



McLAUGHLIN
LIBRARY

Cyclical Program Review Library Report: Geography, Environment & Geomatics

- BSc Environmental Geomatics
- BA Geography
- BA Environmental Governance
- BSc (Env) Environment and Resource Management
- MA, MSc, PhD Geography

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June 1, 2021

Summary

The library provides **strong** support for University of Guelph's Geography, Environment & Geomatics programs.

Recommendations

- Consider embedding information literacy instruction in the distance education course GEOG*1220 DE as we currently provide to students in GEOG* 1220. Consider embedding information literacy into a core graduate course as there is currently no information literacy offered to graduate students in these programs at the curriculum level. In our experience, building in academic skills support at the curriculum level is most effective for students.
- There has been minimal use of repository services by Geography, Environment and Geomatics researchers. Encourage students to contact the library for support on how they can share and preserve their data in institutional repositories, and/or prepare larger datasets for inclusion in an external repository. Students can attend the library workshop, "Publishing your data - Preparing your data for deposit," a workshop which focuses on best practices for preparing data for deposit in a repository such as file structure, file formats and naming convention, descriptive metadata, licensing and access, and developing supplemental materials.

Part 1: Collections

Journals

The library invests heavily in online journal subscriptions to support the University of Guelph curriculum. Currently, the library subscribes to approximately 55,000 online journals, most of which are discoverable at the article level through our search tool, Omni. The library subscribes to nearly complete collections of journals from major scholarly publishers, including Springer, Elsevier, Wiley, Taylor & Francis, SAGE, Oxford University Press, Cambridge University Press, the American Chemical Society and the Royal Society of Chemistry, Canadian Science Publishing (NRC Research Press), and the American Psychological Association.

To demonstrate the library's coverage of the relevant literature, data from Clarivate's *Journal Citation Reports* (JCR) database (2018) was analyzed. Library coverage by JCR subject includes the following:

Environmental Sciences: 25/25 of the top journals.

Ecology: 25/25 of the top journals.

Environmental Studies: 25/25 of the top journals.

Geography: 30/30 of the top journals.

Geography, Physical: 25/25 of the top journals.

Geosciences: 24/25 of the top journals.

Regional & Urban Planning: 25/25 of the top journals.

Books and E-books

The library offers a broad collection of books and e-books in many disciplines from such major academic publishers as:

- CABI eBooks
- All Canadian University Presses (UTP, Queen's-McGill, etc.)
- Oxford University Press
- Cambridge University Press
- Edward Elgar
- SAGE
- Springer/Palgrave
- Routledge/Taylor & Francis

Search Tools to Access the Literature

Omni is the library's core academic search tool which lets users simultaneously search the University of Guelph library collections plus the library collections of most of the other university libraries in Ontario. Omni facilitates access to full-text books, articles, streaming media, and much more by linking to library subscriptions and open access scholarly works.

Access to the literature in geography is also available through many indexes and journal databases to which the library subscribes including:

Geography, Environment and Geomatics literature

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|---|--|
| • AGRICOLA | • Hospitality & Tourism Complete |
| • Agricultural and Environmental Science Database | • IPortal: Indigenous Studies Portal |
| • Anthropology Plus | • JSTOR (Including JSTOR Sustainability) |
| • Bibliography of Native North Americans | • PAIS |
| • Biological Sciences | • SAGE Research Methods |
| • CAB Direct | • Sociological Abstracts |
| • Gender Watch | • Sustainability Science Abstracts |
| • GeoBase | • Web of Science |
| • GreenFILE | • Worldwide Political Science Abstracts |

GIS Data & Tools

- ArcGIS (available on in-library workstations)
- Scholars GeoPortal

Curriculum Resources

The E-learning & Reserves unit makes resources readily available to students with integrated links in the course management system, CourseLink, and with access points in Omni. Where possible, course reserves resources are made available online.

To ensure that all students have access to required textbooks for their courses, the library purchases at least one copy of the required textbook for most undergraduate courses via the Course Reserves service. Instructors are notified via email when the required textbook(s) for courses they are teaching have been placed on reserve and are available for students to use. This program is an initiative of the Open and Affordable Course Content Task Force (OACC). Over the past three years, the library has made 886 course readings available to students in GEOG courses, including \$2,612.97 in textbook purchases and \$2,612.97 in copyright permissions.

During the COVID-19 pandemic, the E-learning & Reserves unit has undertaken significant efforts to ensure that students continue to have affordable access to their course readings, even if they aren't able to access the in-library course reserves collection. This team has worked with library colleagues, faculty instructors, and publisher partners to find new access models or alternative course materials that ensure students can access their readings even if they can't access the library.

Part 2: Academic and Professional Skills

Research & Information Literacy Skills

Information Literacy (IL) librarians support students by providing:

- Individual appointments.
- In-class guest lectures.
- Co-curricular workshops such as Dissertation Boot Camp and Brain Food for thesis management.
- Customized digital learning objects, such as online course guides, videos, and tutorials.

The IL team takes a broad view of research skills and provides instruction and support on:

- developing a research question.
- doing preliminary research or researching around a topic.
- search and retrieval of scholarly and non-scholarly sources.
- knowledge synthesis projects, such as literature, systematic or scoping reviews.
- evaluating information for bias, authority, reliability, and other indicators of suitability.

The IL team prioritizes support to large required and core courses that have research skills or digital media literacy assignments. IL librarians aim to scaffold information literacy instruction throughout the curriculum to provide students with the opportunity to build on their skills year over year.

Students in BA Geography and BA Environmental Governance benefit from information literacy instruction through the required courses GEOG*1220. We introduce students to keyword search strategies and disciplinary journal databases. Research and information literacy skills are reinforced through the course GEOG*2260, where students learn research skills necessary to conduct literature reviews. IL Librarians have also supported required and elective courses for BSc Environmental Geomatics, BSc Environment and Resource Management; however, the extent of this support varies year to year.

Support for the MA, MSc, PhD Geography programs has mostly been through individual appointments rather than a graduate orientation or course-specific support.

Information literacy guest lecture support

Year	Course	# Students
2018-19	GEOG*2260	20
2018-19	GEOG*3050	100
2018-19	GEOG*4150	13
2018-19	GEOG*1220	200
2018-19	GEOG*2030	120
2018-19	GEOG*6610	8
2018-19	ENVS*4001	25

Year	Course	# Students
2018-19	MGMT*3020	325
2019-20	GEOG*2260	15
2019-20	GEOG*1220 Winter	250
2019-20	GEOG*2030	22
2019-20	GEOG*2230	53
2019-20	GEOG*1220 Fall	400
2019-20	ENVS*1030	100
2019-20	POLS*3250	80

The IL team creates customized online course guides to help students find important resources for their research and learning.

Most frequently viewed course guides for GEOG* courses

Library Course Guide	Total Views (September 1, 2019- August 31, 2020)
GEOG* 1220	1051
GEOG* 1220 DE	285
GEOG* 3490	90
GEOG* 2030	89
GEOG* 1350	83
GEOG 1300 - Introduction to the Biophysical Environment	76
GEOG 2210 DE – Environment and Resources	74
GEOG 3020 - Global Environmental Change	73
GEOG 3020 DE - Global Environmental Change	67
GEOG 4220 - Local Environmental Management	59

Most frequently viewed course guides for required courses

Library Course Guide	Total Views (September 1, 2019- August 31, 2020)
GEOG* 1220	1051
BIOL* 1090	741
CHEM* 1050	322
GEOG* 1220 DE	285
CHEM* 1040	243
ECON* 1050	232
MATH* 1080	218
ENVS* 1030	181
POLS* 3250	166
BIOL 1070*	137

Most frequently viewed course guides for restricted elective courses

Library Course Guide	Total Views
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	(September 1, 2019- August 31, 2020)
MATH* 1080	218
STAT* 2040	95
GEOG* 2030	89
GEOG* 3020	73
GEOG* 3020 DE	67
FARE* 2700	60
GEOG* 2230	58
ECON* 2100	35
ECON* 2100 DE	29
MATH* 1200	26

Writing Services

Writing specialists support students by providing:

- Individual writing appointments.
- In-class guest lectures.
- Curricular support and resources for instructors and graduate student supervisors.
- Co-curricular programming such as Dissertation Boot Camp, Brain Food for thesis management, Writing Tune-Up for grammar, and Academic Writing Style.
- Academic integrity support through Academic Integrity at the University of Guelph www.academicintegrity.uoguelph.ca and by helping students understand and prevent academic misconduct.

Students in GEOG* courses make reasonably good use of Writing Services' individual consultations each year. Each fall, Writing Services presents a workshop to support GEOG* 6090 students on writing their context paper.

Individual writing consultations with students who indicated GEOG* as a course code or subject area

Year	# Students
2017-2018	70
2018- 2019	43
2019- 2020	42
2020-2021	66

Writing Services guest lecture support

Year	Course	Type of Session	# Sessions	# Students
2017-18	GEOG* 6090	Context Paper	1	11
2018-19	GEOG* 6090	Context Paper	1	15
2019-20	GEOG* 6090	Context Paper	1	14
2020-21	GEOG* 6090	Context Paper	1	16

English as an Additional Language (EAL)

English language programming supports students to develop skills in English communication, pronunciation, presentation, reading, and writing skills. Support is offered through:

- Individual appointments.
- Co-curricular workshops and short courses such as EAL Graduate Writing Camp, Pronunciation Groups, Talk like an Academic, and Write like an Academic.
- Curricular support and resources for instructors and graduate student supervisors.

Learning Services

Learning Specialists support students' academic skill development through:

- Individual appointments.
- In-class guest lectures.
- Working with faculty to develop assignments, assessment, and in-class workshops on topics such as working in groups, presentation skills, poster presentations, and exam preparation, and customized student resources (such as an error analysis worksheet for midterms).
- Co-curricular programming such as Brain Food (thesis management), Presentation Boot Camp, and Control Academic Stress.

Learning Services guest lecture and workshop support

Year	Course or Workshop	Type of Session	# Sessions	# Students
2017-18	GEOG* 2030	Critical Reading	1	150
2017-18	GEOG* 6090	Presentation Skills	1	11
2017-18	Mini Brain Food for Geography graduate students	Mini Brain Food (time management and writing the literature review)	1	12
2018-19	GEOG* 2030	Finding literature and reading critically	1	120
2018-19	GEOG* 4150	Ignite your presentations	1	15
2018-19	GEOG* 4390	Presentation design	1	5
2018-19	GEOG* 6090	Presentation skills	1	12
2019-20	GEOG* 2030	Finding literature and reading critically	1	22
2019-20	GEOG* 60990	Presentation skills	1	13

Scholarship and Data Services

The Research & Scholarship (R&S) team provides support for students' data and research activities, especially at the senior undergraduate and graduate levels. through:

- Individual appointments.
- In-class guest lectures.
- Co-curricular programming such the Data Skills Workshop Series, the Scholarly Communications Workshop Series, workshops on acquiring, analyzing, and visualizing data, using research software, cleaning, coding, depositing data into Dataverse, and data management plans.
- Customized digital learning objects such as instruction sheets, videos, and tutorials.

- The library's Data Resource Centre which provides access to statistical data resources and software and specialist support for the use of GIS data, statistical software, and survey software.
- The library has installed ArcGIS, Excel, R, SPSS, SAS, and Matlab on all library workstations.
- Administration of the University's institutional repositories:
 - The Atrium for institutional open access research
 - Dataverse for research data from all disciplines created by researchers at the University of Guelph.
 - The Agri-Environmental Research Data Repository to preserve and provide access to agricultural and environmental data produced during University of Guelph research projects.
- Research & Scholarship staff regularly partner with Geography, Environment, Geomatics on a GIS Day event and the Science Olympics.

Guest lectures by R&S specialists in 2019-2020

Course	# Students
ENVS* 6900	15
ENVS* 6900	22
GEOG* 2480	60
GEOG* 4480	35
GEOG* 6090	15
GEOG* 2480	70

Although we do not collect program level data on our co-curricular workshop participants, we know that Geography, Environment & Geomatics students comprise a large proportion of our participants. Although we do not collect program level data about students in our individual appointments, most are graduate students from the sciences with a large proportion of those students seeking GIS support, statistical support, and data analysis, cleaning and visualization services.

Electronic Theses and Dissertations (ETD)

University of Guelph Institutional Repository, the Atrium, houses University of Guelph student theses and dissertations.

Geography theses, dissertations, and datasets added to the Atrium (2019-2020):

10 theses or dissertations

1 dataset