# Course Schedule

**IMPORTANT: ALL TIMES EASTERN** - Please see the [University Policies](#) section of your Course Outline for details.

<table>
<thead>
<tr>
<th>Week</th>
<th>Module</th>
<th>Readings</th>
<th>Activities and Assignments</th>
<th>Begin Date</th>
<th>End/Due Date</th>
<th>Weight (%)</th>
</tr>
</thead>
</table>
| Week 1 | **Module 01:** Introduction and Basic Concepts | Textbook: (Heiman, 2014)  
- Chapters 1 and 2 | Groups for Assignment 1 created by Tech Support | Check after Friday, May 19, 2023 at 4:30 PM |  |  |
|       |        |          | **Module 00 Math Skill Practice** (Möbius) |  |  | 2% (The highest 10 of 11 Möbius exercises will be counted towards your final grade.) |
|       |        |          | **SDS 250R Student Survey** (LEARN) | Monday, May 15, 2023 at 4:00 PM |  | 2% (The highest 10 of 12 Möbius quizzes, including the LEARN survey, will be counted towards your final grade.) |
|       |        |          | **Quiz 0: Basic Math Skills** (Möbius) | Monday, May 15, 2023 at 4:00 PM |  | 2% |
| Week 2 | **Module 02:** Frequency of Distributions | Textbook: (Heiman, 2014)  
- Chapter 2 | **Module 01 Review Exercises** (Möbius) |  |  | 2% |
|       |        |          | **Quiz 1** (Möbius) | Monday, May 22, 2023 at 4:00 PM |  | 2% |
| Week 3 | **Module 03:** Central Tendency and Variability | Textbook: (Heiman, 2014)  
- Chapters 3 and 4 | **Assignment 1 Group Expectations Discussion** (LEARN) |  |  |  |

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*Created: 18/05/2023*
<table>
<thead>
<tr>
<th>Week 4</th>
<th>Module 04: z-Scores and Central Limit Theorem</th>
<th>Textbook: (Heiman, 2014)</th>
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<tr>
<td></td>
<td></td>
<td>• Chapter 5</td>
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<td></td>
<td>Module 03 Review Exercises (Möbius)</td>
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<tr>
<td>Week 5</td>
<td>Module 05: The Correlation Coefficient</td>
<td>Textbook: (Heiman, 2014)</td>
<td>Groups for Assignment 2 created by Tech Support</td>
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<td></td>
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<td>• Chapter 10-1, 10-2</td>
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<tr>
<td></td>
<td>Online Midterm 1 (LEARN)</td>
<td>Monday, June 5, 2023 at 4:30 PM</td>
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<td></td>
<td>Quiz 3 (Möbius)</td>
<td>Monday, June 5, 2023 at 4:00 PM</td>
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<tr>
<td>Week 6</td>
<td>Module 06: Linear Regression</td>
<td>Textbook: (Heiman, 2014)</td>
<td>Assignment 2 Group Expectations Discussion</td>
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<td>• Chapter</td>
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</table>
| Week 7 | **Module 07**: Probability and Hypothesis Testing | Textbook: (Heiman, 2014)  
- Chapters 6, 7, and 10-3, 10-4 | **Module 06**: Review Exercises (Möbius)  
- Assignment 2 (LEARN) | Monday, June 19, 2023 at 4:00 PM | 2% |
|---|---|---|---|---|---|
| Week 8 | Continue **Module 07**: Probability and Hypothesis Testing | Textbook: (Heiman, 2014)  
- Chapters 6, 7, and 10-3, 10-4 | **Module 06**: Review Exercises (Möbius)  
- Quiz 6 (Möbius) | Monday, July 3, 2023 at 4:00 PM | 2% |
| Week 9 | **Module 08**: t-Test and Confidence Intervals | Textbook: (Heiman, 2014)  
- Chapter 8 | **Module 07**: Review Exercises (Möbius)  
- Quiz 7 (Möbius) | Monday, July 10, 2023 at 4:00 PM | 2% |
| Week 10 | **Module 09**: t-Test with Two Samples | Textbook: (Heiman, 2014)  
- Chapter 9 | **Online Midterm 2**: Review Exercises (LEARN)  
- Module 08 Review Exercises (Möbius) | Monday, July 10, 2023 at 12:00 Noon  
- Tuesday, July 11, 2023 at 11:55 PM | 5% |
| Week 11 | **Module 10**: The One-Way Analysis of Variance (ANOVA) | Textbook: (Heiman, 2014)  
- Chapter 11 | **Module 09**: Review Exercises (Möbius) | **Quiz 8** (Möbius) | Monday, July 17, 2023 at 4:00 PM | 2% |
|---------|--------------------------------------------------------|-------------------------------------------------|---------------------|---------------------------------|---------------------------------|------|
| Week 12 | **Module 11**: Chi Square and Other Nonparametric Procedures | Textbook: (Heiman, 2014)  
- Chapter 13 | **Module 10**: Review Exercises (Möbius) | **Quiz 9** (Möbius) | Monday, July 24, 2023 at 4:00 PM | 2% |
| **Final Examination** | | | | **Quiz 10** (Möbius) | Monday, July 31, 2023 at 4:00 PM | 2% |
Contact Information

Announcements

You are expected to check Announcements on the Course Home page on a regular basis. To ensure you are viewing the complete list of announcements, you may need to click Show All Announcements.

Discussions

Discussion topics can be accessed by clicking Connect and then Discussions on the course navigation bar above.

Contact Us

<table>
<thead>
<tr>
<th>Who and Why</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instructor</strong></td>
<td>Post your course-related questions (statistics, questions, deadlines, etc) to the Ask the Instructor discussion topic. This allows other students to benefit from your question as well. Questions of a personal nature can be directed to your instructor. Instructor: Hsiao D'Ailly <a href="mailto:hdailly@uwaterloo.ca">hdailly@uwaterloo.ca</a> Your instructor checks email and the Ask the Instructor discussion topic frequently and will make every effort to reply to your questions within 24–48 hours, Monday to Friday.</td>
</tr>
<tr>
<td><strong>Technical Support</strong>, Centre for Extended Learning</td>
<td><a href="mailto:learnhelp@uwaterloo.ca">learnhelp@uwaterloo.ca</a> Include your full name, WatIAM user ID, student number, and course name and number. Technical support is available during regular business hours, Monday to Friday, 8:30 AM to 4:30 PM (Eastern Time). IST Knowledge Base: For Students</td>
</tr>
<tr>
<td><strong>Learner Support Services</strong>, Centre for Extended Learning</td>
<td>Student Resources <a href="mailto:extendedlearning@uwaterloo.ca">extendedlearning@uwaterloo.ca</a> +1 519-888-4002 Include your full name, WatIAM user ID, student number, and course name</td>
</tr>
<tr>
<td>Examination information</td>
<td>and number.</td>
</tr>
</tbody>
</table>
Course Description and Learning Outcomes

Course Description

The primary goal of this course is to help students become informed consumers of quantitative information in social science research. Emphasis will be placed on understanding basic principles of statistics and learning when and how to apply them.

Learning Outcomes

By the end of this course, you should be able to

- explain how statistics are used in social science research to organize quantitative information, test hypotheses, and report research findings;
- identify variables in a data set and the level of measurement for each variable;
- use various descriptive statistics, tables, and graphs to summarize quantitative information, including data that you collect yourself, or data presented to you through different sources;
- describe the logic of hypothesis testing procedures and the use of inferential statistics in social research;
- use appropriate statistics to answer different research questions and test different hypotheses involving one or two variables; and
- read with ease basic quantitative information, including tables and graphs, and research "findings," including hypothesis testing results in academic journals and the general media.

This online course was developed by Dr. Hsiao D'Ailly, with instructional design and multimedia development support provided by the Centre for Extended Learning.
About the Course Author

Dr. Hsiao D'Ailly

Educational Background

Hsiao obtained her BA from Taiwan National Normal University. She completed both her Master's degree in Education and PhD in Psychology at the University of Western Ontario. Hsiao also held a two year SSHRC post-doctoral fellowship at the Psychology department at UW before coming to Renison.

Current Research

Immigrant adaptation, community-based research, and cross-cultural psychology.

Philosophy of Teaching

Hsiao believes that only "meaningful learning" is true learning. She encourages students to always see the applications of their new knowledge in real life situations. Her philosophy of teaching fits well with the constructivist theory of learning, believing that learning is an active process in which students construct new ideas or concepts based upon their current and past knowledge.

Hobbies/Interests/Sports

When not involved in research, Hsiao likes to listen to music, play music, read, watch movies, walk with friends, go to new places, and see new things.
Materials and Resources

Textbook

Required


For textbook ordering information, please contact the [W Store | Course Materials + Supplies](https://example.com).

For your convenience, you can compile a list of required and optional course materials through [BookLook](https://example.com) using your Quest userID and password. If you are having difficulties ordering online and wish to call the Waterloo Bookstore, their phone number is +1 519-888-4673 or toll-free at +1 866-330-7933. Please be aware that textbook orders CANNOT be taken over the phone.

Resources

- Library services for [Co-op students on work term and students taking online courses](https://example.com)
# Grade Breakdown

The following table represents the grade breakdown of this course.

<table>
<thead>
<tr>
<th>Activities and Assignments</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Review Exercises (Best 10 of 11)</td>
<td>20%</td>
</tr>
<tr>
<td>Online Quizzes and SDS 250R Survey (Best 10 of 12)</td>
<td>20%</td>
</tr>
<tr>
<td>Assignments (2 x 5%)</td>
<td>10%</td>
</tr>
<tr>
<td>Online Midterms (2 x 5%)</td>
<td>10%</td>
</tr>
<tr>
<td>Final Examination</td>
<td>40%</td>
</tr>
</tbody>
</table>

# Official Grades and Course Access

Official Grades and Academic Standings are available through [Quest](https://quest.uwaterloo.ca).

Your access to this course will continue for the duration of the current term. You will not have access to this course once the next term begins.
Course Policies

Late Assignments

Late assignments will not be graded unless there is a documented illness or family emergency.

Online Midterms

You may only take the midterms once. You may not retake a midterm. In cases of severe illness or other extenuating circumstances, with supporting documents, the weighting for the online midterm may be allocated to the final exam.
University Policies

Submission Times

Please be aware that the University of Waterloo is located in the Eastern Time Zone (GMT or UTC-5 during standard time and UTC-4 during daylight saving time) and, as such, the time that your activities and/or assignments are due is based on this zone. If you are outside the Eastern Time Zone and require assistance with converting your time, please try the Ontario, Canada Time Converter.

Short-Term Absences

Review the University of Waterloo’s Accommodations policy for more details.

Additionally, undergraduate students have the option to self-declare a short-term absence during the formal lecture period by following the Undergraduate student short-term absences process outlined by the Registrar’s Office.

Please follow the instructions above and contact your instructor for applicable accommodations.

Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect, and responsibility. If you have not already completed the online tutorial regarding academic integrity you should do so as soon as possible. Undergraduate students should see the Undergraduate Academic Integrity Module and graduate students should see the Graduate Students and Academic Integrity website.

Proper citations are part of academic integrity. Citations in CEL course materials usually follow CEL style, which is based on APA style. Your course may follow a different style. If you are uncertain which style to use for an assignment, please confirm with your instructor or TA.

For further information on academic integrity, please visit the Office of Academic Integrity.
Turnitin

**Turnitin.com:** Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students’ submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin® in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.

**Turnitin® at Waterloo**

**Discipline**

A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration, should seek guidance from the course instructor, academic advisor, or the undergraduate Associate Dean. For information on categories of offences and types of penalties, students should refer to Policy 71 - Student Discipline. For typical penalties, check Guidelines for the Assessment of Penalties.

**Appeals**

A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances, (other than a petition) or Policy 71 - Student Discipline, may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 - Student Appeals.
Grievance

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4. When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.

Final Grades

In accordance with Policy 46 - Information Management, Appendix A - Access to and Release of Student Information, the Centre for Extended Learning does not release final examination grades or final course grades to students. Students must go to Quest to see all final grades. Any grades posted in Waterloo LEARN are unofficial.

AccessAbility Services

AccessAbility Services, located in Needles Hall, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodation to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term and for each course.

Accessibility Statement

The Centre for Extended Learning strives to meet the needs of all our online learners. Our ongoing efforts to become aligned with the Accessibility for Ontarians with Disabilities Act (AODA) are guided by University of Waterloo accessibility Legislation and policy and the World Wide Web Consortium's (W3C) Web Content Accessibility Guidelines (WCAG) 2.0. The majority of our online courses are currently delivered via the Desire2Learn Learning Environment. Learn more about Desire2Learn's Accessibility Standards Compliance.

Use of Computing and Network Resources

Please see the Guidelines on Use of Waterloo Computing and Network Resources.
Copyright Information

UWaterloo's Web Pages

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Other Sources

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University of Waterloo

Credits and Copyright (/d2l/common/dialogs/quickLink/quickLink.d2l?ou=905001&type=content&r=code=uWaterloo-460859)