Salem STATE UNIVERSITY

Name:_____
Student ID: _____
Date Admitted Into Major:_____

BACHELOR OF SCIENCE
GEOLOGICAL SCIENCES
EARTH POLICY CONCENTRATION

GENERAL EDUCATION REQUIREMENTS

Competencies

☐	♦ Basic College Math
☐	♦ Reading Comprehension

♣General Education Categories (34-35 credits total)

♦FYS	First Year Seminar				3	
♦W-I	Written Communication - Level I				3	
♦OC	Oral Communication				3	
PGR	Personal Growth & Responsibility				3	
CEA	Creative Expression & Appreciation				3	
WC	World Cultures				3	
HP	The Human Past				3	
CS	Contemporary Society				3	
SR	Scientific Reasoning:	♯ Any SR course			3-4	
		♯ SR Lab course			4	
QR	Quantitative Reasoning				3	

‡ Written Communication (Level II and Level III)

W-II	Written Communication - Level II			☐
W-III	Written Communication - Level III			☐

Free Electives (10 credits minimum)

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

Minor (Optional):

COURSES IN MAJOR (49 credits total)

Major Core Courses (31 credits)

GLS	100	Dynamic Earth	4	
GLS	102	Evolving Earth	4	
GLS	210	Geomorphology	4	
GLS	221	Mineralogy	4	
GLS	253	Geochemistry	3	
GLS	322	Petrology	4	
GLS	334	Sedimentation & Stratigraphy	4	
GLS	341	Structural Geology & Tectonics	4	

Major Concentration Courses (9 credits)

Choose three courses from the following list:

GPH	473	Planning Policy & Dec. Making	3	
HST	210	Legal History	3	
POL	304	Environmental Politics	3	
IDS	366	Energy and the Environment	3	

Major Capstone Courses (9 credits)

†GLS	470	Field Geology I	3	
†GLS	485	Field Geology II	3	
GLS	500	Senior Research in Geology	3	

♥ Required Support Courses (23-26 credits total)

PHL	224	Environmental Ethics	3	
ECO	319	Env. & Nat. Resource Economics	3	
		Lab Sequence I	4	
		Lab Sequence II	4	

Choose one course from the following list:

MAT	110	Pre-calculus	3	
MAT	220	Calculus I	4	
MAT	147	Statistics	3	

And choose two courses from BIO, CHE, PHS, MAT, or ¶GPH:

♥ Students may choose to use support courses to satisfy general education categories, but may not be required to do so. **Note:** If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does **not** reduce the credit total required for graduation.

♣ Courses used to satisfy the general education requirements of the university must be taken from a minimum of six different academic disciplines. First Year Seminar and Level I Written Communications courses are exempt from this restriction. Courses may not be used to fulfill both major discipline and general education requirements.

♯ These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

‡ Level II and Level III Written Communications Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.

† 6 credits must be earned in any combination of GLS 470 or GLS 485.

¶ Acceptable GPH courses include: 340, 343, or 446

► Science sequence must be chosen from the following list: BIO121/BIO122, BIO131/BIO132, BIO115H/BIO116H, CHE120/CHE121, CHE130/CHE131, CHE130/CHE212, PHS101/PHS102, PHS211A/PHS212A, PHS221/ PHS222

♦ COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS | ♦ GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

Effective: 9/2015

Salem STATE UNIVERSITY

Name:_____
Student ID: _____
Date Admitted Into Major:_____

BACHELOR OF SCIENCE
GEOLOGICAL SCIENCES
EARTH RESOURCES CONCENTRATION

GENERAL EDUCATION REQUIREMENTS

Competencies

☐	♦ Basic College Math
☐	♦ Reading Comprehension

♣General Education Categories (34-35 credits total)

♦FYS	First Year Seminar				3	
♦W-I	Written Communication - Level I				3	
♦OC	Oral Communication				3	
PGR	Personal Growth & Responsibility				3	
CEA	Creative Expression & Appreciation				3	
WC	World Cultures				3	
HP	The Human Past				3	
CS	Contemporary Society				3	
SR	Scientific Reasoning:	♯ Any SR course			3-4	
		♯ SR Lab course			4	
QR	Quantitative Reasoning				3	

‡ Written Communication (Level II and Level III)

W-II	Written Communication - Level II			☐
W-III	Written Communication - Level III			☐

Free Electives (15 credits minimum)

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

Minor (Optional):

COURSES IN MAJOR (49-50 credits total)

Major Core Courses (31 credits)

GLS	100	Dynamic Earth	4	
GLS	102	Evolving Earth	4	
GLS	210	Geomorphology	4	
GLS	221	Mineralogy	4	
GLS	253	Geochemistry	3	
GLS	322	Petrology	4	
GLS	334	Sedimentation & Stratigraphy	4	
GLS	341	Structural Geology & Tectonics	4	

Major Concentration Courses (9-10 credits)

Choose three courses from the following list:

GLS	222	Gemology	3	
GLS	231	Earth System Cycles	3	
GLS	351	Energy & Natural Resources in the Earth	3	
GLS	352	Petroleum Geology	3	
GLS	356	Hydrology	4	
IDS	366	Energy and the Environment	3	

Major Capstone Courses (9 credits)

†GLS	470	Field Geology I	3	
†GLS	485	Field Geology II	3	
GLS	500	Senior Research in Geology	3	

♥ Required Support Courses (17-20 credits total)

Choose one course from the following list:

MAT	110	Pre-calculus	3	
MAT	220	Calculus I	4	
MAT	147	Statistics	3	

► And required lab sequence

		Lab Sequence I	4	
		Lab Sequence II	4	

And choose two courses from BIO, CHE, PHS, MAT, or ¶GPH:

♥ Students may choose to use support courses to satisfy general education categories, but may not be required to do so. **Note:** If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does **not** reduce the credit total required for graduation.

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♯ These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

‡ Level II and Level III Written Communications Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.

† 6 credits must be earned in any combination of GLS 470 or GLS 485.

► Science sequence must be chosen from the following list: BIO121/BIO122, BIO131/BIO132, BIO115H/BIO116H, CHE120/CHE121, CHE130/CHE131, CHE130/CHE212, PHS101/PHS102, PHS211A/PHS212A, PHS221/ PHS222

¶ Acceptable GPH courses include: 340, 343, or 446

♦ COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS | ♦ GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

Effective: 9/2015

Salem STATE UNIVERSITY

Name:_____
Student ID: _____
Date Admitted Into Major:_____

BACHELOR OF SCIENCE
GEOLOGICAL SCIENCES
EARTH SCIENCE CONCENTRATION

GENERAL EDUCATION REQUIREMENTS

Competencies

☐	♦ Basic College Math
☐	♦ Reading Comprehension

♣General Education Categories (34-35 credits total)

♦FYS	First Year Seminar				3	
♦W-I	Written Communication - Level I				3	
♦OC	Oral Communication				3	
PGR	Personal Growth & Responsibility				3	
CEA	Creative Expression & Appreciation				3	
WC	World Cultures				3	
HP	The Human Past				3	
CS	Contemporary Society				3	
SR	Scientific Reasoning:	♯ Any SR course			3-4	
		♯ SR Lab course			4	
QR	Quantitative Reasoning				3	

‡ Written Communication (Level II and Level III)

W-II	Written Communication - Level II			☐
W-III	Written Communication - Level III			☐

Free Electives (12 credits minimum)

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

Minor (Optional):

COURSES IN MAJOR (48-49 credits total)

Major Core Courses (27 credits)

GLS	102	Evolving Earth	4	
GLS	210	Geomorphology	4	
GLS	221	Mineralogy	4	
GLS	253	Geochemistry	3	
GLS	322	Petrology	4	
GLS	334	Sedimentation & Stratigraphy	4	
GLS	341	Structural Geology & Tectonics	4	

Major Concentration Courses (12-13 credits)

GLS	120	Our Geologic Environment	3	
GPH	386P	Meteorology	3	
GLS	212	Geological Oceanography.	3	
	OR			
GPH	285P	Oceanography	3	
	OR			
BIO	322	Biological Oceanography	4	
GLS	115	Geology of Solar System	3	
	OR		3	
PHS	207	Astronomy 3 cr.		

Major Capstone Courses (9 credits)

†GLS	470	Field Geology I	3	
†GLS	485	Field Geology II	3	
GLS	500	Senior Research in Geology	3	

♥ Required Support Courses (20-24 credits total)

Choose two courses from the following list:

MAT	110	Pre-calculus	3	
MAT	220	Calculus I	4	
MAT	221	Calculus II	4	
MAT	147	Statistics	3	

And required lab sequence

GLS	100	Physical Geology	4	
GPH	100P	Weather and Climate	4	
And two courses from BIO, CHE, PHS, MAT or ¶GPH:				

♥ Students may choose to use support courses to satisfy general education categories, but may not be required to do so. **Note:** If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does **not** reduce the credit total required for graduation.

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♯ These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

‡ Level II and Level III Written Communications Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.

† 6 credits must be earned in any combination of GLS 470 or GLS 485.

¶ Choose from GPH 340, 343, or 446.

♦ COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS | ♦ GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

Effective: 9/2015

Salem STATE UNIVERSITY

Name:_____
Student ID: _____
Date Admitted Into Major:_____

BACHELOR OF SCIENCE
GEOLOGICAL SCIENCES
ENVIRONMENTAL GEOLOGY CONCENTRATION

GENERAL EDUCATION REQUIREMENTS

Competencies

☐	♦ Basic College Math
☐	♦ Reading Comprehension

♣General Education Categories (34-35 credits total)

♦FYS	First Year Seminar				3	
♦W-I	Written Communication - Level I				3	
♦OC	Oral Communication				3	
PGR	Personal Growth & Responsibility				3	
CEA	Creative Expression & Appreciation				3	
WC	World Cultures				3	
HP	The Human Past				3	
CS	Contemporary Society				3	
SR	Scientific Reasoning:	♯ Any SR course			3-4	
		♯ SR Lab course			4	
QR	Quantitative Reasoning				3	

‡ Written Communication (Level II and Level III)

W-II	Written Communication - Level II			☐
W-III	Written Communication - Level III			☐

Free Electives (11 credits minimum)

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

Minor (Optional):

COURSES IN MAJOR (49-50 credits total)

Major Core Courses (31 credits)

GLS	100	Dynamic Earth	4	
GLS	102	Evolving Earth	4	
GLS	210	Geomorphology	4	
GLS	221	Mineralogy	4	
GLS	253	Geochemistry	3	
GLS	322	Petrology	4	
GLS	334	Sedimentation & Stratigraphy	4	
GLS	341	Structural Geology & Tectonics	4	

Major Concentration Courses (9-10 credits)

Choose three courses from the following list:

GLS	214	Beaches and Coasts	4	
GLS	356	Hydrology	4	
GLS	357	Environmental Geology	3	
GLS	380	Appl. Environmental Geophysics	4	

Major Capstone Courses (9 credits)

†GLS	470	Field Geology I	3	
†GLS	485	Field Geology II	3	
GLS	500	Senior Research in Geology	3	

♥ Required Support Courses (20-24 credits total)

Choose two courses from the following list:

MAT	110	Pre-calculus	3	
MAT	220	Calculus I	4	
MAT	221	Calculus II	4	
MAT	147	Statistics	3	

► And required lab sequence

		Lab Sequence I	4	
		Lab Sequence II	4	

And choose two courses from BIO, CHE, PHS, MAT, or ¶GPH:

♥ Students may choose to use support courses to satisfy general education categories, but may not be required to do so. **Note:** If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does **not** reduce the credit total required for graduation.

♣ Courses used to satisfy the general education requirements of the university must be taken from a minimum of six different academic disciplines. First Year Seminar and Level I Written Communications courses are exempt from this restriction. Courses may not be used to fulfill both major discipline and general education requirements.

♯ These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

‡ Level II and Level III Written Communications Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.

† 6 credits must be earned in any combination of GLS 470 or GLS 485.

¶ Acceptable GPH courses include: 340, 343, or 446

► Science sequence must be chosen from the following list: BIO121/BIO122, BIO131/BIO132, BIO115H/BIO116H, CHE120/CHE121, CHE130/CHE131, CHE130/CHE212, PHS101/PHS102, PHS211A/PHS212A, PHS221/ PHS222

♦ COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS	♦ GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

Effective: 9/2015

Salem STATE UNIVERSITY

Name:_____
Student ID: _____
Date Admitted Into Major:_____

BACHELOR OF SCIENCE
GEOLOGICAL SCIENCES
GEOARCHEOLOGY CONCENTRATION

GENERAL EDUCATION REQUIREMENTS

Competencies

☐	♦ Basic College Math
☐	♦ Reading Comprehension

♣General Education Categories (34-35 credits total)

♦FYS	First Year Seminar				3	
♦W-I	Written Communication - Level I				3	
♦OC	Oral Communication				3	
PGR	Personal Growth & Responsibility				3	
CEA	Creative Expression & Appreciation				3	
WC	World Cultures				3	
HP	The Human Past				3	
CS	Contemporary Society				3	
SR	Scientific Reasoning:	♯ Any SR course			3-4	
		♯ SR Lab course			4	
QR	Quantitative Reasoning				3	

‡ Written Communication (Level II and Level III)

W-II	Written Communication - Level II			☐
W-III	Written Communication - Level III			☐

Free Electives (8 credits minimum)

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

Minor (Optional):

COURSES IN MAJOR (51 credits total)

Major Core Courses (31 credits)

GLS	100	Dynamic Earth	4	
GLS	102	Evolving Earth	4	
GLS	210	Geomorphology	4	
GLS	221	Mineralogy	4	
GLS	253	Geochemistry	3	
GLS	322	Petrology	4	
GLS	334	Sedimentation & Stratigraphy	4	
GLS	341	Structural Geology & Tectonics	4	
Major Concentration Courses (11 credits)				
GLS	235	Forensic Geology	4	
GLS	349	Geoarcheology	3	
GLS	380	Appl. Environmental Geophysics	4	
Major Capstone Courses (9 credits)				
†GLS	470	Field Geology I	3	
†GLS	485	Field Geology II	3	
GLS	500	Senior Research in Geology	3	

♥ Required Support Courses (26 credits total)

HST	301	Intro to Archeology	3	
HST	332	Architectural History of America	3	
HST	333	American Material Culture	3	
MAT	110	Pre-calculus	3	
MAT	147	Statistics	3	
GPH	340	Geographic Information Systems	3	
►		Required Lab Sequence I	4	
►		Required Lab Sequence II	4	

♥ Students may choose to use support courses to satisfy general education categories, but may not be required to do so. **Note:** If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does **not** reduce the credit total required for graduation.

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♯ These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

‡ Level II and Level III Written Communications Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.

† 6 credits must be earned in any combination of GLS 470 or GLS 485.

► Science sequence must be chosen from the following list: BIO121/BIO122, BIO131/BIO132, BIO115H/BIO116H, CHE120/CHE121, CHE130/CHE131, CHE130/CHE212, PHS101/PHS102, PHS211A/PHS212A, PHS221/ PHS222

♦ COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS	♦ GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

Effective: 9/2015

Salem STATE UNIVERSITY

Name:_____
Student ID: _____
Date Admitted Into Major:_____

BACHELOR OF SCIENCE
GEOLOGICAL SCIENCES
GEOLOGY CONCENTRATION

GENERAL EDUCATION REQUIREMENTS

Competencies

☐	♦ Basic College Math
☐	♦ Reading Comprehension

♣General Education Categories (34-35 credits total)

♦FYS	First Year Seminar				3	
♦W-I	Written Communication - Level I				3	
♦OC	Oral Communication				3	
PGR	Personal Growth & Responsibility				3	
CEA	Creative Expression & Appreciation				3	
WC	World Cultures				3	
HP	The Human Past				3	
CS	Contemporary Society				3	
SR	Scientific Reasoning:	♯ Any SR course			3-4	
		♯ SR Lab course			4	
QR	Quantitative Reasoning				3	

‡ Written Communication (Level II and Level III)

W-II	Written Communication - Level II			☐
W-III	Written Communication - Level III			☐

Free Electives (9 credits minimum)

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

Minor (Optional):

COURSES IN MAJOR (51-52 credits total)

Major Core Courses (31 credits)

GLS	100	Dynamic Earth	4	
GLS	102	Evolving Earth	4	
GLS	210	Geomorphology	4	
GLS	221	Mineralogy	4	
GLS	253	Geochemistry	3	
GLS	322	Petrology	4	
GLS	334	Sedimentation & Stratigraphy	4	
GLS	341	Structural Geology & Tectonics	4	
Major Concentration Courses (11-12 credits)				
GLS	101	Field Studies in Earth Science	4	
GLS	330	Paleontology	4	
GLS		Elective numbered 200 & above	3-4	
Major Capstone Courses (9 credits)				
†GLS	470	Field Geology I	3	
†GLS	485	Field Geology II	3	
GLS	500	Senior Research in Geology	3	

♥ Required Support Courses (20-24 credits total)

Choose two courses from the following list:

MAT	110	Pre-calculus	3	
MAT	220	Calculus I	4	
MAT	221	Calculus II	4	
MAT	147	Statistics	3	

► And required lab sequence

		Lab Sequence I	4	
		Lab Sequence II	4	
And two courses from BIO, CHE, PHS, MAT or ¶GPH:				

♥ Students may choose to use support courses to satisfy general education categories, but may not be required to do so. **Note:** If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does **not** reduce the credit total required for graduation.

♣ Courses used to satisfy the general education requirements of the university must be taken from a minimum of six different academic disciplines. First Year Seminar and Level I Written Communications courses are exempt from this restriction. Courses may not be used to fulfill both major discipline and general education requirements.

♯ These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

‡ Level II and Level III Written Communications Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.

† 6 credits must be earned in any combination of GLS 470 or GLS 485.

► Science sequence must be chosen from the following list: BIO121/BIO122, BIO131/BIO132, BIO115H/BIO116H, CHE120/CHE121, CHE130/CHE131, CHE130/CHE212, PHS101/PHS102, PHS211A/PHS212A, PHS221/ PHS222

¶ Choose from GPH 340, 343, or 446.

♦ COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS | ♦ GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

Effective: 9/2015

Salem STATE UNIVERSITY

Name:_____
Student ID: _____
Date Admitted Into Major:_____

BACHELOR OF SCIENCE
GEOLOGICAL SCIENCES
GEOTECHNOLOGY CONCENTRATION

GENERAL EDUCATION REQUIREMENTS

Competencies

☐	♦ Basic College Math
☐	♦ Reading Comprehension

♣General Education Categories (34-35 credits total)

♦FYS	First Year Seminar				3	
♦W-I	Written Communication - Level I				3	
♦OC	Oral Communication				3	
PGR	Personal Growth & Responsibility				3	
CEA	Creative Expression & Appreciation				3	
WC	World Cultures				3	
HP	The Human Past				3	
CS	Contemporary Society				3	
SR	Scientific Reasoning:	♯ Any SR course			3-4	
		♯ SR Lab course			4	
QR	Quantitative Reasoning				3	

‡ Written Communication (Level II and Level III)

W-II	Written Communication - Level II			☐
W-III	Written Communication - Level III			☐

Free Electives (9 credits minimum)

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

Minor (Optional):

COURSES IN MAJOR (51-52 credits total)

Major Core Courses (31 credits)

GLS	100	Dynamic Earth	4	
GLS	102	Evolving Earth	4	
GLS	210	Geomorphology	4	
GLS	221	Mineralogy	4	
GLS	253	Geochemistry	3	
GLS	322	Petrology	4	
GLS	334	Sedimentation & Stratigraphy	4	
GLS	341	Structural Geology & Tectonics	4	

Major Concentration Courses (11-12 credits)

Choose three courses from the following list:

GLS	101	Field Studies in Earth Science	4	
GLS	343	Intro to Geophysics	4	
GLS	345	Geological Engineering	3	
GLS	356	Hydrology	4	
GLS	372	Surveying I	4	
GLS	373	Surveying II	4	
GLS	380	Applied Env. Geophysics	4	

Major Capstone Courses (9 credits)

†GLS	470	Field Geology I	3	
†GLS	485	Field Geology II	3	
GLS	500	Senior Research in Geology	3	

♥ Required Support Courses (20-24 credits total)

Choose two courses from the following list:

MAT	110	Pre-calculus	3	
MAT	220	Calculus I	4	
MAT	221	Calculus II	4	
MAT	147	Statistics	3	

► And required lab sequence

		Lab Sequence I	4	
		Lab Sequence II	4	

And two courses from BIO, CHE, PHS, MAT or ¶GPH:

♥ Students may choose to use support courses to satisfy general education categories, but may not be required to do so. **Note:** If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does **not** reduce the credit total required for graduation.

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♯ These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

‡ Level II and Level III Written Communications Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.

► Science sequence must be chosen from the following list: BIO121/BIO122, BIO131/BIO132, BIO115H/BIO116H, CHE120/CHE121, CHE130/CHE131, CHE130/CHE212, PHS101/PHS102, PHS211A/PHS212A, PHS221/ PHS222

† 6 credits must be earned in any combination of GLS 470 or GLS 485.

¶ Choose from GPH 340, 343, or 446.

♦ COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS | ♦ GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

Effective: 9/2015

Salem STATE UNIVERSITY

Name:_____
Student ID: _____
Date Admitted Into Major:_____

BACHELOR OF SCIENCE
GEOLOGICAL SCIENCES
MARINE GEOLOGY CONCENTRATION

GENERAL EDUCATION REQUIREMENTS

Competencies

☐	♦ Basic College Math
☐	♦ Reading Comprehension

♣General Education Categories (34-35 credits total)

♦FYS	First Year Seminar				3	
♦W-I	Written Communication - Level I				3	
♦OC	Oral Communication				3	
PGR	Personal Growth & Responsibility				3	
CEA	Creative Expression & Appreciation				3	
WC	World Cultures				3	
HP	The Human Past				3	
CS	Contemporary Society				3	
SR	Scientific Reasoning:	♯ Any SR course			3-4	
		♯ SR Lab course			4	
QR	Quantitative Reasoning				3	

‡ Written Communication (Level II and Level III)

W-II	Written Communication - Level II			☐
W-III	Written Communication - Level III			☐

Free Electives (10 credits minimum)

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

Minor (Optional):

COURSES IN MAJOR (50-51 credits total)

Major Core Courses (31 credits)

GLS	100	Dynamic Earth	4	
GLS	102	Evolving Earth	4	
GLS	210	Geomorphology	4	
GLS	221	Mineralogy	4	
GLS	253	Geochemistry	3	
GLS	322	Petrology	4	
GLS	334	Sedimentation & Stratigraphy	4	
GLS	341	Structural Geology & Tectonics	4	
Major Concentration Courses (10-11 credits)				
GLS	212	Geological Oceanography	3	
GLS	214	Beaches and Coasts	4	
Choose one course from the following list:				
GLS	330	Paleontology	4	
	OR			
BIO	322	Biological Oceanography	4	
	OR			
GPH	285P	Oceanography	3	
Major Capstone Courses (9 credits)				
†GLS	470	Field Geology I	3	
†GLS	485	Field Geology II	3	
GLS	500	Senior Research in Geology	3	

♥ Required Support Courses (20-24 credits total)

Choose two courses from the following list:

MAT	110	Pre-calculus	3	
MAT	220	Calculus I	4	
MAT	221	Calculus II	4	
MAT	147	Statistics	3	

► And required lab sequence

		Lab Sequence I	4	
		Lab Sequence II	4	
And two courses from BIO, CHE, PHS, MAT or ¶GPH:				

♥ Students may choose to use support courses to satisfy general education categories, but may not be required to do so. **Note:** If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does **not** reduce the credit total required for graduation.

♣ Courses used to satisfy the general education requirements of the university must be taken from a minimum of six different academic disciplines. First Year Seminar and Level I Written Communications courses are exempt from this restriction. Courses may not be used to fulfill both major discipline and general education requirements.

♯ These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

‡ Level II and Level III Written Communications Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.

† 6 credits must be earned in any combination of GLS 470 or GLS 485.

► Science sequence must be chosen from the following list: BIO121/BIO122, BIO131/BIO132, BIO115H/BIO116H, CHE120/CHE121, CHE130/CHE131, CHE130/CHE212, PHS101/PHS102, PHS211A/PHS212A, PHS221/ PHS222

¶ Choose from GPH 340, 343, or 446.

♦ COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS | ♦ GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

Effective: 9/2015