

GEOGRAPHY (GEOG)

Geography Courses

GEOG 105 Introduction to Human Geography

3 cr. Undergraduate.

How humans interact with and alter the Earth through cultural, political, and economic processes; how these processes are dependent on and affect Earth's natural resources. 2 hrs lec, 1 hr dis.

Prerequisites: none.

General Education Requirements: SS

Last Taught: Spring 2025, Spring 2024, Spring 2023, Spring 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 110 The World: Peoples and Regions

3 cr. Undergraduate.

Introduction to regional cultural geography through a study of representative and significant areas of the earth.

Prerequisites: none.

General Education Requirements: SS

Last Taught: Spring 2025, Fall 2024, Spring 2024, Fall 2023.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 114 Geography of Race in the United States

3 cr. Undergraduate.

Contemporary geographic issues of segregation, assimilation, belonging, and exclusion facing African-American, white, Asian, Latino, Native American and either groups in the U.S. 2 hrs lec, 1 hr dis.

Prerequisites: none.

General Education Requirements: CD, SS

Last Taught: Spring 2025, Fall 2023, Spring 2023, Fall 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 115 Globalization and Economic Development

3 cr. Undergraduate.

Geographic perspectives on world economy: geographic organization of contemporary production and consumption around the world; historical development of capitalist economy; economic geography of globalization processes.

Prerequisites: none.

General Education Requirements: SS

Last Taught: Fall 2024, Fall 2020, Fall 2019, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 120 Our Physical Environment

3 cr. Undergraduate.

Characteristics and significance of world land form, climate, soils, vegetation, and mineral and water resources. 2 hrs lec, 2 hrs lab/dis.

Prerequisites: none.

Course Rules: Not open for cr to students w/cr in Geog 121(ER), 122(ER).

General Education Requirements: NS+

Last Taught: Summer 2025, Spring 2025, Fall 2024, Summer 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 125 Introduction to Environmental Geography

3 cr. Undergraduate.

Introduction to environmental geography and related environmental problems aimed at understanding of the earth's systems in our daily encounter with them.

Prerequisites: none.

General Education Requirements: NS

Last Taught: Summer 2025, Spring 2025, Fall 2024, Summer 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 140 Our Urban Environment: Introduction to Urban Geography

3 cr. Undergraduate.

Site and situation, central functions, spatial patterns of socio-economic and demographic characteristics of urban population. Spatial patterns of urban economy.

Prerequisites: none.

General Education Requirements: SS

Last Taught: Fall 2023, Fall 2022, Fall 2020, Fall 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 199 Independent Study

1-3 cr. Undergraduate.

For further information, consult dept chair.

Prerequisites: 2.0 GPA; consent of instructor, department chair, and Assistant Dean for Student Academic Services.

Course Rules: May be retaken to 6 cr max.

Last Taught: Spring 2006, Spring 2004, Summer 2002.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 213 Geography of Asia

3 cr. Undergraduate.

Population, resources, development, and diversity. Regions discussed are East Asia, Southeast Asia, South Asia, and Central Asia.

Prerequisites: none.

General Education Requirements: SS

Last Taught: Fall 2023, Spring 2018, Spring 2015, Spring 2013.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 215 Introduction to Geographic Information Science

3 cr. Undergraduate.

Geographic objects, their representation and analysis. Topics include special nature of spatial data; concepts of space, mapping, spatial relationships; and use of geographic information systems. 2 hrs lec, 2 hrs lab.

Prerequisites: none.

Last Taught: Spring 2025, Fall 2024, Spring 2024, Fall 2023.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 247 Quantitative Analysis in Geography

3 cr. Undergraduate.

Application of quantitative measures to geographic problems. Topics include descriptive statistics, statistical inference, and bivariate relationships.

Prerequisites: Satisfaction of GER Quantitative Literacy - Part A.

Course Rules: 2 hrs lec, 2 hrs lab.

General Education Requirements: QL B

Last Taught: Fall 2024, Fall 2023, Fall 2022, Fall 2021.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 289 Internship in Geography, Lower Division

1-6 cr. Undergraduate.

Application of basic principles of geography in a business, organizational, educational, political, or other appropriate setting.

Prerequisites: intro course in geography; 2.25 GPA and consent of supervising faculty member.

Course Rules: One cr earned for academic work based on 40 hours in internship. May be retaken to 6 cr max.

Last Taught: Summer 2008, Spring 2006, Fall 2005, Summer 2004.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 296 UROP Apprenticeship

1-3 cr. Undergraduate.

Undergraduate research participation in a project developed with a supervising member of the faculty or staff.

Prerequisites: acceptance into UROP; prior or concurrent registration in UROP seminar.

Course Rules: One credit for 45 hrs research. May be retaken to 9 cr max in any combination of UROP apprenticeship courses. Not open to jrs & srs.

Last Taught: Fall 2005.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 297 Study Abroad:

1-12 cr. Undergraduate.

Designed to enroll students in UWM sponsored program before course work level, content and credits are determined and/or in specially prepared program course work.

Prerequisites: acceptance for Study Abroad Program.

Course Rules: May be retaken with change in topic.

Last Taught: Spring 2025, Spring 2023, Summer 2022, Spring 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 299 Ad Hoc:

1-6 cr. Undergraduate.

Course created expressly for offering in a specified enrollment period.

Requires only dept & assoc dean approval. In exceptional circumstances, can be offered in one add'l sem.

Prerequisites: none; add'l prereqs may be assigned to specific topic.

Course Rules: May be retaken w/chg in topic.

Last Taught: Fall 1998, Spring 1989, Spring 1986.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 304 Human Impact on the Environment

3 cr. Undergraduate.

Geographical and temporal distribution of human effects on land and resources; historical background of human concern for deleterious effects of impacts on environments.

Prerequisites: jr st; intro course in Geog or a life sci recom.

General Education Requirements: SS

Last Taught: Fall 2024, Fall 2022, Spring 2017, Spring 2016.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 306 Natural Hazards

3 cr. Undergraduate.

An introduction to processes and conditions responsible for natural hazards, reasons for geographic patterns of hazards' occurrence, and modes of adjustment to natural hazards.

Prerequisites: junior standing; previous physical geography course recommended.

General Education Requirements: NS

Last Taught: Summer 2025, Spring 2025, Fall 2024, Summer 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 309 Nationalities and Nations of the World

3 cr. Undergraduate.

Geographies of national identities and nationalism. Changing borders of countries, transnational migration, refugees. Use of memorial spaces rel. to national identity and legacies of colonialism. Transnational human rights activism, fascism, neoliberalism and its opposition.

Prerequisites: junior standing or one of the following: GEOG 110(P), GEOG 114(P), ETHNIC 101(P), or ETHNIC 102(P); or consent of instructor.

Last Taught: Fall 2024, Fall 2022, Fall 2021, Fall 2020.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 310 General Climatology

3 cr. Undergraduate.

Global patterns of climate and the processes that shape them. Climatic elements, upper-atmospheric waves, internet data, Midwest climate, climate classification, and climate change.

Prerequisites: junior standing, GEOG 120, ATM SCI 100, or ARM SCI 240 recommended.

Last Taught: Fall 2024, Fall 2023, Fall 2022, Fall 2021.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 325 Data Science and Environmental Applications

4 cr. Undergraduate.

Basic concepts and practices in data science using R; application of concepts and skills to environmental problems at various scales.

Prerequisites: junior standing.

Course Rules: 2.5 hrs lec, 2 hrs lab.

Last Taught: Spring 2025, Spring 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 330 Europe: East and West

3 cr. Undergraduate.

Europe's lands and peoples, physical and cultural diversities and similarities.

Prerequisites: jr st.

Last Taught: Spring 2024, Spring 2023, Spring 2022, Spring 2021.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 333 Muslim Geographies: Identities and Politics

3 cr. Undergraduate.

Origins and main features of Islam and the diversity of Muslim cultures in various geographical, social, cultural, and political contexts.

Prerequisites: none.

Course Rules: Previously GEOG 231.

General Education Requirements: SS

Last Taught: Spring 2025, Spring 2019, Spring 2017, Fall 2015.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 340 Biogeography

3 cr. Undergraduate.

An introduction to the geography of the biosphere, the earth's surface, and the plants and animals which live there.

Prerequisites: junior standing; previous completion of a physical geography or a biology course recommended.

Last Taught: Summer 2025, Spring 2025, Summer 2024, Spring 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 350 Conservation of Natural Resources

3 cr. Undergraduate.

Analysis of environmental ethics; the positive and negative consequences of resource development with emphasis on strategies designed to resolve environmental conflicts.

Prerequisites: jr st or a geog course.

General Education Requirements: SS

Last Taught: Spring 2025, Fall 2024, Spring 2024, Fall 2023.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 381 Honors Seminar.

3 cr. Undergraduate.

Selected topics in geography.

Prerequisites: sophomore standing; HONORS 200(P); consent of Honors College director.

Course Rules: May be retaken with change in topic to 9 cr max.

General Education Requirements: SS

Last Taught: Spring 2025, Spring 2023, Spring 2022, Fall 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 403 Remote Sensing: Environmental and Land Use Analysis

4 cr. Undergraduate.

Use of aerial photographs and digital imagery in environmental and land use analysis, including urban areas.

Prerequisites: junior standing and GEOG 215(P).

Course Rules: 3 hrs lec; 2 hrs lab. PC/Windows familiarity recommended.

Last Taught: Spring 2025, Fall 2023, Spring 2023, Spring 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 405 Cartography

4 cr. Undergraduate.

Thematic cartography; map communication, design principles, illustration and mapping software. 3 hrs lec, 2 hrs lab.

Prerequisites: jr st & Geog 215(P).

Last Taught: Spring 2024, Spring 2022, Spring 2019, Spring 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 410 Gendered Geographies

3 cr. Undergraduate/Graduate.

Various ways feminist geographers have analyzed gender in relation to phenomena such as the body, home, work, the nation, colonization, and globalization.

Prerequisites: junior standing or greater; or graduate standing. GEOG 105, GEOG 110, WGS 200, WGS 201, or equivalent recommended.

Last Taught: Fall 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 410G Gendered Geographies

3 cr. Undergraduate/Graduate.

Various ways feminist geographers have analyzed gender in relation to phenomena such as the body, home, work, the nation, colonization, and globalization.

Prerequisites: junior standing or greater; or graduate standing. GEOG 105, GEOG 110, WGS 200, WGS 201, or equivalent recommended.

Last Taught: Fall 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 415 The Water Environment

3 cr. Undergraduate/Graduate.

Role of water in geographic systems. Interaction of water with physical and human systems, key hydrological processes, spatial and temporal variations of water, data collection, modeling.

Prerequisites: junior standing and GEOG 120(P) or GEOG 125(P); or graduate standing.

Last Taught: Spring 2024, Fall 2021.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 415G The Water Environment

3 cr. Undergraduate/Graduate.

Role of water in geographic systems. Interaction of water with physical and human systems, key hydrological processes, spatial and temporal variations of water, data collection, modeling.

Prerequisites: junior standing and GEOG 120(P) or GEOG 125(P); or graduate standing.

Last Taught: Spring 2024, Fall 2021.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 437 Qualitative Methods in Geography

3 cr. Undergraduate.

Research design, interview, focus group, ethnography, survey, and discourse analysis; epistemological debates and the methodological and ethical issues that arise throughout the research process.

Prerequisites: jr st; Geog 105(P), 110(P), 114(P), or 140(P).

Last Taught: Spring 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 441 Geography of Cities and Metropolitan Areas

3 cr. Undergraduate/Graduate.

Extent, localization, and geographic relations of land uses, facilities, and internal circulation, with particular reference to large North American cities.

Prerequisites: jr st & intro course in geog or acceptable course in an urban related field, e.g. Econ, UrbPlan, Urb Std; or grad st.

Last Taught: Fall 2023.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 441G Geography of Cities and Metropolitan Areas

3 cr. Undergraduate/Graduate.

Extent, localization, and geographic relations of land uses, facilities, and internal circulation, with particular reference to large North American cities.

Prerequisites: jr st & intro course in geog or acceptable course in an urban related field, e.g. Econ, UrbPlan, Urb Std; or grad st.

Last Taught: Fall 2023.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 443 Cities of the World: Comparative Urban Geography

3 cr. Undergraduate/Graduate.

Geographic analysis of world urban systems with emphasis on the cultural traditions, form, function and socio-economic development of cities.

Prerequisites: jr st & Geog 110(P), 115(P), or 140(P).**Last Taught:** Spring 2024.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 443G Cities of the World: Comparative Urban Geography**

3 cr. Undergraduate/Graduate.

Geographic analysis of world urban systems with emphasis on the cultural traditions, form, function and socio-economic development of cities.

Prerequisites: jr st & Geog 110(P), 115(P), or 140(P).**Last Taught:** Spring 2024.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 450 Climates of the Past and Climate Change**

3 cr. Undergraduate/Graduate.

Climatic history of the earth and climate models. Milankovitch theory, quaternary climates, temporal-spatial scales of change, general circulation, and earth system models.

Prerequisites: junior standing, GEOG 120(P), ATM SCI 100(P), or ATM SCI 240(P) GEOG 0310(R); or graduate standing.**Last Taught:** Fall 2024.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 450G Climates of the Past and Climate Change**

3 cr. Undergraduate/Graduate.

Climatic history of the earth and climate models. Milankovitch theory, quaternary climates, temporal-spatial scales of change, general circulation, and earth system models.

Prerequisites: junior standing, GEOG 120(P), ATM SCI 100(P), or ATM SCI 240(P) GEOG 0310(R); or graduate standing.**Last Taught:** Fall 2024.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 464 Environmental Problems**

3 cr. Undergraduate/Graduate.

General discussion and case studies of geographical contexts and historical roots of modern environmental problems. History of human concern over adverse environmental impacts.

Prerequisites: jr st & an intro course in a life science or environmental science.**Last Taught:** Spring 2025.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 464G Environmental Problems**

3 cr. Undergraduate/Graduate.

General discussion and case studies of geographical contexts and historical roots of modern environmental problems. History of human concern over adverse environmental impacts.

Prerequisites: jr st & an intro course in a life science or environmental science.**Last Taught:** Spring 2025.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 489 Internship in Geography, Upper Division**

1-6 cr. Undergraduate.

Application of advanced principles of geography in a business, organizational, educational, political, or other appropriate setting.

Prerequisites: junior standing; 300-level or above course in geography; 2.25 GPA and consent of supervising faculty member.**Course Rules:** One credit earned for academic work based on 40 hours in internship. May be retaken to 6 cr max.**Last Taught:** Spring 2025, Fall 2024, Summer 2024, Spring 2024.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 496 UROP Apprenticeship, Upper Level**

1-3 cr. Undergraduate.

Undergraduate research participation in a project developed with a supervising member of the faculty or staff. One credit for 45 hrs research.

Prerequisites: jr st; acceptance to UROP.**Course Rules:** May be retaken to 9 cr max.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 497 Study Abroad:**

1-12 cr. Undergraduate/Graduate.

Designed to enroll students in UWM sponsored program before course work levels, content, and credits are determined and/or in specially prepared program course work.

Prerequisites: jr st; acceptance for Study Abroad Prog.**Course Rules:** May be retaken w/chg in topic.**Last Taught:** Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 497G Study Abroad:**

1-12 cr. Undergraduate/Graduate.

Designed to enroll students in UWM sponsored program before course work levels, content, and credits are determined and/or in specially prepared program course work.

Prerequisites: jr st; acceptance for Study Abroad Prog.**Course Rules:** May be retaken w/chg in topic.**Last Taught:** Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 499 Ad Hoc:**

1-6 cr. Undergraduate.

Course created expressly for offering in a specified enrollment period.

Requires only dept & assoc dean approval. In exceptional circumstances, can be offered in one add'l sem.

Prerequisites: jr st; add'l prereqs may be assigned to specific topic.**Course Rules:** May be retaken w/chg in topic.**Last Taught:** Fall 1999.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 515 Watershed Analysis and Modeling**

3 cr. Undergraduate.

Theories and applications of analytical and modeling techniques for watershed processes, including geographic information systems (GIS), statistics, and computer simulations.

Prerequisites: junior standing; working knowledge of GIS; GEOG 415(R), GEO SCI 463(R), or GEOG 562(R).**Last Taught:** Fall 2023, Spring 2020, Fall 2016, Spring 2014.**Current Offerings:** <https://catalog.uwm.edu/course-search/>

GEOG 520 Physical Geography of the City

3 cr. Undergraduate/Graduate.

Spatial aspects and interactions of plants, animals, climate, soils, and water resources relevant to human activities in the urban environment.

Prerequisites: junior standing and GEOG 120(P) or GEOG 125(P); or graduate standing.**Last Taught:** Fall 2024.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 520G Physical Geography of the City**

3 cr. Undergraduate/Graduate.

Spatial aspects and interactions of plants, animals, climate, soils, and water resources relevant to human activities in the urban environment.

Prerequisites: junior standing and GEOG 120(P) or GEOG 125(P); or graduate standing.**Last Taught:** Fall 2024.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 525 Geographic Information Science**

4 cr. Undergraduate.

Geographic and information theoretical foundations of geographic information science (GIS). Use of macro languages in a software project to expand GIS functionality.

Prerequisites: junior standing and GEOG 215(P).**Course Rules:** 3 hrs lec, 2 hrs lab.**Last Taught:** Spring 2025, Fall 2024, Spring 2024, Fall 2023.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 540 Globalization and the City**

3 cr. Undergraduate/Graduate.

Spatial aspects of globalization and their impact on the city. Topics include emergence of global cities, impacts on urban development, and global era urban strategies.

Prerequisites: jr st.**Last Taught:** Fall 2022.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 540G Globalization and the City**

3 cr. Undergraduate/Graduate.

Spatial aspects of globalization and their impact on the city. Topics include emergence of global cities, impacts on urban development, and global era urban strategies.

Prerequisites: jr st.**Last Taught:** Fall 2022.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 547 Spatial Analysis**

4 cr. Undergraduate.

Advanced analysis techniques, including multivariate relationships and spatial modeling.

Prerequisites: junior standing and GEOG 247(P) or department-approved equivalent.**Last Taught:** Spring 2025, Spring 2024, Spring 2023, Spring 2022.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 564 Urban Environmental Change and Social Justice**

3 cr. Undergraduate/Graduate.

Spatial aspects of contributors to urban environmental change affecting social justice. Inequitable distribution of environmental risks and benefits; challenge of developing policies.

Prerequisites: jr st.**Last Taught:** Fall 2023.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 564G Urban Environmental Change and Social Justice**

3 cr. Undergraduate/Graduate.

Spatial aspects of contributors to urban environmental change affecting social justice. Inequitable distribution of environmental risks and benefits; challenge of developing policies.

Prerequisites: jr st.**Last Taught:** Fall 2023.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 600 Perspectives on Geography**

3 cr. Undergraduate.

Seminar on concepts, methods, and approaches to geographic inquiry. Discussion of professional geographic materials, bibliographic procedures and methodologies.

Prerequisites: sr st; declared geography major; writ cons instr.**Last Taught:** Spring 2025, Spring 2024, Spring 2023, Spring 2022.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 625 Intermediate Geographic Information Science**

4 cr. Undergraduate.

Concepts and techniques of geographic information science (GIS), with emphasis on GIS-based spatial analysis, associated applications, and technology. 3 hrs lec, 2 hrs lab.

Prerequisites: junior standing and GEOG 525(P), URBPLAN 591(P), or URBPLAN 791(P); or consent of instructor.**Last Taught:** Fall 2024, Fall 2023, Fall 2022, Fall 2021.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 650 Geography Field Work**

3 cr. Undergraduate/Graduate.

Geographic field work research techniques and field work research projects.

Prerequisites: junior standing; written consent of instructor.**Course Rules:** Students will pay fieldwork expenses. May be retaken with change in topic to 9 cr max.**Last Taught:** Fall 2023, Summer 2022.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 650G Geography Field Work**

3 cr. Undergraduate/Graduate.

Geographic field work research techniques and field work research projects.

Prerequisites: junior standing; written consent of instructor.**Course Rules:** Students will pay fieldwork expenses. May be retaken with change in topic to 9 cr max.**Last Taught:** Fall 2023, Summer 2022.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**GEOG 696 Independent Work in Physical Geography**

1-3 cr. Undergraduate.

Independent reading or project on a physical geography topic under the supervision of a geography faculty member.

Prerequisites: junior standing, 2.5 GPA, and written consent of instructor, department chair, and assistant dean for student academic services.**Course Rules:** May be retaken with change in topic to 6 cr max.**Last Taught:** Spring 2017, Spring 2015, Fall 2012, Spring 2012.**Current Offerings:** <https://catalog.uwm.edu/course-search/>

GEOG 698 GIS/Cartography Internship

1-6 cr. Undergraduate.

Practical GIS/cartography experience with government agency or private firm under supervision of working expert and faculty member. Intern's contract specifies duties and duration.

Prerequisites: jr st; Geog 215(P); writ cons instr & dept chair.

Course Rules: May be retaken to 6 cr max.

Last Taught: Summer 2025, Spring 2025, Fall 2024, Summer 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 699 Independent Work

1-3 cr. Undergraduate.

Independent reading or project. See Advanced Independent Study.

Prerequisites: jr st, 2.0 GPA, consent of instructor, department chair, and Assistant Dean for Student Academic Services.

Course Rules: May be retaken with change in topic to 6 cr max.

Last Taught: Summer 2020, Spring 2020, Spring 2019, Spring 2016.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 704 Remote Sensing: Environmental and Land Use Analysis

4 cr. Graduate.

Use of aerial photographs and digital imagery in environmental and land use analysis, including urban areas. 3 hrs lec; 2 hrs lab

Prerequisites: PC/Windows familiarity recom.

Last Taught: Spring 2025, Fall 2023, Spring 2023, Spring 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 705 Cartography

4 cr. Graduate.

Thematic cartography; map communication, design principles, illustration and mapping software. 3 hrs lec, 2 hrs lab.

Prerequisites: grad st.

Course Rules: Counts as repeat of Geog 405. Not open for cr to students w/grad cr in Geog 405.

Last Taught: Spring 2024, Spring 2022, Spring 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 716 Watershed Analysis and Modeling

3 cr. Graduate.

Theories and applications of analytical and modeling techniques for watershed processes, including geographic information systems (GIS), statistics, and computer simulations.

Prerequisites: grad st; working knowledge of GIS.

Course Rules: Not open for cr to students w/grad cr in Geog 515.

Last Taught: Fall 2023, Spring 2020.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 726 Geographic Information Science

4 cr. Graduate.

Geographic and information theoretical foundations of geographic information science (GIS). Use of macro languages in a software project to expand GIS functionality. 3 hrs lec, 2 hrs lab.

Prerequisites: grad st.

Course Rules: Not open for cr to students w/ grad cr in Geog 525.

Last Taught: Spring 2025, Fall 2024, Spring 2024, Fall 2023.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 737 Qualitative Research

3 cr. Graduate.

Qualitative research as applied in geography, including the relationship between quantitative and qualitative approaches, issues of interpretation, and ethics of field work.

Prerequisites: graduate standing.

Course Rules: Previously GEOG 827.

Last Taught: Spring 2024, Spring 2020, Spring 2019, Spring 2017.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 747 Spatial Analysis

4 cr. Graduate.

Advanced analysis techniques, including multivariate relationships and spatial modeling.

Prerequisites: grad st.

Course Rules: Not open for cr to students w/grad cr in GEOG 547.

Last Taught: Spring 2025, Spring 2024, Spring 2023, Spring 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 798 GIS/Cartography Internship

1-4 cr. Graduate.

Practical GIS/cartography experience with government agency or private firm under supervision of working expert and faculty member. Intern's contract specifies duties and duration.

Prerequisites: graduate standing, written consent of instructor and department chair.

Course Rules: May be retaken to 8 cr max.

Last Taught: Spring 2024, Summer 2023, Spring 2023, Fall 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 804 Advanced Remote Sensing

3 cr. Graduate.

Advanced techniques of image processing and analysis, including classification, georegistration, and spatial modeling.

Prerequisites: grad st; Geog 704(P)

Course Rules: Counts as a repeat of Geog 703.

Last Taught: Spring 2025, Spring 2023, Spring 2021, Spring 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 810 Introduction to Techniques of Research and Presentation

3 cr. Graduate.

Proseminar on the scholarly use of materials in all aspects of geography; training for effective presentation in both written and oral form.

Prerequisites: grad st.

Last Taught: Fall 2023, Fall 2021, Fall 2019, Fall 2017.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 826 Intermediate Geographic Information Science

4 cr. Graduate.

Concepts and techniques of geographic information science (GIS), with emphasis on GIS-based spatial analysis, associated applications, and technology. 3 hrs lec, 2 hrs lab.

Prerequisites: grad st; Geog 525(P) or Geog 726(P) or UrbPlan 591(P) or UrbPlan 791(P).

Course Rules: Counts as a repeat of Geog 625. Not open for cr to students w/grad cr in Geog 625.

Last Taught: Fall 2024, Fall 2023, Fall 2022, Fall 2021.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 870 Contemporary Geographic Approaches:

3 cr. Graduate.

Foundations of geographic inquiry, with emphasis on the roles of sub-disciplines, and generalist/specialist approaches in the development of geographic science.

Prerequisites: grad st.

Course Rules: Retakable w/chg in topic to 6 cr max.

Last Taught: Fall 2024, Fall 2022, Fall 2020, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 888 Candidate for Degree

0 cr. Graduate.

Available for graduate students who must meet minimum credit load requirements.

Prerequisites: graduate standing.

Course Rules: Fee for 1 cr assessed; unit does not count towards credit load for Fin Aid. Repeatable. Satisfactory/Unsatisfactory only.

Last Taught: Spring 2023, Fall 2022, Spring 2021, Summer 2015.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 889 Internship in Geography

1-6 cr. Graduate.

Application of advanced principles of geography in a business, organizational, educational, political, or other appropriate setting. Intern's contract specifies duties and duration.

Prerequisites: graduate standing and consent of instructor.

Course Rules: Retakable to 6 cr max.

Last Taught: Summer 2024, Fall 2021, Summer 2021, Summer 2020.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 890 Research and Master Thesis

1-6 cr. Graduate.

Research connected with master thesis.

Prerequisites: graduate standing.

Course Rules: Retakable to 6 cr max.

Last Taught: Spring 2025, Spring 2024, Fall 2023, Spring 2023.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 905 Seminar: Selected Topics in Geography:

3 cr. Graduate.

Variable content course designed to focus on special topics.

Prerequisites: graduate standing.

Course Rules: Retakable with change in topic to 9 cr max.

Last Taught: Spring 2025, Spring 2023, Fall 2021, Fall 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 910 Techniques of Research and Presentation

3 cr. Graduate.

Seminar on theoretical and practical aspects of geographic research, funding, presentation, and publication.

Prerequisites: grad st in Geog Ph.D. program.

Last Taught: Fall 2023, Fall 2021, Fall 2019, Fall 2017.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 945 The Internal Structure of the City

3 cr. Graduate.

The interaction of forces responsible for the evolution of the city as a spatial form and the allocation of economic and social activity within the spatial configuration.

Prerequisites: grad st.

Course Rules: Geog 945 & Urb Std 945 are jointly-offered; they count as repeats of one another.

Last Taught: Spring 2024, Spring 2022, Spring 2020, Spring 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 990 Research and Doctoral Dissertation

1-12 cr. Graduate.

Research projects connected with dissertation.

Prerequisites: graduate standing and consent of instructor.

Course Rules: Retakeable as necessary to fulfill thesis requirements.

Consult coordinator/chair of graduate studies.

Last Taught: Summer 2025, Spring 2025, Fall 2024, Spring 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

GEOG 999 Independent Work

1-6 cr. Graduate.

Independent reading or project.

Prerequisites: graduate standing.

Course Rules: Retakable with change in topic to 12 cr max. Satisfactory/Unsatisfactory only.

Last Taught: Spring 2025, Fall 2024, Spring 2024, Fall 2023.

Current Offerings: <https://catalog.uwm.edu/course-search/>