

Research Methods

Module Information

2022.01, Approved

Summary Information

Module Code	7501BDSA
Formal Module Title	Research Methods
Owning School	Computer Science and Mathematics
Career	Postgraduate Taught
Credits	20
Academic level	FHEQ Level 7
Grading Schema	50

Teaching Responsibility

LJMU Schools involved in Delivery
Computer Science and Mathematics

Learning Methods

Learning Method Type	Hours
Lecture	60

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-PAR	PAR	September	12 Weeks

Aims and Outcomes

Aims	The course is designed to equip students with the knowledge and transferable skills needed for master thesis. The course covers methods of data collection, processing & analysis when conducting empirical research as well as data security and ethics associated with using open-source data. It also covers several important issues such as project management techniques, searching tools, literature review, citation, referencing, and plagiarism. The course emphasizes research-related communication skills and equips students with the skills of writing a master proposal and report as well as giving an oral presentation. The delivery mode of this course varies to span different methods such as lectures, seminars, workshops, and projects.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate knowledge of the principles and fundamentals of research.
MLO2	2	Develop a research proposal in the field of big data science and analytics.
MLO3	3	Critically evaluate (following rubrics) scientific articles in the related field of interest.
MLO4	4	Prepare an appropriate data management plan for data acquisition and analysis.
MLO5	5	Communicate the research results and argue the reasoning behind the research work in terms of written report and oral presentation.

Module Content

Outline Syllabus	Introduction Research Problem Summary and Critique Research Components Literature Review Referencing Style Research Design Data Collection Data Processing Communicating Results
Module Overview	
Additional Information	The module contributes to the master's aim to equip the student with the required abilities and skills to perform data science on real-world applications.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Essay	Research & Literature Review	30	0	MLO1, MLO2
Presentation	Article Critique & Discussion	30	0	MLO3
Portfolio	Research Report & Presentation	40	0	MLO4, MLO5

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Sandra Ortega Martorell	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings