Course Outline for Scientific Computing with Python

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Course Information

- 2024 Fall Term
- Instructor: Stuart Williams
- There are two course sections, one in-person and one async online (video):
  - PHYS/ACS-2112-758 is in-person on Wednesdays from 6:00 to 9:00 p.m. on the U of W Campus, Lockhart Hall, Room 1L10, aka 1L10 Studio, see https://www.uwinnipeg.ca/tech-sector/software-and-services/1l10-studio-support-services.html

    If in-person is not possible a Zoom meeting will be used, details below.
  - PHYS/ACS-2112-750 is online-asynchronous with video recordings of the Wednesday lecture usually available via Nexus/Panopto by the following day. Note that Online/Async courses are not the same as remote courses, because tests and the final happen in Winnipeg at the University of Winnipeg.

Zoom Meeting Details (Not expected to be needed)

Zoom may be used if in-person lecture is not possible, and possibly for tests and the final exam which would have their own instructions.

- https://us06web.zoom.us/j/9433192409
- Meeting ID: 943 319 2409
- Passcode: monty

For Live Online delivery via Zoom:

- Students are expected to have their video enabled. This helps everyone (you, other students, and the instructor) engage with the subject and others. If you have a concern with this, talk with the instructor. Recorded lectures will not include video of students, only audio of questions and maybe chat text.
- To minimize noise, students should stay muted except when asking or answering questions. You may also use the meeting chat function, but the instructor may not notice new questions for a few minutes when focused on the shared screen. Feel free to attract their attention via the meeting software's raise-hand function, or raise your hand, or otherwise get their attention via video, or unmute.

Expectations of Students

- Students are expected to read, at the start of the term:
  - This document on Nexus named "PHYS-2112-Course-Outline-Scientific-Computing-with-Python.html".
  - The first section "PHYS-2112 Course Schedule" (up to the heading "Week 01") of the Course Schedule on Nexus named "Course-Schedule.html" which explains how to complete and submit assignments, and also explains the benefits of following those instructions - in short, saving the marker frustration and time, and ensuring your assignments don't get overlooked.
- Students are expected to prepare for lectures by reading the readings assigned in the "Readings" section for the lecture. It is also recommended that you scan the lecture notes before the lecture to help you understand and remember the material.
- Students are expected to attend (in-person) or watch (async online) lectures, and attend all tests and exams.
- Students are expected to abide by the UW Respectful Working and Learning Environment Policy at http://www.uwinnipeg.ca/respect/
- Students attending in person are expected to be on time and come prepared to ask questions related to readings, assignments, etc.
- Students in the async-online section are expected to submit questions via email related to readings, assignments, etc.
- Students are encouraged to consult with the TA, Marker, or Instructor when experiencing difficulties in the course, including assignments. Consulting with the TA is one of the best ways to succeed in this course, especially for those that are new to programming.

Asking Questions of the instructor, TA, and/or Marker

- In-person students can of course ask questions during lecture.
- For questions outside of class, send email to mailto:phys-2112-ta@googlegroups.com

This email is monitored by the instructor, TA, and Marker, and any of them may reply, depending on the question.

When sending email, please try to avoid screenshots because they can't be searched, are not easily saved, may be hard to read, etc. Instead, copy/paste text.

Email is an asynchronous form of communication. Do not expect replies to be immediate, so ask your questions well before you need to receive an answer.

Note that in the first few weeks of class, the vast majority of the questions that are asked via email are answered in the course outline (this document) or the "Course-Schedule" on Nexus that includes details needed to do well on assignments as well as references to other documents on Nexus.

If you email questions that are answered in these documents, they won't be answered, but you may be reminded to read the documents.

Far worse than those 95% of questions, are the details in the course documents that students don't ask about. If you don't read the documents posted on Nexus you will almost surely lose marks. In past sections of this course, I estimate that 80% of students could have increased their marks by at least a full letter grade just by reading and following the instructions in these documents. If you need clarification on something in the documents, please cite the document and explain what is unclear so we can clarify and improve it.

You should never need to email the instructor directly, instead, as explained above, email mailto:phys-2112-ta@googlegroups.com and the instructor will reply if the TA or Marker doesn't reply first.

- **Do not** send email to the instructor via Nexus. It is not checked.

Communication from the Instructor, TA, and/or Marker

- We will communicate to the entire class via Nexus announcements.
- The marker will communicate marks and feedback via spreadsheets posted on Nexus with student IDs (or short forms of them)
- The Course webpage on Nexus is at https://nexus.uwinnipeg.ca/d2l/home/64471

Topics and Learning Outcomes

Upon the successful completion of this course, the student will have most of the following:

- Basic understanding of some basic computer science and programming concepts:
  - How variables are used in software, and two models of implementing them
  - Basic data types and more interesting complex data types (usually implemented as classes)
  - Character encoding
  - Functions
  - Boolean expressions and if statements
  - Loops
- Basic ability to code in Python:
  - Names, namespaces, scopes and name search order
  - Built-in data types and their most important operators and methods
  - Built-in functions
  - String formatting and f-strings
  - Sequence indexing and slicing
  - List comprehensions, generator expressions, and generators
  - Simple classes
  - Exceptions
  - Function locals, non-locals, globals
  - Writing unit tests with pytest
- If time permits, introduction for awareness to a subset (TDB) of the following advanced Python features
  - Class internals
  - Bound methods
  - Metaclasses
  - Decorators
  - Special methods of classes
  - Iterables, iterators, and the iterator protocol
- Basic ability to handle large amounts of data in Python efficiently with NumPy and Pandas
- Basic ability to visualize data with Pandas and awareness of other visualization packages
- Familiarity with techniques to measure and increase the performance of Python code
- Brief introduction to Machine Learning

Note that the details of the topics and learning outcomes above are tentative and some of them may not be achieved.

Course Textbooks and Material

Three free online books will be used in the course. Only parts of each book will be used. Note they may not be up to date with the most recent version of Python (no books are, Python is always adding new features).

- Think Python - How to Think Like a Computer Scientist 3rd Edition at https://allendowney.github.io/ThinkPython/

  This book teaches programming, using Python as the example language.

  You can read this book by purchasing an e-book, a paper copy, or by clicking on each chapter on that page which starts a Juypter notebook on colab (https://colab.research.google.com/). You can also download the Jupyter notebooks and run them locally on your computer.

  Assigned readings will cover about 50% of the book.

- A Whirlwind Tour of Python by Jake VanderPlas (O'Reilly). Copyright 2016 O'Reilly Media Inc, 978-1-491-96465-1.

  Available free in PDF or Jupyter Notebooks at https://github.com/jakevdp/WhirlwindTourOfPython under a Creative Commons Zero v1.0 Universal license.

  This book teaches programming with Python and can be used as an alternative or supplement to the Think Python book, but no readings will be assigned.

- The Python Data Science Handbook by Jake VanderPlas (O'Reilly). Copyright 2016 Jake VanderPlas, 978-1-491-91205-8.

Available free in PDF or Jupyter Notebooks at https://jakevdp.github.io/PythonDataScienceHandbook/

This book teaches NumPy and Pandas, assuming you already know some Python.

Most "pages" in this book have lots of small code samples so the number of words per page will be about half that of a typical textbook.

This book will be used both as a textbook and a reference. In its role as a textbook, it presents concepts you should understand and on which you will be tested. In its role as a reference, it may help you complete assignments.

Assigned readings will cover about 80% of the book.

Software

- Students will likely need to install Python and JupyterLab on their personal computer to follow along with lectures and to complete assignments. This will be covered in the first few lectures and in optional lab sessions run by the TA. Be sure to install the correct versions as announced in lecture.
- TA Office Hours

  The TA has time allocated for helping set up Python on your computer, especially in the first few weeks, and for answering questions related to assignments and possibly some questions about lecture content. Questions about tests and exams will be answered by the instructor.

  Office hours for the TA will be announced when available.

  You can also ask the TA questions via the email address above. Often a TA can meet with you in person or virtually.
- Here is the calendar Course Description from https://www.uwinnipeg.ca/academics/calendar/docs/all-course-descriptions.pdf

  PHYS-2112/ACS-2112 Scientific Computing with Python (3 hrs Lecture)

  This course introduces the basics of Python needed for scientific computing as well as some higher level data structures and features that are uncommon in lower-level languages such as C and C++.

  Students learn how to write modules and functions to solve a variety of scientific problems. They also learn how to take advantage of the numerical libraries NumPy and Pandas that extend Python with high-performance vectorized calculations and visualizations. Students also explore other packages, such as matplotlib, Vega-Altair and scikit-learn.

  Note: This course is appropriate for all students with an interest in scientific computing, and experience with elementary computer programming is recommended.
- Prerequisites: None. **However**, beware that programming is hard to learn for many people. It requires attention to detail and precise logical thinking. It's sort of like writing recipes but to a very naive and literal child (the computer). For some, having some math background helps. For others, interest in word problems or puzzles helps.

  If you're not sure, consider watching an hour or so of https://www.youtube.com/watch?v=F6yLRM3b0q8 to see how quickly you catch on.

  If you're new to programming, expect to spend more time reading, studying, and working on assignments in the first half of the course than other students in the course who already know how to program.

Important Dates

See https://www.uwinnipeg.ca/academics/calendar/docs/dates.pdf (from https://www.uwinnipeg.ca/academics/calendar/dates.html) for important dates such as these:

- In-person Wednesday evening lectures start September 6th and end December 2nd.
- October 14-18 is reading week
- November 13th is the FINAL DATE to withdraw without academic penalty from courses which begin in September and end in December of the 2024 Fall Term.
- Dec 7-20 The Fall Term evaluation period for final items of work for this term which can include scheduled tests, exams, or the submission of papers or projects.

Grades

Grade Distribution

- 10% Assignments
  - One each week, worth 100 points each.
  - See the section "Instructions for Weekly Assignments", below, for more details.
- 25% Test #1
- 25% Test #2
- 40% Final exam

Grading System

Below are the guidelines for conversion from numerical (percentage) grades to letter grades. The final grades are approved by the Physics Department Review Committee.

Grade	Percentage
A+	90.00 - 100.00
A	84.00 - 89.99
A-	80.00 - 83.99
B+	74.00 - 79.99
B	67.00 - 73.99
C+	61.00 - 66.99
C	55.00 - 60.99
D	50.00 - 54.99

Grade	Percentage
F	0.00 - 49.99

Course Information and Policies

- Attendance at lectures (in-person) or their recordings (asynchronous online) is expected. Students cannot be admitted to this course if they can't attend regularly or keep up with video recordings.
- If you feel ill or have new or worsening symptoms of COVID-19, please do not attend in-person lecture. Stay home. The lecture notes and video recordings are available on Nexus, so you will be able to catch up on your studies. I will not repeat the topics, nor hold separate classes for those who miss the lectures.
- All course materials, including lecture slides, assignments, and tests/exams are only for the students registered in this course, PHYS-2112, and must not be shared with any other students or individuals outside this course.
- You must not share your Nexus ID and password with anybody to access your courses on your behalf. It violates the University policies (see University Academic Calendar for more information)

Assessments

Please note that there are no options for additional grades. Only the assessments listed on this Course Outline count toward the final grade. No extra homework, test rewrites, or extra credits will be given for this course.

Assignments

- The assignments for each week use material covered in readings and lectures. Each week's assignment is usually due at 1:00 p.m. on the Tuesday before the following week's lecture, and the due date of the assignments after the last lecture will be announced.

Two Kinds of Assignments

There are two kinds of assignments, Python modules (programs), and Jupyter notebooks

1. Python coding assignments mostly in the first half of the course should be submitted on Nexus in files with file extension ".py".

   Many of these assignments let you choose a subset of the assignment to complete. However, if you complete more than required, the exercises with lower marks will be dropped, likely increasing your overall mark on the assignment.

   Also, note that test/exam questions are often based on or similar to assignment questions, so ideally you should know how to solve all the exercises in an assignment, including any you choose to not complete in an assignment.

2. Pandas data analysis and machine learning assignments, in the last several weeks of the course, should be submitted as Jupyter Notebook(s) with the file extension ".ipynb", plus any extra required files. Data sets should be downloaded via the Jupyter Notebook if possible, not submitted. If the notebook can download them but that code is missing, marks will be deducted.

Submitting Assignments on Nexus

- Submit assignments via Nexus. If you want to make changes after submitting, re-submit the files, only the latest versions will be marked.
- **Do not** include your name or student number in the submission, because Nexus will record that information and submitted solutions may be presented in lectures.
- Do not add any comments to the Nexus submission form - they will be ignored. Instead put comments in the code or in a README.txt file if you want to send a message to the marker.
- Assignment submissions are NOT accepted via e-mail.

- All assignments are usually due at 1 p.m. on a Tuesday.

  Unless otherwise noted, late assignments get zero credit, in part because solutions to most assignments are presented in lecture starting at 6 p.m. Wednesdays.

  No due date extensions will be granted. However, the lowest 3 assignment marks will be dropped in grade calculations, which is the rationale for no extensions being granted for assignment due dates.

  If you skip 3 assignments early in the term, there is a risk that later in the term something out of your control (such as getting sick) might happen such that you can't submit an assignment.

  To be clear, any assignment not submitted on time gets zero credit.

  Skipping assignments will likely also impact your marks on tests and on future assignments.

Assignment Details

- Assignment details will be posted in the Course-Schedule.html file on Nexus.
- There are about 13 assignments planned.

Regarding Plagiarism on Assignments

- You should try to complete your assignments by yourself, from what you've learned from the readings and lecture. If you can, you'll probably do well on the coding sections of the exams.
- You may use Large Language Models (LLM's) such as ChatGPT, Microsoft Copilot, etc., but if you do, then you must cite them. According to the MLA (https://style.mla.org/citing-generative-ai/), writers should
  - Cite a generative AI tool whenever you paraphrase, quote, or incorporate into your own work any content (whether text, image, data, or other) that was created by it
  - Acknowledge all functional uses of the tool (like editing your prose or translating words) in a note, your text, or another suitable location.
  - Take care to vet the secondary sources it cites.
  - In this course you have to submit not only your solution, but also the prompts you used and the text that was returned, in a format that is text only (no screen shots or pictures) and easy for the marker to read.
- Yoyu may ask others for help on assignments, but you are not allowed to copy code from a helper, the internet, or anywhere, to complete the assignment.
- A good rule of thumb to know that you're not cheating is if you can talk with others about how you might approach a solution, but not write down or record any notes. Next, go do a different activity for at least an hour, for example, studying for a different class. Then after that hour if you can finish the assignment without looking at any code or resources that helped you solve it, and you can explain how it works, then you're not cheating.

- Note that on the tests and final exam you won't be able to get help from the TA, other students, or LLMs. If you don't do the hard work yourself, you may get a high score on assignments, but fail on tests and the final exam.

Code Should be Easy to Read (and Mark)

- Writing code is similar to writing an essay where you follow style guides, check for spelling mistakes, footnote correctly, etc. Code is a form of writing, communicating mostly to other programmers (and your future self), but also telling the Python interpreter what to do. Review your code to be sure it is clear and easy to read. Note that code is read far more often than it is written - hundreds of times more in industry.
- A solution that produces the correct result will get a partial credit, but perhaps as low as 30%. For full credit solutions need to be easy to read, easy to understand, easy to test (usually with automated unit tests), easy to maintain (fix bugs), and easy to change (add enhancements).

  This is similar to submitting a printed essay. If it has typos, spelling mistakes, pages out of order, or is not stapled, has coffee stains, mud, and gum on it, you will lose marks.

  For full credit, in addition to a correct solution, also include:

  - Module and function docstrings (https://peps.python.org/pep-0257/) that are "Accurate, Brief, and Clear" (ABC)
  - ABC names for functions and variables. Avoid creating new names then don't improve the readability of the code.
  - Code that is not redundant (in general less code is better, as long as it's still easy to read, understand, and modify, and it will usually also have fewer bugs). Don't Repeat Yourself (DRY). If you find yourself copying and pasting your own code to complete a solution, you should refactor using functions or constants.
  - Code comments only where they add value. Don't write comments that explain what code does if it would be obvious to a competent Python developer such as the marker. Do add comments when what the code does would not be obvious, or is unusual or surprising, to a competent Python developer.
  - Tests that can be run with ``python -m pytest`` to show that you confirmed the code is correct, and which also serves as documentation of what the code does. Reduce your effort by writing those tests first.
  - Code formatted following "PEP 8 – Style Guide for Python Code" as follows:
    - Read PEP 8 https://www.python.org/dev/peps/pep-0008/
    - At least skim these:
      - https://github.com/google/styleguide/blob/gh-pages/pyguide.md
      - https://github.com/amontalenti/elements-of-python-style
    - Install the "blue" formatting tool (https://pypi.org/project/blue/), or use black (https://github.com/psf/black) and run it on your code with arguments ``–line-length=79 –skip-string-normalization`` (which you can configure in a file). For Jupyter notebooks there are several options: https://www.reddit.com/r/Python/comments/ixbibn/black_for_jupyter_notebook_and_jupyterlab/
    - Install and run tools such as flake8, ruff, and pylint to receive warnings about problems with your code. Fix as many errors as you can.
  - Read the Coding-Advice.html file on Nexus.
- Your assignments will be marked in a timely manner by a Marker. The feedback will usually be available to you through Nexus, within 2 weeks after the submission.
- Academic misconduct will be taken seriously. For more information, please see the notes below.

Tests and Final Exam

- The two term tests will be will be proctored, in-person, on paper, closed book, without a computer. You should consider practicing that as part of your assignments.

  They will be administered on Wednesday night between 6 p.m. and 9 p.m., usually 6:30 to 8:30 p.m., but if there are conflicts with tests in other courses, that time may shift for specific students.

  The tests are planned for these 2 dates:

  - October 9th
  - November 13th

  If you have a conflict for those dates, let the instructor know as soon as possible.
- The final exam date and time will be posted at https://www.uwinnipeg.ca/exam-schedules/ near the end of the term.

  Students must be available during the posted term tests and final exam times. If they are changed to online, students need live streaming. High-speed internet and access to an electronic device with a webcam (e.g., smartphone, laptop) is mandatory.

- The format and specific instructions for Tests and Exams will be communicated before the test/exam date.
- Authorized course materials and devices will be communicated prior to each test/exam.
- Please note that student's activities will be monitored during any online quizzes/tests/exams, including via video, which is why a webcam is required for them.
- Photo identification is required for tests and exams.
- Usually the tests and exams in this course ask you to choose a subset of exercises in each section to answer, to help alleviate cases where a gap in your knowledge would decrease your score.

Academic Integrity

You are expected to take academic integrity very seriously and be mindful of your own activities and the requests/offers you may receive from others.

In addition to the guidelines in the Academic Calendar (Regulations and Policies, Subsection 8a), for all assessment items in this course, the following are considered cheating, plagiarism, or academic misconduct:

- Copying from another student’s work and submitting it as your own (group or collaborative work approved by the instructor is not considered cheating).
- Uploading the assignment questions on file-sharing websites (such as Chegg.com, quizlet, ChatGPT, or any other ‘Help’ sites) in order to receive help or solutions.
- Copying from any sources, including, but not limited to: the Internet; any AI tools, online calculators and graphing tools; assignments or tests/exams from previous years or from other courses; solutions provided by a third party (purchased or otherwise).
- Asking questions from another student or any unauthorized person during the exams and tests, including, but not limited to: the in-person exams, take-home exams, or remote exams.
- Talking or communicating with other student(s), during the exams/tests (in-person or on Zoom), in any language, for any reason or purpose.
- Using or having in one’s possession any unauthorized sources and devices during the tests and exams.
- Soliciting and obtaining solutions to the assignments, tests, and exams via any means of communication (e.g., e-mail, text, phone call, social media chats, etc.).
- Providing test or exam questions and/or solutions to another student, uploading them to a filesharing website, or otherwise sharing them outside the course.

It is your responsibility to know the policies and guidelines, and to be aware of the academic misconduct procedures. Anybody involved in the process could be charged with academic misconduct. For more information, please see the Academic Calendar, Regulations and Policies, Subsection 8a:https://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf

Other Important Information

- A permitted or necessary change in mode of delivery may require adjustments to important aspects of this course outline, like class schedule and the number, nature, and weighting of assignments and/or exams.
- When it is necessary to cancel a class due to exceptional circumstances, every effort will be made to inform students via UWinnipeg email, or on Nexus, via Course News (announcements).
- Students have the responsibility to regularly check their UWinnipeg e-mail addresses to ensure timely receipt of correspondence from the University and/or their course instructors. Only your University of Winnipeg email address (Name@webmail.uwinnipeg.ca) will be used for course-related correspondence.

- Regulations, Policies, and Academic Integrity. Students are encouraged to familiarize themselves with the "Regulations and Policies" found in the University Academic Calendar at: https://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf. Particular attention should be given to subsections 8 ("Student Discipline"), 9 ("Senate Appeals"), and 10 ("Grade Appeals").

  Please note the importance of maintaining academic integrity, and the potential consequences of engaging in plagiarism, cheating, and other forms of academic misconduct. Even "unintentional" plagiarism, as described in the UW Library video tutorial "Avoiding Plagiarism" (https://www.youtube.com/watch?v=UvFdxRU9a8g) is a form of academic misconduct.

  Similarly, uploading essays and other assignments to essay vendors or trader sites (file-sharing sites that are known providers of essays for use by others who submit them to instructors as their own work) is a form of misconduct, as it involves "aiding and abetting" plagiarism. More detailed information can be found here: Academic Misconduct Policy and Procedures: https://www.uwinnipeg.ca/policies/docs/policies/academic-misconduct-policy.pdf and https://www.uwinnipeg.ca/policies/docs/procedures/academic-misconduct-procedures.pdf

- Respectful Learning Environment. Students are expected to conduct themselves in a respectful manner on campus and in the learning environment irrespective of the platform being used. Behaviour, communication, or acts that are inconsistent with a number of UW policies (e.g. Respectful Working and Learning Environment Policy https://www.uwinnipeg.ca/respect/respect-policy.html, Acceptable Use of Information Technology Policy https://www.uwinnipeg.ca/policies/docs/policies/acceptable-use-of-information-technology-policy.pdf could be considered "non-academic" misconduct. More detailed information can be found here: Non-Academic Misconduct Policy and Procedures: https://www.uwinnipeg.ca/policies/docs/policies/student-non-academic-misconduct-policy.pdf and https://www.uwinnipeg.ca/policies/docs/procedures/student-non-academic-misconduct-procedures.pdf

- Copyright and Intellectual Property. Course materials are the property from the instructor who developed them. Examples of such materials are course outlines, assignment descriptions, lecture notes, test questions, and presentation slides - irrespective of format. Students who upload these materials to file-sharing sites, or in any other way share these materials with others outside the class without prior permission of the instructor/presenter, are in violation of copyright law and University policy.

  Students must also seek prior permission of the instructor/presenter before, for example, photographing, recording, or taking screenshots of slides, presentations, lectures, and notes on the board (or computer). Students found to be in violation of an instructor's intellectual property rights could face serious consequences pursuant to the Academic Misconduct or Non-Academic Misconduct Policy.

- Privacy. Students are reminded to know their rights in relation to the collection of personal data by the University (https://www.uwinnipeg.ca/privacy/admissions-privacy-notice.html), especially if Zoom is being used for remote teaching (https://www.uwinnipeg.ca/privacy/zoom-privacy-notice.html) and testing/proctoring (https://www.uwinnipeg.ca/privacy/zoom-test-and-exam-proctoring.html).
- Research Ethics. Students conducting research interviews, focus groups, surveys, or any other method of collecting data from any person, including a family member, must obtain research ethics approval before commencing data collection. Exceptions are research activities done in class as a learning exercise. For submission requirements and deadlines, see https://www.uwinnipeg.ca/research/ethics/apply-for-human-ethics.html

- Students may choose not to attend classes or write examinations on holydays of their religion, but they must notify their instructors at least two weeks in advance. Instructors will then provide an opportunity for students to make up work or examinations without penalty. A list of religious holidays can be found in the 2023-24 Undergraduate Academic Calendar: https://www.uwinnipeg.ca/academics/calendar/docs/important-notes.pdf
- Students with documented disabilities, temporary or chronic medical conditions, requiring academic accommodations for tests/exams or during lectures/laboratories are encouraged to contact Accessibility Services (AS) at 204.786.9771 or https://www.uwinnipeg.ca/accessibility-services/ to discuss appropriate options. All information about a student's disability or medical condition remains confidential.
    - Reference to the appropriate items in the Regulations & Policies section of the Course Calendar, including Senate appeals and academic misconduct (e.g. plagiarism, cheating) https://www.uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf.
- All students, faculty, and staff have the right to participate, learn, and work in an environment that is free of harassment and discrimination. The UW Respectful Working and Learning Environment Policy may be found at https://www.uwinnipeg.ca/respect/.

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