

# GEOGRAPHY B.S.

The B.S. in Geography is designed to accommodate those students who are interested in pursuing more science-based and technical areas of study and work in the field of Geography, such as aspects involving physical geography and geospatial technologies, or environmental planning. Those pursuing a geography B.S. degree (with or without an option) must complete 6-10 additional credits (a two-course sequence) of science coursework. The classes must be selected and approved by the student and advisor as appropriate to individual student goals (e.g., B100 105N , BIOE 172N) .

## Bachelor of Science - Geography

### College of Humanities & Sciences

**Degree Specific Credits:** 46-48

**Required Cumulative GPA:** 2.5

**Catalog Year:** 2018-2019

**Note:** The Bachelor of Science in Geography requires 36 credits in GPHY courses.

## General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umt.edu/academics/general-education-requirements>) of the catalog.

## Summary

Code	Title	Hours
	Introduction to Geography	7
	Regional Geography Course	3
	Geographic Methods	6
	Upper Division Systematic Geography	9
	Physical Geography	
	Geography and Society	
	Human Environment Interaction	
	Degree Electives	11
	Capstone	1
	Upper Division Writing	3
	Science Electives	6-8
	Biology	
	Chemistry	
	College Chemistry	
	College Physics	
	Physics with Calculus	
	Mathematics Requirement	
	Math Fundamentals	
	Advanced Math	
	<b>Total Hours</b>	<b>46-48</b>

## Introduction to Geography

Code	Title	Hours
<b>Complete all of the following courses:</b>		
GPHY 111N	Intro to Physical Geography	
GPHY 112N	Intro to Phys Geography Lab	
GPHY 121S	Human Geography	
<b>Total Hours</b>		<b>7</b>

Minimum Required Grade: C-

## Regional Geography Course

Code	Title	Hours
<b>Complete one of the following courses:</b>		
GPHY 141S	Geography of World Regions	
GPHY 144	Glacier National Park in Winter	
GPHY 241	Montana	
GPHY 245X	The Middle East	
GPHY 342	North America	
GPHY 344	Crown of the Continent	
GPHY 347	Regional Geography (Multiple Regions)	
GPHY 348	Field Studies in Geography	
GPHY 444	High Asia	
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

## Geographic Methods

Code	Title	Hours
<b>Complete all of the following courses:</b>		
GPHY 284	Intro to GIS and Cartography	
GPHY 385	Field Techniques	
<b>Total Hours</b>		<b>6</b>

Minimum Required Grade: C-

## Upper Division Systematic Geography

**Rule:** Complete the following subcategories of courses. 9 total credits required.

### Physical Geography

Code	Title	Hours
<b>Complete one of the following courses:</b>		
ERTH 303N	Weather and Climate	
GPHY 311N	Biogeography	
GPHY 314	Global Mountain Environments	
GPHY 317	Geomorphology	
GPHY 438	Mountain Field Study	
GPHY 525	Advanced Physical Geography	
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

**Geography and Society**

Code	Title	Hours
<b>Complete one of the following courses:</b>		3

GPHY 323S	Economic Geography of Rural Areas	
GPHY 421	Sustainable Cities	
GPHY 434	Food and Famine	

Total Hours	3
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Minimum Required Grade: C-

**Human Environment Interaction**

Code	Title	Hours
<b>Complete one of the following courses:</b>		3

GPHY 335	Water Policy	
GPHY 338	Mountains and Society	
GPHY 432	Human Role Environmental Change	
GPHY 433	Community Resilience	

Total Hours	3
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Minimum Required Grade: C-

**Degree Electives**

Code	Title	Hours
<b>Complete 11 GPHY credits for a total of 36 GPHY credits for the degree.</b>		11

Total Hours	11
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Minimum Required Grade: C-

**Capstone**

**Note:** Seniors must enroll in GPHY 400 in fall, attend GPHY 500 in fall, and complete course requirements in spring.

Code	Title	Hours
<b>Seniors must complete the following course:</b>		

GPHY 400	Geography Capstone	1
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Total Hours	1
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Minimum Required Grade: C-

**Upper-Division Writing****Note:**

- GPHY 335 will also count toward the upper division core requirements
- GPHY 433 will also count toward the upper division core requirements
- GPHY 499 will also count toward upper division elective credits.

Other science-based writing courses (e.g. GEO 320, GEO 499, B100 470, B100 475) may be approved by the advisor.

Code	Title	Hours
<b>Complete one of the following courses:</b>		3

GPHY 335	Water Policy	
GPHY 433	Community Resilience	

GPHY 499	Senior Thesis	
Total Hours		3

Minimum Required Grade: C-

**Science Electives**

**Rule:** Must complete 1 of the following science categories. 6-8 total credits required. Science sequence must be approved by an advisor as appropriate to individual student's goals. Different science sequences may be approved by the advisor.

**Biology**

Code	Title	Hours
BIOE 172N	Introductory Ecology	3
B100 105N	Introduction to Botany	3

Total Hours	6
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Minimum Required Grade: C-

**Chemistry**

Code	Title	Hours
CHMY 121N	Introduction to General Chemistry	3
CHMY 123	Introduction to Organic and Biochemistry	4

Total Hours	7
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Minimum Required Grade: C-

**College Chemistry**

Code	Title	Hours
CHMY 141N	College Chemistry I	4
CHMY 143N	College Chemistry II	4

Total Hours	8
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Minimum Required Grade: C-

**College Physics**

Code	Title	Hours
PHSX 205N	College Physics I	4
PHSX 207N	College Physics II	4

Total Hours	8
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Minimum Required Grade: C-

**Physics with Calculus**

Code	Title	Hours
PHSX 215N	Fund of Physics w/Calc I	4
PHSX 217N	Fund of Physics w/Calc II	4

Total Hours	8
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Minimum Required Grade: C-

**Mathematics Requirement**

**Rule:** Must complete 1 of the following subcategories. 3-7 total credits required.

**Note:** Students take a statistics course; M 115 and STAT 216, OR just one of M 162, M 171, or STAT 451. M 171 is recommended.

**Math Fundamentals**

Code	Title	Hours
Complete all of the following courses:		7
M 115	Probability and Linear Mathematics	
STAT 216	Introduction to Statistics	
Total Hours		7

Minimum Required Grade: C-

**Advanced Math**

Code	Title	Hours
Complete one of the following courses:		3-4
M 162	Applied Calculus	
M 171	Calculus I (recommended)	
STAT 451	Statistical Methods I	
Total Hours		3-4

Minimum Required Grade: C-