Academic Data Access Primer for UBC Science

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Acknowledgment

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Introduction

This working document summarizes the existing academic data sources at UBC and the types of information available, with the goal of facilitating Science data access and governance for teaching and learning projects, including research and quality assurance. This document also offers guidelines on how to access data from these data sources.

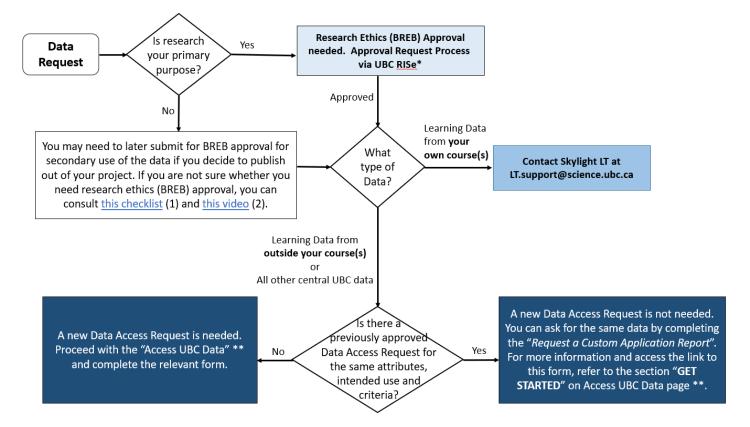
The intended audience of this document is UBC Science faculty and staff who need data and information as part of their data-driven work in teaching and learning.

Data users ("Data Consumers" in UBC's Data Governance framework) are responsible for:

- Ensuring that the data they access is being used for approved purposes only.
- Ensuring that team members who will have access to the data have completed the mandatory Privacy and Information Security Training (part 1 and part 2).
- Protecting the security and integrity of UBC data. For more information, visit the <u>UBC data</u> governance page.
- Complying with Freedom of Information and Protection of Privacy Act (FIPPA) regulations. For more information, visit <u>this page</u>.

If you want to talk about your project ideas, learn more about different data sets, identify opportunities for your learning analytics projects, and/or want feedback, please contact Zohreh Moradi (Skylight's Research Analyst) at moradi@science.ubc.ca or Warren Code (Skylight's Interim Director) at warcode@science.ubc.ca for consultation.

Data Request Workflow in the Faculty of Science



- (1) https://ethics.research.ubc.ca/sites/ore.ubc.ca/files/documents/BREB ChecklistForResearchReq uiringEthicsReview.pdf
- (2) https://www.youtube.com/watch?v=hU SY5EeYSM
- * UBC Research Information Systems: https://www.rise.ubc.ca/
- ** https://cio.ubc.ca/data-governance/data-governance-processes/access-ubc-data

Data Sources

Depending on your project or research, you might need to collect the data yourself, access existing data, or both.

1. Data you collect yourself

Instructors have access to their own course data (e.g., grades, assignments, survey responses to surveys run in the course, Canvas Analytics, WeBWorK scores, etc.). However, depending on the intended use for the data, prior approval from the Behavioral Research Ethics Board (BREB) may be required (see the "Learning Data from Your Own Courses - Access Process" section). For certain types of work, like advising or tracking course enrolment, administrative staff in your department will have access to the Student Information System (i.e., student records). Outside of these standard uses, you will need to submit a request (see the "Student Information System (SIS) Access" section) for access to this data. Your department may also have access to reports (i.e., data summaries, but not the raw data) related to your courses and programs (e.g., Undergraduate Experience Survey results at the program level).

2. Learning data generated by learning technology in your own course

- a. Analytics/reporting packages in learning technology tools, like Canvas' built-in analytics or the WeBWorK scores tool. You can use data from these sources without submitting an additional formal data request.
- b. Learning data from systems that are in piloting phase, or deployed only in the Faculty of Science (e.g., Alchemy, Orchard, eChirp). You can ask Skylight LT (LT.support@science.ubc.ca) to mine data from these systems for you without submitting an additional formal data request.

3. UBC data beyond sources 1 and 2

For almost any project that requires data beyond what is usually derived from your own course, you will need to make a request for data summaries or raw data via one of the institutional processes outlined below. You will need to know what to ask for, describe your intended purposes and specify whether you are requesting "learning data" or other data from UBC.

- a. Learning Data: Learning data is data generated by Canvas or other learning technologies, either managed centrally at UBC or by the Skylight LT team in the Faculty of Science. This includes systems such as WeBWork, Piazza, and PLOM, which generate data that is not available to instructors as part of the standard web interface (e.g., student access records and responses to individual WeBWorK questions - this data is beyond the scoring tools available to instructors teaching the course). See Table 1
- b. All other "central" UBC data: All other centrally collected and managed data at UBC, including student enrolment records, specializations, grades, demographics, and data involving staff or faculty (i.e., HR and finance records). See Table 2 below.

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Table 1: Learning Data at UBC

Learning Data	Purpose	 Learning analytics projects that go beyond built-in analytics tools, or beyond one's own course. Evaluation, quality assurance, and teaching and learning enhancement projects.
	Description	All data collected by UBC-administered learning technologies (e.g., Canvas, WeBWorK, etc.) and Skylight LT-administered learning technologies (e.g., PLOM, Alchemy, Orchard).
	How to Access	If the data is from your own course (or you are acting on the authority of the instructors of the course), contact Skylight LT (LT.support@science.ubc.ca) about retrieving the data (you do not need additional approval).
		 If you need data from courses that are not your own: If you are able to act on the authority of the instructor(s) of the course, contact Skylight LT (LT.support@science.ubc.ca) to get this going.
		o If you do not have the authority of the instructor(s) of the course(s), for any learning data - either centrally-supported/hosted learning technology (key examples: Canvas, WebWork, WordPress, Kaltura video stats) or learning data from a system supported by Skylight LT or your department IT team (e.g., eChirp, Alchemy, PLOM, Orchard, Prairie Learn) - proceed with the Access UBC Data form and then select "Learning Data Access". Please note: if you need both learning data and other UBC data, you need to complete the form twice as it has a branch for each data type (check with Zohreh Moradi (moradi@science.ubc.ca) for advice in this process).
	Questions	Contact Skylight LT (LT.support@science.ubc.ca) or Enterprise Data
		Governance team (edg@ubc.ca)

Table 2: All Other UBC Data

	Purpose	 Primarily supports UBC administrative functions but may also be used in research and evaluation Individuals can make requests for data snapshots from any centralized system, including the Student Information System (SIS).
UBC Central Data	Description	 All "central" data: Student records (Admissions, Enrolment, Registration; includes SIS – see below); HR and Finance systems (i.e., Workday) Does not include: data collected at the Faculty of Science level (e.g., Year 2 specialization application data) or department level (e.g., course/program survey) data. For Science-level data, contact Zohreh Moradi (Skylight's Research Analyst) at moradi@science.ubc.ca. For department-level data, if you are not sure whom to contact, please check with Zohreh Moradi as well. (moradi@science.ubc.ca).
	How to Access	<u>Data Access Request Form</u> reviewed by UBC's data governance committee in partnership with Data Stewards
	Questions	Refer to <u>Data Governance Services</u> page and the <u>FAQs</u> page for data access requests. <u>Skylight</u> is happy to help you navigate this if needed.
	Purpose	Easy access to high-level summaries of data (e.g., enrolments) that can be explored using the dashboard interface (e.g., filtering to specific years or programs).
Planning and Institutional Research Office (PAIR)	Description	 Institutional Data and Analytics: Faculty and staff data Enrolment status of undergraduate students, retention in programs, and gender distribution Headcounts by campus, faculty, program, and of international students Department profiles Comparative metrics (at institutional level) • Student Data and Analytics:
Dashboards and Reports		 Student Data and Analytics: Admissions Tracking Report Demographics dashboards Enrolment reports Performance: grades, progression, retention, and graduation

	 Surveys New and Incoming Student Surveys Current Student Surveys Undergrad Experience Survey (UES) National Survey of Student Engagement (NSSE) Canadian Campus Wellbeing Survey (CCWS) Alumni Surveys (employment information, skills development, reflection on education)
How to Access	 Reports and dashboards are created by the PAIR Office and are available on the PAIR website. These dashboards can be accessed via CWL and do not require any special data requests. PAIR data is only accessible from computers located on-campus or via UBC myVPN. If there is not enough granularity (e.g., you want to see the same analysis for your program, but can only see it for all BSc students), you can contact Skylight to figure out how to proceed. For the UES specifically, each department holds data for its own program; if you are not sure whom to contact, please check with Zohreh Moradi (Skylight's Research Analyst (moradi@science.ubc.ca)
Question	Contact Skylight (moradi@science.ubc.ca; warcode@science.ubc.ca) for Science-specific questions related to PAIR reports and dashboards.

Data Access

Once you identify which data source(s) will provide you with the data you need for your work or project, the following sections can guide you through the data access process. While there might be some differences, data access processes and the information required to access different databases, are more or less similar. For more information, refer to the section "Information you will need on hand to submit your request" on the Access UBC Data page. Considering that data access can be a lengthy process, we recommend allocating enough time (from a few weeks to a more significant duration of time) when you are planning for your project.

You can find more information about preparation of a Data Access Request on UBC Data Access <u>FAQs</u> page. In particular, question 7 provides more details on the different sections included in the Data Access Request form. Skylight also has examples of successful requests.

Below, you will find curated information on "learning data" and all other UBC "central" data access requirements.

Learning Data from Your Own Course(s) - Access Process

If you need data for your learning analytics projects (i.e., data to improve your courses and data for evaluation, quality assurance, and enhancement purposes) that goes beyond what you already have access to as an instructor (i.e., Faculty Service Centre information, the Canvas Analytics dashboard inside your course shell, grades, WeBWorK score summaries, etc.), you will need to request access:

- If the system is hosted/managed centrally by IT and the LT Hub, you will need to proceed with
 the <u>Access UBC Data</u> form and then select and complete the "Learning Data Access" form. Your
 request will then be reviewed by the Data Governance team.
- If the system is hosted/managed by Skylight LT or a departmental IT team, you will need to communicate with them directly (<u>LT.support@science.ubc.ca</u>) as well as the instructor involved in the course.
- If your project requires ethical review, in addition to your data access request, you will need to apply for approval from the Behavioral Research Ethics Board (BREB). If you are not sure whether you need ethics board approval, you can consult the <u>BREB Guidance Notes</u>, this <u>checklist</u> and/or <u>this video</u>

For more detailed information about the process, the information required to submit your request, and to access the request forms, please visit this <u>link</u>.

Learning Data from Outside Your Courses or All Other UBC "Central" Data - Access Process

In order to <u>access UBC data</u> that is outside of your course's data (in the case of an instructor) (i.e., generated by UBC-supported online platforms like Canvas, WeBWorK, etc.) or any other UBC central data, you need to fill out a Data Access Request form. This form can be used to request learning data or any other UBC data.

Once you submit your request, it will be reviewed by a Data Steward or the Data Access Committee depending on the level of risk associated with the DAR. If you receive approval, you will need to agree to comply with the terms and conditions you acknowledged at the end of the DAR form. Access to data usually takes 2-4 weeks. Therefore, to prevent further delay, ensure you respond to each question with clear information and details on why you need the requested data.

If somebody has already requested and received approval for the kind of data you need and for the same use (e.g., same variables but for a different course or program), you don't need to submit a new Data Access Request. You can ask for the same data by completing and submitting the "Request a Custom Application Report" on the UBC Self-Service Portal. In the form, you need to include the previously approved Data Access Request ticket number (INC#). Refer to the information under "GET STARTED" section on the <u>Access UBC Data</u> webpage for more details and the link to the form.

You can consult this website to see the request history by organization unit or check with Skylight.

If your project requires ethical review, in addition to your data access request, you will need to apply for approval from the Behavioral Research Ethics Board (BREB). If you are not sure whether you need ethics board approval, you can consult the <u>BREB Guidance Notes</u> this <u>checklist</u> and/or <u>this video</u>.

For more detailed information about the process, the information required to submit your request, and to access the request forms, please visit this <u>link</u>.

Student Information System (SIS) Access

Each department has SIS-authorized users with access based on their role (e.g., advising, registration changes, admissions, etc.). We recommend that you consult with your department first before submitting a request for access. Access to the SIS is typically restricted to those who need access to perform their administrative role. E.g., Advisor, staff admin, etc. and others should make data request through the process for other central data.

PAIR Dashboard Access Request Process

Data reports and dashboards created by the <u>Planning and Institutional Research Office (PAIR)</u> are accessible through their website with a CWL. To request access to any of the limited-access dashboards, contact the PAIR Office via email at <u>pair.team@ubc.ca</u>.

Please note that PAIR interactive dashboards are only accessible from computers located on-campus or via <u>UBC myVPN</u>.

Access to the limited-access PAIR dashboards is by role and typically data access would be through the process above. Follow the <u>Data Access Request</u> process described above to access the underlying data for these PAIR dashboards.