

# GEOGRAPHY

Current Catalog Description	REVISED Catalog Description
<p><b>The Academic Program</b></p> <p>Geography (GEOG) provides a broad perspective on human and physical phenomena that define and transform the surface of the Earth. It explores the complexity of and interrelationships among the cultures, economies, histories, ecologies, and physical state that characterize particular places and how such relationships vary across space. Three themes (the operation on interlocking systems of the natural environment; the relationship between environment and society; the nature of <i>place</i> and <i>space</i> and the relationships and processes defining and changing them) focus upon the myriad challenges in the contemporary world, such as global environmental change, its causes, and its implications for the human experience; resource management and regional development in the Third World; regional conflict fed by ethnic, religious, economic, and territorial differences; the making of resource and locational decisions; and the collection, processing, display and communication, and management of spatial information. The department is uniquely placed to examine these issues in the Asia-Pacific region. Hawai'i's historical, sociocultural, economic, and environmental context provides a fascinating setting for learning and research and can serve as a springboard into the wider region.</p> <p>Students with a geography degree have gained both a holistic understanding of the world and a specific set of concepts and methodologies that can be applied to a wide range of career opportunities dealing with environmental and resources issues, location and resource decision-making, planning and policy questions, and the display of information on maps and through geographic information systems in all levels of government, private firms, nonprofit organizations, and international agencies.</p>	<p><b>The Academic Program</b></p> <p>Geography (GEOG) provides a broad and flexible academic program that explores the human and environmental systems that shape the surface of the Earth. The discipline investigates the interaction of culture, society, ecology and physical environments that characterize particular places and studies how these relationships vary across space. The undergraduate program at the University of Hawai'i at Mānoa focuses on three interlocking sub-disciplines: human geography, environmental geography, and geographic technologies. Human geography investigates the cultural, economic, and political processes that shape human experiences on the Earth; the relationship between the environment, society, and culture; and the nature of place in the Asia-Pacific region. Environmental geography engages in a systematic study of the Earth's physical environment (atmosphere, biosphere, hydrosphere, and lithosphere) and considers the challenges associated with natural resource management and global environmental change. Geographic technologies include the study of cartography, geographic information systems (GIS), and remote sensing science. Students who study geography obtain a holistic understanding of the world and a set of methodological tools that can be applied to a wide range of domestic and international career opportunities. Geographers are involved in environmental planning, natural resource management and social policy development with all levels of government, private firms, non-profit organizations, educational institutions, and international agencies. Hawaii's unique historical, socio-cultural and environmental context also provides a fascinating setting for geographical investigations into the wider Asia-Pacific region.</p>

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<p><b>Undergraduate Study</b></p>	<p><b>Undergraduate Study</b></p>
<p><b><u>Bachelor's Degree</u></b></p>	<p><b><u>Bachelor's Degree</u></b></p>
<p><b>Requirements</b></p>	<p><b>Requirements</b></p>
<p>Students must complete 37 credit hours including:</p>	<p>Students must complete 37 credit hours including:</p>
<ul style="list-style-type: none"> <li>▪ GEOG 101/101L, 151, 370 (375), 380, and 493</li> <li>▪ One upper division course in each subdiscipline:</li> <li>▪ human geography (GEOG 305, 321, 324, 325, 326, 328, 335, 385, 409, 410, 411, 413 (455), 420, 421, 422 (312), 423, 425, 435, 436 (336))</li> <li>▪ physical geography (GEOG 300, 301, 303, 309, 400, 401, 402, 403, 405, 409, 410, 411, 412)</li> <li>▪ Hawaiian, Asian and Pacific regional problems (GEOG 340, 352, 353, 355, 356, 365, 366, 368, 453, 468)</li> <li>▪ cartography, remote sensing, and geographic information systems (GEOG 370, 375, 376, 387, 470, 472, 475, 476, 488)</li> <li>▪ Three additional upper division courses concentrated in one of four subdisciplines listed above.</li> </ul>	<p>(I) <b>Required General Geography Courses (16 credits)</b></p> <p>GEOG 101/101L, 104, 151, 380, 493</p> <p>(II) <b>Required Core Geography Courses (12 credits)</b></p> <p style="padding-left: 40px;"><b>One of three Options to be selected</b></p> <p><b>Option A – Human Geography Stream</b></p> <ul style="list-style-type: none"> <li>▪ <b>Two of: 325, 330, 335</b></li> <li>▪ <b>One of: 300, 302, 303, 309</b></li> <li>▪ <b>One of: 370, 376, 387, 388</b></li> </ul> <p><b>Option B – Environmental Geography Stream</b></p> <ul style="list-style-type: none"> <li>▪ <b>Two of: 300, 302, 303, 309</b></li> <li>▪ <b>One of: 325, 330, 335</b></li> <li>▪ <b>One of: 370, 376, 387, 388</b></li> </ul> <p><b>Option C – Geographic Technologies Stream</b></p> <ul style="list-style-type: none"> <li>▪ <b>Two of: 370, 376, 387, 388</b></li> <li>▪ <b>One of: 325, 330, 335</b></li> <li>▪ <b>One of: 300, 302, 303, 309</b></li> </ul> <p>(III) <b>Required Upper Division Geography Courses (9 credits)</b></p>
<p>Individual programs are designed in consultation with the undergraduate advisor.</p>	<p>A minimum 9 credit hours of upper division geography elective courses are also required with at least 6 credits at the 400-level <i>in the student's particular stream</i>. Individual programs are designed by the student in consultation with the Undergraduate Chair. Students in the geographic technologies stream must complete a project or internship (468 or 492) as part of this requirement. Students in the human and environmental streams are also encouraged to include research or internship opportunities as part of the upper division course requirement.</p>

## Learning Outcomes for Each Stream

### **Option A – Human Geography Stream**

Students in the human geography stream develop an in-depth knowledge of the complex relationships between the environment, society, and culture and a specialized understanding of how the process of globalization is reshaping human experiences through economic, cultural, and political change.

### **Option B – Environmental Geography Stream**

Students pursuing the environmental stream should understand the basic operation of environmental systems (biosphere, lithosphere, hydrosphere, atmosphere) and how human activities influence these systems. Students should be able to apply a range of analytical methods and techniques to describe environmental phenomena, recognize spatial patterns or change, and discuss the implications of their findings in a professional manner.

### **Option C – Geographic Technologies Stream**

Students pursuing this stream should be able to identify alternate spatial data sources and understand their special characteristics and applications. The student should be able to apply a range of analytic methods to identify patterns, processes and associations between different aspects of the human / cultural and physical environment and display these results graphically in a professional matter.

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<p><b><u>Minor</u></b></p> <p><b>Requirements</b></p> <p>The minor in geography requires 15 credits of upper division course work in geography, which should include at least one course in three of four areas: human geography; physical geography; Hawaiian, Asian and Pacific regional problems; and cartography, remote sensing, and geographic information systems.</p>	<p><b><u>Minor</u></b></p> <p><b>Requirements</b></p> <p>The minor in geography requires 15 credits in upper division course work that includes at least one upper division course in human geography, one upper division course in environmental geography, and one upper division course in geographic technologies.</p>