

# BACHELOR OF SCIENCE IN HEALTH SCIENCES (BSHS) IN PHYSIOLOGY AND MEDICAL SCIENCES

**Sample** four-year plan for MATH 112 (College Algebra) as your first semester math course – this tool can help you generally understand the recommended flow of classes; however, it’s always best to consult with your Academic Advisor to create a plan that is best for you!

## FIRST YEAR

FALL SEMESTER	Units	SPRING SEMESTER	Units
ENGL 101 First-Year Composition I	3	ENGL 102 First-Year Composition II	3
MATH 112 College Algebra	3	MATH 120R Pre-Calculus	4
MCB 181R Introductory Biology I	3	*CHEM 151 General Chemistry I	4
MCB 181L Introductory Biology I Lab	1	PSIO 101 Tackling Physiological Topics, or *Gen Ed – Core Course, or second language course	3-4
second language course, or *Gen Ed – Core Course	3-4		
UNIV 101 Intro to Gen Ed Experience	1		
<b>Total Units</b>	<b>14-15</b>	<b>Total Units</b>	<b>14-15</b>

## SECOND YEAR

FALL SEMESTER	Units	SPRING SEMESTER	Units
MATH 122A + B Calculus I	5	MATH 129 (Calculus 2) <b>or</b> MATH 263, BIOS 376, or ECOL 379 (Biostatistics)	3
CHEM 152 General Chemistry II	4	CHEM 241a Organic Chemistry Lecture	3
PSIO 201 Human Anatomy & Physiology I	4	CHEM 243a Organic Chemistry Lab	1
*Gen Ed – Core Course	3	PSIO 202 Human Anatomy & Physiology II	4
		*Gen Ed – Core Course	3
		*Gen Ed – Core Course	3
<b>Total Units</b>	<b>16</b>	<b>Total Units</b>	<b>17</b>

\*A second language is required through second semester proficiency or higher.

\*Please see a more detailed breakdown of the core courses required in the Gen Ed curriculum.

\*To enroll in 300/400-level PSIO courses, students must complete their Calculus 1 requirement (MATH 122A + MATH 122B or MATH 125 or MATH 119A), and earn a letter grade of a “C” or higher in both PSIO 201 and PSIO 202.

# Physiology Emphasis

## THIRD YEAR

FALL SEMESTER	Units	SPRING SEMESTER	Units
PSIO 303 Integrative Cellular Physiology	3	PSIO 305 Integrative Systems Physiology	3
PSIO 4XX lecture	3	PSIO 4XX lecture	3
CHEM 241b Organic Chemistry Lecture	3	ECOL 182R Introductory Biology II	3
CHEM 243b Organic Chemistry Lab	1	ECOL 182L Introductory Biology II Lab	1
PHYS 102 Introductory Physics I	3	PHYS 103 Introductory Physics II	3
PHYS 181 Introductory Physics I Lab	1	PHYS 182 Introductory Physics II Lab	1
*Gen Ed – Core Course	3	UNIV 301 Gen Ed Portfolio	1
<b>Total Units</b>	<b>17</b>	<b>Total Units</b>	<b>15</b>

## FOURTH YEAR

FALL SEMESTER	Units	SPRING SEMESTER	Units
PSIO 4XX lecture	3	PSIO 4XX lecture	3
PSIOM Major Elective	3	PSIOM Major Elective	3
PSIOM Major Elective	3	PSIOM Major Elective	3
BIOC 384 Foundations in Biochemistry or BIOC 385 Metabolic Biochemistry	3	UD general elective (any 300/400-level course)	3
UD gen elective (any 300/400-level course)	3	UD general elective (any 300/400-level course)	3
<b>Total Units</b>	<b>15</b>	<b>Total Units</b>	<b>15</b>

**\*120 total units required for graduation, 42 of which must be upper-division (300/400-level). Your major requirements do NOT provide you with enough upper-division unit requirements for graduation, so it's important for you to incorporate other upper-division courses into your plan.**

# Medical Sciences Emphasis

## THIRD YEAR

<b>FALL SEMESTER</b>	<b>Units</b>	<b>SPRING SEMESTER</b>	<b>Units</b>
PSIO 303 Integrative Cellular Physiology	3	PSIO 305 Integrative Systems Physiology	3
PSIO 4XX lecture	3	PSIO 4XX lecture	3
CHEM 241b Organic Chemistry Lecture	3	ECOL 182R Introductory Biology II	3
CHEM 243b Organic Chemistry Lab	1	ECOL 182L Introductory Biology II Lab	1
PHYS 102 Introductory Physics I	3	PHYS 103 Introductory Physics II	3
PHYS 181 Introductory Physics I Lab	1	PHYS 182 Introductory Physics II Lab	1
*Gen Ed – Core Course	3	UNIV 301 Gen Ed Portfolio	1
<b>Total Units</b>	<b>17</b>	<b>Total Units</b>	<b>15</b>

## FOURTH YEAR

<b>FALL SEMESTER</b>	<b>Units</b>	<b>SPRING SEMESTER</b>	<b>Units</b>
BIOC 384 Foundations in Biochemistry or BIOC 385 Metabolic Biochemistry	3	Medical Science course	3
Medical Science course	3	PSIOM Major Elective	3
PSIOM Major Elective	3	PSIOM Major Elective	3
UD general elective (any 300/400-level course)	3	PSIOM Major Elective	3
UD general elective (any 300/400-level course)	3	UD general elective (any 300/400-level course)	3
<b>Total Units</b>	<b>15</b>	<b>Total Units</b>	<b>15</b>

**\*120 total units required for graduation, 42 of which must be upper-division (300/400-level). Your major requirements do NOT provide you with enough upper-division unit requirements for graduation, so it's important for you to incorporate other upper-division courses into your plan.**

## Exercise and Extreme Physiology Emphasis

### THIRD YEAR

FALL SEMESTER	Units	SPRING SEMESTER	Units
PSIO 303 Integrative Cellular Physiology	3	PSIO 305 Integrative Systems Physiology	3
PSIO 420 Exercise + Environmental PSIO	3	Emphasis Course	3
CHEM 241b Organic Chemistry Lecture	3	ECOL 182R Introductory Biology II	3
CHEM 243b Organic Chemistry Lab	1	ECOL 182L Introductory Biology II Lab	1
PHYS 102 Introductory Physics I	3	PHYS 103 Introductory Physics II	3
PHYS 181 Introductory Physics I Lab	1	PHYS 182 Introductory Physics II Lab	1
*Gen Ed – Core Course	3	UNIV 301 Gen Ed Portfolio	1
<b>Total Units</b>	<b>17</b>	<b>Total Units</b>	<b>15</b>

### FOURTH YEAR

FALL SEMESTER	Units	SPRING SEMESTER	Units
BIOC 384 Foundations in Biochemistry or BIOC 385 Metabolic Biochemistry	3	Emphasis course	3
Emphasis course	3	PSIOM Major Elective	3
PSIOM Major Elective	3	PSIOM Major Elective	3
PSIOM Major Elective	3	UD general elective (any 300/400-level course)	3
UD general elective (any 300/400 level)	3	UD general elective (any 300/400-level course)	3
<b>Total Units</b>	<b>15</b>	<b>Total Units</b>	<b>15</b>

**\*120 total units required for graduation, 42 of which must be upper-division (300/400-level). Your major requirements do NOT provide you with enough upper-division unit requirements for graduation, so it's important for you to incorporate other upper-division courses into your plan.**

# Physiological Research and Innovation Emphasis

## THIRD YEAR

FALL SEMESTER	Units	SPRING SEMESTER	Units
PSIO 303 Integrative Cellular Physiology	3	PSIO 305 Integrative Systems Physiology	3
Emphasis Core course	3	Emphasis Core course	3
CHEM 241b Organic Chemistry Lecture	3	ECOL 182R Introductory Biology II	3
CHEM 241b Organic Chemistry Lab	1	ECOL 182L Introductory Biology II Lab	1
PHYS 102 Introductory Physics I	3	PHYS 103 Introductory Physics II	3
PHYS 181 Introductory Physics I Lab	1	PHYS 182 Introductory Physics II Lab	1
*Gen Ed - Core Course	3	UNIV 301 Gen Ed Portfolio	1
<b>Total Units</b>	<b>17</b>	<b>Total Units</b>	<b>15</b>

## FOURTH YEAR

FALL SEMESTER	Units	SPRING SEMESTER	Units
BIOC 384 Foundations in Biochemistry or BIOC 385 Metabolic Biochemistry	3	Emphasis course	3
Emphasis Core course	3	PSIOM Major Elective	3
PSIOM Major Elective	3	PSIOM Major Elective	3
PSIOM Major Elective	3	UD general elective (any 300/400-level course)	3
UD general elective (any 300/400-level course)	3	UD general elective (any 300/400-level course)	3
<b>Total Units</b>	<b>15</b>	<b>Total Units</b>	<b>15</b>

**\*120 total units required for graduation, 42 of which must be upper-division (300/400-level). Your major requirements do NOT provide you with enough upper-division unit requirements for graduation, so it's important for you to incorporate other upper-division courses into your plan.**

## Breakdown of General Education Core Courses

In addition to the required UNIV 101 and UNIV 301 courses, you are required to complete seven total core courses as part of the General Education curriculum, each falling under a specific category (as seen below). There are numerous course options that can satisfy each category, so pick whatever is most interesting to you! EXAMPLE HERE.

This tutorial ([LINK TO VIDEO](#)) should help you find courses that can count in these categories.

\*Please note that CHEM 151 can count towards the “Natural Scientist” requirement, so if you complete CHEM 151 to satisfy the General Chemistry I requirement, you will not need an additional Natural Scientist course.

