

UUDLES - BA and BA Honours in Geography

The Bachelor of Arts degree in Geography provides students a synthetic approach to understanding the relationships between landscapes, people, and places. Geography at York University bridges the natural sciences, humanities and social sciences, and students are strongly encouraged to take courses in both physical and human geography streams. Human geography courses incorporate knowledge about places and scales ranging from Toronto to Canada to Asia, Africa, and Latin America/the Caribbean, so that students will obtain an understanding of how they relate to people and places around the world. In the Human Geography area, students can organize their studies around the follow major themes:

- The City
- Globalization, Environment and Politics
- Production and the Politics of Difference
- State, Empire and Power

In the Physical Geography area, students can organize their studies around:

- Extreme environments
- Biophysical processes
- Geoinformatics

During the first and second years of studies, students are introduced to critical geographical issues, central concepts, and analytical methods in both human and physical geography. In the third and fourth years of the program, the themes allow students to develop specialized research, analytical, and writing skills. These skills are learned through classes organized as lectures, seminars, labs, tutorials, and fieldwork. Upon successful completion of the program, students are well-equipped for exciting careers in both local and international public, private and voluntary sectors. Students can also proceed to graduate work in Geography or related fields of study.

In more detail, the following are the learning objectives for Human Geography. These need to be understood as one component of a broader program that incorporates physical geography.

*** These items are reserved for Honours BA.**

1. Depth and Breadth of Knowledge:

- 1.1 Demonstrate a grasp of both human and physical geography, and understand the interdisciplinarity of Geography.
- 1.2 Acquire an understanding of Geography's distinct position as a bridge between the natural sciences, humanities and social sciences.

- 1.3 Demonstrate a specialized knowledge base of some of the selected themes including: the City; Globalization, Environment and Development; Production and the Politics of Difference; State, Empire and Power; Extreme Environments; Biophysical Processes; and Geoinformatics.
- 1.4 Demonstrate a high level of comprehension of key geographic concepts such as space, place, scale, nature, locality and be able to analyze the patterns and processes associated with these.
- 1.5 Demonstrate the ability to analyze events, phenomenon and processes in relation to their spatial context.
- 1.6 Develop understanding in the areas of spatial equity, diversity and justice.
- 1.7 Demonstrate an advanced understanding of their chosen geographic field (eg. one of the seven themes).*

2. Knowledge of Methodologies:

- 2.1 The ability to interpret basic thematic maps (e.g., symbols, gradients with corresponding legends).
- 2.2 The ability to interpret basic spatial and aspatial data in both human and physical geography (eg. Census data, weather data).
- 2.3 The ability to gather observational data of human social and spatial behaviour, and the nature of space through field work.
- 2.4 The ability to systematically search and review literature using library and online scholarly databases (eg. Geobase)
- 2.5 The ability to interpret and analyze basic descriptive and inferential statistics.*
- 2.6 The ability to use and operate geographical software and programs (e.g. Map Info, ArcGIS)*
- 2.7 The ability to evaluate the appropriateness of major methodological approaches within Geography (qualitative, quantitative and spatial methodologies).*
- 2.8 The ability to independently develop and conduct original research by collecting data using acquired fieldwork and laboratory skills. *
- 2.9 The ability to structure problems, collect information, conduct appropriate analysis and report findings.*
- 2.10 Awareness of ethical implications and procedures for research.

3. Application of Knowledge:

- 3.1 The ability to critically evaluate arguments from diverse theoretical perspectives.
- 3.2 The ability to apply geographical concepts to think independently, creatively and analytically.
- 3.3 The ability to use field methods to explore, describe and explain how social relations among individuals and social groups create, shape and are shaped by geography.
- 3.4 The ability to clearly and concisely summarize, evaluate, synthesize and critique scholarly literature for independent research papers, term papers, reviews, presentations and exams.*

4. Communication Skills:

- 4.1 The ability to comprehend and communicate geographic concepts and principles through original written work, tutorials and class presentations.
- 4.2 The ability to engage in discussions and debates and to communicate with respect to the diversity of opinions in and outside the classroom.
- 4.3 The ability to demonstrate a high standard of reasoning and communication in oral, visual and written forms
- 4.4 The ability to use appropriate communication technologies.
- 4.5 The ability to demonstrate critical thinking, reading, writing, and analytical skills
- 4.6 The ability to independently develop evidence-based arguments as opposed to relying on opinions*

5. Awareness of Limits of Knowledge of BA:

- 5.1 The ability to acknowledge the diversity of perspectives, opinions and the multiplicity of legitimate geographical knowledge.
- 5.2 An appreciation that geographical knowledge is context-specific.
- 5.3 A recognition of the limitations of diverse methodologies in the production of knowledge.*
- 5.4 Recognizing that knowledge continuously evolves and grows.*

6. Autonomy and Professional Capacity of BA:

- 6.1 Recognition of geography's centrality in understanding contemporary world concerns and developments such as climate change, poverty, and social injustice.
- 6.2 Willingness to respect other people's opinions, engage different perspectives, and be open to interdisciplinary collaborations.
- 6.3 Critical and creative thinking, reasoning, communication and problem-solving skills.
- 6.4 Recognition of potential errors and limitations.
- 6.5 Willingness to continue learning and applying knowledge to either create new knowledge or to solve existing problems.
- 6.6 Competency with a range of software packages (eg.SPSS, GIS software).*
- 6.7 Ability to assess and apply multiple geographic methodological approaches*
- 6.8 Competence in developing and implementing original and inquiry-based research.*
- 6.9 Responsible and ethical scholarship*
- 6.10 Capacity for critical thinking, intellectual rigour, engagement with complexity*

UUDLES - BSc and BSc Honours in Geography

The Bachelor of Science degree in Geography provides a solid foundation in understanding natural phenomena while achieving interdisciplinarity by including select courses in human geography, physics, chemistry and biology. This degree offers three key areas of concentration:

- Extreme environments
- Biophysical processes
- Geoinformatics

Topics in this program cover climatology, hydrology, biogeography, geomorphology, remote sensing and image processing, and GIS. All students are required to take in their first year introductory physical geography as well as introductory human geography. In addition to core courses, students may also take a wide range of electives within the natural sciences and social sciences. With emphasis on practical experience in field and laboratory settings, upper level courses provide a deeper understanding of natural environments and the physical and biological processes governing them. Upon successful completion of the program, students are well equipped for exciting careers in the public, private and voluntary sectors. Students can also further their academic development by proceeding to graduate work in Geography or related fields of study.

*** These items are reserved for Honours BSc.**

1. Depth and Breadth of Knowledge for BSc:

- 1.1 Exposure and basic grasp of both human and physical geography, demonstrating the inter-disciplinarity of Geography.
- 1.2 A basic (advanced*) understanding of the fundamental linkages and inter-dependencies amongst the atmosphere, hydrosphere, biosphere and lithosphere.
- 1.3 Develop a specialized knowledge base within sub-disciplines of physical geography.
- 1.4 Develop an advanced level of comprehension of key concepts such as space, time, equilibrium, measurement, modelling, accuracy, resolution, scale, process, pattern, systems, cycling, adaptation, extinction.
- 1.5 Develop an understanding of and demonstrated competence using the scientific method for advancing knowledge in physical geography.
- 1.6 Demonstrate an understanding of the roles of physics, chemistry and biology in shaping the natural environment.
- 1.7 Develop experience in the use of the outdoors as a natural laboratory.
- 1.8 Demonstrated competence in critical thinking skills.
- 1.9 Develop competence in analytical skills.
- 1.10 Develop both oral and written communications skills.

2. Knowledge of Methodologies of BSc:

- 2.1 Ability to generate maps from spatial data.
- 2.2 Ability to generate various graphs and visual representations.
- 2.3 Ability to analyse temporal and spatial data using spreadsheets, statistical packages and spatial analysis tools.
- 2.4 Ability to apply inferential statistics to collected data.
- 2.5 Practice (exposure*) in applied field experimentation (appropriate use of sensors and sampling methodologies and analytical procedures).
- 2.6 Understanding of the processes responsible for observed phenomena or patterns.
- 2.7 The ability to develop an autonomous research proposal, design an experiment, analyse collected data, and interpret results.*
- 2.8 Awareness of ethical and moral implications and procedures for research.*

3. Application of Knowledge of BSc:

- 3.1 The ability to understand processes responsible for phenomena and patterns in the natural environment (and then generate plausible outcomes under alternate scenarios*)
- 3.2 Ability to recognize advances in technology which can be applied to a sub-discipline in physical geography. *
- 3.3 The ability to think independently, creatively and analytically.
- 3.4 The ability to review, summarize and evaluate scholarly literature related to a sub-discipline of physical geography.
- 3.5 Ability to synthesize scientific literature from diverse sources in a coherent manner.*

4. Communication Skills of BSc:

- 4.1 The ability to comprehend and communicate geographic concepts and principles through original written work and class presentations.
- 4.2 The ability to engage in class discussions and debates.
- 4.3 The ability to demonstrate a high standard of oral, visual and written communication skills..
- 4.4 The ability to communicate respectfully with a diversity of opinions in the classroom.
- 4.5 The ability to use appropriate communication technologies.*
- 4.6 Develop an ability to communicate publicly.*

5. Awareness of Limits of Knowledge of BSc

- 5.1 The ability to acknowledge the diversity of disciplines that should be integrated for effective environmental problem solving.
- 5.2 A recognition of the limitations of diverse methodologies in the production of knowledge.*
- 5.3 A recognition of the range of differences between themselves and the general public in understanding the environment.*

6. Autonomy and Professional Capacity of BSc

- 6.1 Recognition of geography's centrality in understanding contemporary world concerns such as climate change, pollution, and resource depletion.
- 6.2 Critical and creative thinking, reasoning, communication, and problem-solving skills.
- 6.3 Recognition of potential errors and limitations.
- 6.4 Willingness to continue learning and applying knowledge to either create new knowledge or to solve existing problems
- 6.5 Competency with a range of software packages and other geographical technologies (eg. Remote sensing, satellite imaging, GIS mapping/software).*
- 6.6 Competence in developing and implementing original and inquiry-based research projects.*
- 6.7 Responsible and ethical scholarship*
- 6.8 Capacity for critical thinking, intellectual rigour, engagement with complexity*