



HH/GH KINE 4720 3.0
Secondary Prevention of Heart Disease:
Cardiac Rehabilitation in a Global Context

Prerequisites: HH/NURS 3515 3.00 or HH/KINE2049 or HH/IHST 2100

Course Webpage: moodle.yorku.ca

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Teaching Assistant:

Office Hours for In-person Communication: Wednesdays 3-4 pm (please note some exceptions in the schedule below as I do have some research-related travel)

*If you have a conflict during these scheduled office hours, I am happy to arrange another appointment with you via email. Please do not drop by without arranging an appointment first, as I may be at my hospital office.

Expanded Course Description: This course provides an in-depth examination of the prevention and management of cardiovascular disease from a health services and global lens. It is designed to provide an overview of the primary topics in cardiac rehabilitation, and emphasizes both research approaches and application. In addition to learning the content area, the purpose of the course is to promote critical thinking about health services, and expression of ideas through written and oral means.

Class Format: Each class there will generally be a brief formal lecture according to the course schedule as outlined below. The lectures will be interspersed with extensive student discussion of the readings and lecture material, and brief videos to exemplify key concepts. Some classes will be delivered by invited speakers, to provide clinical or experiential perspectives on the course content. Powerpoint files of the lecture material can be found on moodle. Some classes will be held on the web via Zoom.

Required Readings/Supportive Materials: See PDF articles or links in Moodle, which correspond to those listed in the weekly outline below.

Evaluation:

	% of Total Grade	Date Due

Mid-term exam	30%	
Take-home final exam	60%	
Class Participation	10%	

This course is optimized by student participation. Some of the best learning in the course can come from discussion. **Class participation** grades will be based on participation in class discussion (I will notate) or online (see Moodle Topic 2 “reflecting on the readings”; These would have to be *posted before class on Thursdays*). Each week there are assigned readings, and you can contribute to the class by sharing:

- What did you learn?
- Why is it important?
- How does the material relate to your life?
- What questions do you now have about the topic?

The **mid-term examination** will be held during class time. Questions will be drawn from lecture material and course readings. The format of the exam will consist of 10 short answer essay questions, each worth 5 points. Point form is not acceptable on the midterm examination, to promote writing skills. These questions do require some memorization of course content, but they are constructed to test your knowledge of general course content (i.e., no need to memorize statistics).

The **final exam** will be a take-home test. The format of the questions will be essay questions which require synthesis and application of course material to promote critical thinking. The content of the exam will cover course material from the entire term. You will be provided with 5 questions during the last lecture, along with instructions to answer 4 of the 5 questions.

Learning Objectives:

After completing this course, students will be able to:

1. Understand and appreciate the dynamic nature of information in cardiac rehabilitation
2. Use appropriate academic terminology and notation when preparing and presenting information
3. Present ideas and arguments in a well-structured and coherent manner using appropriate communication formats
4. Be aware of the limits in knowledge and methodologies when analyzing, evaluating, interpreting and disseminating information
5. Evaluate information about cardiovascular rehabilitation this is disseminated via popular media and discipline-related journal articles
6. Identify areas for personal and professional development
7. Think independently, problem solve and set tasks
8. Have developed mutually-beneficial peer relationships for the purposes of networking and mentoring.

Tentative Course Schedule / Timetable

Week 1

May 9

Working as a Kinesiologist in the Cardiac Rehab Setting

Sign up for observation of CR satellite class in York U Track & Field Ctr on a Tuesday morning

Reading:

Core Competencies for Cardiac Rehabilitation/Secondary Prevention Professionals: 2010 Update: Position Statement of the American Association of Cardiovascular and Pulmonary Rehabilitation. Hamm, Larry F.; Sanderson, Bonnie K.; Ades, Philip A.; et al. *Journal of Cardiopulmonary Rehabilitation & Prevention*. 31(1):2-10, January/February 2011.

May 11

Introductions, Review of syllabus

Responsible Student Conduct in the Community

Refresher on the Heart

Worksheet: Facts about CVD

Readings/Supporting Materials: York University Student Code of Conduct (moodle topic 1); UHN Confidentiality form (moodle topic 2)

Week 2

May 16

What is Cardiovascular Disease?

Screening & Diagnosis of Heart Disease

May 18

Treatment of Heart Diseases

Reading:

European Guidelines on Cardiovascular Disease Prevention in Clinical Practice. Perk, J et al. 2012.

Week 3

May 23 – statutory holiday

May 25 – MIDTERM

Week 4

May 30

Introduction to Cardiac Rehabilitation

CR Benefits

Jun 1

Review of midterm

CR Under-Use & Interventions to Rectify

Readings:

1. Mampuya WM. Cardiac rehabilitation past, present and future: an overview. *Cardiovasc Diagn Ther* 2012;2(1):38-49. DOI: 10.3978/j.issn.2223-3652.2012.01.02
2. http://www.bacpr.com/resources/8BZ_BACPR_Standards_and_Core_Components_2012.pdf
3. *Eur J Prev Cardiol*. 2013 Aug;20(4):692-700. doi: 10.1177/2047487312447846. Factors influencing referral to cardiac rehabilitation and secondary prevention programs: a systematic review. Clark AM, King-Shier KM, Duncan A, Spaling M, Stone JA, Jaglal S, Angus J.

Week 5

Jun 6

Cardiac Rehabilitation Models

Reading:

Eur J Prev Cardiol. Alternative models of cardiac rehabilitation: a systematic review. Clark RA, Conway A, Poulsen V, Keech W, Tirimacco R, Tideman P. 2015; 22(1):35-74

Jun 8

CR in Special Populations: Ventricular Assist Devices

Reading:

1. Compostella, L., et al. A practical review for cardiac rehabilitation professionals of continuous-flow left ventricular assist devices. *Journal of Cardiopulmonary Rehabilitation and Prevention* 2015; vol 35, pp 301-311.

Week 6

Jun 13

Cardiac Rehabilitation Practice in a Global Context

Readings:

1. Turk-Adawi, K., Terzic, C., Bjarnason-Wehrens, B. & Grace, S.L. (2015). Cardiac rehabilitation in Canada and Arabic countries: Comparing availability and program characteristics. *BMC Health Services Research*; 15(1):521. DOI 10.1186/s12913-015-1183-7.
2. Turk-Adawi, K., Sarrafzadegan, N., & Grace, S.L. (2014). Global availability of cardiac rehabilitation. *Nature Reviews: Cardiology*, 11: 586-596. October.

Jun 15

Psychosocial Issues in CVD

Readings:

1. [Prog Cardiovasc Dis](#). 2013 May-Jun;55(6):511-23. doi: 10.1016/j.pcad.2013.03.010. Depression and cardiovascular disease. [Elderon L](#)¹, [Whooley MA](#)
2. [Prog Cardiovasc Dis](#). 2013 May-Jun;55(6):574-81. doi: 10.1016/j.pcad.2013.03.009. A global perspective on psychosocial risk factors for cardiovascular disease. [Neylon A](#)¹, [Canniffe C](#), [Anand S](#), [Kreatsoulas C](#), [Blake GJ](#), [Sugrue D](#), [McGorrian C](#).

Week 7

Jun 20

Wrap Up, Q&A

Take-home exam distribution

THANK YOU FOR YOUR CONTRIBUTIONS TO THE COURSE!