

ENBUS 306 – Research Design

INSTRUCTOR

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SCHEDULE

Lectures: Fridays 2:30 – 5:20pm, HH-1101

Office hours: Tuesdays 9-11:00am (Sept 11 – Nov 27; no office hours Oct 9th)

NO TUTORIALS OUTSIDE OF SCHEDULED LECTURE TIME

TAs: M. Ahsanur Rahim (marahim@uwaterloo.ca); Daniel Gonzalez (dfgonzal@uwaterloo.ca); Sadaf Mollaei (smollaei@uwaterloo.ca)

COURSE DESCRIPTION

This course introduces students to the basic principles, concepts and values of doing research in environment and business. It will examine different research strategies and designs; define research questions; address ethical issues of involving human subjects in business research; identify primary and secondary data sources; and assess the effectiveness of various ways of communicating research results. This course takes stock of the quantitative research methods covered in earlier courses (ENVS 178 and ENVS 278); introduces the basics of qualitative, quantitative, and mixed methods research; and looks ahead to provide a solid foundation for the fourth-year business research projects (ENBUS 402A and B).

DELIVERY OF COURSE MATERIAL

1. Material for this course will be delivered by the LEARN system. Go to <https://learn.uwaterloo.ca/>
2. The course syllabus is available on the course website (through the LEARN system). We will discuss the syllabus in detail in our first class.
3. I will aim to put up the PowerPoint Presentations up on LEARN before lecture. Please note that the PPT files will not provide ALL of the information that will be delivered in the lecture, as the intention is that you will augment the slides as the content is discussed.

4. I will also use the LEARN system to deliver information to students in the course. I expect you to be checking the course website regularly (at least every working day).

LEARNING OUTCOMES

The overarching learning objective of this course is to populate a 'toolbox' of methods and the knowledge to know when to use them. More specifically, by the end of the course you should be able to:

1. Survey a range of research methods used to collect information to answer questions;
2. Understand the research process appropriate to various research methods;
3. Evaluate and select appropriate research methods for research design and execution;
4. Understand how to interpret and communicate research results.

CREATING AN EFFECTIVE LEARNING ENVIRONMENT IN THE LECTURE HALL

1. I will start 'on time', so please arrive on time. If you arrive late, please enter the class as quietly as possible.
2. I will get you out of the classroom in good time – please wait until I dismiss the class to prepare for your departure.
 - a. Please do not impede your classmates' opportunity to learn
 - b. Please do not talk in class
 - c. Please turn off cellphones, etc.
3. Our time together is valuable. I will, however, work to make the lectures informative, relevant and interesting. Throughout term, I will welcome suggestions as to how the learning environment can be improved. Please speak to me directly, or make comments to your teaching assistant, who can pass on information – anonymously, if you prefer – to me.

Required Textbook:



Creswell, J.W. & J.D. Creswell (2018) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th Edition)*. Thousand Oaks, CA: Sage Publications. ISBN 13: 978-1-5063-8670-6 (Available in the UW bookstore)

Additional readings are made available through LEARN or the library course reserves.

TIPS FOR SUCCESS

1. Attend all sessions.
2. Come prepared for all sessions, and follow up on all sessions.
3. Check when deliverables are due and plan accordingly.

COURSE ASSESSMENT

Deliverable:	Weighting:	Due:
<i>Group Evaluation</i>		
Research Design Garages (Group; In-class activities)	14%	By 11pm on the day of class (see schedule below)
RDG Proposal Presentation (Group)	5%	November 16 th and 23 rd (in-class)
RDG Research Proposal (Group)	25%	November 23 rd , 11pm (Dropbox)
PEER Evaluation	1%	November 30 th , 11pm (PEAR confirmation submitted to Dropbox)
<i>Individual Evaluation</i>		
Literature Review	30%	Oct 12 th by 11:00pm (Dropbox)
Term Test	25%	November 30 th (In-class)

Group Evaluation

The overall group evaluation is worth a combined 45% of your grade. Participation in weekly Research Design Garages (RDGs) is worth 14%, the RDG Research Proposal is worth 25%, the RDG Proposal Presentation is 5%, and the Peer Evaluation. Each item is describe below.

Research Design Garage (14%)

The Research Design Garage (RDG) will provide students with multiple opportunities to put some of the principles, concepts, and methods (i.e., tools) introduced in the lectures into practice. The RDG will also provide an opportunity for students to deepen their knowledge of the challenges associated with using these tools. The lowest grade from your RDGs will be dropped in calculating your group grade (best 7 of 8).

The tasks that will be completed during the allotted class time are highly interactive, dynamic, and will require your full attention and participation. Each task will build on the previous one to move your garage from your topic of interest through your design to help your garage practice skills needed to complete the RDG Research Proposal (discussed below). Completed tasks are due by 11:00pm the day of class and must be uploaded on LEARN. Details of each activity will be provided in tutorial. Each week a different team member must be responsible for uploading the activity submission for their group. Each task will be graded on a scale of 2, 0 for no submission, 1 for a submitted but incomplete assignment and 2 for a submitted and fully complete assignment.

During the first class, students will self-select into garages (of 5 members), come up with a name for their garage, discuss roles, then complete their Garage Contract, and have one group member submit the aforementioned to the designated Dropbox on LEARN by 11pm on the day of class on behalf of their garage. Over the first weekend, each garage will identify and prioritize a list of (3-5) potential topics for your research proposal, which must be submitted to the instructor (in Dropbox on LEARN) no later than Monday, Sept. 10th at 11pm. The instructor will then select a topic from the list based on appropriateness and to ensure there is minimal overlap in topics between garages and will inform the garages of their research topic in-class on Sept 14th. If no list of topics is sent, one will be assigned to the garage by the instructor.

RDG Proposal Presentation (5%) – DUE November 16th and 23rd in-class

In Weeks 10 or 11, each group will present their research proposal in the form of a (modified) Pecha Kucha. It is expected that all garage members will participate in the presentation in some way.

See the assignment outline for full details on LEARN.

RDG Research Proposal (25%) – DUE November 23rd at 11pm in Dropbox

In your RDGs, you will be required to produce a research proposal 10 – 15 pages (12-point Times New Roman font with 1.5 spacing 1" margin on all sides) not including appendices and reference list. Students will need to use APA formatting consistently throughout the proposal.

See the assignment outline for full details on LEARN.

Peer Evaluation Factor Adjustment (1%) - DUE by November 30th at 11pm

Each garage member's grade will be calculate based on the aggregate grade of the three items listed above, then multiplied by a factor adjustment based on peer evaluations (using PEAR). The factor adjustment for each group member (which must be substantiated with comments in PEAR) can range from 0.8 to 1.2 and will be generated based on anonymous evaluation of oneself and their group members' performance. Importantly, the factor score assigned by

individuals to their group members must sum to the integer of the number of group members (e.g., 5 group members = 5 points to be allocated across all members). The average of the factor scores for each student will be multiplied against the RDG group grade to calculate ones individual group evaluation grade.

Each garage member will receive an additional 1% added to their individual for completing the peer evaluations by the due date of November 30th at 11pm. On LEARN, individually, students must submit a screenshot from PEAR (the evaluation platform) to the designated Dropbox, showing that you have completed the peer evaluation.

Individual Evaluation

Literature Review (30%) – DUE October 12th at 11pm in Dropbox

Students will prepare a literature review based on a selection of eight journal articles. Seven of the articles are provided in the course reserves, and students will select one additional article of their choice. The assignment requires students to write 5-8 pages (12-point Times New Roman font with 1.5 spacing 1" margin on all sides) not including references or title page. The assignment is graded out of 60 and is worth 30% of your final grade.

See the assignment outline for full details on LEARN.

Term Test (25%) – November 30th in-class

A term test will be held in-class during the last week of class. The test will cover content from the entire semester and will consist of a combination of multiple choice, short-answer and long-answer questions. A key element of the term test will be on applying what you have learned through the course to develop a sound, logical and realistic research design.

COURSE SCHEDULE

Date	Lecture	Readings	Deliverables
Class 1 Sept 7	<ul style="list-style-type: none"> Welcome & review of syllabus What is research design? 	Kolko, J. (2012). Wicked problems: Problems worth solving. <i>Stanford Social Innovation Review</i> . Available at: https://ssir.org/articles/entry/wicked_problems_problems_worth_solving	<ul style="list-style-type: none"> Form your RDGs Pick a name for your garage Discuss and complete Team Contract (on LEARN) Produce a prioritized list of topics for your RDG
Class 2 Sept 14	The Research Approach	Creswell & Creswell (2018): Chapter 1	RDG #1
Class 3 Sept 21	The Use of Theory	Creswell & Creswell (2018): Chapter 3	RDG #2
Class 4 Sept 28	<ul style="list-style-type: none"> Special Guest: Nathan Pirie (Writing Centre) Reviewing the Literature 	<i>Required:</i> Creswell & Creswell (2018): Chapter 2 <i>Recommended:</i> <ul style="list-style-type: none"> Knopf (2006) Taylor <i>(both recommended readings are available through course reserves)</i>	RDG #3
Class 5 Oct 5	<ul style="list-style-type: none"> Special Guest: Karen Pieters (ORE) Ethics and Writing Strategies 	Creswell & Creswell (2018): Chapter 4	RDG #4
<ul style="list-style-type: none"> Literature Review Due, Friday, Oct 12th, 11pm (Dropbox) STOP-START-CONTINUE Survey (Oct 6th – 12th on LEARN) 			
Class 6 Oct 19	Introduction and Purpose Statement	Creswell & Creswell (2018): Chapter 5 & 6	RDG #5
Class 7 Oct 26	Research Questions and Hypotheses	Creswell & Creswell (2018): Chapter 7	RDG #6
Class 8 Nov 2	Quantitative Methods	Creswell & Creswell (2018): Chapter 8	RDG #7
Class 9 Nov 9	Qualitative Methods	Creswell & Creswell (2018): Chapter 9	RDG #8
Class 10 Nov 16	Mixed Methods Presentations (Part #1)	Creswell & Creswell (2018): Chapter 10	RDG Presentations – P#1 (in-class; 4-5:20pm)
Class 11 Nov 23	Presentations (Part #2) Course Review	N/A	<ul style="list-style-type: none"> RDG Presentations - P#2 (in-class; 2:30-3:50pm) RDG Research Proposal by 11pm (Dropbox)
Class 12 Nov 30	Term Test (in-class); 2:45 – 5:15pm		<ul style="list-style-type: none"> Peer Evaluations by 11pm (PEAR confirmation submitted to Dropbox)

Course Policies

ADDRESSING YOUR INSTRUCTOR

When addressing your instructor either verbally or in writing, a good rule of thumb to follow is to use the title “Professor” followed by the last name. This holds for all instructors irrespective of whether they have their PhD (where the title “Doctor” is warranted) or not.

COURSE READINGS

All readings can be acquired and downloaded through the LEARN system at the “Library e-reserves” section. These are identified in this course schedule below.

POLICY ON LATE SUBMISSIONS

Submissions received up to 24 hours after the due date and time indicated above will have a 10 per cent penalty applied to them (of the 100% available for that assignment). Submissions received 24-48 hours AFTER the due date and time indicated above will have a 20 per cent penalty applied to them (of the 100 available per cent for that assignment). Students or groups not handing in their submissions within TWO DAYS of the due date and time will receive a mark of zero on that assignment. Exceptions will be made in extraordinary circumstances (e.g., medical emergencies supported by documentation). Students anticipating that their assignment will be submitted late are encouraged to contact the course instructor at the earliest possible time to make arrangements.

NOTE ON DIGITAL SUBMISSIONS

Only digital submissions in MS-WORD or PDF will be accepted. Any other format will not be graded. All assignments must be submitted through Dropbox on the course website.

PROTOCOL FOR CONTESTING GRADED ASSIGNMENTS

Upon receipt of your graded assignment (all of which will be graded by our graduate TAs) should you wish to contest the grading of your assignment (outside of simple errors in the addition of marks) the following protocol must be followed:

1. Submit an email to the course instructor detailing why your assignment warrants a review. Please be sure to provide specific examples and justification as to why you feel your grade should be reconsidered. Be sure to include a copy of your graded assignment in the email.
2. The instructor will then review the stated reasons and then decide whether re-grading of the assignment is warranted.

3. Should the instructor deem that re-grading is warranted, the instructor will then ask the student whether they would like their assignment re-graded, recognizing that the student's grade could go up or down depending on the instructors' assessment.
4. The student can choose to either have the instructor go ahead with re-grading the entire assignment or stick with their original grade.

COURSE MATERIAL IS INTELLECTUAL PROPERTY FOR YOUR USE ONLY

All materials included in the course (e.g., PowerPoint slides) are made available digitally for your convenience, and are accessible through the LEARN course page. THIS IS NOT A RIGHT BUT A PRIVILEGE. Please note that the use of these materials is intended for students currently enrolled in ENBUS 306 only. As such, the distribution of pdf file, PowerPoint slides or any other media, either to individuals or to third-party websites (e.g., CourseHero) is strictly prohibited. If there is any evidence that students have distributed said materials, the instructor will remove posted materials, and cease posting intellectual property (e.g., PowerPoint slides) online and may pursue disciplinary action against the students in question.

ELECTRONIC COMMUNICATIONS

- Electronic communication with TAs and Course Instructors must be sent through your official UWaterloo email account. The instructor will not respond to any requests or messages sent via personal email accounts or social media.
- The instructor will try to reply to inquiries from students within two business days. Please ensure that you include a meaningful email subject and be sure to include your name. Queries made near the due dates of assignments or tests may not be answered.
- Make sure you consult the course outline/syllabus, LEARN and other course materials before submitting inquiries through LEARN.
- Laptop use in-class
 - Laptops, smart phones and tablets are permitted in class for course-related purposes only. Anyone who is distracting to other students for off-task activities (e.g. checking email, chatting, social media, non-course sites, playing on-line games, etc.) will be asked to leave the class.
- Devices should be silent in-class.

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.

University Academic Policies

INTELLECTUAL PROPERTY

Students should be aware that this course contains the intellectual property of their instructor, TA, and/or the University of Waterloo. Intellectual property includes items such as:

- Lecture content, spoken and written (and any audio/video recording thereof);
- Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides);
- Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and
- Work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

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. The University's guiding principles on academic integrity can be found here:

<http://uwaterloo.ca/academicintegrity>. ENV students are strongly encouraged to review the material provided by the university's Academic Integrity office specifically for students: <http://uwaterloo.ca/academicintegrity/Students/index.html>.

Students are also expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offense, or who need help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. Students may also complete the following tutorial:

<https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial>

When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline:

<https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-71>. Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance: <https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70>.

NOTE FOR STUDENTS WITH DISABILITIES

AccessAbility Services, located in Needles Hall, Room 1401, 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 accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.

MENTAL HEALTH

The University of Waterloo, the Faculty of Environment and our Departments/Schools consider students' well-being to be extremely important. We recognize that throughout the term students may face health challenges - physical and / or emotional. **Please note that help is available.** Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services <http://www.uwaterloo.ca/counselling-services> is an inclusive,

non-judgmental, and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

RELIGIOUS OBSERVANCES

Students need to inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

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. See Policy 70 - Student Petitions and Grievances, Section 4, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please contact your Undergraduate Advisor for details.

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) www.adm.uwaterloo.ca/infosec/Policies/policy72.htm

UNCLAIMED ASSIGNMENTS

Unclaimed assignments will be retained for until one month after term grades become official in Quest. After that time, they will be destroyed in compliance with UW's confidential shredding procedures.

COMMUNICATIONS WITH INSTRUCTOR AND TEACHING ASSISTANTS

All communication with students must be through either the student's University of Waterloo email account or via Learn. If a student emails the instructor or TA from a personal account they will be requested to resend the email using their personal University of Waterloo email account.

RECORDING LECTURES

- Use of recording devices during lectures is only allowed with explicit permission of the instructor of the course.
- If allowed, video recordings may only include images of the instructor and not fellow classmates.

- Posting of videos or links to the video to any website, including but not limited to social media sites such as: facebook, twitter, etc., is strictly prohibited.

WRITING AND COMMUNICATION CENTRE

The Writing and Communication Centre (WCC) works with students as they develop their ideas, draft, and revise. Writing and communication specialists offer one-on-one support in planning assignments, synthesizing and citing research, organizing papers and reports, designing presentations and e-portfolios, and revising for clarity and coherence.

You can make multiple appointments throughout the term, or you can drop in at the Library for quick questions or feedback. To book a 25- or 50-minute appointment and to see drop-in hours, visit uwaterloo.ca/wcc. Group appointments for team-based projects, presentations, and papers are also available.

Please note that communication specialists guide you to see your work as readers would. They can teach you revising skills and strategies, but will not change or correct your work for you.

Grading Expectations

SEED grading expectations. Consistent with SEED policy, assessments are designed to provide fair evaluation of undergraduate performance and avoid grade compression.

Grade (%)	Qualitative description	Expected distribution
90+	Exceptional – in the sense that grades above 90 should be the exception and granted only where the student performance clearly exceeds the course expectations and shows full mastery of the subject matter of the course	10-20%
85 -90	Outstanding – demonstrates excellence and an insightful grasp of the subject matter. Marks here should be awarded to students that clearly exceed the expected performance in the course relative to other students.	
80-85	Excellent – demonstrates a strong grasp of subject matter in all or most areas of the course and ability to produce work of consistently high quality	60-80%
75-80	Very good – demonstrates strong grasp of subject matter across most areas of course and good or satisfactory knowledge in others, as well as ability to produce work above expected level.	
70-75	Good – demonstrates good knowledge of fundamental concepts and satisfactory understanding of more advanced ideas within course. Has ability to produce work at required level.	
65-70	Satisfactory – demonstrates basic understanding of fundamental concepts within course, but lacks advanced understanding of application. Inconsistent quality of work, but overall at required level.	10-20%
60-65	Minimally satisfactory – student achieves minimum expectations in most areas, and produces work that rarely exceeds minimal requirements	
50-60	Marginal performance – student demonstrates superficial grasp of subject matter in many areas of the course.	
Below 50	Fail	