

2.1 Course summary

The course deals with various experimental designs involving between- and within-subjects factors, for which some form of analysis of variance is an appropriate method of data analysis. Particular emphasis is placed on the use of simultaneous test procedures and simultaneous confidence intervals to produce coherent analyses of data from complex experiments.

Course Topics:

1. The two-group randomised experiment. Review of statistical inference on a comparison between two means: hypothesis tests and confidence intervals. Levels of inference: confidence interval inference, directional inference, inequality inference. Inferential errors - Type I, Type II and Type III errors, non-coverage errors. Practical equivalence inference.
2. The problem of multiple comparisons with more than two groups. Monte Carlo sampling experiments. Logical and statistical dependence among comparisons. Error rate units: Per-comparison error rate and familywise error rate. Error rates for individual t-test of maximal comparison when $J > 2$.
3. Controlling the familywise error rate for test of the maximal comparison 6.6 (n I[(e)-30.6 (m)-7.6 (Ilin).7 (n)13.2

2.4 Relationship between course and program learning outcomes and assessments

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

3. Strategies and approaches to learning

4. Course schedule and structure

5. Assessment

5.1 Assessment tasks

UNSW operates under 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.

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. ~~Exemption 1e (b) 13 (c) 3 516-098705-0d40(2)-fm12-89(4) 3-2.2(c) 03.2~~

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