

# B.S. Natural Science Checklist

## Geology Concentration

### 2015-2016 Catalog

Name: \_\_\_\_\_

ID Number: \_\_\_\_\_

#### GENERAL EDUCATION PROGRAM (27-31 hrs)

##### **English Composition**

COURSE	TITLE	HRS.
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Depending on placement, either 8 or 6 semester hours.

ENGL 1101	<i>Discourse &amp; Comp.</i>	5	
<i>or</i>			
ENGL 1102	<i>Discourse &amp; Comp.</i>	3	_____
ENGL 1105	<i>Comp. &amp; Argument.</i>	3	_____

##### **Fine & Performing Arts (Select 1)**

COURSE	TITLE	HRS.
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ARTH 1101	<i>Introduction to Art</i>	3	_____
ENGL 2275	<i>Amer. Film History</i>	3	_____
MUSI 1201	<i>Music Appreciation</i>	3	_____
MUSI 2211	<i>Music History I</i>	3	_____
PHIL 3300	<i>Philosophy of Film</i>	3	_____
THAR 1000	<i>Introduction to Theater</i>	3	_____

##### **Quantitative Reasoning**

COURSE	TITLE	HRS.
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MATH 1100	<i>Mathematics Core</i>	3	_____
MATH 1200	<i>College Algebra</i>	3	_____
MATH 1250	<i>Trigonometry</i>	3	_____
MATH 1300	<i>Precalculus</i>	5	_____
MATH 1500	<i>Principles of Statistics</i>	3	_____
MATH 1700	<i>Applied Finite Math.</i>	3	_____
MATH 2110	<i>Calculus I</i>	4	_____

##### **Social Science (Select 1)**

COURSE	TITLE	HRS.
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ANTH 3350	<i>Biological Anthr.</i>	4	_____
GOVT 2250	<i>Intro. to Political Sci.</i>	3	_____
HIST 2430	<i>World History I</i>	3	_____
HIST 2440	<i>World History II</i>	3	_____
HIST 2530	<i>World Prehist. &amp; Arch</i>	3	_____
HIST 4110	<i>Intellectual History</i>	3	_____
PHIL 3360	<i>Social &amp; Politic. Hist.</i>	3	_____
PSYC 1101	<i>Intro. to Psychology</i>	3	_____
SOCI 1101	<i>Intro. to Sociology</i>	3	_____
SOSC 1110	<i>Foun. of Social Sci.</i>	3	_____

##### **Ethics (Select 1)**

COURSE	TITLE	HRS.
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PHIL 3320	<i>Ethics Public/Priv. Life</i>	3	_____
ROCI 4485	<i>Reflec. Comm. Involv.</i>	3	_____

##### **Natural Sciences**

The Natural Sciences component of the GEP will be met within the natural science degree.

##### **Western Perspectives (Select 1)**

COURSE	TITLE	HRS.
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ENGL 2211	<i>Survey of English Lit. 1</i>	3	_____
ENGL 2212	<i>Survey of English Lit. 2</i>	3	_____
HIST 3115	<i>Women in Medieval Eur.</i>	3	_____
HIST 3300	<i>Christianity in Ea. Am.</i>	3	_____
HIST 3520	<i>History of Crusades</i>	3	_____
IDST 2225	<i>Civilization &amp; Lit. 1</i>	3	_____
IDST 2226	<i>Civilization &amp; Lit. 2</i>	3	_____
PHIL 2200	<i>Intro. to Philosophy</i>	3	_____
RELI 2230	<i>Hist. of Chr. Thought</i>	3	_____

##### **Non-Western Perspectives (Select 1)**

COURSE	TITLE	HRS.
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ANTH 2250	<i>Cultural Anthropology</i>	3	_____
ARTH 3366	<i>Non-Western Survey</i>	3	_____
GEOG 2201	<i>Cultural Geography</i>	3	_____
GEOG 3351	<i>Reg. Geog.: Middle E.</i>	3	_____
GOVT 3320	<i>Third World Politics</i>	3	_____
HIST 3410	<i>East Asian History</i>	3	_____
HIST 3430	<i>Anc. Indian Cu. of Soc</i>	3	_____
HIST 3432	<i>Gandhi &amp; Mod. India</i>	3	_____
HIST 3500	<i>History of So. Africa</i>	3	_____
HIST 3550	<i>Islam: Rel., Pol., Soc.</i>	3	_____
HIST 4420	<i>Middle East (modern)</i>	3	_____
IDST 2227	<i>Civilization &amp; Lit. 3</i>	3	_____
PHIL 2284	<i>Asian Philosophy</i>	3	_____

##### **Capstone**

COURSE	TITLE	HRS.
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IDST 4490	<i>Senior Seminar</i>	3	_____
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(Checklist continued on reverse side)

# B.S. Natural Science Checklist

## Geology Concentration

### 2015-2016 Catalog

#### GEOLOGY CONCENTRATION (28 hrs)

COURSE	TITLE	HRS.	
GEOL 1201	Phys. Geol. & Enviro.	4	_____
GEOL 1202	Historical Geology	4	_____
GEOL 2203	Mineralogy	4	_____
GEOL 2204	Sedimentary Rocks	4	_____
GEOL 3205	Petrology	4	_____
GEOL 4206	Struc. Geol. /Tectonics	4	_____
GEOL 4211	Field Methods 1	2	_____
GEOL 4212	Field Methods 2	2	_____

#### ADDITIONAL SCIENCE/MATH (24 hrs)

COURSE	TITLE	HRS.	
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*Math courses must be numbered 1200 or above*

#### **Area II** \_\_\_\_\_ (12 hrs)

*Select one area of science/math other than geology. You may choose from biology, physics, chemistry, or math.*

_____	_____	—	_____
_____	_____	—	_____
_____	_____	—	_____

#### **Area III** \_\_\_\_\_ (8 hrs)

*Select one area of science/math other than geology and your Area II selection. You may choose from biology, physics, chemistry, or math.*

_____	_____	—	_____
_____	_____	—	_____

#### **Additional Science/Math** (4 hrs)

*Select any course in science or math not used above. Math courses must be numbered 1200 or above.*

_____	_____	—	_____
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#### PUBLIC SPEAKING AND HUMAN COMMUNICATION

Course	TITLE	Hrs	
COMM 1103	Pub. Spk. & Comm.	3	_____

#### MATHEMATICS PROFICIENCY REQUIREMENT

*Each student must show proficiency in MATH 1250 (Trigonometry) either through placement at a higher level or completion of this or a higher level math course.*

#### GENERAL ELECTIVES

*Once all other requirements have been met (GEP, Geology Concentration, Additional Science/Math and Math Proficiency) you must take enough General Electives to meet the 120 hour requirement.*

_____	_____	—	_____
_____	_____	—	_____
_____	_____	—	_____
_____	_____	—	_____
_____	_____	—	_____
_____	_____	—	_____
_____	_____	—	_____
_____	_____	—	_____
_____	_____	—	_____
_____	_____	—	_____

#### ADDITIONAL MINIMUM REQUIREMENTS

120 semester credit hours	_____
2.00 overall, cumulative GPA	_____
60 semester credit hours at 2000 level or above	_____

#### SPECIAL MINIMUM REQUIREMENTS FOR TRANSFER STUDENTS

30 semester credit hours completed at SSU, of which 21 credit hours must be upper division courses (3000-4000 level)	_____
12 semester credit hours in the natural sciences completed at SSU at the 3000 or 4000 level of which 8 must be in geology	_____

120 Hours Required.

7/23/2015

## BS Natural Sciences (Geology)—Suggested Four-Year Course Schedule

Year 1			
Fall Semester		Spring Semester	
GEOL1201: Physical Geology	4	Social Sciences GEP:	3
Fine Arts GEP:	3	MATH1020: Intermediate Algebra	3
ENGL1102: Discourse and Composition	3	ENGL1105: Comp. and Argumentation	3
General Electives	5	COMM1103: Public Speaking	3
		General Electives	3
<b>Total Hours:</b>	<b>15</b>	<b>Total Hours:</b>	<b>15</b>
Year 2			
Fall Semester		Spring Semester	
GEOL1202: Historical Geology	4	GEOL2203: Mineralogy	4
MATH1200: College Algebra	3	MATH1250: Trigonometry	3
Science Area II	4	Science Area II	4
General Electives	4	General Electives	4
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
Year 3			
Fall Semester		Spring Semester	
GEOL2204: Sed/Strat	4	GEOL3205: Petrology	4
CHEM1141: General Chemistry 1	4	Science Area II / III	4
Western Perspectives GEP	3	Additional Science/Math	4
Science Area III	4	Non-Western Perspectives GEP	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
Year 4			
Fall Semester		Spring Semester	
GEOL4206: Structural Geology	4	GEOL4212: Field Methods 2	2
GEOL4211: Field Methods 1	2	IDST4490: Senior Seminar	3
Ethics GEP	3	General Electives	10
General Electives	6		
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Total Hours: 120</b>			

*Note about General Electives:* General electives may be rearranged to have more or less in any particular semester. For example, a student may want to combine several of the general electives in order to take a 3 or 4 credit course. If MATH 1020 is not needed due to placement, student should complete MATH 1200 during Spring Semester of Year 1; and take CHEM 1141 during Fall Semester of Year 2.

## Guide for the Natural Sciences Student

<b>Freshman Year</b>	<p>Meet with your academic advisor to form a plan for your degree. Talk with your advisor about future career goals.</p> <p>Pick up the every-other-year course list, degree checklist, and four-year plan.</p>	<p>Join a club! Pre-Med / Chemistry / World Before Us / Geology.</p> <p>Like the Department Facebook page to learn about goings on. <a href="http://bit.ly/SSU_Science">http://bit.ly/SSU_Science</a></p> <p>Follow us on Twitter too: @SSU_Science</p>	<p>Start drafting your résumé</p> <p>Visit Student Career Development Office : ADM036</p> <p>Spring semester: Create a profile and upload resume to College Central: <a href="http://www.collegecentral.com/shawnee">www.collegecentral.com/shawnee</a></p>
<b>Sophomore Year</b>	<p>Meet with your academic advisor and make sure that you are on track with your degree.</p> <p>Learn about our minors, and consider signing up for one.</p>	<p>Talk to faculty members about becoming a lab assistant.</p> <p>Consider applying for a summer internship through the Student Career Development office.</p> <p>Consider joining a professional organization in your major, such as the ACS (Chemistry), GSA (Geology), etc.</p>	<p>Learn about our study abroad opportunities: <a href="http://www.shawnee.edu/offices/international-students/study-abroad.aspx">www.shawnee.edu/offices/international-students/study-abroad.aspx</a></p> <p>Volunteer on/off campus to gain experience</p> <p>Meet with Peer Career to update your résumé</p>
<b>Junior Year</b>	<p>Meet with your academic advisor.</p> <p>Make sure you examine the every-other-year science course list and talk with your advisor about your graduation plan.</p> <p>Consider getting involved with an undergraduate research project. Talk to several professors about research possibilities.</p>	<p>Consider running for office in a student club</p> <p>Late fall semester, apply for a summer research experience for undergraduates (REU), such as NSF-REU: <a href="http://www.nsf.gov/crssprgm/reu/">www.nsf.gov/crssprgm/reu/</a> or a summer internship.</p>	<p>Have the Career Development Office assist with updating your résumé and practice interviewing through Mock Interviews.</p>
<b>Senior Year</b>	<p>Meet with your academic advisor and be sure that you will soon meet all your degree requirements.</p> <p>Print off your degree audit, and cross reference with your degree checklist.</p>	<p>Get involved with tutoring through the student success center.</p> <p>Continue your involvement with a student club.</p>	<p>Start job search in fall semester. Update résumé, join LinkedIn, and consider taking advantage of your professional science organization's job database and other tools.</p> <p>If applying for graduate school, take the GRE and start applying in fall.</p>

## Every-Other-Year Course Schedule

### Natural Sciences

*Note: This course schedule is subject to change. Be sure to talk to your advisor before you schedule your classes!*

Course	Fall 2014	Spring 2015	Fall 2015	Spring 2016	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Irregular/As Needed
<b>Biology</b>													
BIOL2250 Plant Taxonomy	✓				✓				✓				
BIOL2252 Dendrology			✓				✓				✓		
BIOL2253 Practical Horticulture				✓				✓				✓	
BIOL3350 Entomology	✓				✓				✓				
BIOL3251 Summer Flora													✓ (Summers)
BIOL3254 Economic Botany													✓
BIOL3270 Plant Anatomy & Morphology		✓				✓				✓			
BIOL3271 Non-vascular Plants													✓
BIOL3359 Comparative Vertebrate Anatomy			✓				✓				✓		
BIOL3360 Animal Physiology		✓				✓				✓			
BIOL3640 Histology				✓				✓				✓	
BIOL3850 Ecology	✓				✓				✓				
BIOL3852 Marine Biology			✓				✓				✓		
BIOL3860 Field Methods													✓
BIOL3870 Evolution		✓				✓				✓			
BIOL4270 Plant Physiology													✓
BIOL4355 Animal Behavior		✓				✓				✓			

Course	Fall 2014	Spring 2015	Fall 2015	Spring 2016	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Irregular/As Needed
BIOL4360 Herpetology				✓				✓				✓	
BIOL4370 Mammalogy				✓				✓				✓	
BIOL4491 Limnology	✓				✓				✓				
BIOL4670 Neuropharmacology	✓				✓				✓				
BIOL4680 Parasitology			✓				✓				✓		
BIOL4760 Diagnostic Microbiology	✓				✓				✓				
BIOL4765 Virology				✓				✓				✓	
BIOL4780 Immunology			✓				✓				✓		
BIOL4850 Forest Ecology & Management													✓
BIOL4851 Wildlife Ecology & Management													✓
<b>Chemistry</b>													
CHEM3325 Analytical Chemistry 2		✓				✓				✓			
CHEM4431 Physical Chemistry 1			✓				✓				✓		
CHEM4432 Physical Chemistry 2				✓				✓				✓	
CHEM4441 Adv. Inorganic Chemistry		✓				✓				✓			
<b>Natural Science</b>													
NTSC3860 Environmental Science			✓				✓				✓		

**Note: This course schedule is subject to change. Be sure to talk to your advisor before you schedule your classes!**

Last Updated: September 25, 2014

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