

# HRM 739 – Biostatistical Collaboration

## Course Outline - 2020

### Objectives of the HRM PhD with Specialization in Biostatistics

□ Graduates will have:

- A strong foundation in biostatistical concepts/techniques and their applications in study designs and data analysis;
- The ability to critically appraise methodologic aspects of research proposals and manuscripts;
- The ability to develop or contribute to the development of grant proposals as methodologists;
- The ability to teach or communicate biostatistical concepts effectively to non-biostatisticians; and
- The ability to adapt existing statistical techniques or to develop new techniques to solve problems

### Course Objectives

- learn strategies of eliciting information required to assist with study design from clinical collaborators
- learn how translate the research questions into statistical questions
- learn how to facilitate provision of statistical support on design, sampling and analytic plans
- learn strategies of communicating the sampling plan, experimental design, statistical analysis to collaborators
- facilitate provision of support on statistical programming
- facilitate provision of help with write-up of methods and reporting of results of studies

Date	Lecture Room (Rooms booked 1:00-4:00)	Session	Instructor(s)	Content
Sept 9	Virtual: Zoom	1	Lehana Thabane	Introduction to Biostatistical Collaborations in Health
Sept 16	Virtual: Zoom	2	Kant Bangdiwala	Ethical aspects of collaborations
Sept 23	Virtual: Zoom	3	Diane Heels-Ansdell	Studies Communication Skills
Sept 30	Virtual: Zoom	4	Gordon Guyatt	A conversation with Dr Guyatt about collaborating with clinicians
Oct 7	Virtual: Zoom	5	Thuva Vanniyasingam/ Lehana Thabane	Determinants of a successful biostatistical collaborative career
Oct 14	Virtual: Zoom	6	Reading week	
Oct 21	Virtual: Zoom	7	Lehana/guests	Writing protocols, sample size justification, statistical analysis plans (SAPs), and book reviews.
Oct 28	Virtual: Zoom	8	Thuva Vanniyasingam/ Lehana Thabane	Collaboration issues: importance of mentorship and soft skills
Nov 4	Virtual: Zoom	9	Gary Foster	Randomization Strategies, Group Balance and Predictability
Nov 11	Virtual: Zoom	10	Diane Heels-Ansdell	Methodological Issues: Multi-site studies and DSMB reports
Nov 18	Virtual: Zoom	11	Lehana Thabane	Reporting of Studies in Health: Enhancing replication of findings
Nov 25	Virtual: Zoom	12	Jinhui Ma/Lehana Thabane	Video session/More collaboration issues
Dec 2	Virtual: Zoom	13	Lehana Thabane/Guest speaker	Career issues: A conversation with someone from industry or government
Dec 9	Virtual: Zoom	14	Lehana Thabane	Project Presentation
Room holds:	12			

## **Course Materials**

- Posted on Dropbox
- Includes:
  - ✓ Session Learning Objectives and materials
  - ✓ Required and supplementary readings
  - ✓ Assignments

## **Course Evaluation**

- Assignments: 50%**
  - ✓ Given bi-weekly by me throughout the course
  - ✓ Hand - in to me by email
- Internship evaluation by mentor: 15%**
  - ✓ To be done by your mentor
- Final Project: 35%**
  - ✓ Brief presentation of your internship experience
  - ✓ 15-minute presentation
  - ✓ Due: **Dec 9, 2020: 1-4pm**

## **Key Contacts**

- Course Coordinators:**
  - ✓ Lehana Thabane, Professor, HEI: thabanl@mcmaster.ca
  - ✓ Thuva Vanniyasingam, Assistant Prof (Part-time), HEI: tvanniya@stjosham.on.ca
  - ✓ Include subject heading: HRM 739
- HRM Program Office**
  - ✓ hrmasst@mcmaster.ca