



Module Descriptor for MDCS41990 in 2021/2022

Short Title	Long Title	Subject Area	College	School/Unit	Last Modified
Biostatistics&Data Mgt Online	Biostatistics&Data Mgt Online	Medicine Clinical Science	Health & Agricultural Sciences	Medicine	30 Jul 2021

UCD Level	Credits (ECTS)	Semester/Trimester	Grade Scale	VLE Setup	Module Coordinator	Status
4 - Masters	10.0	2 Trimester duration (Spr-Sum)	Letter grades	Module in Brightspace	Marie Galligan	Active

Credits (ECTS)	Spring Credit Allocation	Summer Credit Allocation
10.00	3.50	6.50

Mode of Delivery	Internship Module	Clinical / Fieldwork / Placement
Online	No	Other

Overall Places	Core/Option	General Elective	First Year Elective	International	Open Learning
100	100	0	0	0	0

Purpose & Overarching Content
This module introduces students to key concepts in data management and biostatistics for clinical research. Students will learn about statistical concepts including experimental design, parameters and statistics, sampling, variables, descriptive statistics, sampling variability and confidence intervals, hypothesis testing and statistical principles applicable to clinical trials. Students will also learn about data management activities in clinical research, including data collection, validation, security and protection. In addition to a theoretical framework, this module also gives students hands-on experience of designing data collection instruments and experience of analyzing data in SPSS.

Learning Outcomes
On completion of this module, students should be able to Recognize the importance of data management and biostatistics in clinical research Discuss the core considerations of data management in clinical research, including data collection, storage, security, protection, etc.; Appraise a clinical research protocol for sources of bias and variability Understand, interpret and critique a range of statistical methodologies commonly applied to data generated from clinical research Conduct and interpret a basic statistical analysis of a clinical dataset Formulate a data management plan for a clinical research project

Approaches to Teaching and Learning
Online lectures Practical statistics labs Weekly quizzes Discussion forum

Student Effort Hours

Student Effort Type	Hours
Contact Time	
Computer Aided Lab	20
Tutorial	22
Lectures	40
Total Contact Time	82
Autonomous Student Learning	
Autonomous Student Learning	120
Total Autonomous Student Learning	120
Total	202



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Assessment Details

Assesment Type	Description	Timing	Open Book?	% of Final Grade	Component Scale	Must-Pass?	In-module Component Repeat Offered?
Examination	Final exam, to take place at the end of trimester 3.	End of trimester MCQ	Yes	30	Standard Conversion Scale	No	No
Continuous Assessment	You'll complete a number of tasks throughout the module on the discussion forum in Brightspace. Active participation in these activities will be worth 5% per trimester (10% in total).	Throughout the Trimester		10	Standard Conversion Scale	No	No
Assignment	Development of a data management plan and case report form for a clinical research study.	Throughout the Trimester		30	Standard Conversion Scale	No	No
Assignment	This assignment will require you to conduct data analysis of a clinical trial dataset and report and interpret the findings.	Throughout the Trimester		30	Standard Conversion Scale	No	No
Total				100			

Carry Forward of Passed Components

Yes

Feedback Strategy

Feedback Strategies	Sequence of Feedback
<ul style="list-style-type: none"> - Feedback individually to students, post-assessment - Group/class feedback, post-assessment - Online automated feedback 	Students will receive group-level feedback on discussion forum postings relating to the module. Students will receive immediate feedback on performance in online quizzes and will receive individual feedback on submitted assignments, post-assessment.

Remediation Strategy

Remediation Type	Remediation Timing
Repeat	Within Two Trimesters

Associated Staff

Name	Role
Miss Denise Gosling	Assistant Grader
Mr Martin Heduan	Assistant Grader
Mr Anthony Hyland	Assistant Grader
Mrs Allison Kacperski	Assistant Grader
Ms Susan Muldoon	Assistant Grader
Ms Emanuela Pizzi	Assistant Grader
Mr Adam Tattersall	Assistant Grader
Dr Marie Galligan	Lecturer / Co-Lecturer
Dr Deborah Wallace	Lecturer / Co-Lecturer
Ms Helen Campion	VLE Access Only
Professor Peter Doran	VLE Access Only

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