HTH SCI 3E03 Advanced Inquiry in Health Sciences: Genetics 2017-2018

Course Dates: Term II Winter semester, Jan 4 - Apr 9, 2018

Course Time: Tuesdays 2:30-5:20pm

Location: MDCL 3022 (except Jan 16, 2018 MDCL 2232)

Instructor

Viola Freeman

Associate Professor, Department of Pathology and Molecular Medicine

Email: freemanv@mcmaster.ca or Learnlink

Course Outlines

INHERITANCE GENETIC DISEASE, AND CANCER

An opportunity to explore broad range of concepts relating to human Genetic disorders with particular emphasis on genetic etiology, pathophysiology and clinical features, diagnostic criteria, management and treatment strategies, social and controversial issues that are related to health care.

COURSE OBJECTIVES/EXPECTATIONS

Goals and Objectives

1. Further develop skills in inquiry-based learning, including information gathering, integration and assessment of information from the scientific literature.

2. Gain broad understanding and applies key concepts in the field of human genetics disorders.

3. Increase knowledge and understanding of principles in genetics investigations.

4. Further develop skills in working co-operatively as a part of a peer group:

   - To gain self confidence in presentations
   - To contribute in a group-setting
   - To improve written and verbal communication skills
   - To intensify insight and critical thinking skills

5. Provide an opportunity for productive discussion of specific topics.
METHOD OF EVALUATION:

15% contribution to group objective setting (evaluated by facilitator)

50% presentations (evaluated by peers and facilitator)

15% contributions to group discussion (evaluated by facilitator)

20% reflection essay (evaluated by facilitator)

Scoring criteria on presentations

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<thead>
<tr>
<th>Content</th>
<th>▪ Insightful</th>
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<td>▪ Relevant material to course</td>
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<td>▪ Indicates thought and knowledge acquisition</td>
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<td>Clarity of presentation</td>
<td>▪ Organised, clearly explained and easy to follow</td>
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<td>▪ Presented in a logical and rational manner</td>
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<td>Understanding of material presented</td>
<td>▪ Demonstrated understanding and able to answer</td>
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<td>▪ questions and discussion</td>
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<td>▪ Enthusiastic/communicative/eye contact</td>
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<td>▪ Individual contribution to material and PowerPoint</td>
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<td>Non presenters participation</td>
<td>▪ Valid questions and appropriate comments</td>
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LearnLink

The course uses Learn Link for communications and posting of material. Access to LearnLink is required to take the course and students are responsible for monitoring LearnLink weekly for communications that are relevant to the course.

Course Format

The course is designed to include 5 biweekly topics:

First of the 2-week: introductory lecture of topic material, objectives setting and themes assignment of small group-based inquiry

Second of the 2-week: group presentations with class discussions

Reflection essay: individually written perspectives on a particular aspect (student’s choice).

The course will use small group-based inquiry to investigate fundamental concepts of genetics disorders. Groups will be assigned a total of five topics/syndromes to investigate. All students are expected full contribution to the process of objectives setting. Each group will investigate the following themes, (but not limited to) biological, etiology, technological, clinical, management, treatment, sociological, psychological, ethical, …..of these disorders. Each group will prepare a 15-20 mins presentation on each topic-theme, followup with group discussion on ethical issues and problems that arise with investigations.
In the final part of the course, each student will prepare a short perspective paper (3-5 pages, single space) on a relevant aspect of the course. The key points of the essay should be introspective, insightful and reflective.

Topics for discussion and exploration:

1. Sex-linked …Fragile X
2. LCR….Williams syndrome/Velocardiofacial syndrome (VCF)
3. Infertility…male and female/ Sex reversal
4. Autism spectrum disorders
5. Acquired hematological malignancies…myeloid and lymphoid leukemia

TENTATIVE SESSIONAL OUTLINE:

January 9, 2018  Introduction on course outline/format/evaluations/….
January 16, 2018  Topic (1)
January 23, 2018  Topic (1)
January 30, 2018  Topic (2)
February 6, 2018  Topic (2)
February 13, 2018  Topic (3), mid-evaluation
February 20, 2018  Study Week
February 27, 2018  Topic (3)
March 6, 2018  Topic (4)
March 13, 2018  Topic (4)
March 20, 2018  Topic (5)
March 27, 2018  Topic (5)
April 3, 2018  Reflection essay due in class, final evaluations
Written Work and Late Submissions:

All written work will be marked on grammar, clarity of writing, and organization, as well as content and analysis. More details about the marking scheme are posted on the course website. All essays must be properly referenced, with footnotes and a bibliography. Use the Turabian (Chicago) style for referencing; examples can be found at McMaster University Library-Guides or in Berkin and Anderson, chapter 11. Students are encouraged to visit the Centre for Student Development to improve their essay skills (MUSC B107; x24711). For information about the Writing Clinic and the Centre’s other services, visit the Centre’s website: http://csd.mcmaster.ca. Chapter 12 in Berkin and Anderson is also useful.

All written work must be submitted in tutorial, on the due date. Do not submit essays by email and do not slide them under the instructor’s door. Late assignments will be penalized 5% a day (weekends will count as one day). Late penalties will not be waived unless your Faculty/Program Office advises the instructor that you have submitted to that office the appropriate documentation to support your inability to submit the work by the due date.

Academic Integrity:

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “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 types of academic dishonesty please refer to the Academic Integrity Policy, located at http://www.mcmaster.ca/academicintegrity

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained

2. Improper collaboration in group work

3. Copying or using unauthorized aids in tests and examinations.

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. 2865 or e-mail sas@mcmaster.ca. For further information, consult McMaster University’s Policy for Academic Accommodation of Students with Disabilities.

At certain points in the course it may make good sense to modify the schedule outlined below. The instructor reserves the right to modify elements of the course and will notify students accordingly (in class and post any changes to the course website).