



McGill University
Department of Kinesiology & Physical Education
EDKP 300 & 671 (3 credits)
Sex- and Gender-Specific Research in the Health Sciences
Winter 2024
Course Outline

Instructor

Charlotte Usselman, Ph.D. (she/her)
Currie Memorial Gymnasium
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Office hours: TBD

Lecture Schedule

Tuesdays and Thursdays, 3:35 – 4:55pm, Currie Gymnasium, Room 304

COURSE OVERVIEW

This course investigates the influences of sex and gender on health sciences-related outcomes. Students will improve their understanding of the definitions of “sex” and “gender” as they gain a broad understanding of studies examining a range of issues including but not limited to: sex differences in health-related outcomes, sex-specific health outcomes (e.g. female-specific conditions such as pregnancy and polycystic ovary syndrome), and outcomes affected by gender identity (including cisgender, transgender, and nonbinary genders) and gender-related variables. This course allows students to broaden their understanding of topics of interest through self-directed critical analysis of original, peer-reviewed, published research studies while developing their abilities to understand, interpret, present, and critique research findings.

LEARNING OUTCOMES

- By the end of this course students will have developed fluency in research related to the study of sex and gender, and the implications of sex and gender as determinants of health outcomes.
- Students will develop their skills in the reading, understanding, synthesis, and presentation of peer-reviewed research in the health sciences.
- Students will also develop their skills in the objective interpretation and critique of research methods and study designs (i.e. peer review).
- Finally, students will gain experience in discussion and debate centred around health sciences research.

COURSE STRUCTURE

This is a self-guided course focused on research in the health sciences. Students are expected to develop and broaden their scientific expertise, working independently to make use of peer-reviewed scientific resources available to them. While the instructor will provide guidance on the selection of topics and creation of presentations, this is not a lecture-based course.

INSTRUCTIONAL METHODS

1. All assessments will take place in person during class (i.e. synchronous).
2. Students will be required to work independently to find, read, understand, and synthesize peer-reviewed scientific literature. In-class work periods will help students develop these skills.
3. Assessments are presentation-based, and include peer evaluation.
4. To facilitate 1-3 above, including the peer evaluation of all presentations in real time via MyCourses, all students must arrive to every class with a charged laptop/tablet.

COURSE RESOURCES

Students are expected to access peer-reviewed scientific research articles through the PubMed database to support their work.

<https://proxy.library.mcgill.ca/login?url=https://www.ncbi.nlm.nih.gov/pubmed?otool=icamuhslib>

COURSE EVALUATION

| | |
|--|-----|
| Beginning of semester reflection | 5% |
| Article Podium Paper Presentation | 15% |
| Scientific review of paper presentations | 10% |
| Seminar Presentation | 35% |
| Scientific review of seminar presentations | 15% |
| End of semester reflection | 10% |
| Attendance and Participation..... | 10% |

BEGINNING OF SEMESTER REFLECTION (weight: 5%)

Deadline: 3:30pm, Thursday, January 18th

Students will write a **2-3 page** (double spaced, 12-pt Times New Roman font, 1" margins) reflection regarding the upcoming course. No scientific references should be included; this reflection should summarize the student's current state of understanding of sex- and gender-specific research in the health sciences, as well as any expectations or apprehensions that the student may have about the upcoming course (related to sex and gender content, oral presentations, and/or scientific review). All reflections will be reviewed confidentially by the instructor, and thus students should feel comfortable expressing themselves honestly.

Full marks will be given to writings which demonstrate personal reflection and introspection regarding the student's current knowledge and assumptions of sex and gender and associated research in the health sciences, as well as the various components of the course.

CHOICE OF TOPICS

Ideally, students will choose different topics for their two presentations in order to broaden their expertise as it pertains to sex- and gender-specific research. Students are likewise encouraged to choose topics outside of their own thesis-based research activities (if any).

Students should optimize in-class work periods and instructor office hours to obtain assistance in choosing, honing, and finalizing their presentation topics and presentations.

READINGS

Readings in support of paper and seminar presentations will be distributed via email and/or MyCourses by presenters in advance of their presentation to allow assigned peer reviewers time to prepare adequately:

- Article podium paper presentations: at least 2 days prior to their presentation
- Seminar presentations: at least 1 week prior to their presentation

While scientific reviewers will play key roles in the prompting of discussion following presentations, **all students are expected to have thoroughly read and personally critiqued all articles prior to attending class** in order to (a) allow them to actively take part in post-presentation discussions, and (b) broaden their expertise in sex- and gender-specific research. Students are encouraged to seek out additional related readings to advance their understanding of fields of research and methods.

SCIENTIFIC REVIEWS (cumulative weight: 25%)

Specific students will be designated as “scientific reviewers” in advance of each presentation. These students will play a role similar to peer reviewers during the manuscript review/publication process.

They will be expected to ask the presenters probing questions related to (not an exclusive list): potential limitations related to methods (e.g. study design, experimental methodologies, statistical analyses), clarification questions regarding relevant pathways/mechanisms, implications of findings, etc. Students should keep in mind that the role of a peer reviewer is to check and enforce the presence of scientific rigor. Thus, questions are expected to challenge the assertions of the presenter while maintaining a respectful and collegial environment.

Preparation for **scientific review of paper presentations** will include multiple readings of the article being presented as well as reading of other related/pertinent articles in order to prepare 2-3 *brief* questions (can include follow up questions) to be delivered to the presenter. Estimated time to prepare: ~2-6 hours each

Preparation for **scientific review of seminar presentations** will include familiarizing oneself with the field of research, including reading of articles disseminated by the presenter and other related/pertinent articles in advance of the presentation. At least 3 questions should be prepared to challenge the presenter. Estimated time to prepare: 3-8 hours each

Grades will be comprised of evaluation by the instructor only. Grades will be assigned out of 10 for scientific reviews of paper presentations, and out of 15 for scientific review of seminar presentations. Each student will be required to perform multiple scientific reviews of each type of presentation over the semester; final grades for each type of review will be comprised of the average grade. (e.g. A student who performs 2 scientific reviews of paper presentations and receives respective grades of 6/10 and 8/10 will receive a final grade of 7/10 for their scientific review of paper presentations.)

Scientific reviews should include the following (each weighted equally):

1. Evidence of critical thinking and independent thought (i.e. potential limitations of the study are not simply copied out of the limitations section of the discussion of the paper(s), but rather demonstrate independent thought by the reviewer)
2. Evidence of knowledge beyond that contained within the article(s) being presented (i.e. it is clear that the reviewer has read related/pertinent articles to inform their questions)
3. Questions delivered in an organized, respectful, and collegial manner.

ATTENDANCE AND PARTICIPATION (weight: 10%)

Attendance at all classes is mandatory. Absences must be excused in advance by the instructor. Unanticipated absences must be addressed as soon as possible by the student in order to avoid penalty. 1% will be deducted from the total (i.e. 10%) for each unexcused absence. Note that arriving late may also result in deductions from the total when disruptive and/or repeated over time.

The quality of student participation (both during discussions, i.e. when not acting as peer reviewer, and in comments submitted in grading rubrics) will be tracked by the instructor and will be incorporated into the final attendance and participation grade at the instructor's discretion.

END OF SEMESTER REFLECTION (weight: 10%)

Deadline: 3:30pm, Thursday, April 4th

Students will write a 3-5 page (double spaced, 12-pt Times New Roman font, 1” margins) reflection summarizing their experience in the course. Scientific references can be included (list of references excluded from page limit) to support particularly poignant studies which informed/changed the student's outlook on sex- and gender-specific research. This reflection should follow up on the beginning of semester reflection to describe areas of growth, difficulty, or flux which occurred over the semester related to content (i.e. sex- and gender-specific research) and the course components (i.e.

oral presentations, scientific review, etc.). All reflections will be reviewed confidentially by the instructor, and thus students should feel comfortable expressing themselves honestly.

Full marks will be given to writings which demonstrate personal reflection and introspection regarding the student's gained knowledge in sex and gender and associated research in the health sciences, as well as fluency in the preparation and delivery of oral presentations and in scientific review.

ARTICLE PODIUM PAPER PRESENTATION (weight: 15%)

Students will work individually to research and prepare an article podium paper-style presentation as they would when presenting their own work in a symposium at a research conference. Each student will choose an original peer-reviewed article (NO review articles or meta-analyses) which focuses specifically on the impact of sex or gender on health outcomes (*N.B.*: this can include articles which study of sex-specific and gender-specific conditions). Estimated time to prepare: 10-15 hours

Duration: 10 minutes + 5 minute discussion period (**duration of presentation/discussion periods may be extended, pending changes to enrolment*).

Presenters must submit their final PPT presentation file on MyCourses at least 24 hours prior to their presentation.

All grades will be comprised of peer evaluation (30% of the final grade) and evaluation by the instructor (70% of the final grade).

| Component | Weight | Details |
|-----------------------------|--------|--|
| Introduction to the subject | 15% | Introduces the audience to the specific subject of the research paper, including the current state of the research field. |
| Research question | 5% | Research question addressed in the paper is clearly identified and connected to the introduction. Hypothesis is clear, explicitly stated, and logical. |
| Methods | 10% | Key methods are clearly described. Note that article podium paper presentations <i>do not allow for the description of ALL methods employed in a research study</i> . Only the methods required to understand the key findings of the paper should be described. |
| Results | 20% | Findings of the study are the emphasis of the presentation (take up the bulk of the time). Visual aids are clearly described, including explanation of all components (i.e. figure axes, legends, statistics, etc.). |
| Conclusion | 10% | Summarizes the implications of major findings, including potential/future implications. |
| Slides | 10% | Slides include clear captions/labels/symbols to make slides easier to follow, incorporate strong visual evidence (e.g. hi-res images), and credit sources. Slides are readable from a distance and have a consistent look and feel. Number of slides is appropriate (e.g. ~1 slide/minute). |
| Delivery | 10% | Presenter keeps voice and volume clear, uses technology appropriately (e.g. no overuse of laser pointer/animations), utilizes transitions between sections of content, and defines key terms throughout the presentation. Presenter fosters an inclusive environment (i.e. considers multiple perspectives, identities, disciplines, and backgrounds). |
| Time | 10% | 1% deducted for exceeding time limit. 1% deducted for every 15s over the time limit thereafter up to 90s (after which presentation will stop). |
| Questions | 10% | Presenter demonstrates understanding of the paper, including merits, shortcomings, and alternative interpretations of findings. |

SEMINAR PRESENTATION (weight: 35%)

Students will work individually to research and prepare a seminar-style presentation as they would as an independent researcher invited to present their own field of study in a symposium at a research conference. Each student will choose a topic which focuses specifically on the impact of sex or gender on health outcomes (*N.B.*: this can include topics which address sex-specific and gender-specific conditions). Presentations should include the findings of at least 3 different peer-reviewed original research papers (NO review papers or meta-analyses); note that papers can come from different labs/research groups. These presentations should follow a similar format as the paper presentations, with the following key differences: presentation is guided by an overarching research question which leads to multiple specific research questions and hypotheses; less focus on specific methods (key methods are only addressed when needed to understand findings), more focus on developing an overarching narrative/“story”. Estimated time to prepare: 15-25 hours

Duration: 18 minutes + 7 minute discussion period (**duration of presentation/discussion periods may be extended, pending changes to enrolment*).

Presenters must submit their final PPT presentation file on MyCourses at least 24 hours prior to their presentation.

All grades will be comprised of peer evaluation (30% of the final grade) and evaluation by the instructor (70% of the final grade).

| Component | Weight | Details |
|-----------------------------|--------|---|
| Introduction to the subject | 10% | Background information required to understand the field of research is explained. Key gaps to be addressed in the presentation are outlined. |
| Research question | 10% | Overarching research question is clearly stated, and is well-connected to the introduction. Specific research questions and hypotheses are delivered as applicable, and are clear, explicitly stated, and logical. |
| Findings | 25% | Findings of the study are the emphasis of the presentation (take up the bulk of the time). Key methods are summarized alongside their key findings as required. Visual aids are clearly described, including explanation of all components (i.e. figure axes, legends, statistics, etc.). Findings are presented in a logical order, telling an over-arching story. |
| Conclusion | 10% | Summarizes the implications of major findings, including potential/future implications. |
| Slides | 10% | Slides include clear captions/labels/symbols to make slides easier to follow, incorporate strong visual evidence (e.g. hi-res images), and credit sources. Slides are readable from a distance and have a consistent look and feel. Number of slides is appropriate (e.g. ~1 slide/minute). |
| Delivery | 10% | Presenter keeps voice and volume clear, uses technology appropriately (e.g. no overuse of laser pointer/animations), utilizes transitions between sections of content, and defines key terms throughout the presentation. Presenter fosters an inclusive environment (i.e. considers multiple perspectives, identities, disciplines, and backgrounds). |
| Time | 10% | 1% deducted for exceeding time limit. 1% deducted for every 30s over the time limit thereafter up to 90s (after which presentation will stop). |
| Questions | 15% | Presenter demonstrates understanding of the paper, including merits, shortcomings, and alternative interpretations of findings. |

COURSE SCHEDULE (*TENTATIVE)

| Date | Course content (*schedule is subject to change depending on enrolment) |
|---------------------|--|
| Thu., Jan. 4 | Course introduction |
| Tue., Jan. 9 | Guest paper presentation 1 (Yasmine Coovadia) / selection of presentation dates / work period |
| Thu., Jan. 11 | Guest paper presentation 2 (Jinan Saboune) / work period |
| Tue., Jan. 16 | Work period |
| Thu., Jan. 18 | Paper presentations |
| Tue., Jan. 23 | Paper presentations |
| Thu., Jan. 25 | Paper presentations |
| Tue., Jan. 30 | Paper presentations |
| Thu., Feb. 1 | Paper presentations |
| Tue., Feb. 6 | Paper presentations |
| Thu., Feb. 8 | Paper presentations |
| Tue., Feb. 13 | Guest seminar presentation (Dr. Karen Messing, UQAM) / work period |
| Thu., Feb. 15 | Work period |
| Tue., Feb. 20 | Seminar presentations |
| Thu., Feb. 22 | Seminar presentations |
| Tue., Feb. 27 | Seminar presentations |
| Thu., Feb. 29 | Seminar presentations |
| <i>Tue., Mar. 5</i> | <i>Winter Reading Break (no class)</i> |
| <i>Thu., Mar. 7</i> | |
| Tue., Mar. 12 | <i>(CWU away at a conference; class TBD)</i> |
| Thu., Mar. 14 | <i>(CWU away at a conference; class TBD)</i> |
| Tue., Mar. 19 | Seminar presentations |
| Thu., Mar. 21 | Seminar presentations |
| Tue., Mar. 26 | Seminar presentations |
| Thu., Mar. 28 | Seminar presentations |
| Tue., Apr. 2 | Seminar presentations |
| Thu., Apr. 4 | <i>(CWU away at a conference; class TBD)</i> |
| Tue., Apr. 9 | Seminar presentations (if necessary); course wrap-up |

PEER EVALUATION OF PRESENTATIONS

Immediately following the discussion periods of each presentation, students will log onto MyCourses to evaluate each presentation using the Surveys tool. Peer evaluations should be conducted in a thoughtful, critical, and collegial manner. Comments to support grades are encouraged, especially in the case of exceptionally strong grades (>85%) or exceptionally poor grades (<60%). Comments will be delivered to the presenters anonymously following class.

EQUITY, DIVERSITY, AND INCLUSION

The topics that we're covering in this class may be difficult, not just intellectually but emotionally. While it is expected that there will be rigorous discussion and even disagreement in the course of class discussions, students are asked to engage in discussion with care and empathy for the other members in the classroom. Students should aim to disagree (and support their point of view with credible, scholarly resources) without becoming disagreeable. In this class we will not shy away from the uncomfortable.

Students are encouraged to have the courage to experience the uncomfortable in this class. In exchange for this courage, the instructor will work to ensure a classroom environment that supports the taking of these intellectual and emotional risks. The instructor welcomes all students as academic partners.

ACADEMIC INTEGRITY

McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/students/srr/honest/ for more information).

L'université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site www.mcgill.ca/students/srr/honest/).

LEARNING SUPPORT RESOURCES

Consult resources from [Teaching and Learning Services](#) (TLS) on topics such as time management, study strategies, group work, exam prep, and more. TLS also offers opportunities to connect with an academic peer mentor through [Stay on Track](#) and to attend workshops. For further individualized support check out the programs and resources from [Student Accessibility & Achievement](#).

Workload management skills: If you are feeling overwhelmed by your academic work and/or would like to further develop your time and workload management skills, don't hesitate to seek support from [Student Services](#).

ADDITIONAL STATEMENTS

- ✓ The [University Student Assessment Policy](#) exists to ensure fair and equitable academic assessment for all students and to protect students from excessive workloads. All students and instructors are encouraged to review this Policy, which addresses multiple aspects and methods of student assessment, e.g. the timing of evaluation due dates and weighting of final examinations.
- ✓ As the instructor of this course I endeavor to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with Dr. Usselman and [Student Accessibility and Achievement](#), 514-398-6009.

- ✓ [Mercury course evaluations](#) are one of the ways that McGill works towards maintaining and improving the quality of courses and the student's learning experience. You will be notified by e-mail when the evaluations are available. Please note that a minimum number of responses must be received for results to be available to students.
- ✓ In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.
- ✓ **Basic needs:** If you have difficulty affording food or if you lack a safe and stable place to live, and believe that these circumstances may affect your performance in this course, I encourage you to contact the [Dean of Students](#), who can connect you with support services. If you feel comfortable doing so, please let me know as well so we can discuss how I can best support your learning.
- ✓ McGill University is on land which has long served as a site of meeting and exchange amongst Indigenous peoples, including the Haudenosaunee and Anishinabeg nations. We acknowledge and thank the diverse Indigenous people whose footsteps have marked this territory on which peoples of the world now gather.
- ✓ **Respect:** The University is committed to maintaining teaching and learning spaces that are respectful and inclusive for all. To this end, offensive, violent, or harmful language arising in course contexts may be cause for disciplinary action.
- ✓ **Sustainability:** McGill has policies on sustainability, paper use, and other initiatives to promote a culture of sustainability at McGill. See the [Office of Sustainability](#).
- ✓ **Wellness:** Many students may face mental health challenges that can impact not only their academic success but also their ability to thrive in our campus community. Please reach out for support when you need it; [wellness resources](#) are available on campus, off campus, and online.