Science in Chemistry, 63-64 hours Certifies 9-12

Suggested Course Outline

Freshman

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|----------------------------|------------|-----------|----------------------------------|------------|-----------|
| Freshman Seminar | 71-101 | 1 | Composition | 10-112 | 3 |
| Composition | 10-111 | 3 | General Chemistry II & Lab | 24-116/117 | 5 |
| General Chemistry I & Lab | 24-114/115 | 4 | General Botany & Lab * | 04-112/113 | 4 |
| Calculus * | 17-120 | 4 | Computational Methods in Science | 40-106 | 3 |
| Fund of Oral Communication | 29-102 | 3 | Laboratory safety | 24-135 | 2 |
| Total | | 15 | Total | | 17 |

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|---------------------------------|--------|---|-------------------------------|--------|---|
| Summer: Western Civilization II | 26-103 | 3 | America – A Historical Survey | 33-155 | 3 |
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Sophomore

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|---------------------------------|------------|-----------|-----------------------------------|------------|-----------|
| Calculus II | 17-121 | 4 | Classical Physics II & Lab (F) | 25-230-231 | 5 |
| Classical Physics I & Lab (F) | 25-120/121 | 5 | General Earth Science & Lab | 27-114/115 | 4 |
| General Zoology & Lab | 04-114/115 | 4 | <i>Intro to Special Education</i> | 66-371 | 2 |
| <i>Educational Psychology</i> | 08-303 | 3 | General Statistics | 17-114 | 3 |
| <i>Sec Teaching Practicum I</i> | 65-260 | 1 | Intro to Literature | 10-220 | 3 |
| Total | | 17 | Total | | 17 |

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| Summer: Intro to Government | 34-102 | 3 | Humanities/Philosophy | | 3 |
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Junior

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|------------------------------------|------------|-----------|--|------------|--------------|
| Adolescent Psychology | 08-322 | 3 | Environmental Issues (S) | 04-420 | 3 |
| Historical Geology (F, alt S) | 27-212/213 | 4 | <i>Multiculturalism in Education</i> | 61-569 | 3 |
| Quantitative Analysis & Lab (F) | 24-322/323 | 5 | Physical Chemistry II | 24-534 | 3 |
| Organic Chemistry I & Lab (F, So) | 24-342/343 | 5 | Elem Biochemistry & Lab (S) <u>OR</u> | 24-362/363 | 4-5 |
| <i>Reading in the Content Area</i> | 66-353 | 2 | Gen. Biochemistry & Lab (F) | 24-562/563 | |
| Total | | 19 | <i>History of Science & Technology (S)</i> | 28-550 | 3 |
| | | | Total | | 16-17 |

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| Summer: Fine Arts | | 3 | | | |
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Senior

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| Special Investigations in Chemistry | 24-499 | 1 | | | |
| Chemistry Seminar | 24-592 | 1 | **Professional Trimester** | | |
| Chemistry Practicum | 24-370 | 1 | Classroom Management Seminar | 65-521 | 1 |
| <i>Practicum II</i> | 65-360 | 1 | School & Society | 61-462 | 1 |
| <i>School and Society</i> | 61-461 | 2 | | | |
| <i>Methods in Sec School Science (F)</i> | 28-580 | 3 | <i>Dir Teaching in the Sec School</i> | 65-490 | 10 |
| <i>Classroom Management</i> | 65-520 | 2 | Total | | 12 |
| Total | | 11 | | | |

- If one has not taken a substantial high school chemistry course, Chemistry 112/113 should be taken prior to Chemistry 114/115. Furthermore, student needs to have mastered Algebra II in high school.
- Without two years of biology in high school, Biology 102/103 needs to be taken prior to Biology 112/113 or 114/115.
- Without an ACT of 27, students must first complete 17-118 and 17-119 or take 17-117. Students with a 27 or above on the Mathematics ACT subscore are eligible to begin with Calculus I (4 more elective hours are required).

(Please note this outline does not supersede the requirements listed in the Northwest Undergraduate Student Catalog nor does it constitute a contractual arrangement, rather it is for information only. It is the student's responsibility to be aware of and to meet all University and Department requirements as listed in the catalog.

Fall 2010