

# BEHAVIORAL NEUROSCIENCE-BS-PREPROFESSIONAL EMPHASIS

THIS IS A **GENERAL** CURRICULUM GUIDE AND IS NOT APPLICABLE TO EVERY STUDENT. IT IS IMPORTANT TO MEET WITH YOUR ADVISOR.

Year One			
<sup>1</sup> <b>BIO 120</b> General Biology I (w/lab) Prerequisites: High school chemistry, CHM 109, or CHM 125+126 strongly recommended (CHM 109 or 125+126 may be taken concurrently)	4 (6)	<sup>4</sup> <b>BMS 208</b> Human Anatomy Prerequisite: BIO 120	3
<sup>1</sup> <b>CHM 125</b> Principles of Chemistry I	3	<sup>1</sup> <b>CHM 127</b> Principles of Chemistry II	4
<sup>1</sup> <b>CHM 126</b> Principles of Chemistry I Lab Prerequisites: High school chemistry and (MTH 110 or MTH 122 or MTH 125 or MTH 201); CHM 125 and 126 must be taken concurrently	1(2)	<sup>1</sup> <b>CHM 128</b> Principles of Chemistry II Lab Prerequisites: CHM 125 and 126, and (MTH 122 or MTH 125 or MTH 201); CHM 127 and 128 must be taken concurrently	1(2)
<sup>2</sup> <b>MTH 122</b> College Algebra Prerequisite: MTH 110 or by Grand Valley math placement	3	<sup>5</sup> <b>WRT 130</b> or <b>WRT 150</b> Strategies in Writing	3-4
Gen Ed-Arts or WRT 120 (self-placement)	3	PSY 101 Introductory Psychology	3
<sup>3</sup> Elective	1		
<i>Numbers noted within (parentheses) are contact hours</i>	<i>Total</i>	<i>Total</i>	<i>Total</i>
	15		15
Year Two			
<sup>4</sup> <b>BMS 290</b> Human Physiology Prerequisites: BMS 208 and two semesters of chemistry	3	<b>BMS 212</b> Introductory Microbiology Prerequisites: BIO 120 and (CHM 234 or CHM 235+236)	3
<sup>4</sup> <b>CHM 235</b> Organic Chemistry for Life Sciences I	4	<b>BMS 213</b> Laboratory in Microbiology Prerequisite: BMS 212 or concurrent enrollment	1(4)
<sup>4</sup> <b>CHM 236</b> Organic Chemistry for Life Sciences I Lab Prerequisite: CHM 127 and 128; CHM 235 and 236 must be taken concurrently	1(2)	<b>CHM 237</b> Organic Chemistry for Life Sciences II	3
<b>STA 215</b> Introductory Applied Statistics Prerequisite: MTH 110 or equivalent	3	<b>CHM 238</b> Organic Chemistry for Life Sciences II Lab Prerequisite: CHM 235 and 236; CHM 237 and 238 must be taken concurrently	1(2)
PSY 330 Foundations of Behavioral Neuroscience	3	<sup>2</sup> <b>MTH 123</b> Trigonometry Prerequisite: MTH 122 or assignment through Grand Valley math placement (MTH 122 may be taken concurrently)	3
<sup>3</sup> Elective	1	Gen Ed-Social and Behavioral Sciences-SOC 101	3
		<sup>3</sup> Elective	1
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>15</i>
Year Three			
<b>CHM 461</b> Biochemistry I Prerequisite: CHM 237 and CHM 238 or CHM 247 and CHM 248	4	<b>BIO 355 or 375</b> Genetics + <b>BIO 376</b> Genetics Laboratory BIO 375 Prerequisites: BIO 120 or CMB 155 and 156 BIO 376 Prerequisites: BIO 375 or 355 (either may be taken concurrently)	4(6)
<b>PHY 220</b> General Physics I (w/lab & discussion) Prerequisites: MTH 122 and MTH 123	5 (7)	<b>PHY 221</b> General Physics II (w/lab & discussion) Prerequisites: PHY 220	5 (7)
<sup>4</sup> <b>BMS 391</b> Laboratory in Human Physiology Prerequisite: BMS 290 or 251 and two semesters of chemistry	2 (3)	PSY 350 Psychology Research and Data Applications	3
<sup>6</sup> PSY 300 (SWS)	3	Gen Ed-Historical Analysis	3
<sup>3</sup> Elective	1		
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>15</i>
Year Four			
PSY 370/375/431/432-Advanced Psychology Elective	3	PSY 492 Advanced General: Capstone	3
BIO 352 Animal Behavior (w/lab)	3 (5)	PSY 435 Advanced Neuroscience and Behavior	3
Gen Ed-Philosophy and Literature	3	Gen Ed-U.S. Diversity	3
<sup>6</sup> Issues + SWS	3	Gen Ed – Arts (if still needed)	3
Gen Ed-Global Perspectives	3	Issues	3
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>15</i>

<sup>1</sup> CMB 155+156 can sub for BIO 120 for those students interested in research (with advisor approval). Preprofessional students should take CHM 125+126 and 127+128 instead of CHM 109.

<sup>2</sup> For students with the Advanced Waiver for Mathematics based on ACT/SAT scores, it is **STRONGLY RECOMMENDED** that proficiency in MTH 123 – Trigonometry – be demonstrated by either taking the MTH 123 course or by achieving a passing score on the GVSU math placement test **PRIOR** to taking PHY 220 and 221. Students who have AP/IB/dual enrollment credit for MTH 201 (Calculus I), or complete the MTH 122 and 123 proficiency tests, only need to complete STA 215. MTH 124 and MTH 201 will substitute for MTH 122 and MTH 123. **To take the Math Proficiency Tests online, visit: [gvsu.edu/s/mv](https://gvsu.edu/s/mv)**

<sup>3</sup> Students must have a minimum of 120 credits to graduate with 58 of the 120 credits being from a senior level institution and the final 30 of the 120 credits completed at GVSU. Elective refers to any course that will help meet these requirements.

<sup>4</sup>BMS 208, 290, and 391 substitutes for BMS 250, and CHM 235+236 counts in the Behavioral Neuroscience Electives for Preprofessional Students

<sup>5</sup> Students who self-place into WRT 120 should take this course in the fall semester and then take WRT 130 in the winter semester of their first year. Students who self-place into WRT 150 can take it in either semester during their first year. Students will not need to take WRT 150 if they have earned credit for the course through AP/Dual Enrollment. A grade of C or better is required in WRT 130 or 150 to satisfy the WRT requirement at GVSU.

<sup>6</sup>Students must complete two courses with an SWS attribute.

Behavioral Neuroscience Major (50 credits)	
Psychology Courses (21 credits)	
<p>— <b>PSY 101 Introductory Psychology</b> (3)</p> <p>— <b>PSY 300 SWS Research Methods in Psychology</b> (3) Prerequisite: PSY 101 or HNR 234 and STA 215 or STA 312 and WRT 150</p> <p>— <b>PSY 330 Foundations of Behavioral Neuroscience</b> (3) Prerequisite: PSY 101 or HNR 234</p> <p><b>Also Choose One of the Following Psychology Courses:</b>            ___ <b>PSY 370 Cognitive Neuroscience</b>    ___ <b>PSY 431 Neuropsychology</b>            ___ <b>PSY 375 Comparative Psychology</b>    ___ <b>PSY 432 Psychopharmacology</b></p>	
<p>— <b>PSY 350 Psychology Research and Data Applications</b> (3) Prerequisites: PSY 101, STA 215, PSY 300 (PSY 300 may be taken concurrently)</p> <p>___ <b>PSY 435 Advanced Neuroscience and Behavior</b> (3) Prerequisites: PSY 330</p> <p>___ <b>PSY 492 Advanced General: Capstone</b> (3) Prerequisite: Senior standing and major in Psychology or Behavioral</p>	
Biology Courses (11 Credits)	Chemistry Courses (4-9 Credits) <sup>2</sup>
<p>___ <b>BIO 120 General Biology I</b> (4) Prerequisite: High school chemistry, CHM 109, CHM 125+126 strongly recommended (CHM 109 or CHM 125+126 may be taken concurrently)</p> <p>___ <b>BIO 352 Animal Behavior</b> (3) Prerequisite: Two courses in biology or psychology or permission of instructor</p> <p>___ <b>BIO 355 Human Genetics</b> <u>OR</u> <b>BIO 375 Genetics</b> (3) Prerequisite: BIO 120</p> <p><b>AND</b></p> <p>___ <b>BIO 376 Genetics Lab</b> (1) Prerequisite: BIO 120 and concurrent enrollment in BIO 375 or completion of BIO 355</p>	<p><b>Choose one of the following:</b>            ___ <b>CHM 109 Introductory Chemistry</b> (4)<sup>1</sup>    <b>OR</b>            ___ <b>CHM 125 Principles of Chemistry I Lecture</b> (3)            ___ <b>CHM 126 Principles of Chemistry I Lab</b> (1)            Prerequisite: High school chemistry, MTH 110 or MTH 122 or MTH 125 or MTH 201</p> <p><b>AND</b></p> <p>___ <b>CHM 127 Principles of Chemistry II Lecture</b> (4)            ___ <b>CHM 128 Principles of Chemistry II Lab</b> (1)            Prerequisite: CHM 125 and 126, and (MTH 122 or MTH 124 or MTH 201)</p>
<p><b>Introductory Statistics Course (3)</b></p> <p>___ <b>STA 215 Introduction to Statistics</b> (3) Prerequisite: MTH 110 or equivalent</p>	<p><b>Biomedical Science Courses (4)</b></p> <p>___ <b>BMS 250 Anatomy and Physiology I</b> (4)<sup>4</sup> Prerequisite: BIO 120</p>
Behavioral Neuroscience Electives (6 credits)	
Each course must be taken from different departments. Additional pre-reqs may be required	
<p>— <b>Elective</b> ____ (3)</p> <p>BIO 121 General Biology (4)            BIO 302 Comparative Vertebrate Anatomy (4)            BIO 329 Evolution of Social Behavior (3)            BIO 432 Comparative Animal Physiology (4)            BMS 251 Anatomy and Physiology II (4)            CHM 231 Introductory Organic Chemistry (4)<sup>4</sup>            CHM 234 Introductory Biochemistry (4)<sup>2</sup>            PHY 200 Physics for the Life Sciences (4)</p> <p><b>PreProfessional Students should take PHY 220 and CHM 235+236, which will both count in the Behavioral Neuroscience Elective category</b></p>	

#### Declaring the Behavioral Neuroscience Major:

1. In myBanner, select "Student" > "Student Records" > "Change Major" > "Change Major 1/Program"
2. Choose "Behavioral Neuroscience-BS" from the drop-down box.
3. Click "Submit" and then "Change to New Program"
4. Declare "**PreProfessional Preparation**" as your SECOND MAJOR if you are planning on medical, dental, pharmacy, chiropractic, podiatry, or optometry school.

#### General Education Overlap

General Education Categories fulfilled by the Biomedical Sciences Major:	
Life Sciences with Lab: BIO 120	Physical Sciences with Lab: CHM 125 and 126
Mathematical Sciences: STA 215, MTH 122, MTH 123	Social and Behavioral Sciences: PSY 101 and SOC 101
Supplemental Writing Skills (SWS)-PSY 300	

It is imperative to meet with your faculty advisor and an advisor in the CLAS Academic Advising Center regularly.

CLAS Academic Advising Center: C-1-120/140 MAK, 616-331-8585; schedule an appointment: [www.gvsu.edu/navigate](http://www.gvsu.edu/navigate)

#### Pre-Professional Students

(Pre-Chiropractic, Pre-Dental, Pre-Medical, Pre-Optometry, Pre-Pharmacy, Pre-Podiatry, & Pre-Veterinary)

To find more information on Pre-Professional programs, visit [www.gvsu.edu/clasadvising/preprofessional](http://www.gvsu.edu/clasadvising/preprofessional)