



## **RHSC 506D Clinical Considerations for Biosensors in Health (Care Space Placement)** **(note this is from the 2023 cohort and some details will change from year to year)**

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<b>INSTRUCTORS:</b>	Janice Eng/Teresa Liu-Ambrose	<b>COURSE OFFERED:</b>	Fall
<b>OFFICE HOURS:</b>	By appointment	<b>CREDIT VALUE:</b>	1

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### **I. COURSE DESCRIPTION**

In this course, students will develop fundamental knowledge about today's health care system and health care research to understand the potential application of biosensors in health care. The course will overview key principles of the Canadian health care system; fundamentals of health care research; integrate patient perspectives of their priorities; and utilize clinical visits to identify potential applications for biosensors in the health care setting. Clinical considerations will be framed within examples and applications of biosensors. This course is limited to students of the Care Anywhere Training Program.

#### **Course Goal**

Successful completion of this course will ensure that students understand the foundational principles of today's health care system and health care research, as well as identify potential biosensor applications to improve the health care system.

### **II. COURSE OBJECTIVES**

Upon completion of this course, students will be able to:

- 1 Describe the Canadian Health Care system in relation to the Canada Health Act; cost and acute/preventative care.
- 2 Describe the World Health Organization International Classification of Functioning
- 3 Describe the levels of evidence in health research
- 4 Describe patient-oriented research and knowledge translation
- 5 Discuss equity, diversity and inclusion issues in health research
- 6 Identify biosensor applications and their relevance to the above #2-5

### **III. METHOD OF INSTRUCTION**

*September - December*

Lecture / Laboratory classes: Select Tuesdays\* at 8-11 or 9-12 pm

*\*Some exceptions apply. Observational visits will be booked on Tuesday mornings when possible, but may need to be on other days depending on the facility's availability. Travel to the local sites will be required.*

Lecture 1: Health Care System and Health Care Research and relevance to biosensors  
Robert Ho, 7<sup>th</sup> floor Conference Room.

Lecture 2: Previsit lecture to Fall Prevention Clinic and aging concepts  
Robert Ho, 7<sup>th</sup> floor Conference Room



Observational Visit 1: Interaction with people with lived experience with stroke, spinal cord injury and history of falls/post hip fracture (interactive discussion)

Robert Ho, 5<sup>th</sup> floor, Exercise Prescription Suite

Observational Visit 2: VGH Fall Prevention Clinic. 828 W 10th Ave (Research Pavilion).

Observational Visit 3: GF Strong Rehab Centre 4255 Laurel Street.

Observational Visit 4: UBC Physical Therapy Clinic, 2nd floor Friedman Building  
Clinic visit to gain an understanding of people living with neurological conditions

November (2 days). Final presentations from students (will be combined with the Engineering in Scrubs students). Robert Ho, 5th floor.

Classes will combine lecture and discussion based components. The clinical visits will be observational and discussion with clinical experts, as well as with people with lived experience.

#### IV. REQUIRED READINGS

1. Knowledge Translation. <https://cihr-irsc.gc.ca/e/29418.html>
2. Eng JJ, Pastva AM. Advances in remote monitoring for stroke recovery. Stroke, 53:2658-2661, 2022.

#### V. METHODS OF EVALUATION

Participation: 20% of course mark

Contributes in a very significant way to the ongoing discussion: keeps analysis focused, responds very thoughtfully to other students or patient partner' comments, demonstrates active involvement, offers analysis, synthesis, and evaluation of material, e.g., puts together pieces of the discussion to develop new approaches that take the class further.

Poster presentation of clinical experience: 80% of course mark

Visual presentation of poster and oral presentation to instructional team

#### Evaluation Guidelines:

Students must achieve a minimum grade of 60% to successfully pass a UBC graduate level course.