



**Learning Objectives: Upon completion of this course students will:**

- 1) Gain knowledge and understanding of different theories of fetal origins of adult diseases.
- 2) Gain knowledge and understanding of current research in the area of exercise during pregnancy for a low-risk pregnant population.
- 3) Gain knowledge and understanding of current research in the area of how exercise during pregnancy can prevent or be used to treat different disease states.
- 4) Engage in seminar discussions, present orally on a research paper to the class and to evaluate the research literature critically.
- 5) Create and implement an exercise and lifestyle intervention for active low risk pregnant individuals and pregnant individuals with disease risk.

**Topics for Discussion:**

- 1) The “Downside of Upright”
- 2) “Thrifty genotype” and “Thrifty phenotype” – developmental influences of adult diseases. DOHaD – Developmental Origins of Health and Disease.
- 3) DOHaD and adult diseases that may have origin from fetal life.
  - a. Cardiovascular disease
  - b. Obesity
  - c. Type 2 diabetes/Metabolic syndrome
- 4) Impact of exercise during pregnancy on chronic disease risk.
- 5) Importance of active living during pregnancy
  - a. *2019 Canadian Guideline for Physical Activity throughout Pregnancy* and the *Get Active Questionnaire for Pregnancy* – medical screening, exercise guidelines, and safety considerations for low-risk pregnant individuals
  - b. Promoting active living during pregnancy in low-risk individuals



- 16) Penkler et al. 2018. DOHaD in science and society: emergent opportunities and novel responsibilities. *J Dev Orig Health Dis* doi:10.1017/S2040174418000892.



any of the material posted to the course website.

#### 4. **Academic Considerations and Absences from Lectures and Assessments**

##### Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request (in writing) any necessary academic considerations at least two weeks prior to the holiday to the academic counsellors in their Home Department. Additional i

In the case of online tests and examinations, use of a "Conflict Room," wherein student can write two

circumstances that impact on a grade, steps 2 and 3 are carried out within a student's Home Department and Faculty.

A request for relief against a mark or grade must be initiated with the instructor as soon as possible