

# Course Schedule

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

Week	Module	Readings	Activities and Assignments	Begin Date	End/Due Date	Weight (%)
<b>Week 1</b>	<a href="#">Module 01</a> : 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	
			<a href="#">Module 00 Math Skill Practice</a> (Möbius)			2% (The highest 10 of 11 Möbius exercises will be counted towards your final grade.)
			<a href="#">SDS 250R Student Survey</a> (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.)
			<a href="#">Quiz 0: Basic Math Skills</a> (Möbius)		Monday, May 15, 2023 at 4:00 PM	2%
<b>Week 2</b>	<a href="#">Module 02</a> : Frequency of Distributions	Textbook: (Heiman, 2014)  • Chapter 2	<a href="#">Module 01 Review Exercises</a> (Möbius)			2%
			<a href="#">Quiz 1</a> (Möbius)		Monday, May 22, 2023 at 4:00 PM	2%
<b>Week 3</b>	<a href="#">Module 03</a> : Central Tendency and Variability	Textbook: (Heiman, 2014)  • Chapters 3 and 4	<a href="#">Assignment 1 Group Expectations Discussion</a> (LEARN)			

			<a href="#">Module 02</a> <a href="#">Review</a> <a href="#">Exercises</a> (Möbius)				2%
			<a href="#">Quiz 2</a> (Möbius)		Monday, May 29, 2023 at 4:00 PM		2%
<b>Week 4</b>	<a href="#">Module 04:</a> z-Scores and Central Limit Theorem	Textbook: (Heiman, 2014)  • Chapter 5	<a href="#">Module 03</a> <a href="#">Review</a> <a href="#">Exercises</a> (Möbius)				2%
			<a href="#">Assignment 1</a> (LEARN)		Friday, June 2, 2023 at 4:00 PM		5%
			<a href="#">Quiz 3</a> (Möbius)		Monday, June 5, 2023 at 4:00 PM		2%
<b>Week 5</b>	<a href="#">Module 05:</a> The Correlation Coefficient	Textbook: (Heiman, 2014)  • Chapter 10-1, 10-2	Groups for Assignment 2 created by Tech Support		Check after Monday, June 5, 2023 at 4:30 PM		
			<a href="#">Online</a> <a href="#">Midterm 1</a> (LEARN)	Monday, June 5, 2023 at 12:00 Noon	Tuesday, June 6, 2023 at 11:55 PM		5%
			<a href="#">Module 04</a> <a href="#">Review</a> <a href="#">Exercises</a> (Möbius)				2%
			<a href="#">Quiz 4</a> (Möbius)		Monday, June 12, 2023 at 4:00 PM		2%
<b>Week 6</b>	<a href="#">Module 06:</a> Linear Regression	Textbook: (Heiman, 2014)  • Chapter	<a href="#">Assignment 2</a> <a href="#">Group</a> <a href="#">Expectations</a> <a href="#">Discussion</a>				

			(LEARN)			
		10-5, 10-6	<a href="#">Module 05</a> <a href="#">Review</a> <a href="#">Exercises</a> (Möbius)			2%
			<a href="#">Quiz 5</a> (Möbius)	Monday, June 19, 2023 at 4:00 PM		2%
<b>Week 7</b>	<a href="#">Module 07</a> : Probability and Hypothesis Testing	Textbook: (Heiman, 2014)  • Chapters 6, 7, and 10-3, 10-4	<a href="#">Module 06</a> <a href="#">Review</a> <a href="#">Exercises</a> (Möbius)			
			<a href="#">Assignment 2</a> (LEARN)	Friday, June 23, 2023 at 4:00 PM		5%
<b>Week 8</b>	Continue <a href="#">Module 07</a> : Probability and Hypothesis Testing	Textbook: (Heiman, 2014)  • Chapters 6, 7, and 10-3, 10-4	<a href="#">Module 06</a> <a href="#">Review</a> <a href="#">Exercises</a> (Möbius)			2%
			<a href="#">Quiz 6</a> (Möbius)	Monday, July 3, 2023 at 4:00 PM		2%
<b>Week 9</b>	<a href="#">Module 08</a> : <i>t</i> -Test and Confidence Intervals	Textbook: (Heiman, 2014)  • Chapter 8	<a href="#">Module 07</a> <a href="#">Review</a> <a href="#">Exercises</a> (Möbius)			2%
			<a href="#">Quiz 7</a> (Möbius)	Monday, July 10, 2023 at 4:00 PM		2%
<b>Week 10</b>	<a href="#">Module 09</a> : <i>t</i> -Test with Two Samples	Textbook: (Heiman, 2014)  • Chapter 9	<a href="#">Online</a> <a href="#">Midterm 2</a> (LEARN)	Monday, July 10, 2023 at 12:00 Noon	Tuesday, July 11, 2023 at 11:55 PM	5%
			<a href="#">Module 08</a> <a href="#">Review</a> <a href="#">Exercises</a> (Möbius)			2%

			<a href="#">Quiz 8</a> (Möbius)		Monday, July 17, 2023 at 4:00 PM	2%
<b>Week 11</b>	<a href="#">Module 10:</a> The One-Way Analysis of Variance (ANOVA)	Textbook: (Heiman, 2014)  • Chapter 11	<a href="#">Module 09</a> <a href="#">Review</a> <a href="#">Exercises</a> (Möbius)			2%
			<a href="#">Quiz 9</a> (Möbius)		Monday, July 24, 2023 at 4:00 PM	2%
<b>Week 12</b>	<a href="#">Module 11:</a> Chi Square and Other Nonparametric Procedures	Textbook: (Heiman, 2014)  • Chapter 13	<a href="#">Module 10</a> <a href="#">Review</a> <a href="#">Exercises</a> (Möbius)			2%
			<a href="#">Quiz 10</a> (Möbius)		Monday, July 31, 2023 at 4:00 PM	2%
<a href="#">Final Examination</a>						40%

# 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

Who and Why	Contact Details
<b>Instructor</b> <ul style="list-style-type: none"><li>Course-related questions (e.g., course content, deadlines, assignments, etc.)</li><li>Questions of a personal nature</li></ul>	<p><b>Post your course-related questions</b> (statistics, questions, deadlines, etc) to the <a href="#">Ask the Instructor</a> discussion topic. This allows other students to benefit from your question as well.</p> <p><b>Questions of a personal nature</b> can be directed to your instructor.</p> <p>Instructor: Hsiao D'Ailly <a href="mailto:hdaily@uwaterloo.ca">hdaily@uwaterloo.ca</a></p> <p>Your instructor checks email and the <a href="#">Ask the Instructor</a> discussion topic frequently and will make every effort to reply to your questions within 24–48 hours, Monday to Friday.</p>
<b>Technical Support,</b> Centre for Extended Learning <ul style="list-style-type: none"><li>Technical problems with Waterloo LEARN</li></ul>	<p><a href="mailto:learnhelp@uwaterloo.ca">learnhelp@uwaterloo.ca</a></p> <p>Include your full name, WatIAM user ID, student number, and course name and number.</p> <p>Technical support is available during regular business hours, Monday to Friday, 8:30 AM to 4:30 PM (Eastern Time).</p> <p><a href="#">IST Knowledge Base: For Students</a> </p>
<b>Learner Support Services,</b> Centre for Extended Learning <ul style="list-style-type: none"><li>General inquiries</li><li>WatCards (Student ID Cards)</li></ul>	<p><a href="#">Student Resources</a> </p> <p><a href="mailto:extendedlearning@uwaterloo.ca">extendedlearning@uwaterloo.ca</a> +1 519-888-4002</p> <p>Include your full name, WatIAM user ID, student number, and course name</p>

- Examination information

and number.

# Course Description and Learning Outcomes

## Course Description

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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

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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.

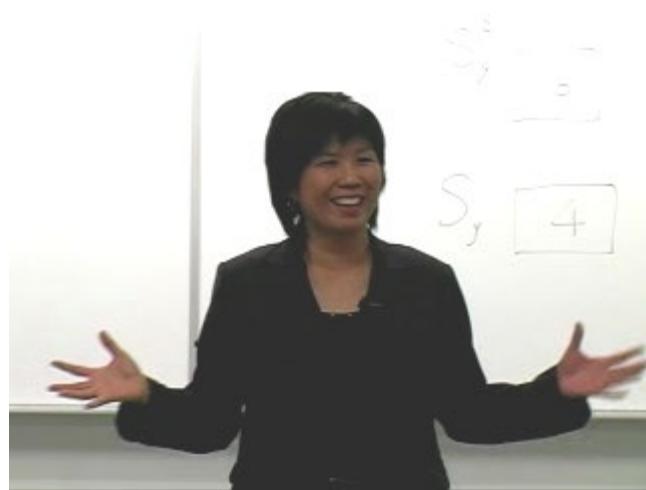
*This online course was developed by Dr. Hsiao D'Ailly, with instructional design and multimedia development support provided by the Centre for Extended Learning.*

# 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

1. Heiman, G.W. (2014). *Behavioral Sciences STAT (2nd Edition)*. Toronto: Houghton Mifflin.

For textbook ordering information, please contact the [W Store | Course Materials + Supplies](#) .

For your convenience, you can compile a list of required and optional course materials through [BookLook](#)  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](#) 

# Grade Breakdown

The following table represents the grade breakdown of this course.

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

## Official Grades and Course Access

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Official Grades and Academic Standings are available through [Quest](#) .

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

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

## Online Midterms

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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

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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

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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

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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

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**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

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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

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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

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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

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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

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[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

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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

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Please see the [Guidelines on Use of Waterloo Computing and Network Resources](#).

# Copyright Information

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## UWaterloo's Web Pages

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## Other Sources

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If there are any questions about this notice, please contact the University of Waterloo, Centre for Extended Learning, Waterloo, Ontario, Canada, N2L 3G1 or [extendedlearning@uwaterloo.ca](mailto:extendedlearning@uwaterloo.ca) (<mailto:extendedlearning@uwaterloo.ca>).