



Library Report: HHNS

Cyclical Program Review 2020

- BioMedical Science BSc
Human Kinetics BSc
- Nutritional and Nutraceutical Sciences BSc
- HHNS MSc, PhD

Prepared by

Kim Garwood
Kimm Khagram
Jacqueline Kreller-Vanderkooy
Joannah O'Hatnick
Chris Popovich
Lindsey Robinson
Paul St-Pierre
Jodie Salter
Ron Ward

Head, Learning & Curriculum Support (Acting)
SLG Manager (Acting)
Information Literacy Librarian
Manager, Learning Services (Acting)
Research & Scholarship Librarian
Digital Learning Specialist
Collections & Content Librarian
Manager, Writing Services (Acting)
Senior Research Officer

Submitted by

Barbara McDonald, Associate University Librarian, Academic

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Summary

The library provides **strong** support for HHNS programs:

- BioMedical Science BSc
- Human Kinetics BSc
- Nutritional and Nutraceutical Sciences BSc
- HHNS MSc, PhD

Recommendation

1. Consider embedding information literacy instruction into the programs.

Librarians are not currently involved in any of the required courses or restricted electives in the HHNS programs except HK*4070 (a restricted elective in Biomedical Sciences) but are available to work with curriculum committees to identify key courses (capstone courses such as BIOM*4521/2, HK*4511/2 and HK*4371/2, and others requiring research projects). In our experience, this is effective for students by ensuring that they gradually improve their proficiency in engaging with the literature.

Part 1: Collections

The library provides **strong collections support** for all programs in Human Health & Nutritional Sciences.

Due to the university's historic strengths in the life sciences, and its interdisciplinarity, access to the broad literature relevant to HHNS students is strong. E-journal, book, and index coverage is excellent. Library participation in national and provincial purchasing consortia results in better collections than would be expected at comparable, less well-connected institutions. The acquisition of e-books is rapidly replacing print, facilitating convenient remote desktop access.

The greatest challenge that HHNS presents for library collections is the very high cost of medical information resources. As comparative biomedical research in areas such as cardiovascular disease, cancer, and public health gain prominence, the acquisitions budget is stretched. As funds and priorities permit, additional journals from medical publishers such as Karger, Mary Ann Liebert, Lippincott, the American Heart Association, and Cell Press will be acquired.

The increasing focus on systematic reviews has created strong demand for access to Elsevier's *Scopus* database. Unfortunately, at approximately \$100,000 per year, a subscription to this tool is currently beyond reach.

Journals

The library almost exclusively acquires online journals, providing access to more than 55,000 titles across all disciplines. The biomedical & life sciences collection of relevance to HHNS disciplines is very strong, and students can access nearly complete journal suites, in many cases back to the first volume, from publishers such as:

- | | |
|-------------------------------------|-----------------------------------|
| ▪ American Physiological Society | ▪ Cell Press (select titles) |
| ▪ American Society for Microbiology | ▪ Company of Biologists |
| ▪ Annual Reviews | ▪ Elsevier |
| ▪ Cambridge University Press | ▪ Nature journals (select titles) |
| ▪ Canadian Science Publishing | ▪ Oxford University Press |
| | ▪ SAGE |

- Springer
- Taylor & Francis
- Wiley

Where gaps exist, it is generally for publishers to which the library subscribes to select titles rather than complete ‘bundles.’ Notable publishers in this category include the American Heart Association, BMJ specialty titles, Cell Press, Karger, Mary Ann Liebert, Nature (specialty titles), Thieme, and Wolters Kluwer/OVID. The library adds new subscriptions in response to evolving demand and as budgets permit.

The university has access to most of the high impact factor journals relevant to HHNS, according to Clarivate’s *Journal Citation Reports (JCR)* database (2018).

Table 1. # journal titles to which U of G has access	
JCR Subject Category	Guelph Access
Anatomy & Morphology	18/21
Andrology	6/7
Biochemistry & Molecular Biology	49/50
Biology	24/25
Biophysics	25/25
Cardiac & Cardiovascular Systems	15/25
Cell Biology	49/50
Developmental Biology	36/40
Endocrinology & Metabolism	21/25
Food Science & Technology	50/50
Immunology	25/25
Infectious Diseases	47/50
Integrative & Complement. Med.	23/25
Medical Informatics	19/20
Microbiology	49/50
Neurosciences	48/50
Nutrition & Dietetics	25/25
Oncology	46/50
Peripheral Vascular Disease	21/25
Pharmacology & Pharmacy	25/25
Physiology	25/25
Rehabilitation	22/25
Reproductive Biology	28/29
Respiratory System	19/25
Sport Sciences	24/25
Toxicology	50/50

Books and E-Books

The acquisition of e-books is rapidly replacing print, facilitating convenient remote access. The library offers a broad collection of books and e-books in many disciplines from such major academic publishers as:

- American Society for Microbiology
- Cambridge University Press
- CRC Press
- Elsevier
- Oxford University Press
- SAGE
- Springer
- Taylor & Francis
- Wiley

Search Tools to Access the Literature

- Omni is an academic search tool (catalogue) which provides access to resources from 14 Ontario university libraries. It permits searching a shared collection, including books, databases, journal articles, videos, music, and more. Omni facilitates access to full-text by linking to library-subscribed and Open Access scholarly works.
- Access to the literature is available by searching library journal databases including:
 - AGRICOLA
 - Biological Sciences Collection (ProQuest)
 - CINAHL Plus with Full Text
 - Cochrane Library
 - Ergonomics Abstracts
 - Family & Society Studies Worldwide
 - Health and Psychosocial Instruments
 - Medline/PubMed
 - Natural Medicines
 - Practice-based Evidence in Nutrition (PEN)
 - PsycINFO
 - SPORTDiscus with Full Text
 - Toxline
 - Web of Science

Research Methods & Protocols

Journals dominate the research literature. However, methods and protocols are often impossible to replicate from the brief descriptions written up in research articles. To help overcome this challenge, the library collects an increasing number of books, book series, and databases that provide comprehensive detail about experimental procedures. Notable examples include:

- Cold Spring Harbor Protocols
- Journal of Visualized Experiments (JoVE, select biology collections)
- Methods in Enzymology (Elsevier)
- SAGE Research Methods Video
- Springer-Nature Experiments (formerly *Springer Protocols* and *Nature Protocols*)
- Wiley Current Protocols

Multimedia resources

Audio, DVD, and streaming video that explore issues related to human health and nutrition are selected individually or as part of standing subscriptions. The library subscribes to several streaming media services that provide films and film clips that support HHNS programs, including:

- Docuseek 2
- Films on Demand: Digital Education Video
- Journal of Visualized Experiments (JoVE)
- Kanopy
- PBS Video Collection
- Sports Medicine and Exercise Science in Video

Reference Works

Key titles relevant to HHNS include:

- Bergey's Manual of Systematics of Archaea and Bacteria
- CRC Handbook of Chemistry and Physics
- Dictionary of Substances and their Effects (DOSE)
- Encyclopedia of Food and Health
- Merck Index Online

- Routledge Handbooks Online
- Thieme Teaching Assistant: Anatom

Course Reserves / Textbooks

To support courses, the library provides:

- Textbooks – since 2017 library has purchased at least 1 print copy of every required textbook for each undergraduate course (and online where possible) with the goal of mitigating high costs for students
- Course reserves - accessible, copyright-compliant links to readings

Part 2: Academic and Professional Skills

SLG's (Supported Learning Groups)

Weekly student-led study groups help students taking historically challenging courses to:

- Meet students from the class in a small group format
- Test their knowledge prior to tests and exams
- Leave with something tangible to review later

SLG participation data is gathered for each course - but does not collect students' major or program. Table 1 reports the aggregate data and is not limited to HHNS students

Course	# of sign-ins (indicating attendance)	# of unique students
BIOC 2580	560	204
BIOC 3560	283	107
BIOL 1090	591	284
CHEM 1040	1292	421
CHEM 1050	832	221
MATH 1080	650	327
MBG 2040	261	102
MCB 2050	674	227
STAT 2040	396	129

Research and Information Literacy (IL) Skills

Information Literacy (IL) librarians prioritize support to large, required, and core courses that have research skills or digital media literacy assignments or components. IL librarians aim to scaffold their information literacy instruction throughout the required curriculum for all undergraduate programs, providing students with the opportunity to build on their skills year over year. Options for supporting students include:

- guest lectures
- customized digital learning objects, such as online course guides
- one-on-one or small group consultations with librarians
- Literature review (including Systematic reviews) support

IL librarians are not currently involved in any of the required courses or restricted electives in the HHNS programs, except for HK*4070, which is a restricted elective in the Biomedical Sciences program. Students in capstone courses, such as BIOM*4521/2, HK*4511/2 and HK*4371/2, and those who are conducting research projects could benefit from IL librarian support, whether through an in-class librarian visit or a one-on-one consultation. IL librarians would welcome an opportunity to discuss how best to provide research skills support to these courses and students.

Table 3. Information Literacy (IL) Sessions 2018-19			
Course	Type of Session	# sessions	# students
HK*4070	Research Skills (W19)	1	37
HK*4510	Open Education Resources	3	17
NUTR*4900	Statistical Support	1	19

Learning Services

Learning Specialists support students' academic skill development through:

- working with faculty to develop assignments, assessment and in-class workshops (critical reading, working in groups, presentation skills, poster presentations, and exam preparation), customized student resources (such as an error analysis worksheet for midterms)
- co-curricular programming, including workshops - Graduate programming, including Brain Food (thesis management), Presentation Boot Camp, and Graduate on Time (time and project management)

Table 4. Learning Workshops 2018-19			
Course	Type of Session	# sessions	# students
HHNS*6010	Scientific Posters	1	16
HHNS*6010	Presentation Skills	1	40

Online Learning Resources

The learning, research, and writing staff in the library have developed more than 200 guides tailored to students' needs.

Most Viewed (aggregate use; not limited to HHNS students)

Topic Guides

- Cite Your Sources: APA, 40,502 views
- Write a Literature Review, 18,797 views
- Write a Close Reading, 10,722 views
- Find Video Collections, 8,534 views
- Cite Your Sources: Chicago Notes & Bibliography, 8,126 views
- Cite Your Sources: MLA, 8,107 views
- Study Effectively, 7,011 views
- Succeed at Exams, 6,345 views
- Edit Video: Shotcut, 5,150 views
- Find Mental Health Resources, 5,305 views

Videos

- How to Create a Concept Map, 120,217 views
- What is a t-test?, 20,034 views
- Understanding and Avoiding Plagiarism: Types of Plagiarism, 7,763 views
- How to Read an Article, 7,324 views
- Cite Your Sources: When / Why Cite, 5,002 views

Handouts

- Study Smarter Not Harder, 771 views
- Template for Writing Thesis Statements, 244 views

- 5 Types of Thesis Statements, 243 views
- Presentation Planning 101, 133 views
- Dealing with Group Conflict, 130 views

Writing Services

Writing Specialists work with faculty to develop students' writing skills through:

- Co-curricular programming (e.g. Dissertation Boot Camp, Writing in the Sciences; Writing Tune-Up (grammar and style)

Table 5. Writing Workshops 2018-19			
Course	Type of Session	# sessions	# students
BIOL 2060	Writing in Biol 2060 (F18)	1	350
BIOL 2060	Writing in BIOL 2060 (W19)	1	240
NUTR 4900	Writing & Referencing (F18)	1	20
NUTR 4900	Writing a Lit Review (W19)	1	75
ANSC 4290	Writing the Lit Review	1	45
HHNS 6010	Writing Skills	1	40

Electronic Theses and Dissertations (ETD)

Added to the Atrium, University of Guelph's repository (2018-2019):

BioMed Science - 11

HHNS - 28