

2014-2015 BACHELOR OF SCIENCE--BIOLOGICAL SCIENCES MAJOR AREAS OF EMPHASIS: EEB,MRB, PLB

Name: _____

ID: _____

Note: A course may be used to satisfy only 1 requirement in the entire major.

EVOLUTION, ECOLOGY AND BIODIVERSITY AREA OF EMPHASIS (12 units)

Students choose to complete Biological Sciences 105 or 102+103 for this emphasis.

Completed

Field Requirements:

Field A = EVE 100 _____

Field B = EVE 101 _____

Units Grade GPB

1. At least 12 units including at least one course from each of the following two groups

a. *Biodiversity*: ENT 103; EVE 105*, 106*, 108*, 112, 112L*, 114*, 134, 134L*, 134F*, 140*; MIC 105, 105L*; NEM 110; PLB 116*, 118*, 147*, 148*; WFC 110, 110L*, 111, 111L*, 120, 120L*

b. *Advanced Evolution and Ecology*: EVE 102, 103, 107, 115, 117*, 119*, 120, 131, 138, 141, 147, 149, 150, 180A*, 180B*, 181

2. *Laboratory/ Fieldwork Requirement*: Included in the above 12 units, complete a total of 2 units or a total of 6 hours/week of fieldwork or laboratory work. Acceptable courses for this requirement are identified above by an asterisk (*). _____

TOTAL FOR EEB AREA _____

PLANT BIOLOGY AREA OF EMPHASIS (14-17 units)

Students choose to complete Biological Sciences 105 or 102+103 for this emphasis. A course may be listed in more than one area or field requirement, but may be used to satisfy only one area or field requirement.

Select one course from each of the following four areas.

Units Grade GPB

1. *Anatomy and morphology*: EVE 140; PLB 105, 116

2. *Physiology, development and molecular biology*: PLB 111, 112, 113; PLP 130.

3. *Evolution and ecology*: EVE 100, 117; PLB 117, 143.

4. *Laboratory requirement*: BIT 161A, 161B; EVE 108; PLB 105, 108, 116, 148; PLP 148. (No double-dipping)

TOTAL FOR PLB AREA _____

MARINE BIOLOGY AREA OF EMPHASIS (13-19 units)

Students choose to complete Biological Sciences 105 or 102+103 for this emphasis.

Completed

Field Requirements:

Field A = EVE 100 _____

Field B = EVE 101 _____

Field D = NPB 102

or 141 _____

Units Grade GPB

1. *Ocean Processes*: At least 3 units from BIS 122; ESP 124, 152, ESP/GEL 116N, 150A, 150B, 150C; EVE 115; WFC 157.

2. *Marine Organismal Biology*: At least 3 units from ANS 119, 131; EVE 106, 110, 112+112L, 114; NPB 141; PLB118; WFC 120+120L, 121.

3. *Immersion Requirement*: Complete one of four options listed below, offered spring quarter or summer sessions at Bodega Marine Laboratory or equivalent. Requires residence at Bodega Marine Laboratory

Option 1: (summer session 1) Complete a, b and c:

a. Select one course from ESP 124; EVE 106, 110,

114 _____ 3 _____

b. BIS 124 _____ 3 _____

c. ESP/EVE 111 _____ 1 _____

Option 2: (summer session 2) Complete a and b

a. Select one course from ESP 152; GEL 150C

b. BIS 124 _____ 3 _____

Option 3: (summer session 1)

ETX/NUT 127 _____ 10 _____

Option 4: Select one course from each of the following two groups:

a. BIS 122; NPB 141

_____ 3 _____

b. BIS 122P; NPB 141P

_____ 5 _____

TOTAL FOR MRB AREA _____

Deficiencies/Comments: _____

Quarter/Initials/Date: _____

(Forms area of emphasis eve,mrb,plb 2014-21015 6-10-2014)

2014-2015 BACHELOR OF SCIENCE--BIOLOGICAL SCIENCES MAJOR AREAS OF EMPHASIS: MIC, MCB, NPB

Name: _____

ID: _____

Note: A course may be used to satisfy only 1 requirement in the entire major.

MICROBIOLOGY AREA OF EMPHASIS (15-20 units)

Complete one of four options listed below **or** complete an individual option with approval from your faculty adviser.

	Units	Grade	GPB
Option 1: Microbial Physio. & Molec. Genetics (15-18 units)			
--Students must complete Biological Science 102+103 for this option.	BIS 102+103 completed	_____	_____
--Field C requirement = MIC 104 completed		_____	_____
a) MIC 104L	<u>3</u>	_____	_____
b) MIC 115	<u>3</u>	_____	_____
c) MIC 170	<u>3</u>	_____	_____
d) One course from: MIC 150; MCB 121.		_____	_____
_____		_____	_____
e) One course from: MIC 105+105L, 155L, 170; PMI 127.		_____	_____
_____		_____	_____

Option 2: Microbial Diversity and Ecology (15-17 units)

--Students must complete Biological Science 102+103 for this option.	BIS 102+103 completed	_____	_____
--Field C requirement = MIC 104 completed		_____	_____
a) MIC 104L	<u>3</u>	_____	_____
b) MIC 105	<u>3</u>	_____	_____
c) MIC 105L	<u>3</u>	_____	_____
d) MIC 170	<u>3</u>	_____	_____
e) One course from: FST 104; MIC 115, 162, 170; PMI 127, 128; PLB/PLP 148; SSC 111.		_____	_____
_____		_____	_____

Option 3: Biotechnology & Applied Microbiology (16-19 units)

--Students choose to complete Biological Sciences 105 or 102+103 for this option.			
--Field C requirement = MIC 104 completed		_____	_____
a) MIC 104L	<u>3</u>	_____	_____
b) Select two courses from: MIC 115, 170, MCB 121		_____	_____
_____	<u>3</u>	_____	_____
_____	<u>3</u>	_____	_____
c) One course from: FST 102A, 104.		_____	_____
_____		_____	_____
d) One course from: MCB 120L, 160L.		_____	_____
_____		_____	_____

Option 4: Medical Microbiology (12-20 units)

--Students choose to complete Biological Sciences 105 or 102+103 for this option.			
--Student may complete Field C requirement and laboratory requirement for this option with MIC 101, or MIC 104 + 104L. Students are encouraged to take MIC 101 to fulfill both field C requirement and lab requirement. Students completing MIC 104 for field C, must also complete MIC 104L for lab requirement for this option.			
Field C requirement and lab completed with MIC 101	_____	_____	_____
OR Field C requirement and lab completed with MIC 104 and MIC 104L	<u>3</u>	_____	_____
a) PMI 126 or MMI 188	<u>3</u>	_____	_____
b) PMI 127	_____	_____	_____
c) One course from: MIC 105+105L, 162; PMI 128.		_____	_____
_____		_____	_____
d) One course from: MIC 115, 170, MCB 121		_____	_____
_____		_____	_____

TOTAL FOR MIC AREA

MOLECULAR AND CELLULAR BIOLOGY AREA OF EMPHASIS (12-17 units)

Students must complete Biological Science 102+103 for this emphasis.

	Units	Grade	GPB
BIS 102+103 completed	_____	_____	_____
1. <i>Molecular Biology and Gene Expression</i> : One course from MCB 121.		_____	_____
_____		_____	_____
2. <i>Laboratory Experience</i> : One or more laboratory courses from MCB 120L, 140L, 160L or other lab course (to total 3 units or 9 hrs/week) that emphasizes cellular or molecular biology with approval from your faculty adviser.		_____	_____
_____		_____	_____
3. <i>Restricted Electives</i> : Two or more courses from MCB 123, 124, 126, 143, 144, 145, 150, 162, 163, 164, 182; NPB 103; PMI 126; PLB 113, 126; or other courses with faculty adviser's approval.		_____	_____
_____		_____	_____

TOTAL FOR MCB AREA

NEUROBIOLOGY, PHYSIOLOGY AND BEHAVIOR AREA OF EMPHASIS (15 units)

Students choose to complete Biological Sciences 105 or 102+103 for this emphasis.

Complete 15 units choosing courses from at least two of the following areas (1-3 below) including one laboratory from: NPB 101L, 104L, 141P or 160L.

	Units	Grade	GPB
1. <i>Neurobiology</i> : NPB 100, 106*, 112, 124, 125, 126, 160, 160L, 161, 162, 163, 164, 165, 168, 169; PSC 121, 124, 128, 129*.		_____	_____
_____		_____	_____
_____		_____	_____
2. <i>Physiology</i> : APC 100, ENT 102; EXB 101, 110, 111, 125; NPB 101, 101L, 103, 104L, 105, 106*, 111C, 111L, 113, 114, 117, 121, 121L, 122, 123, 127, 128, 130, 132, 139, 140, 141, 141P, 152*; PMI 126; WFC 121.		_____	_____
_____		_____	_____
_____		_____	_____
3. <i>Behavior</i> : ANT 154A, 154C; ENT 104; NPB 102, 150, 152*, 159, 162; PSC 122, 123, 129*.		_____	_____
_____		_____	_____
_____		_____	_____

*Course may be used only once to satisfy Area of Emphasis requirements.

TOTAL FOR NPB AREA

Deficiencies/Comments: _____

Quarter/Initials Date: _____
Forms 2014-15 area of emphasis mic,mcb,npb 6-10-14