# SUSM 702 – Research Methods – Winter 2021

Course Instructor: Prof. Juan Moreno-Cruz [juan.moreno-cruz@uwaterloo.ca](mailto:juan.moreno-cruz@uwaterloo.ca)

Office Hours: After class and by appointment Class Meetings: TBA

Course Description: This course lays the foundations of relevant research in the social and environmental sciences. It deals with the assumptions and the logic underlying social research. It also covers some of the tools available for doing research, but not in detail. Students develop their own research projects and learn to evaluate empirical research.

Course Main Goal: When students are done with this course, they should be able to plan and execute their own research projects. To achieve this, students will:

* Describe the conceptual aspects of research methods
* Describe the process of conducting a literature review
* Compare and contrast the use of theory in qualitative, quantitative, and mixed methods research
* Recognize the elements of an introduction to a research study
* Draft a purpose statement
* Draft research questions and hypotheses
* Identify ethical concerns to anticipate in research
* Integrate knowledge of qualitative, quantitative, and mixed methods approaches into developing a research design

Expectations: In order to gain maximum benefits from this course, you should

1. Participate fully in class by

* + reading assigned material prior to class sessions
  + always attending class
  + contributing meaningfully to class discussions

2. Take responsibility for your own learning by

* relating course content and projects to your own professional interests
* monitoring your own understanding
* seeking clarification and assistance when necessary

3. Demonstrate respect and consideration for others by

* listening when others are speaking
* being present for the entire class period

### Books:

* J.W. Creswell and J. D. Creswell, *Research Design: Qualitative, Quantitative and Mixed Methods*, 5th Edition, Sage Publishing, 2018 **(C&C)**
* W.L. Belcher, *Writing Your Journal Article in Twelve Weeks*, 2nd Edition, University of Chicago Press, 2019
* M. Michalko, Thinkertoys: A Handbook of Creative Thinking Techniques, Ten Speed Press, Berkeley, 2006
* S. King, *On Writing*, Scribner New York NY, 2000
* S. Pressfield, *The War of Art: Break Through the Blocks and Win Your Inner Creative Battles*, Black Irish Entertainment, LLC. 2012
* E.R. Tufte, *The Visual Display of Quantitative Information*, Graphics Press Cheshire, Connecticut, 2001
* A. Saini, *Inferior: How Science Got Women Wrong-and the New Research That's Rewriting the Story*, Beacon Press, 2018
* A. Saini, *Superior: The Return of race Science*, Beacon Press, 2019
* M. Berg and B.K. Seeber, The Slow Professor: Changing the culture of speed in the Academy, University of Toronto Press, Toronto, 2016

### Course Requirements and Grading:

Students will write a journal article. Results will be presented orally to the class at the end of the semester. Several deliverables are expected as indicated below:

Deliverable 1: Topic, question, aims

Deliverable 2: Background and significance

Deliverable 3: Research design and methods

**Grade determination:**

Deliverables are each worth 25% (total 75%). Class participation is worth 25%.

The rubric for class participation is below:

|  |  |  |
| --- | --- | --- |
| **Below Expectations**  **(i.e. below 70%)** | **Meets Expectations**  **(i.e. 70-79%)** | **Exceeds Expectations**  **(i.e. 80%-100%)** |
| * Comments often not of a critical nature and do not demonstrate integration of material * Little evidence of integrated learning * Frequently absent from class/online discussions * No consistent or thought- provoking contribution * Unprepared for course activities/discussions discussions/activities * Provides little to no contribution to peer learning | * Comments and questions demonstrate some critical analysis * Effort made to build on the idea of others * Consistently shares ideas * Prepared for activities * Volunteers constructive contributions to discussion * Contributes to a supportive and learning environment (e.g. respectful of others, etc.) * Attends most seminars | * Facilitates discussion items that are insightful and stimulate the learning of others * Contributes relevant and interesting resources to the class (e.g. media, cases, articles) * Demonstrates critical reflection and makes connections between concepts * Consistent and ‘value- added’ presence both in class and online * Very well-prepared for in- class activities and review of peer work |

|  |  |
| --- | --- |
| Grade scale: | |
| A’s | Above 90% |
| B’s | Between 80%-90% |
| C’s | Between 60%-80% |
| D’s | Between 50%-60% |
| F’s | Below 50% |

### Note on Digital Submissions

Please submit your assignments to the appropriate Dropbox on Learn. By submitting an assignment to Learn, you are agreeing to the following:

* You have properly referenced and footnoted all ideas, words or other intellectual property from other sources used in the completion of this assignment.
* You have included a proper bibliography, which includes acknowledgement of all sources used to complete this assignment.
* The assignment was completed by your own efforts. You did not collaborate with any other person for ideas or answers (with the exception of any group project)
* This is the first time you have submitted this assignment or essay (either partially or entirely) for academic evaluation.

**University Academic Policies**

**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. Student 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 visit this webpage: <https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academicintegrity-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>

**RESEARCH ETHICS**: Please also note that the ‘University of Waterloo requires all research conducted by its students, staff, and faculty which involves humans as participants to undergo prior ethics review and clearance through the Director, Office of Human Research and Animal Care (Office). The ethics review and clearance processes are intended to ensure that projects comply with the Office’s Guidelines for Research with Human Participants (Guidelines) as well as those of provincial and federal agencies, and that the safety, rights and welfare of participants are adequately protected. The Guidelines inform researchers about ethical issues and procedures which are of concern when conducting research with humans (e.g. confidentiality, risks and benefits, informed consent process, etc.)’ (<http://www.research.uwaterloo.ca/ethics/human/> ).

**NOTE FOR STUDENTS WITH DISABILITIES:** AccessAbility Services, located in Needles Hall, Room 1401, (<https://uwaterloo.ca/accessability-services/> ) 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 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**: Please 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.

## Tentative Course Schedule

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| --- | --- | --- | --- | --- |
| Date | Topics we learn | Readings and Organization | Research Steps | Writing Steps |
| Jan 8 | Introduction to the course | Welcome  Introductions  Ground rules and expectations |  | Designing your plan for writing |
| Jan 15 | What’s research and how do we do it? | Part 1: Research Approach  Part 2: Scientific method and reproducibility crisis  Part 3: Ethics and biases  Readings: **C&C Ch. 1**; | What’s the subject of investigation? | Advancing your argument |
| Jan 22 | INDEPENDENT WORK | | | Abstracting your article |
| Jan 29 | What are you working on? | Part 2: The use of theory  Part 1: Research questions  Part 3: Thinking about thinking  Readings: **C&C Chapters 3-7**; **Superior; Inferior** | What question, problem, and/or puzzle am I trying to answer? | Selecting a Journal |
| Feb 5 | Doing the work | Part 1: The structure of research output and the introduction  Part 2: Literature review  Part 3: Thinking about writing  Readings: **C&C Chapter 2**; **The Slow Professor; Thinker Toys** | Whose research is mine in dialogue with, and how does it motivate my research? | Refining your works cited |
| Feb 12 | Research methods | Part 1: Quantitative methods  Part 2: Qualitative methods  Part 3: Mixed methods  Readings: **C&C Chapters 8-10** | What is my approach, methodology, and/or theory? | Abstracting your article |
| Feb 19 | READING WEEK | | | |
| Feb 26 | How to make presentations | Part 1: Latex  Part 2: PowerPoint  Part 3: How to make beautiful figures and graphs  Readings: **On Writing; The Visual Display** | What have I found (or hope to find) through my research? (results)  What do my findings help us understand? | Analyzing your evidence  Presenting your evidence |
| Mar 4 | Writing is what we do | Part 1: Tricks and things of that nature  Part 2: Staring at a white page [Group exercise]  Readings: **War of Art** | Why are my findings important, and/or how do they solve a problem? (significance) | Crafting your claims for Significance |
| Mar 11 | INDEPENDENT WORK | | | Strengthening your structure  Opening and concluding your article |
| Mar 18 | Presentations: We will exchange the presentations for one-on-one meetings over Skype. | | | |
| Mar 25 |
| Apr 1 |

Note: I will generally follow the above sequence. I may add or subtract topics.