



UNSW
THE UNIVERSITY OF NEW SOUTH WALES

Science

Faculty of Science
School of Psychology

PSYC3371

Multivariate Data Analysis for Psychology Course Outline

Semester 2, 2018

Course convenor: Dr Melanie Gleitzman

1. Information about the Course			
FACULTY	Science		
SCHOOL	School of Psychology		
COURSE CODE & NAME	PSYC3371 Multivariate Data Analysis for Psychology		
SEMESTER	Semester 2	YEAR	2018
UNITS OF CREDIT	6	LEVEL OF COURSE	Level 3
ASSUMED KNOWLEDGE, PREREQUISITES OR CO-REQUISITES	This course is designed for students intending to undertake an honours year in psychology. Students are required to have completed PSYC3001 and are assumed to have an advanced understanding of ANOVA-based inferential statistical procedures and be able to competently carry out simple and complex analyses of data using SPSS and PSY.		
SUMMARY OF THE COURSE	<p>This course deals with multiple regression analysis (MRA), principal components analysis (PCA), factor analysis (FA) and multivariate analysis of variance (MANOVA). Each of these is a form of multivariate analysis: MRA allows for correlated independent variables, and therefore provides the basis for a general data-analytic system; PCA and FA make use of correlations to account for the structure of relationships within a set of variables; and MANOVA extends the application of ANOVA models to multivariate data and within-subjects designs. Much of the research carried out by honours students in fourth year requires the analysis of multivariate data from experimental and non-experimental designs.</p> <p>There are 3 one-hour lectures per week (Weeks 1-12 inclusive) and a two one-hour tutorials per week (Weeks 2-12 inclusive). In addition, it is expected that students undertake approximately 5-7 hours per week of independent practice, including time spent in a School computing laboratory.</p>		

2. Staff Contact Details				
COURSE COORDINATOR AND LECTURER				
Name	Phone	Email	Office	Availability
Dr Melanie Gleitzman	93853019	m.gleitzman@unsw.edu.au	Mathews 1108	By appointment and email.
TUTORS				
Name	Email		Availability	
Sonny Li (Head Tutor)	sonny.li@unsw.edu.au		By appointment and email.	
Jodie Kidd	j.kidd@unsw.edu.au			
Vera Newman	v.newman@unsw.edu.au			

Enquiries and Consultation

- *Email is the preferred method of communication for course related questions. (NOTE: you should use your student UNSW email account when communicating with course personnel.)*
- *Please contact Dr Gleitzman if you have any special learning needs which may affect your access to this course or your ability to undertake any of the assessments. If you are registered with Student Equity and Diversity please provide Dr Gleitzman with your Letter of Support at the commencement of the course, or as soon as is practicable.*

3. Course Timetable					
Component		Day	Time	Location	
Lectures		Monday	12:00-13:00	Colombo Theatre B	
		Thursday	15:00-16:00	Colombo Theatre A	
		Friday	11:00-12:00	Colombo Theatre C	
	Class	Day	Time	Location	Tutor
Statistics Tutorials	8632	Monday	10:00-11:00	Lib 176B	Sonny Li
	8633	Monday	11:00-12:00	Lib 176B	Sonny Li
	8634	Monday	13:00-14:00	Lib 176B	Vera Newman
	8635	Monday	14:00-15:00	Lib 176A	Vera Newman
	8637	Wednesday	13:00-14:00	Mat 303	Jodie Kidd
Computing Tutorials	8638	Wednesday	16:00-17:00	Mat 209	Jodie Kidd
	8629	Thursday	10:00-11:00	Mat 209	Jodie Kidd
	8630	Thursday	12:00-13:00	Mat 209	Vera Newman
	8631	Thursday	14:00-15:00	Mat 209	Sonny Li
	8627	Friday	12:00-13:00	Mat 209	Sonny Li
<p>Statistics and Computing Tutorials begin in Week 2 and run weekly until the end of Week 12. Note: Public Holiday Monday Week 10. Students to attend alternative tutorials for that week. See Moodle announcement closer to the time.</p>					
Practice	Students have 24/7 access to computing labs Mat 209A and 209. You are free to use the lab during this time provided that it is not being used for a scheduled activity				

4. Aims of the Course
<p>The aims of the course are to</p> <ol style="list-style-type: none"> 1. provide you with a level of understanding of multiple regression procedures which will allow you to choose analysis strategies appropriate for a range of contexts (prediction, analysing complex experiments and quasi-experiments, and structural modelling); 2. provide you with an introductory knowledge of principal components analysis and factor analysis, and their application; 3. provide you with a level of understanding of multivariate analysis of variance methods which will allow you to choose analysis strategies appropriate for multivariate and within subjects data; and 4. equip you with the skills necessary to carry out these analyses using SPSS and PSY statistical packages and to interpret analysis outcomes.

5. Lecture Topics
<ol style="list-style-type: none"> 1. Simple Regression Analysis. Predicting scores on a criterion variable from a single predictor variable. Partitioning variation. Testing the regression coefficient null hypothesis. Assumptions. Readings: Course Notes ; Pedhazur (Ch. 2, pp. 15-28, 30-37). 2. Multiple Regression Analysis. Basic Concepts. Predicting scores on a single criterion variable from a linear combination of predictor variables. Partitioning variation and degrees of freedom, the MRA F test. Readings: Pedhazur (Ch. 5).

3. Statistical control by partialling. Relationship between squared correlations (zero-order, partial, semi-partial, multiple). Readings: Course Notes; Pedhazur (Ch. 5; Ch. 7: pp. 160-170, 174-188).
4. MRA for the purposes of prediction. Subset regression methods – stepwise, forwards and backwards selection. Bias and cross-validation. Readings: Course Notes; Pedhazur (Ch 8: pp. 195-203-225).
5. One-way ANOVA via MRA. Coding schemes for categorical independent variables. Example of effect coding and contrast coding for $J = 3$. Tests of significance. Unequal n's. MRA as General Linear Model. Readings: Course Notes. Pedhazur (Ch. 11 pp.342-367, 378-383)
6. ANCOVA via MRA. Tests of significance. Role of covariate in randomised vs non-randomised designs. Readings: Course Notes; Pedhazur (Ch. 15 pp. 628-653).
7. Non-orthogonal factorial ANOVA via MRA. Simultaneous vs hierarchical MRA. Effect coding and contrast coding. Tests of significance. Readings: Course Notes. Pedhazur (Ch. 12 pp. 414-430, 447-455, 481-491).
8. Factorial designs via MRA where one or more factors are continuous variables. Meaning of product variable. Hierarchical MRA. Readings: Pedhazur (Ch. 14 pp. 560–592).
9. Structural Equation Modelling via MRA. Causal hierarchy of independent variables. Path diagrams. Regression coefficients as direct effects. Mediating variables and indirect effects. Effects (direct and indirect) vs spurious contributions to correlations. Simplifying structural models. Assumptions. Readings: Course Notes. Pedhazur (Ch. 18: pp. 769-783, 788-799.)
10. Principal Components Analysis and Factor Analysis. Accounting for variance in a set of standardised measures by PCA. Interpretation of loadings as row-wise and column-wise regression coefficients, and as variable-component correlations. Orthogonal rotation to simple structure. Oblique vs orthogonal rotation. Reproducing variable scores from component scores. The distinction between common factors and components. The factor analysis model, with and without unique factors. Factors as latent variables. Rotation in FA. The problem of estimating factor scores. FA vs PCA. Readings: Course Notes.
11. Multivariate analysis of variance (MANOVA). Detecting the effect of a grouping variable (with any number of levels) on an optimal linear combination of dependent variables (a discriminant function). Choice of a test statistic in MANOVA. Multiple comparisons issues. Statistical coherence in multivariate analyses. Follow-up tests and CIs in MANOVA.
12. Post-hoc analysis of data from within-subjects experiments and two factor mixed designs. Multivariate approach vs univariate approach. Tests of homogeneity hypothesis using the *GCR* MANOVA criterion. Heterogeneity inference using SPSS. Post-hoc contrast analysis using *PSY* and *SPSS*. *Reading*: Bird, Ch. 6 and 7.

6. Rationale for the Inclusion of Content and Teaching Approach

This course builds upon univariate data analytic methods and concepts developed in PSYC3001 and demonstrates, among other things, how MRA and MANOVA are special cases of a General Linear Model, and as such ANOVA is a special case of MRA. The methods covered in this course are relevant for the analysis of multivariate data from experimental and non-experimental designs. These methods are often used across the range of sub-disciplines of psychology and as such are relevant for the analysis of data from Honours research projects.

7. Teaching and Learning Strategies

Formal teaching is via three weekly one-hour lectures and two weekly one-hour tutorials (statistics and computing). Students will be expected to undertake independent learning on a weekly basis, including computing practice with the statistical programs SPSS and PSY. Tutorials and practice questions will provide you with an opportunity to consolidate and apply your understanding by working through structured examples and practice questions.

Lecture slides will be made available before the start of a new lecture topic. Course notes will be provided for selected topics. Course content for each topic will be presented and discussed in lectures, in the first instance, and then covered in statistics and computing tutorials.

Lectures are recorded, however *students are advised **not** to use lecture recordings as a substitute for lecture attendance*. Recordings allow you to review the lecture in order to clarify your understanding of course material. After each lecture you should spend some time reviewing your notes and undertaking additional reading (such as relevant course notes and chapter of the textbook) to ensure you fully understand the course material.

If you have course related questions you should ask your tutor in the first instance, email Dr Gleitzman or post your question to the Discussion forum on the Moodle course site.

Attendance requirement for PSYC3371 – attendance at **all scheduled classes** is mandatory. This includes lectures and tutorials. Attendance records will be taken at each class and it is your responsibility to make sure your attendance has been noted.

Students with a Letter of Support from Disability Services that indicates attendance adjustments, and students registered with Elite Athlete & Performers Support program are exempted. All students, including those with approved class clashes, must be available to attend the lecture timeslot for the Class Test. Students with extenuating personal circumstances (such as carer duties) should contact Dr Gleitzman to discuss attendance requirements.

8. Student Learning Outcomes

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

1. Describe, apply and evaluate different research methods used by psychologists.
2. Design complex studies to address psychological questions; frame research questions; formulate testable hypotheses; operationalise variables; choose appropriate data analysis methods and strategies; analyse data and interpret results; and write research reports.
3. Demonstrate an understanding of the basic concepts of multiple regression analysis and its application in the context of prediction vs explanation.
4. Use MRA methods to analyse data from experiments with categorical and continuous independent variables.
5. Use MRA methods to analyse data from passive observational studies.
6. Understand the application of Principal Components Analysis to describing data structures and interpret the output from a PCA.
7. Explain theoretical and methodological differences between PCA and Factor Analysis.
8. Make confident inferences regarding interval estimates of parameters and test outcomes for multivariate data using univariate and multivariate statistical methods.
9. Use the statistical programs SPSS and PSY to carry out univariate and multivariate

- analyses of data from experimental and non-experimental designs.
10. Demonstrate an understanding of multivariate analysis of variance and the application of MANOVA to the analysis of multivariate data, and in particular its application to the analysis of repeated measures data.
 11. Understand the difference between appropriate and inappropriate analysis strategies and methods for the analysis of multivariate data, including data from within-subjects experiments.

9. Graduate Attributes		
School of Psychology Graduate Attributes*	Level of Focus 0 = No focus 1 = Minimal 2 = Minor 3 = Major	Activities/Assessment
1. Core knowledge and understanding	3	Participation in lectures & tutorials and class work – this requires students to form advanced understanding of data analysis concepts and practice. Assessed in exam and assignment.
2. Research methods in psychology	3	Participation in lectures & tutorials and class work will equip students to understand, apply and evaluate basic research methods in psychology; this includes applying different data analysis methods across a range of research designs, drawing appropriate inferences from the data, and the appropriate use of statistical packages.
3. Critical thinking skills	3	Development of data analysis assignment showing use of critical and creative thinking, ability to apply appropriate data analysis methods to specific research designs.
4. Values, research and professional ethics	2	Ongoing discussion of best practice approaches to data analysis and ethical issues surrounding misuses of data.
5. Communication skills	3	Participation in tutorials and development of class assignments encourages effective communication.
6. Learning and application of psychology	2	Apply understanding of best practice in data analysis across different domains of psychology and critically evaluate published research.

* The *Graduate Attributes of the Australian Undergraduate Psychology Program* was produced as part of the Carrick Associate Fellowship project, “Sustainable and evidence-based learning and teaching approaches to the undergraduate psychology curriculum”, and “Designing a diverse and future-oriented vision for undergraduate psychology in Australia”, a Discipline-based Initiative funded by the Carrick Institute for Learning and Teaching in Higher Education (see Appendix II), and supported by the Australian Psychological Society, and the University of New South Wales (School of Psychology; Learning and Teaching @UNSW).

10. Assessment *						
Assessment Task	Weight	Learning Outcomes Assessed	Graduate Attributes Assessed	Release	Date of Submission	Feedback
Assignment 1	10%	Each assessment task covers all learning outcomes and graduate attributes.		Week 3	Submit to Moodle by 11pm, Friday August 28, 2018 (Week 5)	Via Turnitin, 10 working days from submission.
Class Test	15%				11am-12pm, Friday September 14, 2018. Location tbc.	Test papers returned in class, 10 working days from submission.
Assignment 2	20%			Week 9	Submit to Moodle by 11pm, Monday October 15, 2018 (Week 12)	Via Turnitin, before the final exam (if possible).
Final Exam	55%				Exam Period	

* All assessments in this course have been designed and implemented in accordance with [UNSW Assessment Policy](#).

There are four components of assessment:

- Assignment 1** (worth 10%) is due by **11pm Friday August 28, 2018 (Week 5)** and is to be submitted to Turnitin link on Moodle. This Exercise will require you, among other things, to use SPSS to carry out multiple regression analyses of multivariate data. Further details and marking criteria for this assessment will be provided to students in Week 3 (see 4.1: [UNSW Assessment Design Procedure](#)).
- Class Test** (worth 15%) will be held in the lecture timeslot **Friday 11am - 12pm of Week 8 (September 14, 2018), location tbc**. The test will cover material from Topics 5 -7 (tbc). *Statistical tables and some formulae* will be provided, but you need to bring a *calculator* to the test.
- Assignment 2** (worth 20%) is due by **11 pm Monday October 15, 2018 (Week 12)** and is to be submitted to Moodle Turnitin link. This exercise will require you, among other things, to use SPSS to carry out analyses of multivariate data. Further details and marking criteria for this assessment will be provided in Week 9 (see 4.1: [UNSW Assessment Design Procedure](#)).
- A two hour **Final Exam** (worth 55% of your course mark) will cover all topics. Some formulae and statistical tables will be provided, you are required to provide your own UNSW approved calculator – see Required Equipment below.

Weights for the assessment components are as follows:

	%	What is required to pass the course?
Assignment 1	10	
Class Test	15	
Assignment 2	20	
Final Exam	55	
	100	An aggregate mark of 50 or higher across the four assessment components is required to pass the course. Students need not pass each component in order to pass the course. Note that students who do not attempt an assessment component will receive a mark of 0 for that component.

Late Penalty for Assignments

- Late assignments will incur a late penalty: 2% of the maximum mark allocated for the assignment will be deducted for each day overdue.

- Late assignments will **NOT** be accepted after 10 working days from submission deadline. Students who do not submit an assignment within 10 working days from the submission date will receive a mark of 0 for the assessment.
- Late assignments may not receive detailed feedback and/or marker comments.

If you have an acceptable reason for being unable to submit by the deadline (e.g. you were sick on or before the due date), you should apply for special consideration (see below). Please note that time management issues such as having other assignments due at the same time or outside work commitments are NOT sufficient reasons for avoiding a late penalty.

Special Consideration Procedures

Students wishing to apply for Special Consideration should do so within **three working days** of the assessable event. Applications for **all course assessments** must be made via Online Services (Special Consideration) on MyUNSW. See the *School of Psychology Student Guide* for more information regarding accessing this service. Students will receive an outcome notice of their application via the Online Service.

Supplementary Assessments

Supplementary assessments will be offered and implemented in accordance with [UNSW Assessment Implementation Procedure](#). See [School of Psychology Student Guide](#) for more information regarding supplementary assessments.

Supplementary Assignments: Students who are eligible for a supplementary assignment will be given 10 working days to complete the assignment from the date of release.

Supplementary Class Test: Students who are eligible to sit a supplementary class test will be contacted by the Course Convenor regarding date, time and venue details. The supplementary class test will be held in Week 9. Students who do not sit either the class test or supplementary class test will receive a mark of 0 for this assessment.

Supplementary Final Exam: Students who are eligible to sit a Supplementary Final Exam will be contacted by the School and/or Examinations via UNSW student email. Semester 2 Supplementary exams will be conducted from Saturday December 8 through to Saturday December 15 2018.

Supplementary examinations will be subject to approval and implemented in accordance with [UNSW Assessment Implementation Procedure](#). See current [School of Psychology Student Guide](#) for more information regarding supplementary final exam.

Note that in line with School and UNSW assessment policy:

- A Supplementary Final Exam will be offered only once, and is the **only** deferred exam available for students who have not sat the Final Exam. Additional examinations will not be set under any circumstances.
- Any student who is medically unfit on the day of the Final Exam is advised **not to sit the exam** at this time, and to submit a special consideration request (see above) to sit the deferred exam.
- Students registered with Disability Services should follow special consideration guidelines indicated for them in [School of Psychology Student Guide](#) (see p.13).
- Exchange and Study Abroad students are expected to sit the final examination at the scheduled time. These dates are advertised well in advance. Individual arrangements cannot be made for students who return to their country of origin before the end of the UNSW Semester 1 Examination period.
- Students who do not sit the Final Exam or Supplementary Final Exam will receive a mark of 0 for this assessment.

Make sure you familiarise yourself with the [School of Psychology Student Guide](#) regarding UNSW/School policy and procedures for course assessments and special consideration.

See section 15. Administrative Matters p-13.

11. Course Schedule – check Moodle for updates

Week	Lecture	Lecture Date	Lecture Topic	Statistics Tutorial	Computing Tutorial
1	1	Monday 23 July	Introduction, Topic 1	No tutorials	No tutorials
	2	Thursday 26 July	Topic 1, 2		
	3	Friday 27 July	Topic 2		
2	4	Monday 30 July	Topic 2	Topic 1	Topic 1, 2
	5	Thursday 2 Aug	Topic 3		
	6	Friday 3 Aug	Topic 3, 4		
3	7	Monday 6 Aug	Topic 4	Topic 2	Topic 3
	8	Thursday 9 Aug	Topic 4		
	9	Friday 10 Aug	Topic 4, 5		
4	10	Monday 13 Aug	Topic 5	Topic 4	Topic 4
	11	Thursday 16 Aug	Topic 5		
	12	Friday 17 Aug	Topic 5, 6		
5	13	Monday 20 Aug	Topic 6	Topic 5	Topic 5
	14	Thursday 23 Aug	Topic 6		
	15	Friday 24 Aug	Topic 7		
		Friday 24 Aug	Assignment 1 (worth 10%) submit to Moodle by 11pm		
6	16	Monday 27 Aug	Topic 7		
	17	Thursday 30 Aug	Topic 8	Topic 6	Topic 6
	18	Friday 31 Aug	Topic 8, 9		
7	19	Monday 3 Sept	Topic 9	Topic 7	Topic 7
	20	Thursday 6 Sept	Topic 9		
	21	Friday 7 Sept	Topic 9, 10		
8	22	Monday 10 Sept	Topic 10	Topic 9	Topic 8
	23	Thursday 13 Sept	Topic 10		
		Friday 14 Sept	Class Test (worth 15%) – 11-12pm location tbc		
9	24	Monday 17 Sept	Topic 10	Topic 9	Topic 10
	25	Thursday 20 Sept	Topic 10		
	26	Friday 21 Sept	Topic 10, 11		
		22 Sept – 1 Oct	Recess		
10		Monday 1 Oct	PUBLIC HOL		
	27	Thursday 4 Oct	Topic 11	Topic 10	Topic 10
	28	Friday 5 Oct	Topic 11		
11	29	Monday 8 Oct	Topic 11	Topic 10	Topic 11
	30	Thursday 11 Oct	Topic 11		
	31	Friday 12 Oct	Topic 12		
		Monday 15 Oct	Assignment 2 (20%) submit to Moodle by 11pm		
12	32	Monday 15 Oct	Topic 12	Topic 11	Topic 11, 12
	33	Thursday 18 Oct	Topic 12		
	34	Friday 19 Oct	Review + Exam Info		

Key Dates: Sunday 29 July Deadline to add T2 course.
Friday 31 August Deadline to drop T2 course without financial penalty.
Sunday 9 September Deadline to drop T2 course without academic penalty.

12. Expected Resources for Students	
TEXTBOOK (RECOMMENDED)	<p>Pedhazur, E.J. (1997). <i>Multiple regression in behavioral research: Explanation and prediction</i>. (3rd Ed.). Fort Worth: Harcourt Brace. (<i>Note: Chapter pdfs can be downloaded from Moodle</i>)</p> <p>Bird, K.D. (2004). <i>Analysis of Variance via Confidence Intervals</i>. London: Sage Publications. NOTE: available online via UNSW Library</p>
COURSE MATERIALS	<p>The PSYC3371 Moodle site (access via MyUnsw) provides course information and lecture slides, course notes and tutorial exercises, practice questions, discussion forum and announcements.</p> <p>Most students should find that the lecture slides, course notes, tutorial handouts, practice questions and solutions provide enough material for understanding the course content and undertaking the assessments.</p>
OTHER RECOMMENDED READINGS	<p>Cohen, J., & Cohen, P. (1983). <i>Applied multiple regression/correlation analysis for the behavioral sciences</i> (2nd ed.). Hillsdale, NJ: Erlbaum.</p> <p>Howell, D. C. (2002). <i>Statistical methods for psychology</i> (5th . ed). Pacific Grove, CA: Duxbury. Note: any more recent edition will do.</p>
CALCULATOR	<p>Students should bring a calculator to each tutorial, the Class Test and Final Exam. Note: You must have a <i>UNSW approved calculator</i> for the final exam. Information regarding this matter can be found on MyUnsw.</p>

13. Course Evaluation & Development

Courses are periodically reviewed and students' feedback is used to improve them. Feedback is gathered using various means including UNSW's Course and Teaching Evaluation and Improvement (CATEI) process.

14. Plagiarism & Academic Integrity

What is plagiarism?

Plagiarism is presenting someone else's thoughts or work as your own. It can take many forms, from not having appropriate academic referencing to deliberate cheating.

UNSW groups plagiarism into the following categories:

- **Copying:** using the same or very similar words to the original text or idea without acknowledging the source or using quotation marks. This also applies to images, art and design projects, as well as presentations where someone presents another's ideas or words without credit.
- **Inappropriate paraphrasing:** changing a few words and phrases while mostly retaining the original structure and information without acknowledgement. This also applies in presentations where someone paraphrases another's ideas or words without credit. It also applies to piecing together quotes and paraphrases into a new whole, without referencing and a student's own analysis to bring the material together.
- **Collusion:** working with others but passing off the work as a person's individual work. Collusion also includes providing your work to another student before the due date, or for the purpose of them plagiarising at any time, paying another person to perform an academic task, stealing or acquiring another person's academic work and copying it, offering to complete another person's work or seeking payment for completing academic work.
- **Duplication:** submitting your own work, in whole or in part, where it has previously been prepared or submitted for another assessment or course at UNSW or another university.

Where can I find out more information?

In many cases plagiarism is the result of inexperience about academic conventions. The University has resources and information to assist you to avoid plagiarism. The first place you can look is the section about referencing and plagiarism in each Course Guide, as this will also include information specific to the discipline the course is from. There are also other sources of assistance at UNSW:

- **How can the Learning Centre help me?**

The Learning Centre assists students with understanding academic integrity and how to not plagiarise. Information is available on their website: <http://www.lc.unsw.edu.au/academic-integrity-plagiarism>. They also hold workshops and can help students one-on-one.

- **How can Elise help me?**

ELISE (Enabling Library & Information Skills for Everyone) is an online tutorial to help you understand how to find and use information for your assignments or research. It will help you to search databases, identify good quality information and write assignments. It will also help you understand plagiarism and how to avoid it. All undergraduate students have to review the ELISE tutorial in their first semester and complete the quiz, but any student can review it to improve their knowledge:

<http://subjectguides.library.unsw.edu.au/elise>.

- **What is Turnitin?**

Turnitin is a checking database which reviews your work and compares it to an international collection of books, journals, Internet pages and other student's assignments. The database checks referencing and whether you have copied something from another student, resource, or off the Internet. Sometimes students submit their work into Turnitin when they hand it in, but academics can also use it to check a student's work when they are marking it. You can find out more about Turnitin here:

<https://teaching.unsw.edu.au/elearning>

What if plagiarism is found in my work?

If plagiarism is found in your work when you are in first year, your lecturer will offer you assistance to improve your academic skills. They may ask you to look at some online resources, attend the Learning Centre, or sometimes resubmit your work with the problem fixed. However more serious instances in first year, such as stealing another student's work or paying someone to do your work, may be investigated under the Student Misconduct Procedures.

Repeated plagiarism (even in first year), plagiarism after first year, or serious instances, may also be investigated under the Student Misconduct Procedures. The penalties under the procedures can include a reduction in marks, failing a course or for the most serious matters (like plagiarism in a honours thesis) even suspension from the university. The Student Misconduct Procedures are available here <https://www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf>

Examples of plagiarism

Using the internet appropriately

A first year student handed in an assignment where she had copied from a website. Her lecturer realised she didn't understand you have to reference websites in the same way you reference books and journal articles. The lecturer explained how to reference and sent her to a workshop at the Learning Centre to help her improve her skills.

Working together on a maths assignment

A group of Mathematics students worked together on an assignment when they had been told this was not allowed. All questions where the students had worked together were given zero, and this led to some student failing the assessment.

No referencing in an assessment

A third year student submitted a major assessment that included material from a journal article published in Canada. When his essay was submitted into Turnitin, it let the academic know that the student didn't reference the material. The student was given zero for the essay, and because it was worth 50 per cent he failed the course.

Copying design work

A final year design student used images of someone else's designs in her work and he said the designs were his own. The matter was formally investigated by his Faculty and he was found to have committed academic misconduct and failed the course.

Further information and assistance

If you would like further information or assistance with avoiding plagiarism, you can contact the Learning Centre. The Learning Centre at The University of New South Wales has two locations:

UNSW Learning Centre

Lower Ground Floor, North Wing, Chancellery Building, (C22 Kensington Campus – near Student Central) <http://www.lc.unsw.edu.au/>

Phone: 9385 2060

Email: learningcentre@unsw.edu.au

Opening Hours: Monday to Thursday: 9am - 5pm and Friday: 9am - 2.30pm

UNSW Art & Design, Paddington Campus Learning Centre Room G112

Email: learningcentre@unsw.edu.au **Phone:** 9385 2060

15. Administrative Matters

The [School of Psychology Student Guide](#) covers School policies and procedures relevant for all students enrolled in undergraduate 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*.