Welcome to HRM 702: Introduction to Biostatistics

The first class will be held on **Thursday Sept 5** from 9:15AM - 10:30AM in **MDCL 3020**. Small group tutorials normally follow the lecture 10:45 – 12:00.

The course coordinator and lecturer for this course is Dr. Steven Hanna (hannas@mcmaster.ca). You will also be assigned to a tutorial group, led by a faculty tutor. Your tutorial assignments and rooms will be posted on Avenue to Learn after the first class.

The schedule is posted on Avenue to Learn and is attached to this message for your convenience. Please read schedule very carefully, noting in particular the dates of the tests and assignments. Attendance at all tutorials is required, and deviations from the schedule are not normally permitted except in cases of emergency. Please review the HRM policy on attendance reprinted in the course outline posted on Avenue to Learn.

The HRM 702 Avenue to Learn is the online home for the course. All essential course news and resources will posted there and it is important that you login early and often. Each week's lecture notes and tutorial assignments, along with any required dataset sets or additional reading is posted there. Course news is frequently posted as required. Your tutorial leader may choose to setup tutorial specific resources there. The lecture notes are posted in advance and many students choose to print them to make notes in the margins during class.

There is some **required preparatory work** as outlined below:

1. By **September 4**: Complete the HRM 702 student survey available at:
   https://pebc.mcmaster.ca/surveys/index.php?sid=85866&lang=en
   The sole purpose of the survey is to provide a dataset for the tutorial assignments. Your responses are anonymous and you are free not to answer any question.
2. By **September 5**, the first class**:**
   a. Login to the HRM 702 Avenue to Learn site, review the course overview/outline, course schedule, the attendance policy, and the statement on academic misconduct, and any late breaking news.
   b. Obtain one of the required texts and read the assigned chapters
   c. Make arrangements for access to suitable statistical analysis software. See the note below and in the course outline regarding statistical software..

You may choose one of the required textbooks:

Fundamentals of Biostatistics, 8th Edition. Bernard Rosner, Brooks Cole; 8 edition (Aug. 3 2015)
Principles of Biostatistics, 2nd Edition. Marcello Pagano & Kimberlee Gauvreau, Taylor & Francis ISBN 9781138593145

Another textbook might be suitable, but we assume you have access to one of these.

Statistical Software

You must have access to software for the statistical analysis of data. You are free to use any software you choose. A course is often a good time to start learning software that you will rely on as a professional, which means it should do more than descriptive statistics and graphing. A spreadsheet such as Excel will not be suitable for the range of analyses required during the course or for professional use after the course. It is typical for professional scientists to use more than one analysis software.

Some popular choices are:

SPSS is easy to use, covers a range of methods, and available via the campus bookstore as a downloadable yearly site license. Because it is quick to learn, this has been the most popular choice for use during HRM 702 in the last several years.

SAS is powerful and popular with professionals, and a full version is currently available free of charge to HRM and MPH students through an agreement we have with SAS Canada. Contact the HRM program office. A free university edition of SAS and other student resources are available freely online at SAS Canada.

STATA is powerful and popular with professionals. It is available via the campus bookstore as a downloadable yearly site license.

R is a statistical programming language. It is powerful and popular with professional biostatisticians. However, it requires a significant time commitment to learn, which makes it challenging for use during the course. It is freely available at https://www.r-project.org/

SPSS, SAS, and STATA are available for use on the computers in the HEI student room in the HSC 2C area. SPSS is available for use on some computers in the Health Sciences Library.

We do not provide training in specific software and you will need to make the time to learn how to get data into the software of your choice and to conduct appropriate data manipulation and analysis. There are many excellent tutorials available online for the software of your choice, and a list of recommended resources is available on Avenue. Please feel free to forward any other resources you discover so we can add them to the list!