

MCMASTER UNIVERSITY
Department of Kinesiology

Kinesiology 4B03: Cardiovascular Disease Pathophysiology and Rehabilitation

Term: Term 1

Fall 2017

Instructor: Janet Pritchard, PhD

Office: IWC 219B

Telephone: 905-525-9140 ext. 20029

E-mail: prtcjm@mcmaster.ca

Office Hours: TBD

Lectures:

Monday 8:30-9:20am KTH B135

Wednesday 8:30-9:20am KTH B135

Friday 10:30-11:20am KTH B135

DESCRIPTION

This course explores the pathophysiology of cardiovascular diseases and evidence-based guidelines for its diagnosis, management, and rehabilitation.

OBJECTIVES

1. Describe the epidemiology of cardiovascular diseases in Canada.
2. Discuss the history of and rationale for cardiovascular rehabilitation in Canada.
3. Explain the pathogenesis of atherosclerosis and compare and contrast the importance of risk factors in its development.
4. Explain the evidence-based pathophysiology, diagnosis and treatment/rehabilitation of various cardiovascular diseases (i.e., acute coronary syndrome, myocardial infarction, heart failure, congenital heart diseases, peripheral vascular disease, arrhythmias).
5. Explain the risk factor concept and the use of risk factor algorithms, list traditional and emerging risk factors and apply the risk factor concept to cardiovascular disease cases.
6. Compare and contrast the prevalence and pathogenesis of cardiovascular diseases in women and men and in patients with type 2 diabetes.
7. Discuss the approaches to clinical exercise testing in patients with cardiovascular disease, and exercise applications for patients with cardiovascular diseases.
8. Compare and contrast the role of functional foods and natural health products (NHPs) for the prevention and management of cardiovascular diseases.
9. Create an informational product to increase awareness about cardiovascular diseases for a target population in the community.

REQUIRED TEXT(s)/READINGS

Students are required to purchase the custom course pack in the Bookstore. The custom course pack is a hard copy version of the reading list and questions to accompany the readings.

TOPICS TO BE COVERED

Week	Dates	Topics	Other details
1	Sept 6, 8	<ul style="list-style-type: none"> • Cardiovascular diseases overview • Review of cardiovascular system anatomy • Rationale for and history of cardiovascular rehabilitation 	
2	Sept 11, 13, 15	<ul style="list-style-type: none"> • Pathogenesis of atherosclerosis and hypertension 	
3	Sept 18, 20, 22	<ul style="list-style-type: none"> • Pathogenesis, diagnosis and treatment of: • Ischemic heart disease <ul style="list-style-type: none"> ○ Coronary artery disease ○ Acute coronary syndrome, angina ○ Myocardial infarction 	
4	Sept 25, 27, 29	<ul style="list-style-type: none"> • Pathogenesis, diagnosis and treatment of heart failure 	
5	Oct 2, 4, 6	<ul style="list-style-type: none"> • Pathogenesis, diagnosis and treatment of congenital heart disease and cardiomyopathies 	
Happy Thanksgiving! FALL MIDTERM RECESS (October 10-13, 2017)			
6	Oct 16, 18, 20	<ul style="list-style-type: none"> • Pathogenesis, diagnosis and treatment of peripheral vascular disease 	Midterm exam (week 1-5 content) Oct 20th @10:30am UH Room 213
7	Oct 23, 25, 27	<ul style="list-style-type: none"> • Pathogenesis, diagnosis, treatment of arrhythmias 	
8	Oct 30, Nov 1, 3	<ul style="list-style-type: none"> • Emerging risk factors for cardiovascular diseases 	
9	Nov 6, 8, 10	<ul style="list-style-type: none"> • Cardiovascular disease in patients with other chronic diseases 	Assignment due November 10th @ 10:30am
10	Nov 13, 15, 17	<ul style="list-style-type: none"> • Cardiovascular disease in women 	
11	Nov 20, 22, 24	<ul style="list-style-type: none"> • Functional foods, natural health products for cardiovascular diseases 	
12	Nov 27, 29, Dec 1	<ul style="list-style-type: none"> • Clinical exercise testing and prescription in cardiac rehab settings 	
13	Dec 4, 6	<ul style="list-style-type: none"> • Wrap-up 	

EVALUATION

Type	Details	Weight
1. iClicker participation	Questions administered during class	5%
2. Midterm exam	During class on October 20 th , UH room 2013 @ 10:30am	30%
3. Applied assignment	Due November 10 th @ 10:30am	25%
4. Final	Cumulative exam scheduled by Registrar	40%

NOTES ABOUT EVALUATION COMPONENTS

1. iClicker participation

This course will incorporate regular iClicker questions during class. Evaluation will be based on participation, not getting the question correct. Please register your iClicker using your MacID by the second week of class. It is your responsibility to bring your iClicker to class and ensure that it is working properly. If you forget your iClicker or don't have batteries for your iClicker, you will not be able to make-up the marks lost. Class absence notification in the format of MSAF or otherwise will not impact the iClicker evaluation, as there is a provision in the marking scheme for missed questions. Approximately 50 iClicker questions will be asked over the course of the term, with final assignment of marks determined using the following scheme:

90-100% of questions answered = 5%

80-89% of questions answered = 4%

65-79% of questions answered = 3%

50-64% of questions answered = 2%

35-49% of questions answered = 1%

<35% of questions answered = 0%

If you have questions about using iClickers, please check out the Bookstore FAQ page:

<https://campusstore.mcmaster.ca/information/faq/iclicker-faq.html>

To register your remote, please visit this website: <https://www1.iclicker.com/register-a-remote>

2. Midterm Exam

The midterm will cover content from Weeks 1-5. The format of the midterm exam will be multiple choice and will be 45 minutes in duration. The location of the exam will be announced in class and on Avenue. There will be no make-up exam for the midterm exam. If you miss the midterm due to illness or other reason, you must gain approval from the Associate Dean's office (BSB Room 129, or 905-525-9140 ext. 27590) to have the weight of the midterm exam added to your final exam.

Please visit the Associate Dean's website to view Policies, Procedures and Forms:

<https://www.science.mcmaster.ca/associatedean/current-students/procedures-forms.html>

3. Final Exam

The format of the cumulative final exam will be multiple choice and short answer. The exam will cover content from the entire course, however, there will be emphasis on the content that was not

covered for the midterm exam. The final exam will be 2 hours in duration and will be scheduled during exam period (Dec 8-21, 2017).

4. Applied Assignment

Please download the full assignment guidelines and rubric on Avenue.

POLICY REGARDING DEFERRED TESTS AND EXAMS

Students who miss a Registrar-scheduled final exam can apply to the Associate Dean's office for permission to write in the deferred final exam schedule. In all cases, appropriate documentation must be submitted to the Office of the Associate Dean, Faculty of Science, for consideration of deferred examination permission. Under no circumstances will the instructor re-schedule a final exam for individual students.

ACADEMIC INTEGRITY

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences (e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript reading "Grade of F assigned for academic dishonesty", and/or suspension or expulsion from the university). It is your responsibility to understand what constitutes academic dishonesty.

For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy: <http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf>

To view examples of Academic Dishonesty Offenses, visit this link: <https://www.mcmaster.ca/academicintegrity/students/whatis.html>

TURNITIN.COM

In this course, we will be using a web-based service (Turnitin.com) to reveal plagiarism. Students will be expected to submit their work electronically to Turnitin.com and in hard copy so that it can be checked for academic dishonesty. Students who do not wish to submit their work to Turnitin.com must still submit a copy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com (e.g., on-line search, etc.). To see the Turnitin.com Policy, please go to

<http://www.mcmaster.ca/academicintegrity/turnitin/guidelines.html>

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone (905) 525-9140 ext. 28652 or email sas@mcmaster.ca. For further information, consult McMaster University's Policy of Academic Accommodation of Students with Disabilities:

<http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf>

ON-LINE LEARNING RESOURCES

In this course, we will be using Avenue. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

USE OF COURSE MATERIAL

Course materials provided by the instructor are for use by students registered in this class only. Under no circumstances are these materials to be shared, posted or sold to a third party without permission from the instructor. This includes, but not limited to, online posting of instructor provided lecture/lab notes, online lectures, recordings of lectures, or any lab materials on a website other than the Avenue site designed for this course.

MODIFICATIONS TO COURSE

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

MCMASTER STUDENT ABSENCE FORM (MSAF)

If you are absent from the university for a minor medical reason, lasting fewer than 3 days, you may report your absence, without documentation, using the McMaster Student Absence Form. Absences for a longer duration or for other reasons (eg. Religious, personal) must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted. When using the MSAF, report your absence to Dr. Pritchard at prtcjm@mcmaster.ca. Then contact Dr. Pritchard immediately (normally within 2 working days) by email/telephone/in person to learn what relief may be granted for the work you have missed, and details such as revised deadlines, or time and location of a make-up work.

FEEDBACK

It really helps us improve our services when we hear from our students, faculty and staff about what we can do better. A feedback process brings to our attention situations in which we may not have adequately considered accessibility and allows us to better plan for accessibility in the future.