Course Outline

PSYC2001

Research Methods 2

School of Psychology

Faculty of Science

T1, 2019

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1. Staff

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2. Course information

Units of credit: 6

Pre-requisite(s): PSYC1001, PSYC1011, PSYC1111

Teaching times and locations: PSYC2001 Timetable

2.1 Course summary

This course deals with the basic principles of research design and provides an introduction to inferential data analysis procedures.

2.2 Course aims

The overall aim of this course is to provide you with a level of understanding of research methodology and inferential data analysis procedures that will allow you to choose appropriate analysis strategies for basic experimental and non-experimental designs, and to critically evaluate analyses of published experiments. The course also aims to provide you with the skills necessary to carry out these analyses using the SPSS statistical package.

2.3 Course learning outcomes (CLO)

At the successful completion of this course the student should be able to:

1. Extend your knowledge of research design and methodology for basic experimental and correlational designs.
2. Select and carry out appropriate inferential data analysis procedures, controlling the risk of inferential errors, and articulate defensible conclusions.
3. Use the computer package SPSS to carry out descriptive and inferential statistical analyses and interpret the outcomes.
4. Assess the validity of conclusions of published experiments and appreciate the limitations of your own research and the research of others.

2.4 Relationship between course and program learning outcomes and assessments

	Program Learning Outcomes						
CLO	1. Knowledge	2. Research Methods	3. Critical Thinking Skills	4. Values and Ethics	5. Communication, Interpersonal and Teamwork	6. Application	**Assessment**
1.	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions			Lectures, tutorials, labs, online activities, quizzes, practice questions	Mid-term test, Assignment, Final exam
2.	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Mid-term test, Assignment, SPSS test, Final exam
3.	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions		Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Mid-term test, Assignment, SPSS test, Final exam
4.	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Lectures, tutorials, labs, online activities, quizzes, practice questions	Assignment, Final exam

3. Strategies and approaches to learning

3.1 Learning and teaching activities

This course prepares students for higher-level psychology courses by conveying the benefits and limitations of particular research designs and inferential statistical analyses. It also provides specific skills in carrying out data analyses, communicating the outcomes and drawing appropriate conclusions.
Students who continue in psychology can study more advanced techniques in PSYC3001 Research Methods 3, which provides preparation for the independent research project carried out in the fourth (Honours) year.

Lectures will be digitally recorded through the Echo 360 system. Links to the lecture recordings will be available through the course web page. Lecture slides in PDF format will be placed on the webpage in advance of each lecture. The slides summarise key points that the lecturer will expand on. They do not cover all the information and are not a substitute for attending the lectures. You may wish to print the slides and bring them to the lecture to write more detailed notes on, or add your own notes to the PDF file electronically.

Statistics tutorials will be held weekly from Week 2-9. Times and locations are listed on the Moodle site. These tutorials will concentrate on the practical application of inferential statistical procedures, through worked examples and practice questions. Before each tutorial, preparatory material will be made available online which you should complete before the class.

Computing labs will be held weekly from Week 2-9. In these labs you will be learning to use the statistical package SPSS. All computing labs are in Mathews Room 209, located on level 2 behind the elevators. The week 6 lab time will be used for the mid-term test, and the week 10 lab time will be used for the SPSS test.

Online Quizzes: Quizzes will be made available on Moodle in Week 4 and Week 9 to provide you with feedback on your progress in the course. Your score will not count towards your course grade.

Practice questions: In addition to the exercises in the tutorial manual, sample questions will be posted on Moodle prior to the mid-term test and the final exam. Worked solutions will also be posted.

Suggested approach to the course:
1. Attend all classes and complete the online modules; take good notes
2. Complete the online preparatory material before each statistics tutorial
3. Attempt the quizzes, exercises in the tutorial manual and practice questions
4. Take the mid-term test
5. Submit your assignment on time
6. Do not leave studying until just before the final exam

3.2 Expectations of students

It is expected that students are aware of UNSW Assessment policy and understand how to apply for special consideration if they are unable to complete an assignment/exam due to illness and/or misadventure.

It is expected that students have read through the School of Psychology Student Guide.

Attendance at face to face tutorials and labs is essential in accordance with UNSW Assessment Implementation Procedure.

Calculator: You should purchase a basic calculator for use in tutorials, the mid-term test and the final exam. This calculator must be on the list of UNSW approved calculators. See: https://student.unsw.edu.au/exam-approved-calculators-and-computers.

Please go to the front desk on Mathews Level 15 East prior to the end of semester to obtain an official UNSW sticker that confirms your calculator is approved for use in UNSW exams.

Announcements: Updates and announcements will be made on the 'Announcements' forum on the Moodle page and/or by email. It is your responsibility to check Moodle and your student email account regularly to keep up to date.

Travel: The final exam for this course will take place on campus during the UNSW examinations period. You should not arrange travel during the UNSW exam period until the date of the final exam has been released. Students who arrange travel prior to the release of the final exam date will not be granted consideration in the event they are scheduled to be out of country when the final exam is to occur. This is especially important for study abroad students – do not arrange travel until the final exam date has been released.

Disability services: Students registered with Disability Services must contact the course coordinator immediately if they intend to request any special arrangements for later in the course, or if any special arrangements need to be made regarding access to the course material. Letters of support should be emailed to the course coordinator as soon as they are made available.

4. Course schedule and structure

In a typical week, this course consists of 2 hours of lecture material, 1 hour of face to face statistics tutorials, 1 hour of face to face computer lab practicals, and 0-2 hours of online modules. In addition to this, students are expected to take an additional 6 hours of self-determined study to complete assessments, readings, and exam preparation.

Week	Lecture topic/s	Statistics tutorial topics	Computer lab topics	Online modules	Self-determined activities
Week 1 18/02/2019	1. sampling distribution, standard error 2. single mean confidence interval			Welcome video; intro to course; revision of PSYC1111	lecture revision; online tut/lab preparation
Week 2 25/02/2019	1. z test, type 1/2 errors, 2. t distribution, degrees of freedom, single mean sigma unknown CI	area under normal curve; tables; CI, Z test	SPSS basics; sampling distributions and central limit theorem		lecture revision; practice; online tut/lab preparation
Week 3 4/03/2019	1. t test 2. dependent means CI, t-test	single mean sigma unknown; t tables, CI, t test	SPSS entering, defining, analysing data		lecture revision; practice; online tut/lab preparation
Week 4 11/03/2019	1. t independent means sigma unknown, independent means CI, t, 2. paired vs. independent design comparison	dependent means CI, t test	SPSS single mean and dependent mean CI, t test	revision of first section; Quiz 1	lecture revision; practice; online tut/lab preparation
Week 5 18/03/2019	1. power 1 2. power 2	independent means CI, t test	SPSS independent means CI, t test	choosing an inferential test	lecture revision; practice; online tut/lab preparation; practice mid-term test
Week 6 25/03/2019	1. replication, multiple comparisons 2. correlation 1	power	mid-term test		lecture revision; practice; online tut/lab preparation; assignment

Week 7 1/04/2019	1. correlation 2 2. prediction 1	correlation	SPSS post hoc analysis; multiple comparisons; bouncing ts	writing Results section	lecture revision; practice; online tut/lab preparation; assignment
Week 8 8/04/2019	1. prediction 2 2. factorial designs	prediction	SPSS correlation, prediction		lecture revision; practice; online tut/lab preparation; assignment
Week 9 15/04/2019	1. NHST limitations 2. Bayesian approach	factorial designs, multiple comparisons	SPSS test (Wednesday and Thursday tutorials)	revision of second section; Quiz 2	lecture revision; practice; assignment
Week 10 22/04/2019	1. assumptions, myExperience, exam info		SPSS test (Friday tutorials)		lecture revision; practice; assignment
Study period 2/05/2019					Exam preparation
Exam period 6/05/2019					Exam preparation

5. Assessment

5.1 Assessment tasks

All assessments in this course have been designed and implemented in accordance with UNSW Assessment Policy.

Assessment task	Length	Weight	Mark	Due date
Assessment 1: Mid-term test	45 min	15%	/15	Week 6
Assessment 2: Assignment	4 pages	20%	/20	26 April
Assessment 3: SPSS test	45 min	20%	/20	Week 9 or 10 (see below)
Assessment 4: Final exam	2 hours	45%	/100	Exam period

Assessment 1: A **Mid-term Test** will be held in the computing lab at your normal lab time in Week 6. This test is open book and will cover material from the first half of the course (lectures weeks 1-4; tutorials and labs weeks 2-5). Please bring your calculator and notes from tutorials. There will be no supplementary test for students who miss the test.

Assessment 2: The **Assignment** is compulsory and is to be submitted through the Turnitin link on the Moodle page by midnight on the last day of term (26 April). The assignment question will be released in Week 6 and will involve analysis, interpretation and presentation of data.

Assessment 3: An **SPSS Test** will be held in the computing lab at your normal lab time. If you have a tutorial on a Wednesday or Thursday, then the test is on in Week 9. If you have a tutorial on a Friday, then your test is on in Week 10. This test is compulsory and will involve analysing and interpreting data and SPSS output. Please bring your calculator and notes from tutorials.

Assessment 4: The **Final Exam** will be two hours and will be closed book (but relevant formulae and statistical tables will be provided). The exam will contain data analysis questions, and both short-answer and multiple-choice questions. The data analysis questions will require you to do some limited hand calculations and interpret output from SPSS. The emphasis of the exam is on your understanding of inferential procedures and research methodology issues as well as their practical application. Please bring your calculator to the exam.

UNSW grading system: https://student.unsw.edu.au/grades

UNSW assessment policy: https://student.unsw.edu.au/assessment

5.2 Assessment criteria and standards

Further details and marking criteria for each assessment will be provided to students closer to the assessment release date (see 4.1: UNSW Assessment Design Procedure).

5.3 Submission of assessment tasks

Assessment 2: In accordance with UNSW Assessment Policy written assessments essay must be submitted online via Turnitin. No paper or emailed copies will be accepted.

Late penalties: deduction of marks for late submissions will be in accordance with School policy (see: Psychology Student Guide).

Special Consideration: Students who are unable to complete an assessment task by the assigned due date can apply for special consideration. Students should also note that UNSW has a Fit to Sit/Submit rule for all assessments. If a student wishes to submit an application for special consideration for an exam or assessment, the application must be submitted prior to the start of the exam or before an assessment is submitted. If a student sits the exam/submits an assignment, they are declaring themselves well enough to do so and are unable to subsequently apply for special consideration. If a student becomes ill on the day of the exam, they must provide evidence dated within 24 hours of the exam, with their application.

Special consideration applications must be submitted to the online portal along with Third Party supporting documentation. Students who have experienced significant illness or misadventure during the assessment period may be eligible. Only circumstances deemed to be outside of the student's control are eligible for special consideration. Except in unusual circumstances, the duration of circumstances impacting academic work must be more than 3 consecutive days, or a total of 5 days within the teaching period. If the special consideration application is approved, students may be given an extended due date, or an alternative assessment/supplementary examination may be set. For more information see https://student.unsw.edu.au/special-consideration.

Alternative assessments: will be subject to approval and implemented in accordance with UNSW Assessment Implementation Procedure.

Supplementary examinations: will be made available for students with approved special consideration application and implemented in accordance with UNSW Assessment Policy.

5.4. Feedback on assessment

Feedback on all pieces of assessment in this course will be provided in accordance with UNSW Assessment Policy.

Assessment	When	Who	Where	How
Mid-term test	Week 8	Lecturer	Online	Moodle
Assignment	13 May	Marker	Online	Turnitin
SPSS test	3 May	Lecturer	Online	Moodle
Final exam	N/A	N/A	N/A	N/A

6. Academic integrity, referencing and plagiarism

The APA (6th edition) referencing style is to be adopted in this course. Students should consult the publication manual itself (rather than third party interpretations of it) in order to properly adhere to APA style conventions. Students do not need to purchase a copy of the manual, it is available in the library or online. This resource is used by assessment markers and should be the only resource used by students to ensure they adopt this style appropriately:

APA 6th edition.

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

Further information about referencing styles can be located at https://student.unsw.edu.au/referencing

Academic integrity is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits**:** honesty, trust, fairness, respect, responsibility and courage.[1] At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity and **plagiarism** can be located at:

The *Current Students* site https://student.unsw.edu.au/plagiarism**,** and

The *ELISE* training site http://subjectguides.library.unsw.edu.au/elise

The *Conduct and Integrity Unit* provides further resources to assist you to understand your conduct obligations as a student: https://student.unsw.edu.au/conduct.

7. Readings and resources

Textbook	There is no set textbook for this course. You may wish to consult the following books held in the Library's High Use Collection, but they are not required reading for the course. Howell, D. C. (2012). *Statistical Methods for Psychology*. Belmont, CA : Thomson/Wadsworth. Smithson, M. (2000). *Statistics with Confidence*. London: Sage.
Course information	Available on Moodle
Required readings	Download the Tutorial Manual from Moodle and print at start of semester. The manual includes material to be covered in statistics and computing labs, practice questions, and statistical tables. School of Psychology Student Guide.
Recommended internet sites	UNSW Library UNSW Learning centre ELISE Turnitin Student Code of Conduct Policy concerning academic honesty Email policy UNSW Anti-racism policy statement UNSW Equity and Diversity policy statement UNSW Equal opportunity in education policy statement

[1] International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

8. Administrative matters

The School of Psychology Student Guide contains School policies and procedures relevant for all students enrolled in undergraduate or Masters psychology courses, such as:

- Attendance requirements
- Assignment submissions and returns
- Assessments
- Special consideration
- Student code of conduct
- Student complaints and grievances
- Disability support services
- Health and safety

It is expected that students familiarise themselves with the information contained in this guide.

9. Additional support for students

- The Current Students Gateway: https://student.unsw.edu.au/
- Academic Skills and Support: https://student.unsw.edu.au/academic-skills
- Student Wellbeing, Health and Safety: https://student.unsw.edu.au/wellbeing
- Disability Support Services: https://student.unsw.edu.au/disability-services
- UNSW IT Service Centre: https://www.it.unsw.edu.au/students/index.html