



FACULTY OF SCIENCE
SCHOOL OF PSYCHOLOGY

PSYC1111

MEASURING MIND AND BEHAVIOUR

SEMESTER 2, 2016

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1. Information about the Course			
FACULTY	Science		
SCHOOL OR DEPARTMENT	Psychology		
COURSE CODE	PSYC1111		
COURSE NAME	Measuring Mind and Behaviour		
SEMESTER	Semester 2	YEAR	2016
UNITS OF CREDIT	6	LEVEL OF COURSE	
ASSUMED KNOWLEDGE, PREREQUISITES OR CO-REQUISITES	HSC maths, any level		
SUMMARY OF THE COURSE	<p>This course provides students with knowledge of the characteristics of the scientific approach in general, and experimental methodology, design and data analysis in psychology in particular. It provides a comprehensive foundation in critical thinking, enabling students to design and plan research, conduct basic statistical analysis, scrutinise and critically evaluate published research, discriminate between evidence-based information and pseudoscience, and effectively communicate statistical and research data in variety of formats and contexts. A significant amount of the course content will be delivered online via Moodle (https://student.unsw.edu.au/moodle), allowing students to interact with course material and assess their knowledge at their own pace.</p>		

2. Staff Involved in the Course				
COURSE COORDINATOR				
Name	Phone	Email	Office	Contact Time & Availability
Kathryn Hutton-Bedbrook	9385 2772	kate@unsw.edu.au	Mathews, 910	By appointment
LECTURERS				
Name	Phone	Email	Office	Contact Time & Availability
Kathryn Hutton-Bedbrook	9385 2772	kate@unsw.edu.au	Mathews, 910	By appointment
Lidija Krebs-Lazendic	9385 2772	l.krebs-lazendic@unsw.edu.au	Mathews, 910	By appointment
TUTORS & DEMONSTRATORS				
Name	Email		Contact Time & Availability	
Kathryn Hutton-Bedbrook	kate@unsw.edu.au		<i>Email for an appointment</i>	
Lidija Krebs-Lazendic	l.krebs-lazendic@unsw.edu.au		<i>Email for an appointment</i>	
Peter Baldwin	p.baldwin@unsw.edu.au		<i>Email for an appointment</i>	
Ruth Elijah	ruth.elijah@unsw.edu.au		<i>Email for an appointment</i>	

3. Course Timetable

Component		Day	Time	Location
Lectures	Research Methods Weeks 1-6	Wed	3-4 pm	Clancy Auditorium
		Fri	10-11am	Clancy Auditorium
	Statistics Weeks 7-12	Wed	3-4 pm	Clancy Auditorium
		Fri	10-11 am	Clancy Auditorium
In-class tutorials	Weeks 2,4,6,8,11,12	Mon	9-10 am, 10-11am 1-2 pm	Mathews 303 Mathews 303 Mathews 303
		Tue	9-10 am, 11 am -12 pm 12-1 pm 2-3 pm	Mathews 125 Mathews 125 Mathews 303 Mathews 303
		Wed	9-10 am 10-11 am 12-1 pm 1-2 pm 4-5 pm	Mathews 303 Mathews 303 Mathews 303 Mathews 303 Mathews 303
		Thu	11 am-12 pm 1-2 pm	Mathews 303 Mathews 313
		Fri	11 am-12pm 12-1 pm	Mathews 130 Mathews 313
Online tutorials	Weeks 3,5,7,9,10	Available on the course website via Moodle: https://student.unsw.edu.au/moodle		
Compulsory and voluntary online activities	Weeks 1-12	Available on the course website via Moodle: https://student.unsw.edu.au/moodle		

NB. Course timetable details are subject to change without notice. Students are advised to check regularly for updates on the Moodle course site.

4. Aims of the Course

This course deals with the foundational knowledge about research methods and statistics in psychology. It aims to

- To develop confidence and skills in understanding, interpreting, evaluation and applying scientific concepts;
- To provide the tools necessary to systematic, critical and analytical scientific thinking;
- To provide foundational understanding of ethical issues in scientific research, communication and application of scientific findings.

Emphasis will be placed on critical thinking about published research on contemporary issues in behavioural sciences, including discussion about what distinguishes evidence-based research from pseudoscience.

By the end of this course students should be able to:

- Understand basic research methods in psychology at an advanced level;
- Frame research questions and formulate testable hypotheses; operationalize variables; choose appropriate method for your own research;
- Think creatively and critically about research and apply knowledge of the scientific method in all fields of behavioural sciences;
- Undertake literature searches; locate, evaluate and use information appropriately in the research process;
- Use reasoning and evidence to recognise, develop, defend and criticise arguments and persuasive appeals;
- Understand and being able to perform basic statistical analysis procedures, draw defensible conclusions and assess the validity of conclusions based on statistical analysis of experimental data;
- Identify intentional and unintentional errors in research methods, data analysis and presentation and interpretation of research results;
- Differentiate between evidence based argument and speculation; identify claims that arise from pseudoscience; recognise major fallacies in human thinking.

5. Psychology Graduate Attributes and Associated Course Learning Outcomes

<p>3. Critical thinking skills</p> <p>3.1. Apply knowledge of the scientific method in thinking about problems related to research in all fields of behavioural sciences = 3</p> <p>3.2. Scrutinise information based on research methods and statistical analysis of experimental results = 3</p> <p>3.3. Differentiate between speculation and evidence based information = 3</p> <p>3.4. Use reasoning and evidence to recognise, question and criticise claims that arise from pseudoscience = 3</p> <p>3.5. Use knowledge of the scientific method and statistics in problem solving = 1</p> <p>3.6. Express open-mindedness and intellectual engagement; recognise and defend against prejudice and discriminatory behaviours = 2</p> <p>3.7. Understand the value of empirical evidence = 3</p> <p>3.8. Acknowledge limitations and suggesting future research = 3</p>	<p>Lectures will raise theoretical issues regarding how to quantify and communicate research results. The online content, assessments and tutorial discussions will allow students to demonstrate their critical skills to interpretations of research results in published papers and problem solving.</p>
<p>4. Values, research and professional ethics</p> <p>4.1. Understand ethical issues surrounding research in psychology = 3</p> <p>4.2. Understand the importance of experimental protocols in experimental research = 3</p> <p>4.3. Acknowledge work of others and intellectual property; respect privacy and human rights in research = 3</p> <p>4.4.</p> <p>4.5. Psychological Society Code of Ethics and the complementary Ethical Guidelines =3</p>	<p>Lectures, tutorial exercises, online component and assessments will be designed to teach students how to draw valid conclusions from evidence while respecting professional and research ethics.</p>

5. Communication skills

5.1.

6. Rationale for the Inclusion of Content and Teaching Approach

This course provides students with an essential foundation for more advanced psychology courses by focusing on the benefits and limitations of various research designs and the importance of statistical data analysis. It also enables students to design their own experiments, carry out data analysis, draw appropriate conclusions and communicate the outcomes of their research. The online component and the assessments provide students with an opportunity to demonstrate independent learning and application of research skills and critical thinking in variety of problem-solving contexts. All these skills will be of a particular importance to students who are going to conduct their independent research project in the fourth (Honours) year.

8. Course Schedule - Lectures

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5	<p>: Choosing the right experimental design and factorial designs (KHB) Pelham, B.W., Blanton H. (2013). Conducting Research in psychology: Measuring the Weight of Smoke (4th Ed), Chapter 9. Stanovich, K. How to Think Straight About Psychology, Chapter 9: The concept of interaction</p> <p>: Ethics in research (KHB) Pelham, B.W., Blanton H. (2013). Conducting Research in psychology: Measuring the Weight of Smoke (4th Ed), Chapter 2.</p>	Weekly quiz and online activities
6	<p>: Quasi experimental design (KHB) Pelham, B.W., Blanton H. (2013). Conducting Research in psychology: Measuring the Weight of Smoke (4th Ed); Chapter 8.</p> <p>: Revisions (KHB) No readings</p>	Weekly quiz and online activities
7	<p>: Descriptive statistics (LKL) Gravetter, F.J., Wallnau, L. B. (2015). Statistics for the Behavioural Sciences (10th Ed), Chapter 1, p. 1-32 & Chapter 2 p. 33-65</p> <p>Measures of variability (LKL) Gravetter, F.J., Wallnau, L. B. (2015). Statistics for the Behavioural Sciences (10th Ed), Chapter 3, p. 67-98; Chapter 4 p. 99-130</p>	Weekly quiz and online activities
8	<p>: z-scores (LKL) Gravetter, F.J., Wallnau, L. B. (2015). Statistics for the Behavioural Sciences (10th Ed), Chapter 5 p. 131-157.</p> <p>Introduction to probability (LKL) Gravetter, F.J., Wallnau, L. B. (2015). Statistics for the Behavioural Sciences (</p>	

10	<p style="text-align: center;">Using t-statistics for inferences about population means and mean differences (LKL)</p> <p style="text-align: center;">Gravetter, F.J., Wallnau, L. B. (2015). Statistics for the Behavioural Sciences (10th Ed), Chapter 9, p. 267-298 & Chapter 10, p. 299-333.</p> <p style="text-align: center;">: t-test for two related samples (LKL)</p> <p style="text-align: center;">Gravetter, F.J., Wallnau, L. B. (2015). Statistics for the Behavioural Sciences (10th Ed), Chapter 11 p. 335-364.</p>	Weekly quiz and online activities

To

9. Course Schedule - Tutorials

Week	Tutorial Content
1	No tutorials
2	Face To Face Tutorial 1: Introduction (come to the class you are e9.66.65 44.52 reW*nbFr

10. Assessment

Assessment Task	Weight	Graduate Attribute Assessed	Learning Outcomes Assessed	Date of	Feedback
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search databases, identify good quality information and write assignments. It will also help you

14. Administrative Matters

The *School of Psychology Student Guide*, available on <http://www.psy.unsw.edu.au/current-students/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 in the event of illness or misadventure;
- Student Code of Conduct;
- Student complaints and grievances;
- Student Equity and Disability Unit; and
- Occupational Health & Safety.

Students should familiarise themselves with the information contained in this *Guide*.