Syllabus for PSYC 302 (Winter Term 2015)

Instructor
Samantha Drover
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Office Hours: By Appointment

Lectures
Mondays 10:00am - 11:30am
Wednesdays 8:30am - 10:00am
BIOSCI 1103

Course Objectives

By the end of this course, students will be able to:

- Critically assess published quantitative research with regard to the statistical methods and interpretations

- Master core methods for statistical inference

- Demonstrate an understanding of the ethical conduct of psychological research

- Demonstrate a good understanding of how to write a research report

- Independently design and carry out a research study for a specific research question of their choice

- Design and select a suitable analytical method for different types of research questions

- Demonstrate the ability to use common statistics software for data analysis

- Interpret and communicate the results of an independently conducted analysis

- Begin PSYC501 with all the tools necessary to complete a thesis

Course Materials

Copyright

The course material including lecture notes, lab activities, etc., is copyrighted and is for the sole use of students registered in PSYC 302. This material shall not be distributed or disseminated to anyone other than students registered in PSYC 302. Failure to abide by these conditions is a breach of copyright and may also constitute a breach of academic integrity under the University Senate's Academic Integrity Policy Statement.

Required Materials

Lomax, R. G., & Hans-Vaughn, D. L. (2012). *An introduction to statistical concepts* (3rd ed.).
     New York: Routledge.
Green, S. B., & Salkind, N. J. (2013). *Using SPSS for Windows and Machintosh: Analysing and
     understanding data* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Select chapters will be posted online from:

Field, A. (2013). *Discvering Statistics Using IBM SPSS Statistics* (4th ed.). University of Sussex:
     SAGE Publications Ltd.

Recommended Materials

American Psychological Association. (2012). *Publication manual of the American Psychological
     Association* (6th ed.). Washington, DC: Author.
Stern, L. (2007). *What every student should know about avoiding plagiarism*. New York:
     Pearson Education, Inc.

SPSS and Excel for Windows or Macintosh (Student Version)[1]

Supplementary readings can be accessed online through the Queen's Library website
(http://library.queensu.ca) or on Moodle.

Web Content

     Additional information for this course will be available on the web at
https://moodle.queensu.ca/login/index.php. The web content will consist of lecture notes, lab
materials, an electronic message board for course questions, a list of supplemental course
readings, auxiliary study materials, and links to web pages with further, in-depth, information
on selected topics. The Moodle message board is intended only as a forum for posting
questions and discussing topics related to PSYC 302 course material. Messages pertaining to
inappropriate topics or subjects unrelated to PSYC 302 content will be deleted, and if those
messages are deemed harassing, abusive, or insulting, disciplinary action will be taken (see the
section below entitled "Academic Integrity").
     Because students' questions tend to be similar, **please post your queries in the
appropriate Moodle forum rather than emailing the instructor directly**. The instructor will

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[1] Digital Copies can be purchased from the Campus Computer Store in Dupuis hall. Alternatively a student
licence can be purchased from www.onthehub.com 's eStore following verification of enrollment at a recognized
university.

check the forums regularly and will respond to your questions there. This way everyone in the class has access to the same information. If you do email questions that should have been posted in an appropriate forum, you will be directed to post your question to Moodle in order to receive a reply.

Lectures and Labs

Lectures

There are two 90 min lectures each week. Before attending each lecture, you should be familiar with the assigned reading material for that week. Given the volume and complexity of information that will be covered over the course of each term, the lectures will be designed to build on your understanding of concepts learned through reading and self-exploration of topics. While the majority of topics covered in class will overlap with the textbook, there will be cases in which topics will be covered in one but not the other. **It is your responsibility to read and be familiar with all of the course material.**

Laboratories

All labs are held in Humphrey 219 and will begin January 14th, 2015. Labs will focus on;
1. Writing skills
2. Practical aspects of statistical analysis using various types of software
3. Active learning and critical thinking exercises
4. Working on lab assignments

Students are expected to attend their assigned laboratories for the ***full three hours*** each week. Students are also expected to participate in lab activities and to complete all assigned laboratory activities. Please keep in mind that in order to fully participate in lab activities you will need to bring your copy of the Green and Salkind text to every lab meeting.

Lab Sections (TAs to be assigned)

Day	Time
Wednesday	11:30 – 2:30
	2:30 – 5:30
Thursday	8:30 – 11:30
	11:30 – 2:30
	2:30 – 5:30

The TAs will be available for the full three hours of their scheduled lab time. They are not required to hold any formal office hours; however, they may wish to make themselves available at specific times or by appointment. Therefore, you are strongly encouraged to take

advantage of their availability during lab times. Your TA is unlikely to monitor the Moodle message board, but the instructor will be able to answer questions regarding lab material. The TAs want to help you, but bear in mind that the volume of e-mails generated by even one lab section in this course is enormous, so please use e-mail conscientiously and sparingly.

If you do have questions or need to meet with your TA, please contact him/her well in advance of any due dates. If you wait until the last minute, there is no guarantee that your TA will have the opportunity to read your email and/or be available to meet you in time. Remember to always treat your TAs with respect – rude, unruly, or inappropriate behaviour towards TAs or in labs will not be tolerated **(see the section on "Academic Integrity" below).**

Lab Assignments

Written assignments will become available during scheduled lab sessions and will be due a later week at the beginning of the lab session (see course outline). All written assignments must be originally and individually written (i.e., students may not work together on the analysis or write up) and will be assessed via an online plagiarism prevention program, Turinitin.com. **Please see the section below entitled "Academic Integrity" & "Plagiarism".** All written assignments must be submitted to Turnitin.com in electronic format (e.g., Word, PDF, etc.) and follow the formatting guidelines of the 6th edition of the Publication Manual of the American Psychological Association. Lab assignments will be marked by the TAs and will each be worth 10% of your final grade (see "Marking Scheme" below for details). Late assignments will be penalized 5% of the assignment grade per day, for each day late.

Evaluation

You are responsible for <u>all</u> lecture and laboratory material and all corresponding material in the texts and on Moodle. You are expected to write all quizzes as scheduled and submit projects and lab work on the indicated due date. Exceptions will be made only under relevant circumstances, and when appropriate written documentation is provided. Penalties will be applied to late projects and proposals.

Remarking

If you believe that an error was made in grading one of your quizzes or lab assignments, you must complete the re-marking form available for download from Moodle. All remarking requests should be made to the instructor. On the form, you must specify if there are specific items in dispute, or if you are requesting that the whole assignment be remarked, the nature of the error and, if necessary, supporting documentation to defend you position. Please note that the re-marked grade will stand as the final mark even if it is lower.

Grading Scheme

More detailed descriptions will be provided for each of the below items.

Assessment	Notes	Mark Breakdown
4 Quizzes	One after each 'unit'. Quizzes will be created to take approximately 30 minutes - 1 hour.	30% (best 3/4)
Article Critique	Individual written critique of a journal article.	15%
Group Experiment	Designing a small-scale in-lab experiment, collecting data in lab, entering data, and managing data as a group Individually writing up a results and brief discussion section.	20%
Research Proposal	Grant-application style, with a focus on methodology and planned data analyses.	30%
Lab Participation	As rated by TA.	5%
TOTAL		100%

Grading Method

In this course, all components will be graded using numerical percentage marks, which will be used to calculate your final course grade. This grade will then be converted into a final letter grade using the Faculty of Arts and Science approved scale based on the Queen's Official Grade Conversion Scale.

Assignment Mark	Numerical Value for Calculation of Final Mark
A+	93
A	87
A-	82
B+	78
B	75
B-	72
C+	68
C	65
C-	62
D+	58
D	55
D-	52
F48 (F+)	48
F24 (F)	24
F0 (0)	0

Grade	Numerical Course Average (Range)
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59
D	53-55
D-	50-52
F	49 and below

Appointments

We strongly recommend that you take advantage of opportunities to set up appointments with both the TAs and the instructor of this course. Questions before, during, or after class are always welcome, and simple questions outside of class time should be posted on Moodle for the benefit of everyone. However, if you have a question that may take some time to answer, we recommend meeting with your lab TA or the instructor. **If you are having trouble understanding lecture or lab material, please see someone well in advance of the exam or lab assignment due dates. Waiting until the last minute is not a wise strategy!**

Psychology Departmental Policies

Academic Integrity. Academic integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see www.academicintegrity.org). These values are central to building, nurturing, and sustaining an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University (see the Senate Report on Principles and Priorities http://www.queensu.ca/secretariat/policies/senateandtrustees/principlespriorities.html).
Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments conform to the principles of academic integrity. Information on academic integrity is available on the Arts and Science Calendar (see Academic Regulation 1 at http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations/regulation-1), on the Arts and Science website (see http://www.queensu.ca/artsci/academics/ undergraduate/academic-integrity), and from the instructor of this course. Departures from academic integrity include plagiarism, use of unauthorized

materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions that contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment, to failure of a course, to requirement to withdraw from the university.

Discriminatory, rude, threatening, harassing, disruptive, distracting, and inappropriate behavior or language will not be tolerated in class or in laboratories regardless of the context in which such actions occur (i.e., in person, in email, on Moodle, etc.). Students are responsible for familiarizing themselves with the regulation concerning academic misconduct. Information on misconduct in an academic or non-academic setting is available in the Arts and Science Calendar (see Academic Regulation 17 at http://www.queensu.ca/artsci/academic-calendars/ regulations/academic-regulations/regulation-17). Actions that contravene the regulation on misconduct carry sanctions that can range from a statement of apology, loss of grades, failure of a course, or requirement to withdraw from the university.

Accommodation After the Fact. Once a student has written an exam or submitted an assignment, they may not subsequently be granted accommodation such as being offered a second opportunity to write the exam or assignment or have it count for less than originally specified in the course syllabus (reweighted). **Students who cannot perform to the best of their abilities due a serious, extenuating circumstance must inform their instructor before attempting an exam or completing an assignment to arrange appropriate accommodation**. Appeals to change a grade after the fact must be made to the Associate Dean (Studies) and will only be supported by the department in exceptional circumstances.

Anxiety. If you have previously had problems with anxiety (e.g., math anxiety, test anxiety, etc.), please make an appointment with Queens Health, Counseling, and Disability Services (HCDS) immediately. Do not wait until the week of exams. You can find their office on the second floor of the LaSalle Building, 146 Stuart Street, or call them at 613-533-2506 to set up an appointment. They have councillors trained to assist you with anxiety and stress relief techniques, and they can determine whether or not you require special accommodations.

Disability Accommodations. Queen's University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability and think you may need accommodations, you are strongly encouraged to contact the Disability Services Office (DSO) and register as early as possible. For more information, including important deadlines, please visit the DSO website at: http://www.queensu.ca/hcds/ds/.

Learning Disabilities. Dyscalculia is relatively rare (estimated to effect between 3 and 6% of the population), but even at this stage in your academic career, you could unknowingly suffer from it, or another learning problem that may affect your performance in this class. If you are uncertain, HCDS can diagnose you. The waiting list can get rather long, so you should

make an appointment (see Anxiety above) to be tested as soon as possible.

   Plagiarism. It is your responsibility to be aware of what constitutes plagiarism and/or the departure from academic integrity, and what the consequences of this are. Please see Regulation 1.2.1 at http://www.queensu.ca/artsci/academic-calendars/regulations/ academic-regulations/regulation-1, the handout provided by the Writing Centre at http://www.queensu.ca/ writingcentre/handouts/Style-Plagiarism.pdf, as well as the Stern (2007) book bundled with the Green and Salkind text.

   Special Accommodations. If you qualify to receive special accommodations, please notify the instructor right away. The midterm exam is held during regular class time, so HCDS does not provide accommodations (unlike for exams held during the fall and winter exam period). Therefore, for this exam your instructor will provide the accommodation, and the sooner we are aware of the need, the more able we will be to provide it.

   Religious Observances. All religious observances that conflict with an assignment due date, or exam, must be declared by **Friday, January 23rd, 2014.** Please contact the instructor and include the date and nature of the observance in your correspondence. Failure to declare your need for accommodation by this deadline means that your absence will not be excused and/or you will not be accommodated with an alternative due date or exam date.

Outline for PSYC 302 (Winter Term 2015)

Legend

Research Skills and Critical Thinking
ANOVA Family
Factor Analysis
Regression Family

Session	Topic	Readings	Assigned	Due
Week 1: January 5th				
Jan 5	Introduction	None		
Jan 7	Review of 301 and Choosing the Correct Test	None		
Lab	No Lab			
Week 2: January 12th				
Jan 12	Reading Articles Critically	Supplemental links posted on moodle		
Jan 14	Writing: Understanding Goals and Audience	Supplemental links posted on moodle	Quiz 1	
Lab	Critiquing articles and discussing writing formats		Article Critique	
Week 3: January 19th				
Jan 19	ANCOVA I	Chapter 14, Lomax & Hans-Vaughn (2012)		
Jan 21	ANCOVA II			Quiz 1
Lab				
Week 4: January 26th				
Jan 26	Mixed Model I	Chapter 15, Lomax & Hans-Vaughn (2012)		
Jan 28	Mixed Model II			
Lab				
Week 5: February 2nd				
Feb 2	MANOVA	Chapter 16, Field (2013) This chapter will be posted on moodle.		
Feb 4	ANOVA Family Review and Choosing the Correct Test		Quiz 2	
Lab				
Week 6: February 9th				
Feb 9	Study Design	Supplemental links posted on moodle		
Feb 11	Data Management	Supplemental links posted on moodle		Quiz 2
Lab	Designing an Experiment in Lab		Group Experiment	Article Critique
Reading Week: February 16th				
No Classes				
Week 7: February 23rd				

Feb 23	Factor Analysis I And Intro to Research proposal	Chapter 17, Field (2013) This chapter will be posted on moodle.	Research Proposal	
Feb 25	Factor Analysis II		Quiz 3	
Lab	Factor Analysis and Collecting Data for Assignment			
Week 8: March 2nd				
Mar 2	Mediated Regression I	Chapter 10, Field (2013) This chapter will be posted on moodle.		
Mar 4	Mediated Regression II			Quiz 3
Lab	Mediated Regression and Collecting Data and Data Entry for Assignment			
Week 9: March 9th				
Mar 9	Moderated Regression I	Chapter 10, Field (2013) This chapter will be posted on moodle.		
Mar 11	Moderated Regression II			
Lab	Moderated Regression and Time to work on assignment			
Week 10: March 16th				
Mar 16	Logistic Regression I	Chapter 19, Lomax & Hans-Vaughn (2012)		
Mar 18	Logistic Regression II			
Lab				Group Experiment
Week 11: March 23rd				
Mar 23	Regression Review and Choosing the Correct Test		Quiz 4	
Mar 25	Overall Statistics Review: Thinking Critically about Which Test we Use			
Lab				
Week 12: March 30th				
Mar 30	What is a p value? Why we should think about our decision-making criteria and about the .05 cutoff.	Supplemental links posted on moodle		
Apr 1	Replication, The File Drawer Problem, and False Positives	Supplemental links posted on moodle		Quiz 4
Lab				Research Proposal (Friday)

Mark Breakdown

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