

GPHY - GEOSCIENCE: GEOGRAPHY

<p>GPHY 111 Intro to Physical Geography. 3 Credits Stresses the understanding of the broad concepts of physical geography. Includes topography, climate and other geographic aspects of the earth's environment. Laboratory required. 2009-2011. Lecture Hours 3 Department: NAS/PS/SOCL</p>	<p>GPHY 460 Urban Policy and Development. 3 Credits (once every other year) Explores the complexity of the city as an evolving social and ecological landscape. The primary emphasis is understanding the ensemble of economic, political, social, and environmental forces that shape and are shaped by contemporary urban areas. Issues include the evolution of urban spatial forms, policy and governance, and the city as an increasingly globalizing entity. Specific consideration will be given to the experience of Billings, MT, and the role of the energy, medical, and public sectors as underpinning geographies in the urban economy and social and physical landscape. Lecture Hours 3 Department: NAS/PS/SOCL</p>
<p>GPHY 112 Intro to Phys Geography Lab. 1 Credit Corequisite(s): GPHY 111. Enhances the lecture material of GPHY 111 through the use of experiential activities. 2009-2011. Lab Hours 1 Department: NAS/PS/SOCL</p>	<p>GPHY 484 Applied GIS/Spatial Analysis. 3 Credits Term Typically Offered: Spring Prerequisite(s): GPHY 380. Applies GIS to a project-based curriculum where students propose, research, and develop a course-long project of their choosing. Students gain experience in spatial data handling, database theory and application, sensor networks, and real-time data analysis. Lecture Hours 3 Department: NAS/PS/SOCL</p>
<p>GPHY 121 Human Geography. 3 Credits Term Typically Offered: Fall, Spring Analyzes the interrelationships between man and his environment, including such topics as race, origin and dispersal of technology, livelihood patterns and settlement. Lecture Hours 3 Department: NAS/PS/SOCL</p>	<p>GPHY 485 Internet GIS. 3 Credits Term Typically Offered: Spring Prerequisite(s): GPHY 380. Introduces students to web-based GIS including web design, programming using ArcGIS for Server, open-source web-server applications, online charting and graphing, real-time data processing, and spatial analysis. Web-based mapping experience gained through this class can be applied to geography, environmental science, business, medicine, and history. Lecture Hours 3 Department: NAS/PS/SOCL</p>
<p>GPHY 141 Geography of World Regions. 3 Credits Term Typically Offered: Fall, Spring Covers the regions of the world as the home of mankind, showing people's adaptation to their physical environment. Lecture Hours 3 Department: NAS/PS/SOCL</p>	<p>GPHY 487 Remote Sensing/Raster GIS. 3 Credits Term Typically Offered: Fall Prerequisite(s): GPHY 282. Introduces students to remote sensing and photogrammetry using aerial and satellite imagery. Students gain experience with the classification of imagery, object detection and extraction, spectral analyses of plants, and 2D/3D data collection and processing. Remote sensing is used in environmental analyses to detect and monitor fire hazards, pollution, climate change, and agriculture. Lecture Hours 3 Department: NAS/PS/SOCL</p>
<p>GPHY 282 Mapping Techniques. 3 Credits Term Typically Offered: Fall Introduces map interpretation, computer cartography, spatial data and Geographic Information Systems. Lecture Hours 3 Department: NAS/PS/SOCL</p>	<p>GPHY 491 Special Topics. 1-12 Credits Lecture Hours 1-12 Department: NAS/PS/SOCL</p>
<p>GPHY 291 Special Topics. 1-12 Credits Department: NAS/PS/SOCL</p>	<p>GPHY 492 Independent Study. 1-3 Credits Prerequisite(s): Consent of instructor and department chairperson. Provides advanced students an opportunity to explore material not covered in regular geography courses. A contract describing the study must be completed at the time of enrollment. Department: NAS/PS/SOCL</p>
<p>GPHY 294 Seminar/Workshop. 0.5-6 Credits Lecture Hours .5-6 Department: NAS/PS/SOCL</p>	<p>GPHY 494 Seminar/Workshop. 1-3 Credits Department: NAS/PS/SOCL</p>
<p>GPHY 380 Principles of GIS. 3 Credits Term Typically Offered: Spring Prerequisite(s): GPHY 282. Introduces GIS, spatial analysis, map production, and spatial data handling. Lecture Hours 3 Department: NAS/PS/SOCL</p>	<p>GPHY 498 Cooperative Educ/Internship. 1-9 Credits Department: NAS/PS/SOCL</p>
<p>GPHY 440 Geography of Montana. 3 Credits Prerequisite(s): ENST 210 or consent of instructor. Considers the physical geography and resources of Montana with emphasis on its location in the nation with respect to transportation, economy and future development. Lecture Hours 3 Department: NAS/PS/SOCL</p>	