

DEPARTMENTS of CHEMISTRY and MATHEMATICS

Degree Program: Bachelor of Arts in Secondary Education (Chemistry and Mathematics)

Catalog: 2010-2011 (Revised on April 13, 2010)

Required Courses (102-121 credits plus supporting courses in Physics)

This major must be accompanied by the professional education program in both Chemistry and Mathematics. This major meets the requirements for the Washington State teaching endorsements in secondary education. See the *Secondary Education* section of the catalog for program admission, completion, and teacher certification requirements. A cumulative GPA of at least 2.50, plus a minimum grade of C (2.0) or above in the individual courses must be maintained in the courses required for the major.

<u>Course Number</u>	<u>Prerequisite</u>
MATH 124 or 134	Suitable score on Advanced Math Placement test or at least a C- in MATH 115 or 118
MATH 125 or 135	MATH 124 or 134
Note: MATH 138 can substitute for the 124/134 and 125/135 set	
	Permission of instructor
MATH 204	MATH 125 or 135 or 138; MATH 224 recommended
MATH 209	MATH 125 or 135 or 138
MATH 224	MATH 125 or 135 or 138
MATH 331	MATH 204; 224 recommended or concurrent
MATH 360	MATH 125 or 135 or 138, 204; one of 209, 302
MATH 419	Twelve credits of upper division Math courses.
MATH 483	At least two upper division math courses; admission to Woodring
Note: The pair MATH 203, 303 may be substituted for the pair MATH 204, 331.	

At least two of the following three math courses:

MATH 207	Basic computer literacy (CSCI 101 or equivalent); MATH 125 or 135 or 138; 204
MATH 341	MATH 125 or 135 or 138
MATH 410	MATH 204, 224, 331 (See note above)

CHEM 121	MATH 114 or Math Placement Test score acceptable for MATH 118 or higher
CHEM 122	CHEM 121
CHEM 123	CHEM 122
CHEM 333	CHEM 123
or	
CHEM 125	One year high school chemistry or equivalent, MATH 114 or Math Placement Test score acceptable for MATH 118 or higher, permission of instructor
CHEM 126	CHEM 125
CHEM 225	CHEM 126

Option A or B:

A: CHEM 251 CHEM 115 or 121 or 125
 CHEM 375 CHEM 251

B: CHEM 351 CHEM 123 or 225 or concurrent
 CHEM 352 CHEM 351
 CHEM 353 CHEM 352
 CHEM 354 CHEM 352 or concurrent
 CHEM 375 CHEM 251 (or CHEM 351, 352 353)
 or CHEM 471, 472, 473 (please refer to catalog for prerequisites)
(That is, complete 354 and 375 or complete 471, 472 and 473)

Additional Chemistry Requirements:

CHEM 461 One year of college physics, MATH 224 and one year of general
 Chemistry

CHEM 462 CHEM 461

PHYS 121 MATH 124 or 134;

PHYS 122 PHYS 121; MATH 124 or MATH 134; MATH 125 or 135 or 138 can be concurrent

PHYS 123 PHYS 122 or 135; MATH 224 can be concurrent

SCED 370, 481, 491

Prerequisites:

481: Chem 123 or 225 or GEOL 212 or BIOL 206 or PHY 123

491: Admission to the Secondary Teaching Program and a major or concentration
 in Natural Sciences (please refer to the catalog).