

SPPH 534
Advanced Topics in Occupational and Environmental Health
MSC OEH Capstone

Syllabus January – April 2020 - DRAFT

UBC School of Population and Public Health

Course Description

Advanced topics course designed with three main objectives:

- Cover topical and emerging content not covered in foundational or elective courses e.g., burden of disease, occupational health and safety management systems, psychological health at work, environmental health impact assessments, One Health
- Integrate and synthesize key OEH competencies in preparation for graduation, practice and certification
- Conduct an applied research project in an area of OEH that integrates current research with the aim of developing recommendations that would improve occupational or environmental health.

This course is a required course for MSC OEH MSc project students effective Sept 2018 entry and replaces the current comprehensive exam. The course is a graduate seminar exploring advanced or new topics in occupational and environmental health. While some topics will be covered every year, some course content will vary from year to year depending on student and instructor interest. Readings for each class will be selected, in some cases with student input, at least two weeks in advance of a class. Classes will be discussion oriented and focus on activities that emphasize the practical application of course content.

Prerequisites: SPPH 502 Epidemiological Methods; SPPH 535 (3) Principles of Occupational and Environmental Hygiene; SPPH 522 (3) Topics in Environmental Health (may be taken concurrently); SPPH 567 or an equivalent statistics or quantitative course is strongly recommended.

Maximum enrolment: 15 students (Hard cap)

Course admission is restricted to MSC OEH project students; other students may be admitted subject to completing course prerequisites and enrollment space. Equivalencies for course prerequisites may be granted based on the course instructor's assessment.

Instructor(s):

Michael Brauer, ScD, Professor
School of Population and Public Health
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Office Hours: By appointment

Anya Keefe, MSc

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Evaluation

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| 1) Capstone proposal (Due January 24 th) | 10% |
| 2) Capstone literature review and policy scan
(Due March 3rd) | 25% |
| 3) Student-led presentation, discussion and in-class activity (as scheduled) | 25% |
| 4) Final capstone project (Due April 7 th) | 40% |

IMPORTANT

Each written assignment is to be emailed to the course instructor on time and on the designated due date. Assignments submitted later than the due date will be penalised 10% of the possible grade for each calendar day past due. Extensions of the due date for the written assignments will only be considered pending extenuating circumstances

Students are expected to know what constitutes plagiarism, that plagiarism is a form of academic misconduct, and that such misconduct is subject to penalty. Please review the Student Discipline section of the UBC Calendar (available on on-line at www.ubc.ca).

DRAFT Class Schedule (Topics and guest lectures will vary from year to year depending on student and instructor interest)

Date	Topic / Exercise
Jan 7	Occupational and environmental hygiene competencies; introduction to course
Jan 14	Work as a determinant of health / burden of disease
Jan 21	Applied occupational epidemiology (problem solving exercise)
Jan 25	CAPSTONE PROPOSALS DUE
Jan 28	Systems approaches in environmental, occupational and public health.
Feb 4	Occupational health and safety management systems
Feb 11	Occupational surveillance (OH/EH surveillance): Exercise: Submit response to public consultation of OEL review ?
Feb 18	Reading Break
Feb 25	RTW and work disability management

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Mar 3	CAPSTONE LITERATURE REVIEWS / POLICY SCANS DUE
March 3	Workers compensation policy and regulation. DEBATE: Is regulatory compliance the goal(?)
March 10	Business ethics/professional standards
March 17	Labour relations/occupational medicine (TBD); Disaster management/Exposure control plan
March 24	Program and economic evaluation
March 31	Precarious work and how to encompass in OH&S policy
April 7	Workplace psychological health; psychological safety standard; debrief and evaluation?
April 7	FINAL CAPSTONE PROJECT DUE

*Brauer away

Capstone Presentations to OEH faculty – scheduled for week of April 14th ??? (April 9??)

Assessments Detail:

Capstone proposal January 25nd (10%)

Two – three page proposal (about 1000 words) outlining your proposed capstone project. The proposal needs to have the following.

- 1) Objectives/Problem statement – What is the occupational or environmental health issue to be addressed
- 2) How and to what extent will the capstone project demonstrate proficiency and synthesize of key OEH competencies.
- 3) Methods and approach. How and in what ways will you meet your objectives
- 4) Resources and timeline. Project timeline project; what resources will you need or use (e.g., data?). Support or access to OEH faculty

Literature review/policy scan March 3rd (25%)

Six – eight page (2500-3000 words) review of current knowledge regarding your proposed capstone project. This would include both a summary of scientific literature but also current regulatory or workplace practices as appropriate. Scope can be clarified with instructor to ensure specificity. Review should be referenced and include tables and appendices summarizing findings or source material as appropriate.

Student led topics as scheduled (25%)

Groups of students (in groups of 2-3) will lead one half of a class session (1 hr 20 minutes). With input from the instructor, the students will:

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1. Identify the topic
2. Develop learning objectives
3. Identify and share readings or other learning resources
4. Provide a brief overview of topic (max 30 minutes)
5. Facilitate in-class discussion and/or other activities.

This assessment will be peer-reviewed. Rubric and assessment instructions will be provided in advance. Topics need to be chosen no later than January 28th. Readings should be identified two weeks in advance of scheduled class. Students are welcome to invite a guest speaker or resource person.

Capstone Project due April 7th (40%)

The capstone project will be individually negotiated as per the proposal. As such there are not specified requirements as to length or inclusion of specific components.

Students have latitude subject to instructor approval in choice of topic and approach to topic. That said the capstone project should clearly demonstrate proficiency in and synthesis of core OEH competencies. Capstone project may require the student to engage with an other faculty or workplace in order to access data or worksite to complete the project. Broad examples of capstone projects could include:

- 1) Conducting a risk assessment and developing a risk management plan
- 2) Secondary analysis and interpretation of occupational or environmental health data
- 3) Development of a specific intervention to improve health and safety in workplace
- 4) Development of an occupational health and safety management system for a given workplace
- 5) Conducting a cost-benefit analysis of workplace or environmental health intervention
- 6) Performing an environmental health impact assessment

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SPPH 534: Capstone literature review/environmental scan (25% of total grade)

Due March 3rd, 2020 by midnight via email to instructor. Either PDF or Word format is acceptable

Instructions and Rubric

Six to eight page (2500-3000 words) review of current knowledge regarding your proposed capstone topic. This would include both a summary of scientific literature but also current regulatory or workplace practices as appropriate. Scope can be clarified with instructor to ensure specificity. Review should be referenced and include tables and appendices summarizing findings or source material as appropriate.

Introduction (10 marks) - 2 to 3 paragraphs (400-500 words)

Clear statement of topic to be addressed. Clear definition of terms. Justification of scope of literature review and environmental scan (e.g., what jurisdictions are relevant for your review – BC, other Canadian provinces, Canada federally, other international jurisdictions).

Methods (10 marks) 2 to 3 paragraphs (500-600 words)

Describe your methods and selection and inclusion criteria for your literature review. What was your search approach (e.g., did you use Medline, Web of Science, Google Scholar)? How did you choose some articles over others (relevance, quality of research, recency of publication)? Description of search for environmental scan (regulatory agency websites, published governmental standards or practice documents).

As this is a relatively short paper, you will want to be clear on the scope of the research literature review. Some topics may have 100s of articles so you will want to identify key high quality articles, but ensure that they are balanced (i.e. if there is uncertainty in the science you will want to reflect this). You are encouraged to search for and use high quality systematic or other reviews in assisting your assessment.

Results (25 marks) 4 to 6 paragraphs (800-1100 words)

Concise presentation of results of literature review and environmental scan. You are strongly encouraged to use tables to summarize key findings (i.e., a table for your literature review and a table for your environmental scan). You will be assessed on the clarity and comprehensiveness of your results. The results section should be a straight forward summary of the current state of the literature and regulatory approaches (or other practices). You should not interject inference, discussion or opinion in this section.

Discussion (25 marks) 3 to 5 paragraphs (600-800 words)

Assessment and synthesis of findings. What is the strength (consistency/quality) of evidence from the review? What are limitations and biases? How well does the environmental scan of practices incorporate or reflect current science? Are there key differences across jurisdictions and what might that mean regarding occupational or environmental health?

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Conclusion (10 marks) 1 paragraph (up to 200 words)

Brief concluding paragraph that links the literature review and scan to your overall capstone project.

Language and Expression (20 marks)

Assessment of clarity and concision of written expression; logical development, coherence and flow of exposition; appropriate use of referencing.

Note: Suggested paragraphs and word counts for each sections are guidelines only and meant to help you in structuring the paper. Tables, figures and references do not count in the word limit.