

**YORK UNIVERSITY
FACULTY OF HEALTH
DEPARTMENT OF PSYCHOLOGY**

Course: HH/SC PSYC 3031 3.0 A Winter Term – 2011 Intermediate Statistics Laboratory

Course Website: <https://moodle11.yorku.ca/moodle>

Term: W 2011

Prerequisite: HH/AK/AS/SC PSYC 1010 6.0 (with a minimum of C) or AK/PSYC 2410 6.0 (with a minimum of C) and HH/AK/AS/SC PSYC 2020 6.0 or substitute

Course Instructor:

Dr. Robindra Sidhu

Class Meetings: Thursday 7:00 – 10:00 pm in HNES B02

Office Hours: Drop in : Thursdays 5:45 – 6:45 pm in HNES 404 or by appointment. (Office hours may increase during heavy demand periods -- TBA)

Office Phone: (416) 736-2100 x33207

email: robindr@yorku.ca

email etiquette:

- For all email correspondence please use PSYC 3031 in the subject header.
- I will respond to email only if it can be answered in 25 words or less.
- Try to keep your emails short.
- For complex issues, please use email to arrange for a time where we can meet in person (preferably during office hours).
- Email will not be answered on the weekends but shortly afterwards

TA: Laura Mills (Ph. D. candidate).

email: lmills@yorku.ca

Email will not be answered on the weekends but shortly afterwards

- Keep e-mails concise and to the point
- For most matters, it is better to see the TA in person during office hours

TA Office Hours: TBA

Course Description:

This course is designed to provide students with the opportunity to learn a statistical software package such as SPSS with a view to apply, consolidate, and extend their statistical analyses skills to realistic problems that researchers in the field of psychology would typically encounter.

There are two main learning objectives in this course:

1. For students to learn how to analyse and report data. This applies to each stage of analyses: from the initial preparation of a data set, to checking the underlying statistical assumptions of the statistical test, to interpreting output, to finally presenting the results.
2. For students to develop strategies that facilitate and enhance their statistical problem solving and decision making skills. For example, students will: (i) learn how to translate a research question into a statistical problem and ensure that their analyses correspond with theoretically derived hypotheses; (ii) learn how to use the computer to visualize their data so that they can see patterns in data sets and anticipate the results, prior to the actual analyses.

The first half of the course will introduce students to the software package (such as SPSS) Students will learn how to test the basic assumptions of parametric statistics using the software, and will learn how to deal with missing data, and outliers. Following this, students will learn about multiple regression. Topics covered will include the underlying assumptions of regression, evaluating the fit of a model, the ANOVA of regression, simultaneous regression, hierarchical regression. Finally students will be introduced to the general linear model by way of learning about multiple regression with categorical predictors.

The second half of the course will focus on statistical concepts already covered in second year psychology statistics courses (e.g., t - tests, ANOVA, Repeated Measures Analyses) in the context of the general linear model).

The course will be taught in both in traditional lecture format with accompanying software demonstrations followed by an in-class workshop where students will work out specific problems based on the class topic using the computer software.

Course Text / Readings:

Required: Field, A. (2009). *Discovering statistics using SPSS*. Third Edition. Sage: Thousand Oaks, CA

Recommended (for review purposes): Any second year statistics textbook as a reference text.

Software & Computer Accounts: Access to SPSS version 16 or greater is required for the completion of the assignments. There are three ways to access the software.

1. You may use the computer lab associated with this course when the lab is free after creating an File Access Service (FAS) account go to Computing for Students at <http://www.yorku.ca/computing/students/accounts/index.html> and follow the links to “Manage my services”.
2. To access the computer lab remotely using the internet you must activate a WebFAS account. You can activate this service once you have completed step 1. Information about setting up a WEB ACADLABS account can be found at <http://www.yorku.ca/computing/students/labs/webfas/>
3. Finally to use SPSS at home without the internet, you may purchase a student copy of SPSS from University Information Technology. See <http://www.yorku.ca/computing/students/software/index.php> and follow the links for “Student SPSS” found under group license.

Tentative Evaluation:

<i>Date:</i>	<i>Assignment:</i>	<i>% of Grade</i>
Oct 6	Assignment 1	15
Oct 20	Mid-term test	25
Nov 10	Assignment 2	15
Dec 1	Assignment 3	15
Exam period (Dec 8 – Dec 22)	Final Exam	30

Tentative Schedule:

<i>Date</i>	<i>Topics</i>	<i>Reading</i>	<i>Assignment/ Test/Exam</i>
Sep 8	Opening Remarks, Sampling distributions, Hypothesis testing, Statistical Models, Power	Ch 1 & 2	
15	Introduction to SPSS: Underlying Assumptions, Data Cleaning	Ch 3 & 4 ,5	
22	Correlational Data, Simple Regression. ANOVA of Regression	Ch 6	
29	Multiple regression, evaluation of assumptions	Ch 7	
Oct 6	Review Class		Assignment 1 Due (15%)
13	Reading /Co-curricular Week (No class)		
20	Mid-term Test		Mid –term Test (25%)
27	Introduction to the t-test , relationship to GLM.	Ch 9	
Nov 3	Comparing Several Means. One Way ANOVA, Post hoc tests & planned contrasts (GLM 1) & ANCOVA (GLM 2)	Ch 10 & 11	
10	Factorial ANOVA (GLM 3): Two Way ANOVA, Two Way and beyond	Ch 12	Assignment 2 Due (15%)
17	Repeated Measures Designs (GLM 4)	Ch 13	
24	Mixed Designs ANOVA (GLM 5)	Ch 14	
Dec 1	Review Class		Assignment 3 (15%)
Exam Period	Final Exam		Final Exam (30%)

****See:** <http://www.registrar.yorku.ca/enrol/dates/fw11.htm>

Last date to enrol without permission of instruction: Sep 20, 2011

Last date to enrol with permission: Oct 4, 2011

Last date to drop without receiving a grade: Nov 11, 2011

Important Dates: (Add, Drop etc).

For important dates such as Adding a Course, Dropping a course please refer to the registrar's website:

<http://www.registrar.yorku.ca/enrol/dates/fw11.htm>

Attendance:

- It is your responsibility to attend lectures and laboratories.
- You will be tested on all materials that are covered in both lectures and laboratories. *Some material in the lecture is not in the textbook.*

Workload:

- The assignments are quite long and labour intensive. You will be expected to do a **great** deal of work outside the classroom (lecture or lab). You must be prepared to spend time on the computer outside class hours. If you are not prepared to do this, you will not do well in this course.

Grading, Assignment Submission, Lateness Penalties and Missed Tests:

Grading: *Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles

For a full description of York grading system see the York University Undergraduate Calendar
<http://www.registrar.yorku.ca/calendars/2011-2012/academic/grades/index.htm>

Assignment Submission: Assignments are due at the beginning of class and must be submitted to me. Do not give them to the teaching assistant and do not slide them under any door on campus. **Do not submit assignments by email or fax or any other electronic means. They will not be accepted.**

Policy on Late Submission of Assignments:

- There is a **very** strict policy on late assignments. Assignments are due at the beginning of class., and must be submitted to me. Do not give them to the teaching assistant and do not slide them under any door on campus.
- If you find that you are falling behind on handing in assignments, please contact me 48 hours before the assignment is due for possible accommodation.

Lateness Penalty

If your assignment is late you will lose 20% of the mark for that assignment for the first 24 hours. For every day after that, you lose 20% of the total mark (weekends excluded). Note that if you hand in an assignment one-week late it is worth nothing! **To avoid penalties, all late assignments must have some form of official documentation** attached to the back page. Unless specific accommodations have been granted, assignments will not be considered for marking after 1 week of the official assignment due date.**

****Official Documentation.**

Documentation must be provided by a registered clinical psychologist, psychiatrist, or medical doctor indicating that you were indeed unable to complete an assignment by the due date or attend an examination or test during a specific date. For medical documentation, please use the attending physician statement form. This form may be downloaded from: http://www.registrar.yorku.ca/pdf/attend_physician_statement.pdf . **Note: If you have relevant non-medical documentation, please contact the professor to check if it is appropriate.**

Missed Mid-term Tests: Send me a short email message as soon as possible (e.g., within 24 hours) and then you MUST provide the following:

1. Some form of official documentation (see description above). For medical documentation, please use the attending physician statement form which can be downloaded from http://www.registrar.yorku.ca/pdf/attend_physician_statement.pdf . For non-medical documentation, please contact the professor directly to check if it is appropriate.
2. Based on the course director's discretion alternate arrangements can be made regarding the missed test.

Missed final examination: Send me a short email message as soon as possible (e.g. within 24 hours) and then you MUST provide the following:

1. Some form of official documentation (see description above). For medical documentation, please use the attending physician statement form which can be downloaded from http://www.registrar.yorku.ca/pdf/attend_physician_statement.pdf . For non-medical documentation, please contact the professor directly.

2. A completed Deferred Standing Agreement Form (available at http://www.registrar.yorku.ca/pdf/deferred_standing_agreement.pdf)

I must sign the Deferred Standing Agreement Request Form -- you must obtain my signature in person, either during my office hours or at the class. You must then submit these forms to the Psychology Department located in BSB 291 at which time they will register you for the deferred examination and provide you with a letter that specifies the time, date and location of the examination. IN ORDER FOR THE DEPARTMENT TO PROCESS THE REQUEST THESE FORMS SHOULD BE COMPLETED WITHIN 7 DAYS OF THE MISSED EXAM. The Deferred Standing Agreement Form is sent to the Registrar's Office. Once your deferred examination is graded, I inform the Registrar's Office, who will update your grade.

Academic Accommodation for Students with Disabilities:

Information regarding the senate policy on academic accommodation can be found at:

<http://www.yorku.ca/secretariat/policies/document.php?document=68>

Students registered with OPD or CDC and require academic accommodation(s) will generally have them granted as per their disclosure forms once these documents have been reviewed by the course director with the student (usually in the first two weeks of class). The course director may consult the appropriate office issuing the accommodation letter in order to provide the accommodations in a reasonable and appropriate manner.

Religious Observance and Religious Accommodation Guidelines:

Information regarding the Senate Policy on Religious Observance and information on Religious accommodation guidelines can be found by going to the York University Course website and following the links to Religious Observances <https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs>.

If you are requesting a **deferred midterm** test under the Religious Accommodation Guidelines, you must notify me in person not less than **14 days** prior to the date of the examination and submit to me the Examination Accommodation Agreement form (http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf). If you are requesting a deferred **final examination** under the Religious Accommodation Guidelines, you must notify me in person not less than **three weeks** prior to the date of the examination and submit to me the Examination Accommodation Agreement form (http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf).

Academic Honesty:

The Senate Policy on Academic Honesty will be strictly enforced in this course (Policy can be found at <http://www.yorku.ca/secretariat/policies/document.php?document=69>). The regulations are listed in the Undergraduate Calendar available electronically at <http://www.registrar.yorku.ca/calendars/2011-2012/policies/honesty/>. I take all breaches of academic honesty very seriously and strongly support the Senate policy on such matters. Don't jeopardize your academic career by engaging in academic dishonesty.

Additional Test/Exam Information:

For tests or exams you must bring York sessional and photo ID

Class Website:

<https://moodle11.yorku.ca/moodle>

This course should be listed if you are enrolled.

Will contain lecture notes. Will be updated at least 1 day before class