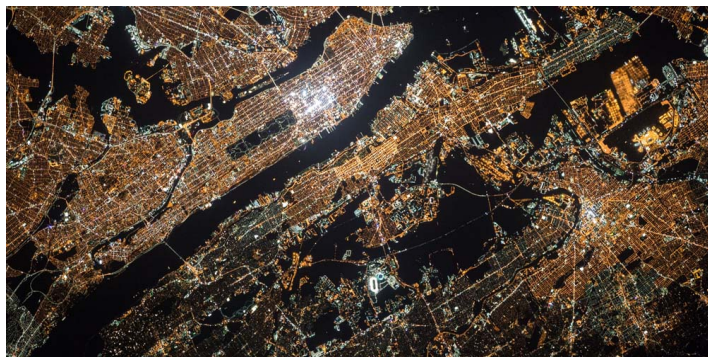


GEOGRAPHY, APPLIED (BS)



This program was approved for students entering the university in the Summer 2023–Spring 2024 catalog year. For more information about catalog year, go to Catalog Year Information (<http://catalog.louisville.edu/undergraduate/university-wide-unit-specific-policies/catalog-year/>).

Bachelor of Science in Applied Geography

Unit: College of Arts and Sciences (<http://www.louisville.edu/a-s/>) (AS)

Department: Geographic and Environmental Sciences (<https://louisville.edu/geogeo/>)

Academic Plan Code(s): See Track Requirements tab

Program Information

Geographers investigate the character and possible associations between a subject and its environment. The Department of Geographic and Environmental Sciences educates students to view the world in a spatial and time-dependent context to determine relationships between people and their immediate and global environment.

The department offers Bachelor of Science degrees in five different concentrations:

- Environmental Sciences: designed for students who are interested in the environment and environmental sustainability.
- Geospatial Technologies: designed for students who are interested in developing geospatial technologies like GIS and remote sensing.
- Human and Cultural Dynamics: designed for students interested in the forces that shape human environments like population trends, sustainable development, ethnic and racial segregation, globalization and geopolitics.
- Meteorology: designed for students interested in operational meteorology and meets NOAA requirements to work for the National Weather Service.
- Urban Analytics: designed for students interested in using data science and geospatial technologies to analyze processes that shape urban environments and solve urban problems.

Completion of this degree requires work to be submitted for the department's Learning Outcomes Measurement. For details, contact the department.

Degree Summary

Code	Title	Hours
	General Education Requirements (http://catalog.louisville.edu/undergraduate/general-education-requirements/) ¹	31
	College/School Requirements	13-15

Program/Major Requirements ¹	30
Track Requirements	24-30
Supporting Courses	6-26
Minimum Total Hours	121

¹ Some credit hours from the General Education Requirements may be satisfied by courses defined by the program, in which case additional electives will be required to complete the minimum hours for the degree.

Specific coursework information can be found on the Degree Requirements tab.

Accelerated BS/MS in Applied Geography

The Department of Geographic and Environmental Sciences offers an accelerated MS program in which qualifying majors in Geography may earn up to 9 graduate-level credit hours (at either the 500 or 600 level) during their senior year. These hours may then be applied towards an MS degree in Applied Geography at the University of Louisville. The selected graduate-level courses are applied towards both the undergraduate degree and the graduate degree allowing students to go on and complete the graduate degree with the remaining graduate hours, saving both time and expense.

All applicants should apply during the first or second semester of their Junior year (typically on completion of 70-80 hours) and have a minimum 3.0 GPA over all courses for entry into the MS Applied Geography program at the time of application. Contact the Department of Geographic and Environmental Sciences Director of Graduate Studies for an application form.

Departmental Admission Requirements

There are no specific admission requirements for this degree plan. The Change Major Request form can be found under the Academic Progress tile on ULink.

General Education Requirements

Code	Title	Hours
	General Education Requirements (http://catalog.louisville.edu/undergraduate/general-education-requirements/) ¹	31
The following courses are required by the program and can satisfy the respective General Education Requirement:		
GEOG 200	Human Geography in a Changing World - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	
GEOG 300	Globalization and Diversity - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	
ENVS 200	The Global Environment - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	

* Meteorology track also requires ENVS 220/PHYS 220, PHYS 295, PHYS 298 and MATH 205.

All degrees require the completion of the University-wide General Education Program (link provided above). Some General Education requirements may be met in the requirements for the major or supporting coursework, in which case additional electives may be required to complete the minimum hours for the degree.

College/School Requirements

Code	Title	Hours
Arts & Sciences Requirements		
GEN 100 or GEN 101	Student Success Center First Year Experience Arts & Sciences First Year Experience	1
Foreign Language ²		6-8
Electives in Natural Sciences or Humanities at the 300 level or above ³		6
WR—two approved courses at the 300 level or above ⁴		
Minimum Total Hours		13-15

Program/Major Requirements

Code	Title	Hours
Department of Geography and Environmental Sciences		
ENVS 200	The Global Environment - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
ENVS 363	Climate Science	3
GEOG 200	Human Geography in a Changing World - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 256	Introduction to Quantitative Methods in Geography and Geosciences - QR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 300	Globalization and Diversity - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 356	Introduction to Spatial Statistics	3
GEOG 370	Introduction to Field Methods in Geography	3
GEOG 441	Senior Thesis Proposal - WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/) ⁴	3
GEOG 442	Senior Thesis - CUE (http://catalog.louisville.edu/undergraduate/general-education-requirements/), WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/) ⁴	3
GEOG 558	Introduction to Geographic Information Systems	3
Minimum Total Hours		30
Code	Title	Hours
Track Requirements (see Track Requirements tab)		
		24-30

Code	Title	Hours
Supporting Courses (see Track Requirements tab)		6-26

At least 50 of the total minimum hours required must be at the 300 level or above.

Code	Title	Hours
Culminating Undergraduate Experience (Graduation requirement)		
Requirement fulfilled by completing:		
GEOG 442	Senior Thesis - CUE (http://catalog.louisville.edu/undergraduate/general-education-requirements/), WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	

¹ Some credit hours from the General Education Requirements may be satisfied by courses defined by the program, in which case additional electives will be required to complete the minimum hours for the degree.

² Completion of the second semester of a single foreign language; hours will vary depending on the language taken

³ Students in the Meteorology track satisfy this requirement by completing the track. Please consult the Track Requirements tab for more information.

⁴ Fulfills WR requirement.

Track Requirements

Track in Meteorology

Academic Plan Code(s): GEOGBS_MET

Code	Title	Hours
ENVS 220	Introduction to Weather and Climate - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
ENVS 305	Introduction to Weather Analysis	3
ENVS 366	Dynamic Meteorology	3
ENVS 370	Thermodynamic Meteorology	3
ENVS 452	Physical Meteorology	3
ENVS 465	Mesoscale Meteorology	3
ENVS 469	Synoptic Meteorology	3
GEOG 355	Introduction to Remote Sensing	3
Minimum Total Hours		24

Code	Title	Hours
Supporting Courses for Meteorology		
PHYS 295	Introductory Laboratories I - SL (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	1
PHYS 298	Introductory Mechanics, Heat and Sound - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	4
PHYS 299	Introductory Electricity, Magnetism and Light	4
MATH 205	Calculus I - QR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	4
MATH 206	Calculus II	4
MATH 325	Introduction to Linear Algebra	3
MATH 405	Differential Equations	3

GEOG 385	Introduction to Programming for GIS and Spatial Data Analysis	3
or ENVS 564	Hydrology	
Minimum Electives ^{1, 2}		0-26
Minimum Total Hours		26-52

¹ Students who satisfy General Education Requirements by courses defined by the program will require additional electives to complete the minimum hours for the degree.

² Some free electives at the 300+ level may be required to reach a minimum of 50 hours at the 300+ level.

Track in Environmental Sciences

Academic Plan Code(s): GEOGBS_ENV

Code	Title	Hours
Environmental Foundation		
ENVS 301	Geology for Scientists and Engineers	3
ENVS 360	Global Environmental Change	3
ENVS 365	Biogeography	3
ENVS 564	Hydrology	3
GEOG 340	Environmental Conflict in the United States: Historical Foundations & Contemporary Problems - D1 (http://catalog.louisville.edu/undergraduate/general-education-requirements/), SBH (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 350	Introduction to Mapping and Geospatial Technologies	3
GEOG 355	Introduction to Remote Sensing	3
Environmental Specialization		
Select three of the following courses:		9
ENVS 367	Geomorphology	
ENVS 565	Natural Hazards	
ENVS 570	Water Resource Management	
ENVS 571	GIS and Water Resources	
GEOG 361	Sustainable Human Environments - WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	
GEOG 525	Measuring Sustainability: Our Human Planet	
GEOG 540	Geography and Human-Environment Interactions (Select 3)	
Minimum Total Hours		30

Code	Title	Hours
Supporting Courses for Environmental Sciences		
Electives in Social Sciences, other than Geography, at the 300 level or above		6

Track in Geospatial Technologies

Academic Plan Code(s): GEOGBS_GST

Code	Title	Hours
Geospatial Technologies Foundation		
GEOG 350	Introduction to Mapping and Geospatial Technologies	3
GEOG 355	Introduction to Remote Sensing	3
GEOG 385	Introduction to Programming for GIS and Spatial Data Analysis	3
GEOG 545	Unoccupied Aerial Systems and Geospatial Applications	3
GEOG 556	Advanced Remote Sensing	3
GEOG 559	Advanced Geographic Information Systems	3
GEOG 590	Special Topics	3
Geospatial Technologies Specialization		
Select three of the following:		9
ENVS 452	Physical Meteorology	
ENVS 571	GIS and Water Resources	
GEOG 522	GIS and Public Health	
GEOG 525	Measuring Sustainability: Our Human Planet	
GEOG 530	Transportation Geography	
GEOG 531	GIS & Urban Demographic Analysis	
GEOG 535	GIS and Retail Site Analysis	
GEOG 583	Spatial and Non-Spatial Database Management	
Minimum Total Hours		30

Code	Title	Hours
Supporting Courses for Geospatial Technologies		
Electives in Social Sciences, other than Geography, at the 300 level or above		6

Track in Human and Cultural Dynamics

Academic Plan Code(s): GEOGBS_HCD

Code	Title	Hours
Human and Cultural Dynamics Foundation		
GEOG 320	Geopolitics	3
GEOG 328	Urban Geography	3
GEOG 331	Population Geography	3
GEOG 340	Environmental Conflict in the United States: Historical Foundations & Contemporary Problems - D1 (http://catalog.louisville.edu/undergraduate/general-education-requirements/), SBH (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 350	Introduction to Mapping and Geospatial Technologies	3
GEOG 360	Qualitative Methods for Undergraduates	3
GEOG 361	Sustainable Human Environments - WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
Human and Cultural Dynamics Specialization		
Select three of the following:		9
GEOG 308	Understanding China: People, Environment and Development	

GEOG 316	Geography of South Asia	
GEOG 324	Race and Place	
GEOG 500	Globalization Seminar	
GEOG 510	Urbanism in the Global South: Cities and Space	
GEOG 521	Medical Geography	
GEOG 524	Food and Race	
GEOG 525	Measuring Sustainability: Our Human Planet	
GEOG 540	Geography and Human-Environment Interactions	
ENVS 360	Global Environmental Change	
Minimum Total Hours		30

Code	Title	Hours
Supporting Courses in Human and Cultural Dynamics		
Electives in Social Sciences, other than Geography, at the 300 level or above		6

Track in Urban Analytics

Academic Plan Code(s): GEOGBS_URA

Code	Title	Hours
Urban Analytics Foundation		
GEOG 324	Race and Place	3
GEOG 327	Economic Geography	3
GEOG 328	Urban Geography	3
GEOG 510	Urbanism in the Global South: Cities and Space	3
GEOG 522	GIS and Public Health	3
GEOG 531	GIS & Urban Demographic Analysis	3
GEOG 559	Advanced Geographic Information Systems	3
Urban Analytics Specialization		
Select three of the following:		9
GEOG 320	Geopolitics	
GEOG 331	Population Geography	
GEOG 340	Environmental Conflict in the United States: Historical Foundations & Contemporary Problems - D1 (http://catalog.louisville.edu/undergraduate/general-education-requirements/), SBH (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	
GEOG 355	Introduction to Remote Sensing	
GEOG 360	Qualitative Methods for Undergraduates	
GEOG 361	Sustainable Human Environments - WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	
GEOG 529	Geography of Urban Issues	
GEOG 530	Transportation Geography	
GEOG 535	GIS and Retail Site Analysis	
GEOG 545	Unoccupied Aerial Systems and Geospatial Applications	
GEOG 556	Advanced Remote Sensing	
GEOG 590	Special Topics	
Minimum Total Hours		30

Code	Title	Hours
Supporting Courses in Urban Analysis		
Electives in Social Sciences, other than Geography, at the 300 level or above		6

Flight Plan

Track in Environmental Sciences

Academic Plan Code(s): GEOGBS ENV

Year 1		Hours
Fall		
GEN 101	Arts & Sciences First Year Experience	1
ENGL 101	Introduction to College Writing - WC (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
General Education: Cardinal Core Oral Communication		3
Foreign Language 1		3-4
ENVS 200	The Global Environment - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
Free Elective		3
Hours		16-17
Spring		
ENGL 102	Intermediate College Writing - WC (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
General Education: Cardinal Core Arts & Humanities		3
General Education: Cardinal Core Natural Science w lab		4
Foreign Language 2		3-4
GEOG 200	Human Geography in a Changing World - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
Hours		16-17
Year 2		
Fall		
GEOG 256	Introduction to Quantitative Methods in Geography and Geosciences - QR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 350	Introduction to Mapping and Geospatial Technologies	3
GEOG 370	Introduction to Field Methods in Geography	3
ENVS 365	Biogeography	3
Free Elective		3
Hours		15
Spring		
GEOG 356	Introduction to Spatial Statistics	3
GEOG 558	Introduction to Geographic Information Systems	3
GEOG 340	Environmental Conflict in the United States: Historical Foundations & Contemporary Problems - D1 (http://catalog.louisville.edu/undergraduate/general-education-requirements/), SBH (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
ENVS 363	Climate Science	3
Free Elective		3
Hours		15
Year 3		
Fall		
GEOG 355	Introduction to Remote Sensing	3
ENVS 564	Hydrology	3
Social Science Elective (300 level or above)		3
General Education: Cardinal Core Arts and Humanities		3

Free Elective	3
Hours	15
Spring	
ENVS 360 Global Environmental Change	3
ENVS 301 Geology for Scientists and Engineers	3
Environmental Sciences Track Specialization Course	3
Environmental Sciences Track Specialization Course	3
Humanities or Natural Science Elective (300 level or above)	3
Hours	15
Year 4	
Fall	
GEOG 300 Globalization and Diversity - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 441 Senior Thesis Proposal - WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
Environmental Sciences Track Specialization Course	3
Humanities or Natural Science Elective (300 level or above)	3
Free Elective	3
Hours	15
Spring	
GEOG 442 Senior Thesis - CUE (http://catalog.louisville.edu/undergraduate/general-education-requirements/), WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
Social Science Elective (300 level or above)	3
Free Elective	3
Free Elective	3
Free Elective (if needed)	3
Hours	15
Minimum Total Hours	122-124

Track in Geospatial Technologies

Academic Plan Code(s): GEOGBS GST

Year 1		
Fall		Hours
GEN 101 Arts & Sciences First Year Experience		1
ENGL 101 Introduction to College Writing - WC (http://catalog.louisville.edu/undergraduate/general-education-requirements/)		3
General Education: Hist 101 or 102		3
Foreign Language 1		3-4
ENVS 200 The Global Environment - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)		3
Free Elective		3
Hours		16-17
Spring		
ENGL 102 Intermediate College Writing - WC (http://catalog.louisville.edu/undergraduate/general-education-requirements/)		3
General Education: Cardinal Core Arts & Humanities - AH		3
General Education: Cardinal Core Natural Science w lab		4
Foreign Language 2		3-4
GEOG 200 Human Geography in a Changing World - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)		3
Hours		16-17

Year 2

Fall		
GEOG 256 Introduction to Quantitative Methods in Geography and Geosciences - QR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)		3
GEOG 370 Introduction to Field Methods in Geography		3
GEOG 350 Introduction to Mapping and Geospatial Technologies		3
General Education: Cardinal Core Arts and Humanities		3
General Education: Cardinal Core Oral Communication - OC		3
Hours		15

Spring

GEOG 356 Introduction to Spatial Statistics	3
GEOG 558 Introduction to Geographic Information Systems	3
GEOG 385 Introduction to Programming for GIS and Spatial Data Analysis	3
ENVS 363 Climate Science	3
Free Elective	3
Hours	15

Year 3

Fall		
GEOG 355	Introduction to Remote Sensing	3
General Education: Cardinal Core D1		3
Humanities or Natural Science Elective (300 level or above)		3
Social Science Elective (300 level or above)		3
Free Elective		3
Hours		15

Spring

GEOG 556 Advanced Remote Sensing	3
Geospatial Technologies Track Specialization Course	3
Geospatial Technologies Track Specialization Course	3
Geospatial Technologies Track Specialization Course	3
Humanities or Natural Science Elective (300 level or above)	3
Hours	15

Year 4

Fall		
GEOG 441	Senior Thesis Proposal - WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 300	Globalization and Diversity - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 590	Special Topics (Special Topic Web Mapping)	3
Free Elective		3
Free Elective		3

Spring

GEOG 442 Senior Thesis - CUE (http://catalog.louisville.edu/undergraduate/general-education-requirements/), WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 545 Unoccupied Aerial Systems and Geospatial Applications	3
GEOG 559 Advanced Geographic Information Systems	3
Social Science Elective (300 level or above)	3
Free Elective	3
Hours	15
Minimum Total Hours	122-124

Track in Human and Cultural Dynamics

Academic Plan Code(s): GEOGBS HCD

Year 1		
Fall		Hours
GEN 101	Arts & Sciences First Year Experience	1
ENGL 101	Introduction to College Writing - WC (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
General Education: Cardinal Core Arts & Humanities		3
Foreign Language 1		3-4
ENVS 200	The Global Environment - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
Free Elective		3
Hours		16-17
Spring		
ENGL 102	Intermediate College Writing - WC (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
General Education: Cardinal Core Oral Communication		3
Foreign Language 2		3-4
GEOG 200	Human Geography in a Changing World - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
Free Elective		3
Hours		15-16
Year 2		
Fall		Hours
GEOG 256	Introduction to Quantitative Methods in Geography and Geosciences - QR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 300	Globalization and Diversity - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 350	Introduction to Mapping and Geospatial Technologies	3
Humanities/Natural Science Elective (300 level or above)		3
Free Elective		3
Hours		15
Spring		
GEOG 356	Introduction to Spatial Statistics	3
GEOG 558	Introduction to Geographic Information Systems	3
GEOG 320	Geopolitics	3
General Education: Cardinal Core Arts & Humanities US Diversity - AHD1		3
Free Elective		3
Hours		15
Year 3		
Fall		Hours
GEOG 331	Population Geography	3
GEOG 360	Qualitative Methods for Undergraduates	3
Human & Cultural Dynamics Track Specialization Course		3
Social Science Elective (300 level or above)		3
General Education: Cardinal Core Natural Sciences with Lab - B		4
Hours		16
Spring		
GEOG 361	Sustainable Human Environments - WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
Human & Cultural Dynamics Track Specialization Course		3
Human & Cultural Dynamics Track Specialization Course		3
GEOG 370	Introduction to Field Methods in Geography	3
Humanities/Natural Science Elective (300 level or above)		3
Hours		15

Year 4		
Fall		Hours
GEOG 441	Senior Thesis Proposal - WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 328	Urban Geography	3
Social Science Elective (300 level or above)		3
Free Elective		3
Free Elective		3
Hours		15
Spring		
GEOG 442	Senior Thesis - CUE (http://catalog.louisville.edu/undergraduate/general-education-requirements/), WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 340	Environmental Conflict in the United States: Historical Foundations & Contemporary Problems - D1 (http://catalog.louisville.edu/undergraduate/general-education-requirements/), SBH (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
ENVS 363	Climate Science	3
Free Elective		3
Free Elective (if needed)		3
Hours		15
Minimum Total Hours		122-124

Track in Meteorology

Academic Plan Code(s): GEOGBS MET

Year 1		
Fall		Hours
GEN 101	Arts & Sciences First Year Experience	1
ENGL 101	Introduction to College Writing - WC (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 200	Human Geography in a Changing World - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
ENVS 220	Introduction to Weather and Climate - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
MATH 205	Calculus I - QR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	4
Free Elective		1
Hours		15
Spring		
ENGL 102	Intermediate College Writing - WC (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
MATH 206	Calculus II	4
ENVS 200	The Global Environment - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
PHYS 295	Introductory Laboratories I - SL (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	1
PHYS 298	Introductory Mechanics, Heat and Sound - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	4
Hours		15
Year 2		
Fall		Hours
GEOG 256	Introduction to Quantitative Methods in Geography and Geosciences - QR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 558	Introduction to Geographic Information Systems	3
ENVS 305	Introduction to Weather Analysis	3

PHYS 299	Introductory Electricity, Magnetism and Light	4
General Education Cardinal Core (OC)		3
Hours		16
Spring		
ENVS 363	Climate Science	3
ENVS 370	Thermodynamic Meteorology	3
GEOG 356	Introduction to Spatial Statistics	3
General Education: Cardinal Core Social & Behavioral Sciences Historical Perspective - SBH		3
General Education: Cardinal Core Arts & Humanities		3
Hours		15
Year 3		
Fall		
GEOG 355	Introduction to Remote Sensing	3
GEOG 370	Introduction to Field Methods in Geography	3
ENVS 366	Dynamic Meteorology	3
MATH 325	Introduction to Linear Algebra	3
Foreign Language Level 1		3-4
Hours		15-16
Spring		
ENVS 465	Mesoscale Meteorology	3
MATH 405	Differential Equations	3
Free Elective		3
Related Elective		3
Foreign Language Level II		3-4
Hours		15-16
Year 4		
Fall		
GEOG 300	Globalization and Diversity - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 441	Senior Thesis Proposal - WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
ENVS 452	Physical Meteorology	3
General Education: Cardinal Core Arts & Humanities (AHD1)		3
Free Elective		3
Hours		15
Spring		
GEOG 442	Senior Thesis - CUE (http://catalog.louisville.edu/undergraduate/general-education-requirements/), WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
ENVS 469	Synoptic Meteorology	3
Hum/Natural Science Elective (300 level or above) depending on if CSE 130 is used for related elective		3
Free Elective		3
General Elective (depending on language chosen)		3
Hours		15
Minimum Total Hours		121-123

Track in Urban Analytics

Academic Plan Code(s): GEOGBS URA

Year 1		
Fall		
GEN 101	Arts & Sciences First Year Experience	1
ENGL 101	Introduction to College Writing - WC (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
General Education (Hist 101 or 102)		3

Foreign Language 1		3-4
ENVS 200	The Global Environment - S (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
Free Elective		3
Hours		16-17
Spring		
ENGL 102	Intermediate College Writing - WC (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
General Education: Cardinal Core Arts & Humanities - AH		3
Foreign Language 2		3-4
GEOG 200	Human Geography in a Changing World - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
Free Elective		3
Hours		15-16
Year 2		
Fall		
GEOG 256	Introduction to Quantitative Methods in Geography and Geosciences - QR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 300	Globalization and Diversity - SB (http://catalog.louisville.edu/undergraduate/general-education-requirements/), D2 (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 370	Introduction to Field Methods in Geography	3
General Education: Cardinal Core Oral Communication - OC		3
Free Elective		3
Hours		15
Spring		
GEOG 356	Introduction to Spatial Statistics	3
GEOG 558	Introduction to Geographic Information Systems	3
GEOG 324	Race and Place	3
ENVS 363	Climate Science	3
General Education: Cardinal Core Arts & Humanities		3
Hours		15
Year 3		
Fall		
GEOG 327	Economic Geography	3
GEOG 328	Urban Geography	3
General Education: Cardinal Core Natural Sciences with Lab - B		4
Social Science Elective (300 level or above)		3
Humanities / Natural Sciences Elective (300 level or above)		3
Hours		16
Spring		
GEOG 559	Advanced Geographic Information Systems	3
GEOG 510	Urbanism in the Global South: Cities and Space	3
Urban Analytics Track Specialization Course		3
Humanities or Natural Science Elective (300 level or above)		3
General Education (D1)		3
Hours		15
Year 4		
Fall		
GEOG 441	Senior Thesis Proposal - WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 531	GIS & Urban Demographic Analysis	3
Urban Analytics Track Specialization Course		3
Urban Analytics Track Specialization Course		3
Free Elective		3
Hours		15

Spring

GEOG 442	Senior Thesis - CUE (http://catalog.louisville.edu/undergraduate/general-education-requirements/), WR (http://catalog.louisville.edu/undergraduate/general-education-requirements/)	3
GEOG 522	GIS and Public Health	3
Social Science Elective (300 level or above)		3
Free Elective		3
Free Elective (if needed)		3
Hours		15
Minimum Total Hours		122-124

Degree Audit Report

Degree Audit reports illustrate how your completed courses fulfill the requirements of your academic plan. What-if reports allow you to compare the courses you have completed in your current academic plan to the courses required in another academic plan. Should you have questions about either report, please consult with your academic advisor.

Flight Planner

The Flight Planner tool is available for you to create a personalized Flight Plan to graduation. Advisors have access to review your Flight Planner and can help you adjust it to ensure you remain on track to graduate in a timely manner.

To create these reports:

- a. Log into your ULink account.
- b. Click on the Academic Progress tile.
- c. Select the appropriate report.
 - i. To run a Degree Audit report, click on "View my Degree Audit."
 - ii. To create a What-if report, click on "Create a What-if Advisement Report."
 - iii. To run a Flight Planner report, click on "Use My Flight Planner."

Click here to run a Degree Audit report, create a What-if report, or run a Flight Planner report. (<https://ulink.louisville.edu>)