LIBRARY SUPPORT FOR Bachelor of Applied Science, Applied Human Nutrition

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Introduction

This library report was prepared as part of the PDEP accreditation process for the Bachelor of Applied Science, Applied Human Nutrition (AHN) program in the Department of Family Relations & Applied Nutrition at the University of Guelph. It was developed in response to PDEP criteria 5.2: "Academic/professional staff and students/interns have access to sufficient learning resources including library and technology resources." Input for this report was gathered from members across several departments in the library. The report will outline the library resources provided to AHN students through the library's services and collections at the University of Guelph.

Library Support: Student Learning

The library at the University of Guelph provides academic services to support all aspects of the learning process, with the goal of helping students achieve academic success. These services are offered through several departments at the library, including the Learning and Curriculum Support (L&CS) team, the Research and Scholarship (R&S) team, and the Discovery and Access (D&A) team. These teams deliver a range of services related to academic research and writing, information and digital literacies, learning and study skills, numeracy, data, and spatial literacies, and technical skills.

Library services are delivered through a combination of different service models, based on student and faculty needs. The most commons models of service include:

- Customised in-class guest lectures;
- One-on-one consultations to discuss individual curricular or research needs;
- In-library programming on popular library topics;
- Support for faculty seeking to integrating academic skills development and assessment into their course deliverables; and
- The development of point-of-need online learning objects such as library guides, videos, and learning tools.

The follow sections outline the specific service supports available to AHN students through the library and, where applicable, current library integration into the AHN core curriculum.

Research and Information Literacy Skills

Learning and Curriculum Support (L&CS) librarians are a part of the Information Literacy (IL) team and deliver research skills and information literacy instruction to undergraduate students across the disciplines.

The IL Team has undertaken curricular mapping of course requirements for the University of Guelph's undergraduate programs, to assess where library research skills are required for course deliverables. L&CS librarians target these courses for in-class library instruction, to ensure core coverage and scaffolded learning of research skills for students as they move through their program of study. Of the core courses required for completion of the AHN program, L&CS librarians provide information literacy sessions in the following courses:

- **PSYC 1000**: Introduction to Psychology
- **SOC 1100**: Sociology
- FRHD 3070: Research Methods Family Studies
- **NUTR 3070**: Nutrition and Physical Activity Interventions
- NUTR 4900: Selected Topics in Human Nutrition

These sessions cover a variety of research skills, tailored to the course deliverables. This includes instruction on topics such as developing a thesis statement, using reference materials to gain background information, using library databases, cited reference searching, how to write a critical analysis, academic integrity, and effective citation.

To ensure students have point-of-need access to research help, the library also provides drop-in research help, both in the library and online. The Research Help Desk is available to all students for same-day research support and is accessible on the main floor of the library. Help is also available through the library's Ask Us Online Chat, a real-time online messaging service for research support, and through e-mail and phone service.

Writing Services

The Writing Services team provides guidance for all aspects of the writing process. Writing specialists work with students on how to organize and structure their projects, navigate topic development, and improve written drafts. They provide expertise in academic integrity and citation, writing for specific disciplines or genres, and effective use of grammar and style.

Writing Services also provides dedicated assistance to students who speak English as an additional language (EAL). Students studying at the University of Guelph for whom English is not their first language can access a dedicated EAL specialist who can help with reading, writing, listening, pronunciation, and learning in a Canadian university setting.

Writing specialists support faculty in the development of writing assignments for courses and can provide tailored in-class instruction on writing skills and techniques. They also develop online point-of-need writing resources, including the WritingOnline.ca learning modules, Digital Learning Commons learning objects, and online guides.

The Writing Centre provides curricular support in two of the core courses required for completion of the AHN program. In **FRHD 1100** (Life: Health and Well-Being), writing specialists provide an in-class introduction to the Writing Services team and how they can access help with their written work. In **NUTR 4900** (Selected Topics in Human Nutrition), writing specialists provide instruction on how to write a literature review, including critical reading skills, effective synthesis of secondary research, and proper form and formatting.

Learning Services

Learning specialists support students in developing the learning skills and habits they need to be successful at university. This includes a broad scope of academic skills, such as effective learning and studying strategies, procrastination and time management, presentation skills, effective group work, and more. They currently provide in-class support in one AHN core course: **FRHD 1100** (Life: Health and Well-Being).

Learning specialists also provide targeted undergraduate support via in-library programming throughout the academic year. Through the Academic Action Plan service, the Learning Services team pairs students with an academic coach who meets with them throughout the year to develop and implement a personal study plan for academic success. Programming such as Presentation Bootcamp, and the Control Academic Stress series of workshops offer students the opportunity to develop core academic and professional skills required to be successful at university and beyond. Leading up to exam periods, the Learning Services team also provides workshops on effective study skills, concentration, and

personal organisation. These offerings provide students with opportunities to develop core academic and professional skills from learning experts in a supported, non-classroom environment.

Digital Literacy and Digital Media Skills

Many faculty members are exploring a variety of avenues for embedding digital media and online communication technologies into their teaching and course deliverables. New models of pedagogy focus on empowering students to learn not just through consumption of information, but as creators of new information and media.

To support this emerging form of student learning, the library has launched the Media Studio, which aims to develop digital literacies in students and faculty from within the curriculum. Models of support include:

- Consulting with instructors to create digital assignments that align with course outcomes and are pedagogically sound. Examples of assignment formats and topics include podcasts, infographics, digital storytelling, animated videos, live-action videos, digital citizenship, and social media identity.
- In-class instruction on digital media topics such as digital storytelling, podcasting, creating
 infographics, developing animated video and live-action video, digital citizenship and social
 media identity, issues around Canadian copyright, Creative Commons, and the use of licensed
 media, iterative design, and design thinking.
- Appointments in the Media Studio, where students and faculty can work with staff to access digital technologies for filming, recording, and editing.
- Online library help guides to support digital skills development.

The Digital Media Studio provides support for AHN core course **FRHD 3400**: Communication and Counselling Skills. In this course, students are required to produce a helping interview to demonstrate their ability to perform intentional interviewing and counselling skills. The Digital Media Studio delivered 5 filming appointments for this course, providing students with access to a staffed film studio, including editing stations, a sound booth, equipment and software for creating a digital video.

Supported Learning Groups

The Supported Learning Groups (SLG) program provides support for student learning through organised study groups held in the library. The program targets historically difficulty undergraduate courses, to help improve student success and performance in these "high risk" classes. SLGs are designed to assist students in reviewing and learning course material through peer-facilitated study sessions. The following AHN core courses are supported through the SLG program:

- CHEM 1040: General Chemistry I
- CHEM 1050: General Chemistry II
- PSYC 1000: Introduction to Psychology
- BIOC 2580: Introductory Biochemistry

SLG Sessions run on a regular, weekly basis in the library, and are coordinated by the SLG Manager, who is a member of the library's Learning and Curricular Support (L&CS) team. Weekly study groups are facilitated by hired and trained undergraduate SLG Leaders who have successfully completed the course they're supporting. SLG Leaders facilitate the review of course materials, encourage peer learning and problem-solving, and share learning strategies.

Scholarship and Data Services

The Library's Research and Scholarship (R&S) team provides services and technologies to support campus researchers throughout the entire research lifecycle. They support open access scholarship and open educational resources, data and research data services, scholarly publishing, and measuring research impact.

R&S is home to the library's Data Resource Centre (DRC), where students can get assistance in accessing health, demographic, and geographic data sets from licensed, open data, and government sources. Students can make an appointment with a data analyst to received one-on-one support with accessing data sets and using data analysis tools for their assignments.

The R&S team also provides leadership in the campus movement towards Open Educational Resources (OERs), as part of their broader mandate around open access scholarship. OERs are an emerging form of curricular materials that are developed openly and freely, shared online, and modified by individual faculty to suit their teaching. The development of OERs has the potential to dramatically reduce textbook costs for undergraduate students, which has been shown to create critical barriers to undergraduate educational attainment. R&S is home to the library's OER librarian, who is working to advocate for, and mobilise OER at the University of Guelph.

Accessibility Services

Library Accessibility Services (LAS) is a part of the library's Discovery and Access (D&A) team. LAS provides services, spaces and technologies to help students registered with Student Accessibility Services to meet their accessibility needs. LAS is housed in the Access Lab, where students can book quiet space for study and access accessibility specialists, who coordinate alternate format materials, training on adaptive software programs including Kurzweil, Jaws, and others, and loan accessibility equipment such as digital recorders, smart pens, and tablets.

Ask Us Desk

The Library's Ask Us Desk is the library's main services desk, located directly through the front doors of the library. It is often a first point of contact for students when they arrive at the library. The Ask Us Desk is staffed from 8:00AM to 2:00AM during the academic year, making it one of the only campus services available to students in the evening and at night.

The Ask Us desk provides a variety of access services, including circulation and borrower services, help with library accounts, interlibrary loan and intercampus borrowing services, circulation of the Course Reserves collection, management of media bookings and group study rooms, computer and printer troubleshooting, quick reference help, and triage to events or other library service points. Help is available in-person and through phone and e-mail support.

Library Support: Collections

The library's resources are managed through the Collections and Content (C&C) team. The C&C team works to develop print and online library collections, maintains the technical infrastructure that allows for search and discovery of these collections, and manages the course reserves service. The following sections outline the University of Guelph's collections and resources that support students in the AHN program.

Databases

The literature for dietetics and nutrition is interdisciplinary and is housed across a variety of subject databases and clinical tools. While a significant percentage of the library's journal articles are discoverable through the library's single-search tool (PRIMO), disciplinary databases provide full-text content, subject-specific scope, and specialised search functionality. Where an article is abstracted in a database, but full-text is available elsewhere, the library provides technical infrastructure to allow for easy access to full-text content across our publisher and database platforms (the Get it at Guelph! Tool). Key tools to access the scholarly, trade and clinical materials for dietetics at the University of Guelph include the following databases:

Social sciences:

- SAGE Research Methods
- Family & Society Studies Worldwide
- CAB Direct
- Hospitality & Tourism Complete
- ABI Inform
- Business Source Complete
- PsycINFO
- Sociological Abstracts
- Sociology Database
- Women's Studies International
- Applied Social Sciences Index & Abstracts
- Social Sciences Citation Index
- Social Services Abstracts

Clinical tools:

- PEN: Practice-based Evidence in Nutrition
- ADA Nutrition Care Manual
- Natural Medicines
- PsycTHERAPY
- PsycTESTS
- Health & Psychosocial Instruments
- DSM Library

Health and biological sciences:

- Medline/PubMed
- Web of Science
- Biological Sciences Collection
- SciFinder (Chemistry)
- SPORTDiscus
- CINAHL
- Ergonomics Abstracts

Journals

The library invests heavily in providing access to online journals that support the research and curricular needs of students and faculty at the University of Guelph. Currently, the library subscribes to approximately 55,000 online journals, most of which are discoverable at the article level through PRIMO. The library subscribed 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's research publisher), and the American Psychological Association.

The library provides access to the publications of the Dietitians of Canada, including subscriptions to *PEN: Practice-based Evidence in Nutrition*, and the *Canadian Journal of Dietetic Practice and Research*.

To demonstrate the library's coverage of the literature for dietetics and nutrition, and to ensure that the library is providing appropriate depth and breadth of journal coverage for AHN's curricular and research needs, an analysis of the library's journal collection was undertaken. The following sections outline these areas of analysis and findings.

Journal Citation Reports

The University of Guelph has access to nearly all the journals with the highest impact factors in their fields, as determined by the Journal Citation Reports (JCR) database. JCRs assess and rank peer-reviewed journals for each discipline. In the areas of dietetics and its related fields, library coverage includes:

Nutrition & Dietetics: 29/30 of the top journals. Example titles include:

- American Journal of Clinical Nutrition
- International Journal of Behavioural Nutrition and Physical Activity
- International Journal of Obesity

Food Science & Technology: 30/30 of the top journals. Example titles include:

- Critical Reviews in Food Science and Nutrition
- Molecular Nutrition & Food Research
- Food Security

Family Studies: 29/30 of the top journals. Example titles include:

- Parenting: Science and Practice
- Family Relations
- Journal of Family Issues

Peer Comparison

To further determine whether the library provides appropriate access to the literature for dietetics and nutrition, a peer comparison of the library's journal holdings was undertaken. Journal holdings were assessed from three "peer" institutions: Universities that offer dietetics and nutrition programs comparable to the AHN program at the University of Guelph. These institutions include Acadia University, Ryerson University, and Brescia College (Western University). Their library holdings provided the basis for a peer comparison of library collections, to ensure the University of Guelph's journal coverage are in line with those of comparator institutions.

Each institution's library website was searched to obtain journal title counts broken down by subject. The following table provides the subjects that cluster, broadly, around the field of dietetics, followed by the number of journal titles held at each institution.

Journal Title Counts by Subject

Subject	Institution/ Journal Title Counts				
	Guelph	Acadia	Ryerson	Brescia	
Nutrition and Dietetics	143	75	137	217	
Food Science and Technology	183	108	169	217	
Micro and Molecular Biology	440	102	434	332	
Psychology and Counselling	883	486	853	951	

Overall these numbers demonstrate that the University of Guelph's library holdings in key subject areas are comparable to coverage of journal holdings at peer institutions, even compared to a large research/medical university like Western University. This suggests that the size of Guelph's journals collection is appropriate to meet the research needs of AHN students and faculty. Where faculty or

students identify a journal title that should be added to the library's collection, they can submit a request through the New Resource Request form on the library website, for purchase consideration by Collections & Content librarians.

Books and E-Books

The library provides access to a robust collection of books and eBooks to support curricular and research needs across the disciplines. The library has notable collections strengths in the areas of human nutrition, agriculture and food systems, food security and development, the food and hospitality industries, and cookery. In recent years, the library has made a concerted effort to acquire eBook titles, to improve student access to the book collection. Major eBook collections to support fields of dietetics and nutrition include CAB eBooks, Wageningen Academic Publishers eBooks, the Canadian University Presses collection, University Press Scholarship Online (including Oxford University Press titles), SAGE, SpringerLink, Elsevier, and Taylor & Francis/Routledge.

Peer Comparison

As with the journal collection, comparative analysis was done of the University of Guelph's book collection compared to its peers, to provide a benchmark for determining the breadth of the library's monograph collections.

To undertake this work, key subject headings for dietetics and nutrition were identified, and subject searches were performed on collections for the University of Guelph, and for Acadia University, Ryerson University, and Brescia College (Western University). Title counts were noted, to determine whether the size of the University of Guelph's subject collections is in line with comparator institutions.

Overall, title counts for the University of Guelph's monograph collection fall within the range of title counts at peer institutions, although there is significant variation across these collections. As compared to most collections, across most subjects, the University of Guelph's title counts are greater than those of peer institutions apart from Brescia College, whose title counts for "diet therapy" and "food habits" exceeds those at the University of Guelph.

Monograph Title Counts by Subject

Subject	Institution/ Journal Title Counts				
	Guelph	Acadia	Ryerson	Brescia	
Diet therapy	885	415	757	1,207	
Food habits	1,074	640	954	1,301	
Nutrition	8,558	3,713	7,475	6,503	
Diet in disease	605	302	880	880	
Food industry and trade	2,457	1,050	2,554	2,505	

Brescia College's book collection benefits from the title holdings of its home institution, Western University, a major research and medical institution. However, the library at the University of Guelph is committed to narrowing this gap, and targeted collections development in these subject areas will be undertaken. As a part of the comparative analysis work, several eBook titles were identified from peer institutions' collections, which have been flagged for immediate purchase. A sample of these titles includes the following:

- Delgado, A. M. Chemistry of The Mediterranean Diet. Springer, 2017.
- Duyff, R.L. American Dietetic Association Complete Food and Nutrition Guide. John Wiley, 2012.

- Gur, A. Foreign Bodies: Eating Disorders, Childhood Sexual Abuse and Trauma-Informed Treatment. Routledge, 2019.
- Moise, A. M. R. *Gut Microbiome: Exploring the Connection Between Microbes, Diet, And Health.* Greenwood, 2017.
- Pounis, G. (Ed). *Analysis in Nutrition Research: Principles of Statistical Methodology and Interpretation of the Results*. Elsevier, 2019.

Other Library Resources

The library maintains collections of resources beyond scholarly journals and books. The following section outlines collections areas of use for AHN students, and the ways in which the library is supporting emerging curricular and research needs through the development of these collections areas.

Streaming media

Across higher education, there has been a movement toward the use of video resources in undergraduate curriculum throughout the disciplines. In support of this trend, the library has focused on the development of a robust streaming media collection, which includes access to documentaries, instructional videos, feature-length films, and news clips. One of these collections was purchased in response to a faculty request from the department of Family Relations and Applied Nutrition: the *SAGE Research Methods Video*. This collection, from SAGE Publishers, provides instructional videos on the concepts, theories, and research design for qualitative and quantitative research methods in the social sciences disciplines. Videos from this collection are comprehensively integrated into the curriculum for the AHN core course **FRHD 3070** (Research Methods: Family Studies).

More broadly, the library also provides access to video collections with potential applications to the AHN curriculum. PsycTHERAPY provides clinical psychotherapy videos featuring clinical interviewing and counselling skills for diverse therapeutic topics, including eating and feeding disorders, and Lynda.com provides access to the LinkedIn Learning collection, which are skills- based training videos on business and career topics such as leadership, pitching a business idea, and building a consultancy practice. The library is committed to continuing to develop the streaming media collection in support of the curricular and research needs of faculty and students.

Systematic reviews

In the social sciences and sciences there is an increased use of systematic reviews, scoping reviews, literature reviews, and other forms of meta-analysis in course deliverables at the undergraduate level. The library provides access to scholarly tools and collections that support students and faculty undertaking systematic reviews, including the follow types of resources:

- Tools for locating systematic reviews (i.e., CINAHL, PsycINFO, PubMed, CAB Reviews);
- Access to authoritative systematic review publications (i.e., Annual Reviews, Cochrane Reviews);
- Subscriptions to review journals in the disciplines (i.e., *Nutrition Reviews*, *Research Synthesis Methods*);
- Handbooks and guidebooks on how to write a systematic review (i.e., Cochrane Handbook for Systematic Reviews of Interventions, Using Mixed Methods Research Synthesis for Literature Reviews);
- SAGE Research Methods, a database platform that provides access to videos, references materials and research tools dedicated to teaching students about all aspects of statistics and research methods in the social sciences, including meta-analyses.

The library also provides support for students doing systematic reviews, through the provision of research help services focused on scoping reviews, systematic reviews and literature reviews. Several information literacy librarians have pursued dedicated training from Cochrane (publisher of *Cochrane Reviews*) to strengthen their expertise in the research processes for systematic reviews, and writing specialists provide guidance on writing forms, research synthesis, and critical readings skills for literature reviews.

Case studies

The use of the case studies method as a pedagogical tool has expanded in recent years, as faculty explore ways to provide problem-based learning that help students create connections between course contents and real-world scenarios.

To support the use of cases in undergraduate courses, the library has begun to focus on the development of case studies for curricular integration, including both clinical case studies and business cases. The following types of resources are currently available through the library's collection:

- Case studies collections (i.e., SAGE Business Cases, DSM-5 Clinical Cases)
- Books of cases (i.e., Dietetic and Nutrition Case Studies, Case Studies in Community Health)
- Subscriptions to case studies journals (i.e., Clinical Case Reports, The Journal of Business Case Studies)
- Video case studies (available through streaming media collections such as SAGE Knowledge's video case collection, the Films on Demand platform, and others)

Where specific case studies are not accessible in the library collection and faculty wish to make them available to students for course readings, the E-Learning Operations and Reserve Services team (further discussed below) licenses access to individual case studies. This is a particularly important service for accessing content from publishers that do not offer institutional access models, such as *Harvard Business Review Cases*, and *Ivey Publishing*.

The library is continuing to explore ways in which to collect and promote cases for curricular integration, including further development of the clinical and business cases collections, video case studies, and exploration of other scenario-based learning tools.

Course Reserves

The E-Learning Operations and Reserve Services unit works to make faculty-requested course readings readily available to students. Increasingly, print course reserves available in-library are being superseded by online readings. The Reserves Services team works to create direct links to these readings available through the course's online interface within the University of Guelph's learning management system (CourseLink).

The library is a joint sponsor of the Open and Affordable Course Content Task Force (OACC), which aims to ensure that all students have affordable access to required textbooks for their courses. In support of this effort, the Library is currently making available at least one copy of the required textbook for most undergraduate courses, via the Course Reserve 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 initiative came about because of mounting textbook costs for students. It has a mandate to raise awareness of open educational resources (OERs) and other alternatives to commercial textbooks and

course packs, as well as providing support for instructors interested in adopting, adapting or creating OERs for their courses.

Resource Sharing

The Library provides a variety of ways in which students and faculty can quickly obtain materials in support of research and teaching that are not available or accessible on-campus.

Materials (books and journal articles) held at the University of Waterloo Libraries or at Wilfrid Laurier University Libraries (known as TUG, the Tri-University Group) can be requested free-of-charge through the PRIMO search tool. The typical turn-around time is approximately two business days. Books and journal articles not available within TUG may be requested using the Library's interlibrary loan system, RACER. Turn-around times vary depending on the location of the holding library, but they are typically retrieved within ten working days.

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