UNSW Course Outline

ZPEM2213 The Art and Science of Doing Geography - 2024

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General Course Information

Course Code : ZPEM2213
Year : 2024
Term : Semester 2
Teaching Period : Z2
Is a multi-term course? : No
Faculty : UNSW Canberra
Academic Unit : UC Science
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : UNSW Canberra at ADFA
Campus : UNSW Canberra
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

The Art and Science of Doing Geography is designed to introduce students to the fundamentals of research design and to the practicalities of both Qualitative and Spatial Science research methods.

Qualitative Research refers to a range of philosophies and techniques used to explore the meanings, interpretations and values of social processes and phenomena that are of interest to Human Geographers. It develops an in-depth approach to research, emphasising the contextuality of knowledge, the complexity of lifeworlds and the diversity of human experiences. As such, Qualitative Research has been innovative in reversing top down and mechanistic modes of social enquiry and thus in redefining what counts as legitimate forms of knowledge.

Spatial Science is a sub-discipline of Geography that includes the collection and interpretation of geographical data and remotely sensed imagery. It is used by almost all industries including the military, all levels of government, national parks, city planners and consultants. Remote sensing today involves satellites, aircraft and UAVs to record images of the environment. Spatial Science has radically changed our perceptions of the earth, our methods of data analysis, and our ability to solve social and environmental problems.

By the end of the course students will have developed a broad range of skills to conduct geographic research. In doing so they will be able to identify and utilise appropriate methodologies for a research project and its associated fieldwork activities. Specifically, the course will equip students in answering the following questions:

1. What key procedures are necessary in the implementation of a research project?
2. How do we acquire, process and critically evaluate qualitative and spatial data?
3. How can we effectively write about and present empirical research findings?

Course Aims

This course aims to introduce students to the fundamental skills needed to competently and ethically undertake geographic research. These fundamentals include the collection, processing, organization, analysis and interpretation of geographical data that has been collected from a range of primary and secondary sources

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Demonstrate the importance of linking theory to practice when undertaking a research project.
CLO2 : Evaluate the appropriateness of a range of data collection methods in a particular research context.
CLO3 : Apply basic techniques of qualitative and spatial scientific research to respond to research questions.
CLO4 : Synthesise qualitative and/or spatial science research findings together with insights from the academic literature.

Course Learning Outcomes	Assessment Item
CLO1 : Demonstrate the importance of linking theory to practice when undertaking a research project.	• In-class theory test • Research Methods Portfolio 1 • Research Methods Portfolio 2
CLO2 : Evaluate the appropriateness of a range of data collection methods in a particular research context.	• Research Methods Portfolio 1 • Research Methods Portfolio 2
CLO3 : Apply basic techniques of qualitative and spatial scientific research to respond to research questions.	• Research Methods Portfolio 1 • Research Methods Portfolio 2
CLO4 : Synthesise qualitative and/or spatial science research findings together with insights from the academic literature.	• Research Methods Portfolio 1 • Research Methods Portfolio 2

Learning and Teaching Technologies

Moodle - Learning Management System | Echo 360

Learning and Teaching in this course

Student-centred learning is a key component of the teaching philosophy for this unit. Students will be provided with the support that encourages a level of self-directed learning appropriate to a second-year undergraduate course. It is understood that students come to the class with a widely diverse skill set but, nonetheless, with capacities and knowledge on which we can build. Students' active participation in all aspects of the course is encouraged, including collaborating with colleagues to create a supportive learning environment.

Students are expected to attend all lectures and labs as per the timetable. It is vital that students

prepare for these contact hours by completing course readings.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
In-class theory test Assessment Format: Individual	10%	Due Date: Week 4: 05 August - 09 August
Research Methods Portfolio 1 Assessment Format: Individual Short Extension: Yes (3 days)	40%	Start Date: 23/08/2024 12:00 AM Due Date: Week 6: 19 August - 23 August
Research Methods Portfolio 2 Assessment Format: Individual Short Extension: Yes (3 days)	50%	Start Date: 25/10/2024 12:00 AM Due Date: 02/11/2024 23:59 PM

Assessment Details

In-class theory test

Course Learning Outcomes

- CLO1 : Demonstrate the importance of linking theory to practice when undertaking a research project.

Detailed Assessment Description

The In-class Quiz will give you an opportunity to demonstrate your knowledge of the theory of remote sensing and geographic information systems.

Assessment information

It is prohibited to use any software or service to search for or generate information or answers. If such use is detected, it will be regarded as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.

Research Methods Portfolio 1

Course Learning Outcomes

- CLO1 : Demonstrate the importance of linking theory to practice when undertaking a research project.
- CLO2 : Evaluate the appropriateness of a range of data collection methods in a particular research context.
- CLO3 : Apply basic techniques of qualitative and spatial scientific research to respond to research questions.
- CLO4 : Synthesise qualitative and/or spatial science research findings together with insights from the academic literature.

Detailed Assessment Description

The Spatial Science Lab Portfolio will collate the lab notes, activities and answers to questions around the theme of transport in Canberra and present a final map and 500-word discussion.

Assessment information

For this assessment task, you may use AI-based software to research and prepare prior to completing your assessment. You are permitted to use standard editing and referencing functions in word processing software – this includes spelling and grammar checking and reference citation generation in the creation of your submission. You must not use any functions that generate, paraphrase or translate passages of text, whether based on your own work or not. Please note that your submission will be passed through an AI-generated text detection tool. If your marker has concerns that your answer contains passages of AI-generated text you may be asked to explain your work. If you are unable to satisfactorily demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

Research Methods Portfolio 2

Course Learning Outcomes

- CLO1 : Demonstrate the importance of linking theory to practice when undertaking a research project.
- CLO2 : Evaluate the appropriateness of a range of data collection methods in a particular research context.
- CLO3 : Apply basic techniques of qualitative and spatial scientific research to respond to research questions.
- CLO4 : Synthesise qualitative and/or spatial science research findings together with insights from the academic literature.

Detailed Assessment Description

The Qualitative Methods Portfolio is designed to complement the theory and strategies learnt in the lectures and the skills utilised in the laboratory time. Students will be required to respond to five short answer questions which require them to assess data collected during the laboratory exercises in the second half of the course and critically evaluate the effectiveness of the techniques employed to better understand issues of mobility and transport in Canberra.

Assessment information

For this assessment task, you may use AI-based software to research and prepare prior to completing your assessment. You are permitted to use standard editing and referencing functions in word processing software – this includes spelling and grammar checking and reference citation generation in the creation of your submission. You must not use any functions that generate, paraphrase or translate passages of text, whether based on your own work or not. Please note that your submission will be passed through an AI-generated text detection tool. If your marker has concerns that your answer contains passages of AI-generated text you may be asked to explain your work. If you are unable to satisfactorily demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.

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General Assessment Information

Students will complete work for the Research Methods Portfolios in the Labs each week and it is therefore essential that studens attend these classes. Exemplar portfolios will be made available on Moodle and expectations for each portfolio will be outlined by the relevant staff member in class.

Grading Basis

Standard

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 15 July - 19 July	Lecture	Course introduction
	Lecture	Introduction to GIS and RS & Terrain
	Laboratory	Terrain
Week 2 : 22 July - 26 July	Lecture	Raster & Vector
	Lecture	Projections
	Laboratory	Vector
Week 3 : 29 July - 2 August	Lecture	Image characteristics
	Lecture	Image correction and enhancement
	Laboratory	Landsat
Week 4 : 5 August - 9 August	Lecture	Classification
	Lecture	Overlay
	Laboratory	Field
	Assessment	In-class quiz
Week 5 : 12 August - 16 August	Lecture	Data collection & GPS
	Lecture	Data collection & GPS
	Laboratory	Classifications
Week 6 : 19 August - 23 August	Lecture	Visualisation
	Lecture	Accuracy
	Laboratory	Overlays
	Assessment	Research Portfolio 1 due
Week 7 : 9 September - 13 September	Lecture	Introducing qualitative research methods
	Lecture	Theories of qualitative research
	Laboratory	Critical thinking
Week 8 : 16 September - 20 September	Lecture	Interviews
	Lecture	Focus groups
	Laboratory	Focus groups
Week 9 : 23 September - 27 September	Lecture	Ethnography 1
	Lecture	Ethnography 2
	Fieldwork	Ethnography
Week 10 : 30 September - 4 October	Other	No scheduled classes due to Labour Day public holiday and Military Training Days
Week 11 : 7 October - 11 October	Lecture	Archival research
	Lecture	Visual Methods
	Laboratory	Visual analysis
Week 12 : 14 October - 18 October	Lecture	Creative & experimental methods
	Lecture	Mixed-methods
	Laboratory	Sonic methods
Week 13 : 21 October - 25 October	Lecture	Course conclusion
	Laboratory	Final portfolio workshop (portfolio due in exam week)

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

General Schedule Information

Weeks 1 - 6: GEOGRAPHIC INFORMATION SCIENCE (GIS) AND REMOTE SENSING (RS)

Weeks 7-13 QUALITATIVE RESEARCH METHODS

Course Resources

Prescribed Resources

To pass this course students will need to engage with all the required readings. Required readings are available on Moodle at least one week in advance of the relevant lecture or lab.

Recommended Resources

To excel in the course students are recommended to engage with the supplementary or suggested readings which are provided each week on the Moodle homepage.

The following textbooks will be helpeful in understanding the methods taught on this course:

- Heywood, I., Cornelius, S. and Carver, S. (2012). An introduction to Geographical Information Systems. Fourth Edition. Prentice Hall, Harlow, England.
- DeLyser, D., S. Herbert, S. Aitken, M. Crang and L. McDowell (eds) (2009) The SAGE Handbook of Qualitative Geography (London: Sage).

Additional Costs

Students are advised to acquire a USB hard drvie with minimum free space exceeding 10GB

Course Evaluation and Development

Feedback will be invited informally during class discussions as well as formally via the 'On-going Student Feedback' link Moodle and at the end of the semester through the MyExperience survey. Students are welcome at any time on the course to share their experiences and constructive suggestions to help improve the student learning experience.

Student feedback is highly valued by the course staff and changes to the course are made each year in response to feedback received.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Nina Williams		Building 26, Room 332			No	Yes
Lecturer	Thomas Olive r					No	No