

**Unified Science – Teaching Certification Requirements  
(Chemistry Endorsement – grades 9-12)**

**Name:****Student #:**

**Note:** SBU reserves the right to amend the curriculum and require teaching certificate candidates to graduate under a program which reflects the state certification requirements in force at the time of graduation.

**GPA Requirements:**

- ◆ 2.5 overall and in the certificate subject area
- ◆ 2.5 in professional education courses with no grade lower than a "C"

**Assessments:**

- ◆ ACT/SAT scores
- ◆ APT/MFT, if applicable
- ◆ C-BASE – pass all sections
- ◆ Praxis II – passing score

**Professional Education Sequence**

Course #	Course Title	Hours	Grade	Semester/Year
EDU 2113	Educational Psychology (F/S)	3		
EDU 2313	Foundations of Education-Secondary (F/S)	3		
EDU 2141	Field Experience 1 (Observing & Assisting) in the Secondary 9-12 or K-12 School (F/S/J) <b>Pre-enrollment required in EDU department</b> <ul style="list-style-type: none"> <li>◆ 2.0 GPA</li> <li>◆ Education file complete</li> <li>◆ Completed EDU 2113 or 2313 <b>OR</b> be concurrently enrolled in one or both</li> </ul>	1		
EDU 2823	Technology for Educators (F/S)	3		
PSY 4033	Adolescent Development (F)	3		

**Before continuing Professional Sequence, the following prerequisites must be met:**

- ◆ C-BASE – pass all sections
- ◆ 2.5 overall GPA
- ◆ EDU 2113, 2313, 2141

EDU 3333	Principles & Methods of Secondary School (F/S)	3		
EDU 3341	Field Experience Level 2 in the Secondary School (must be taken concurrently with EDU 3333) (F/S) <b>Pre-enrollment required in EDU department</b>	1		
EDU 3613	Teaching Reading in the Content Area (F/S)	3		
EDU 3833	Behavior & Classroom Management – Secondary (F/S) [EDU 3333 is a recommended pre-requisite]	3		
EDU 4522	Methods of Teaching Science in Middle/Secondary Schools (S, even)	2		

**Before beginning Student Teaching Semester, the following prerequisites must be met:**

- ◆ Praxis II – passing score

EDU 4691	Student Teaching Seminar (BLOCK) (F/S)	1		
EDU 4832	Assessment & Evaluation of Learners (BLOCK) (F/S)	2		
EDU 4842	Teaching Diverse Learners (BLOCK) (F/S)	2		
EDU 4949	Student Teaching in the Secondary School (BLOCK) (F/S)	10		
<b>TOTALS</b>	<b>Professional Education Sequence</b>	<b>39</b>		
	<b>Unified Science Certification Requirements</b>	<b>41</b>		
	<b>Chemistry Endorsement Certification Requirements</b>	<b>43</b>		

### Unified Science Certification Requirements

<b>Biology (to include Zoology &amp; Botany with labs) 8 hours</b>		<b>Hours</b>	<b>Grade</b>	<b>Sem/Year</b>
BIO 2134 <b>and</b>	General Zoology (S)	4		
BIO 2234	General Botany (F)	4		
<b>Chemistry (with labs) – 9 hours</b>				
CHE 1115 <b>and</b>	General Chemistry I (F)	5		
CHE 1125	General Chemistry II (S)	5		
<b>Physics (with labs) – 8 hours</b>				
PHY 1115 <b>and</b>	General Physics I (F)	5		
PHY 1125	General Physics II (S)	5		
<b>Earth Science (to include Geology and Meteorology) 8 hours</b>				
PHS 1114	Introduction to Earth Science (F/J)	4		
PHS 2214	Meteorology (on demand)	4		
<b>Environmental Science – 4 hours (also counted as part of Biology major)</b>				
BIO 3334 <b>or</b>	Ecology (S)	4		
BIO 2214	Environmental Biology (F, odd)	4		
<b>History/Philosophy of Science and Technology – 3 hours</b>				
PHS 3303	History/Phil of Science & Tech (F, even)	3		

### Chemistry Endorsement

#### BS or BA in Chemistry (minimum 35 hours) to include coursework in:

CHE 1115	General Chemistry I (F)	5		
CHE 1125	General Chemistry II (S)	5		
CHE 3304	Organic Chemistry I (F)	4		
CHE 3314	Organic Chemistry II (S)	4		
CHE 3345	Analytical Chemistry (S)	5		
CHE 3002	Environmental Chemistry (S, even)	2		
CHE 3364	Biochemistry (F, odd)	4		
CHE 3354	Instrumental Analysis (F, odd)	4		
CHE 3371	Seminar in Chemistry I (S)	1		
CHE 4471	Seminar in Chemistry II (S)	1		

**The chemistry major requires 6 hours of upper division technical electives from BIO or CIS or MAT or PHS or PHY in addition to the required support courses.** (BIO 3314 and BIO 3334 counted in other sections of this form could count here)


#### Required Support Courses for Major

BIO 1004	Principles of Biology (F/J/S)	4		
MAT 1195	Analytics and Calculus I (F/S)	5		
SCF 3412	Chemistry Through the Eyes of Faith (S, even)	2		

**Note:** EDU 4522 Methods of Teaching Science will include: safety, lab techniques and research process skills.

This certificate will allow a teacher to teach any of the beginning sciences (i.e., General Science, Biology I, Chemistry I, or Physics I) and advanced classes in Chemistry. An endorsement is required for each area in which an advanced class is taught (i.e., Biology II, Physics II)