Geography Major
Department of Geographical and Sustainability Sciences
2020-2021

A. Common Courses, 18-23 s.h.

*Complete **all** of the following:*

GEOG: 1020 The Global Environment (3)
GEOG: 1021 The Global Environment Lab (1)
GEOG: 1050 Foundations of GIS (4)
GEOG: 1090 Globalization and Geographic Diversity (3)

*Choose **one** of the following:*

GEOG: 1060 Geography of Asia: From Japan to Pakistan (3)
GEOG: 1070 Contemporary Environmental Issues (3)
GEOG: 2110 Seven Billion and Counting: Introduction to Population Dynamics (3)
GEOG: 2130 Word Cities (3)
GEOG: 2910 The Global Economy (3)
GEOG: 2950 Environmental Conservation (3)

*Choose **one** of the following:*
Not required for GIS track students

GEOG: 3340 Ecosystem Services: Human Dependence on Natural Systems (3)
GEOG: 3500 Introduction to Environmental Remote Sensing (3)
GEOG: 3520 GIS for Environmental Studies (3)
GEOG: 3540 Introduction to Geographic Visualization (3)
GEOG: 3570 Light Detection and Ranging (LiDAR): Principles and Applications (3)
GEOG: 4010 Field Methods in Physical Geography (3)
GEOG: 4020 Field Methods: Mapping and Mobile Computing (3)
GEOG: 4150 Health and Environment: GIS Applications (3)
GEOG: 4650 Simulation in Environmental Geography (3)

*Choose **one** of the following:*

GEOG: 4030 Senior Project Seminar (SP Only) (3)
GEOG: 4995 Honors Thesis (3)

*Choose **one** of the following (1 s.h. required):*

GEOG: 3400 Iowa Environmental Policy in Practice (3)
GEOG: 3992 Undergraduate Research (Including ICIGO or Independent research) (arr.)
CCP: 1201 Academic Internship (1-3)

B. Statistics Courses, Choose B.A. or B.S.

For the B.A. (3-4 s.h.)
*Choose **one** of the following:*

GEOG: 1065 Introduction to Spatial Analysis: Patterns and Processes (3)
PSQF: 4143/STAT: 4143 Introduction to Statistical Methods (3)
STAT: 1020/PSQF: 1020 Elementary Statistics and Inference (3)
STAT: 1030 Statistics for Business (4)
STAT: 2010 Statistical Methods and Computing (3)
STAT: 3510/IGPI: 3510 Biostatistics (3)
STAT: 2020 Probability and Statistics for Engineering and Physical Sciences (3)

For the B.S. (10 s.h.)
*Complete **both** of the following:*

STAT: 2010 Statistical Methods and Computing (3)
STAT: 3200/IE: 3760/IGPI: 3200 Applied Linear Regression (3)

*Choose **one** of the following*:

CS: 1210 Computer Science I: Fundamentals (4)
CS: 2110 Programming for Informatics (4)
CS: 2230 Computer Science II: Data Structures (4)
MATH: 1460 Calculus for the Biological Sciences (4)
MATH: 1380 Calculus and Matrix Algebra for Business (4)

C. Track Courses, 15-19 s.h.

*Choose **one** of three (see reverse for course lists):*

Environmental Studies Track (15)
Geographic Information Sciences Track (GIS) (18-19)
Health & Society Track (15)

Total Hours Required for Geography Major
B.A.: 39-43 s.h. | B.S.: 46-49 s.h.

Environmental Studies Track, 15 s.h.

*Complete **the** following:*

GEOG: 1070 Contemporary Environmental Issues (3)

*Choose **four** of the following:*
*[At least **one** of these]:*
GEOG: 2310/EES: 2310 Introduction to Climatology (3)
GEOG: 2374/BIOL: 2374 Biogeography (3)
GEOG: 2410 Environment and Development (3)
GEOG: 2930 Water Resources (3)
GEOG: 3500 Introduction to Environmental Remote Sensing (3)
GEOG: 3520 GIS for Environmental Studies (3)

*[At least **one** of these]:*
GEOG: 3310 Landscape Ecology (3)
GEOG: 3315 Ecosystem Ecology (3)
GEOG: 3320/EES: 3260 Wetlands: Function, Geography, and Management (3)
GEOG: 3340 Ecosystem Services: Human Dependence on Natural Systems (3)
GEOG: 3350 Urban Ecology (3)
GEOG: 3400 Iowa Environmental Policy in Practice (3)
GEOG: 3760/GHS: 3760 Hazards and Society (3)
GEOG: 3920/URP: 3001 Planning Livable Cities (3)
GEOG: 4010 Field Methods in Physical Geography (3)
GEOG: 4200 Sustainability as a System Science (3)
GEOG: 4470 Ecological Climatology (3)
GEOG: 4500 Applications in Environmental Remote Sensing (4)
GEOG: 4520 GIS for Environmental Studies: Applications (3)
GEOG: 4650 Simulation in Environmental Geography (3)
GEOG: 4750/URP: 4750 Environmental Impact Analysis (4)
GEOG: 4770 Environmental Justice (3)

Health & Society Track, 15 s.h.

*Complete **all** of the following:*

GEOG: 2110/GHS: 2110 Seven Billion and Counting: Introduction to Population Dynamics (3)
GEOG: 3110/GHS 3111 Geography of Health (3)
GEOG: 4150/GHS: 4150 Health and Environment: GIS Applications (3)

*Choose **two** of the following:*

GEOG: 3070/GHS: 3070 Hungry Planet: Global Geographies of Food (3)
GEOG: 3210/CPH: 3400 Health, Work, and the Environment (3)
GEOG: 3300 Envisioning Future Worlds: Sustainable Development and Its Alternatives (3)
GEOG: 3760/GHS: 3760 Hazards and Society (3)
GEOG: 3920/URP: 3001 Planning Livable Cities (3)
GEOG: 4770 Environmental Justice (3)

Geographic Information Science (GIS), 18-19 s.h.

*Choose **one** of the following:*

CS: 1110 Introduction to Computer Science (3)
CS: 1210 Computer Science I: Fundamentals (4)
CS: 2110 Programming for Informatics (4)

*Choose **five** of the following:*
*[At least **one** of these]:*
GEOG: 3050 Introduction to Geospatial Programming (3)
GEOG: 3500 Introduction to Environmental Remote Sensing (3)
GEOG: 3520 GIS for Environmental Studies (3)
GEOG: 3540 Introduction to Geographic Visualization (3)
GEOG: 4650 Simulation in Environmental Geography (3)

*[At least **one** of these]:*
GEOG: 3340 Ecosystem Services: Human Dependence on Natural Systems (3)
GEOG: 3760/GHS: 3760 Hazards and Society (3)
GEOG: 4010 Field Methods in Physical Geography (3)
GEOG: 4020 Field Methods: Mapping and Mobile Computing (3)
GEOG: 4150/GHS: 4150 Health and Environment: GIS Applications (3)

*[At least **one** of these]:*
GEOG: 3570 LiDAR: Principles and Applications (3)
GEOG: 4500 Applications in Environmental Remote Sensing (4)
GEOG: 4520 GIS for Environmental Studies: Applications (3)
GEOG: 4570 Spatial Analysis in Location Models (3)
GEOG: 4580 Introduction to Geographic Databases (3)