Department of Epidemiology and Biostatistics

Biostatistics 3100A/9509A
Biostatistical Methods for Epidemiology/Principles of Biostatistics

Lecture:
Tuesday 10:30 am - 11:30 am, K203
Thursday 10:30 am - 11:30 am, K203

Lab: Thursday K7
Undergrad: 11:30 am-12:30 pm
Grad: 12:30 am-1:30 pm

Lab Location: Kresge building K 7
Instructor: Neil Klar
Office Hour: By appointment
E-mail: nklar@uwo.ca
Phone Extension: 86275

Course Information
Undergraduate Pre-requisites: Biology 2244A/B or Statistical Sciences 2244A/B, and Epidemiology 2200A/B, with a minimum mark of 75% in each.

Unless you have either the requisites for this course or written special permission to enroll in it, you may be removed from this course and it will be deleted from your record. Undergraduate students may seek permission from the Undergraduate Chair and graduate students may do so through the Graduate Chair. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Course Syllabus
The purpose of this course is to introduce students to statistical methods used in epidemiology in particular and medical research in general.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture Topic</th>
<th>Chapter</th>
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<tbody>
<tr>
<td>1</td>
<td>Sep 11, 13</td>
<td>Introduction and descriptive statistics</td>
<td>1,2</td>
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<tr>
<td>2</td>
<td>Sep 18, 20</td>
<td>Probability and distributions</td>
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<tr>
<td>3</td>
<td>Sep 25, 27</td>
<td>Sampling and sampling distributions</td>
<td>4</td>
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<tr>
<td>4</td>
<td>Oct 2, Oct 4</td>
<td>Inference for a single group</td>
<td>5</td>
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<td></td>
<td>Oct 9, 11</td>
<td>Fall Reading Week / No Class</td>
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<td>5</td>
<td>Oct 16, 18</td>
<td>Inference for two groups</td>
<td>6</td>
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<td>6</td>
<td>Oct 23, 25</td>
<td>Review Tuesday / Midterm Thursday</td>
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TUTORIAL CANCELLED
<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
<th>Week</th>
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<tr>
<td>7</td>
<td>Oct 30, Nov 1</td>
<td>Inference for Proportions</td>
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<td>8</td>
<td>Nov 6, 8</td>
<td>Effect Measures</td>
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<td>9</td>
<td>Nov 13, 15</td>
<td>Analysis of Variance</td>
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<td>10</td>
<td>Nov 20, 22</td>
<td>Correlation and Regression</td>
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<td>11</td>
<td>Nov 27, 29</td>
<td>Logistic Regression</td>
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<tr>
<td>12</td>
<td>Dec 4, 6</td>
<td>Nonparametric methods</td>
<td>12</td>
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**Final Exam**

**Course Materials**


Solutions Manual available as a course package from the UWO Bookstore.

Lecture notes will be provided on the course WebCT.

**Methods of Evaluation**

- 30% - Assignments due at the Thursday tutorial (total of 8 assignments)
- 10% - In-class one-question quiz, (best 5 of 10 for undergraduates and best 7 of 10 for graduate students)
- 20% - Midterm exam (Thursday, Oct. 25 – TUTORIAL CANCELLED)
- 40% - Final exam (during exam period)

Note that

1. to pass the course, students must submit at least 7 in-class one question quizzes and obtain a minimum of 50% on the final exam
2. if you miss an assignment or an in-class one-question quiz without a valid documented reason (medical or bereavement), you will be assigned a grade of 0%.
3. For the midterm exam, students will be allowed to use a calculator and a one-page double sided formula sheet, but will not be allowed internet access or computers.
4. For the final exam, students will be allowed to use a calculator and two one-page doubled sided formula sheets, but will not be allowed internet access or computers.
**Policy on Accommodation for Medical and Non-Medical Absences**
For assignments worth 10% or more, refer to Western University’s Policy on Accommodation for Medical Illness: [https://studentservices.uwo.ca/secure/index.cfm](https://studentservices.uwo.ca/secure/index.cfm).

All non-medical absences must be approved in advance. In the case of an unexpected absence on compassionate grounds, documentation may be requested. If documentation is required by the instructor for either medical or non-medical academic accommodation, then such documentation must be submitted by the student directly to the appropriate Faculty Dean’s office and not to the instructor. It will be the Dean’s office that will determine if accommodation is warranted.

**Statement on Academic Offences**
Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence: [http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf).

**Support Services**
As part of a successful student experience at Western, we encourage students to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your degree. For example, to support physical activity, all students, as part of their registration, receive membership in Western’s Campus Recreation Centre. Numerous cultural events are offered throughout the year. Please check out the Faculty of Music webpage [http://www.music.uwo.ca/](http://www.music.uwo.ca/) and our own McIntosh Gallery [http://www.mcintoshgallery.ca/](http://www.mcintoshgallery.ca/). Information regarding health- and wellness-related services available to students may be found at [http://www.health.uwo.ca/](http://www.health.uwo.ca/)

Students seeking help regarding mental health concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty supervisor, their program director (graduate or undergraduate chair), or other relevant administrators in their unit. Campus mental health resources may be found at [http://www.health.uwo.ca/mental_health/resources.html](http://www.health.uwo.ca/mental_health/resources.html)

To help you learn more about mental health, Western has developed an interactive mental health learning module, found here: [http://www.health.uwo.ca/mental_health/module.html](http://www.health.uwo.ca/mental_health/module.html). This module is 30 minutes in length and provides participants with a basic understanding of mental health issues and of available campus and community resources. Topics include stress, anxiety, depression, suicide and eating disorders. After successful completion of the module, participants receive a certificate confirming their participation.
Department & Faculty Offices
The Epidemiology and Biostatistics main office is located in K201 in the Kresge Building on Main campus.

For undergraduate academic counselling assistance, students will need to speak with the Bachelor of Medical Sciences Office: http://www.schulich.uwo.ca/bmsc/general-counselling.

Technology Requirements
You are responsible for all required course materials and announcements posted to the course’s OWL website. Please ensure after the first class that when you log in you are able to access the course site. A copy of the course outline will be available on both OWL and the departmental website.