SPPH 511 – Cancer Control and Epidemiology

Syllabus – Winter 2018

Purpose:

- To acquire an understanding of the current evidence regarding the etiology of cancer
- To acquire an understanding of current issues and directions in cancer control
- To be able to review and critically appraise epidemiologic studies of cancer
- To develop an understanding of cancer control research, and cancer control programs including prevention, screening, and early detection
- To gain an understanding of economic, quality of life and ethical issues in cancer control

Coordinators: Dean Regier, Tel: 604-675-8000 ext 7079, email: dregier@bccrc.ca
John Spinelli, Tel: 604-675-8055, email: jspinelli@bccrc.ca

Schedule: Monday 1:30 – 4:30 pm, January 8 - April 6
(No classes: February 12, February 19, April 2)

Location: 8th Floor Seminar Room, BC Cancer Research Centre
675 West 10th Avenue, Vancouver

Prerequisite: SPPH 502 or equivalent

Evaluation:		
	Final Research paper (topic to be chosen by February 26th)	50%
	One written assignment during the course	25%
	Class Reflections	10%
	Class presentation on reading	10%
	Attendance and participation	5%

Final Paper See information at the end

Written Assignment
An assignment will be given at the end of the first lecture to be due by start of class on **Monday February 5th**.

Class Presentations
There will be a selection of readings assigned for each lecture topic. At each lecture, two or three students will present an article in journal club format, in their session.

Reflections:
Students will write three take-home messages they received from each session's presentation and discussion. Each student will submit her/his three take-home messages from the lecture by the end of the same day: Each reflection will contribute to 1.5% of the mark up to a maximum of 15 marks.

Attendance
Students are expected to attend all classes having reviewed the assigned readings. A mark is awarded for each session prepared for and attended up to a maximum of 10 marks.

Lecture Schedule

Date	Lecture Title/Description	Leader
Week 1	**Introduction to Cancer Epidemiology (January 8, 2018)**	**Woods**
	• review of expectations, course format and evaluation (Regier) • overview of cancer epidemiology (Woods/Spinelli)	
Week 2	**Cancer Biology (January 15, 2018)**	**Rosin**
	• basic tissue structure and genetics • cancer promotion and progression	
Week 3	**Environment and Cancer (January 22, 2018)**	**Dummer**
	• relationship between cancer and environmental exposure • cancer prevention through community knowledge translation	
Week 4	**Genetic Cancer Epidemiology (January 29, 2018)**	**Brooks-Wilson**
	• haplotypes and linkage disequilibrium • establishing genetic etiology (twin, family history and association studies) • candidate gene and Genome-Wide Association Studies (GWAS)	
Week 5	**Skin Cancer Epidemiology (February 5, 2018)**	**Lee**
	• disease detection and follow-up • imaging and early detection	
Week 6	**Family Day (February 12, 2018)**	

Date	Lecture Title/Description	Leader

Week 7 Reading Week (February 19, 2018)

Week 8 Nutrition and Cancer (February 26, 2018) **Di Sebastian**

- association between cancer and nutrition
- challenges in dietary assessment and analysis

Week 9 Physical Activity and Cancer (March 5, 2018) **Campbell**

- association between physical activity, sedentary behavior and cancer risk
- measurement of physical activity and sedentary behavior in epi studies

Week 10 Cancer Survivorship (March 12, 2018) **McBride**

- issues in cancer survivorship
- implementation and evaluation of cancer survivor programs

Week 11 Cancer Screening and Early Detection (March 19, 2018) **Coldman**

- components of an effective screening program evaluation (sensitivity and specificity)
- issues in planning cancer screening

Week 12 Economic Evaluation and Cancer Control (March 26, 2018) **Regier**

- economic issues in cancer control
- economic evaluation and cancer control programs

Week 13 Easter Monday (April 2, 2018)

SPPH511 Research Paper

The SPPH511 research paper can be on any subject related to the topics in the syllabus, to be approved by the course co-coordinators. Many students choose a topic that is related to their previous or current work in cancer. However, others chose to address a topic of interest that comes up during the course.

The research paper should follow the usual structure for an essay or short dissertation. For example:

- definition and scope of the topic (research question/hypotheses);
- approach to the topic - literature, survey, statistics, etc. (methods/data);
- findings (results); and,
- recommendations and conclusions (discussion/conclusion).

Students are encouraged to choose a research topic that is of interest/relevant to their work/studies, but this is not required.

Students should email their **proposed topic/research question** to the course coordinators by **Monday February 26, 2018**.

Here are some guidelines for preparing your paper:

- Papers must be typed double-spaced maximum 10 pages (excluding references, tables and figures). Use "Times New Roman" font 12.
- Articles should be written in clear English (terminology and abbreviations not consistent with internationally accepted guidelines should be avoided).
- Number the references in the order of their first mention in the text; cite only the number assigned to the reference.
- reference style follows that of the Uniform Requirements for Manuscripts Submitted to Biomedical Journals, which can be found on the website of the National Library of Medicine www.nlm.nih.gov/bsd/uniform requirements.html

Marking is based on relevance, originality, content and style.

Research papers must be submitted to the course coordinators by Monday April 9, 2018.

Below are some examples of previous topics/research questions:

- The Molecular Epidemiology of Breast Cancer
- Cervical Cancer: Aim Towards Reducing the Global Disease Burden Through Primary Prevention based on Environmental and Genetic Risk Factors
- Reaching the Underserved: A Review of Cervical Cancer Screening for Vulnerable Populations in Canada
- Sunlight exposure and Lung Cancer Survival in British Columbia
- An Overview of Environmental Risk Factors for Non-Hodgkin Lymphoma
- Disparity in Cervical cancer screening among visible minority women in Canada
- Improving Cancer Primary Prevention through Exposure Surveillance of Environmental Carcinogens in Canada
- Hormone Replacement Therapy and Breast Cancer in Postmenopausal Women: A Critical Evaluation of the Women's Health Initiative
- Colorectal Cancer: Genes and Lifestyle
- Epidemiological review of malignant glioma in Canada
- Association of cholangiocarcinoma and hepatitis c virus infection: A systematic review of epidemiological studies