



SPED1020

Why People Believe Weird Things: Making Rational Decisions in an Irrational World

Session 2, Weekday attendance, North Ryde 2021

Macquarie School of Education

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Session 2 Learning and Teaching Update

The decision has been made to conduct study online for the remainder of Session 2 for all units WITHOUT mandatory on-campus learning activities. Exams for Session 2 will also be online where possible to do so.

This is due to the extension of the lockdown orders and to provide certainty around arrangements for the remainder of Session 2. We hope to return to campus beyond Session 2 as soon as it is safe and appropriate to do so.

Some classes/teaching activities cannot be moved online and must be taught on campus. You should already know if you are in one of these classes/teaching activities and your unit convenor will provide you with more information via iLearn. If you want to confirm, see the list of [units with mandatory on-campus classes/teaching activities](#).

Visit the [MQ COVID-19 information page](#) for more detail.

General Information

Unit convenor and teaching staff

Convener, Lecturer, Tutor

John Ehrich

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Contact via email

Building X5B 239 Macquarie University

9 am - 5 pm Monday - Friday

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Credit points

10

Prerequisites

Corequisites

Co-badged status

Unit description

This unit provides an introduction to why people make irrational decisions and how an understanding of the scientific process can assist making rational decisions in everyday life.

The unit will include examination of flaws in human perception and cognitive biases, characteristics of pseudoscience as well as features and limitations of scientific approaches.

Principles discussed in the unit will be illustrated with practical examples including paranormal claims, questionable educational interventions and dubious health claims. You will be equipped with tools to evaluate evidence, strengthen your reasoning and improve your decision making in both academic study as well as everyday life.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

ULO1: describe and critically evaluate the basic features and limitations of a scientific approach to evaluating evidence and claims

ULO2: identify typical indicators of pseudo-science in evaluating evidence and claims

ULO3: critically evaluate at a basic level a range of claims and evidence from a range of academic and non-academic sources

ULO4: explain common factors that contribute to errors in human judgement when evaluating claims

General Assessment Information

Assessment Presentation and Submission Guidelines

Please follow these guidelines when you submit each assignment:

- Allow a left and right-hand margin of at least 2cm in all assignments.
- Please type all assignments using 12-point font and 1.5 spacing.
- All assessments must be submitted through Turnitin in .doc or .pdf format
- It is the responsibility of the student to ensure that all assessments are successfully submitted through Turnitin.
- Faculty assignment cover sheets are NOT required.

Draft Submissions & Turnitin Originality Reports

- Students may use Turnitin's Originality Report as a learning tool to improve their academic writing if this option is made available in the unit.
- Students are strongly encouraged to upload a draft copy of each assessment to Turnitin at least one week prior to the due date to obtain an Originality Report.
- The Originality Report provides students with a similarity index that may indicate if plagiarism has occurred. Students will be able to make amendments to their drafts prior to their final submission on the due date.
- Generally, one Originality Report is generated every 24 hours up to the due date.

Please note:

- Students should regularly save a copy of all assignments before submission,
- Students are responsible for checking that their submission has been successful and has been submitted by the due date and time.

Assignment extensions and late penalties

- In general, there should be no need for extensions except through illness or misadventure that would be categorised as serious and unavoidable disruption according to the University definition of same, see: <https://students.mq.edu.au/study/my-study-program/special-consideration>
- Applications for extensions must be made via AskMQ according to the Special Consideration policy. Extensions can only be granted if they meet the Special

Considerations policy and are submitted via <https://ask.mq.edu.au/>. This will ensure consistency in the consideration of such requests is maintained.

- Late submissions: Unless a Special Consideration request has been submitted and approved, (a) a penalty for lateness will apply - 10/100 marks of credit (10% of the total assessment weighting) will be deducted per day for assignments submitted after the due date – and (b) no assignment will be accepted seven days (incl. weekends) after the original submission deadline. No late submissions will be accepted for timed assessment - e.g. quizzes, online tests. A zero result for the assignment will be recorded after the late submission period has ended if no task has been received.
- If a student is still permitted to submit on the basis of unavoidable disruption, an alternative topic may be set.
- Students should keep an electronic file of all assessments. Claims regarding "lost" assessments cannot be made if the file cannot be produced. It is also advisable to keep an electronic file of all drafts and the final submission on a USB untouched/unopened after submission. This can be used to demonstrate easily that the assessment has not been amended after the submission date.

Requesting a re-assessment of an assignment

If you have **evidence** that your task has been incorrectly assessed against the grade descriptors you can request a re-mark. To request a re-mark you need to contact the unit convenor within **7 days** of the date of return of the assignment and provide **a detailed assessment of your script against the task criteria**. Evidence from your assignment must be provided to support your judgements.

Note:

- Please do not request a re-mark for a Failed assessment as they are all double-marked as a part of the moderation process.
- The outcome of a re-mark may be a **higher/lower or unchanged grade**.
- Grades are *standards referenced* and effort is NOT a criterion.

Quiz Assessments

Online quizzes are an individual assessment task and **MUST BE COMPLETED by each student individually**. Similarities in responses between students will be checked and investigated for possible collusion. Please see the Academic Honesty Handbook for more information.

University policy on grading

Criteria for awarding grades for assessment tasks

Assignments will be awarded grades ranging from HD to F according to guidelines set out in the

University's Grading Policy. The following descriptive criteria are included for your information.

Descriptive Criteria for awarding grades in the unit

In order to meet the unit outcomes and successfully pass this unit, students must make a genuine attempt at all assessment tasks. Where any submitted assessment task is considered to be unsatisfactory in this regard, the highest possible final grade that can be awarded for the unit will be 45.

Students will be awarded grades ranging from HD to F according to guidelines set out in the policy: <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/assessment-in-effect-from-session-2-2016>

The following generic grade descriptors provide university-wide standards for awarding final grades.

Grade	Descriptor
HD (High Distinction)	Provides consistent evidence of deep and critical understanding in relation to the learning outcomes. There is substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critical evaluation of problems, their solutions and their implications; creativity in application as appropriate to the discipline.
D (Distinction)	Provides evidence of integration and evaluation of critical ideas, principles and theories, distinctive insight and ability in applying relevant skills and concepts in relation to learning outcomes. There is demonstration of frequent originality in defining and analysing issues or problems and providing solutions; and the use of means of communication appropriate to the discipline and the audience.
Cr (Credit)	Provides evidence of learning that goes beyond replication of content knowledge or skills relevant to the learning outcomes. There is demonstration of substantial understanding of fundamental concepts in the field of study and the ability to apply these concepts in a variety of contexts; convincing argumentation with appropriate coherent justification; communication of ideas fluently and clearly in terms of the conventions of the discipline.
P (Pass).	Provides sufficient evidence of the achievement of learning outcomes. There is demonstration of understanding and application of fundamental concepts of the field of study; routine argumentation with acceptable justification; communication of information and ideas adequately in terms of the conventions of the discipline. The learning attainment is considered satisfactory or adequate or competent or capable in relation to the specified outcomes
F (Fail)	Does not provide evidence of attainment of learning outcomes. There is missing or partial or superficial or faulty understanding and application of the fundamental concepts in the field of study; missing, undeveloped, inappropriate or confusing argumentation; incomplete, confusing or lacking communication of ideas in ways that give little attention to the conventions of the discipline.

Note: If you fail a unit with a professional experience component, the fail grade will be on your transcript irrespective of the timing of the placement.

Withdrawing from this unit

If you are considering withdrawing from this unit, please seek academic advice via <https://ask.mq.edu.au> before doing so as this unit may be a co-requisite or prerequisite for units in the following sessions and may impact on your progression through the degree.

Results

Results shown in iLearn, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit [ask.mq.edu.au](#).

Assessment Tasks

Name	Weighting	Hurdle	Due
Assignment	35%	No	23:59 10/9/2021
Final Exam	40%	No	During Examination Period
Weekly topic quiz	25%	No	23:59, Fridays, weekly from week 3 – 11

Assignment

Assessment Type ¹: Problem set

Indicative Time on Task ²: 30 hours

Due: **23:59 10/9/2021**

Weighting: **35%**

The assignment consists of two parts. The first part involves a conceptual question related to content considered in the first four weeks of the unit. The second part involves the analysis of a scenario for possible signs of pseudoscience and/or features of a scientific approach.

On successful completion you will be able to:

- identify typical indicators of pseudo-science in evaluating evidence and claims
- critically evaluate at a basic level a range of claims and evidence from a range of academic and non-academic sources
- explain common factors that contribute to errors in human judgement when evaluating claims

Final Exam

Assessment Type ¹: Examination

Indicative Time on Task ²: 52 hours

Due: **During Examination Period**

Weighting: **40%**

A two-hour examination, held during the University examination period, is comprised of short answer questions. It covers material from all readings, lectures and tutorials.

On successful completion you will be able to:

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- identify typical indicators of pseudo-science in evaluating evidence and claims
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- explain common factors that contribute to errors in human judgement when evaluating claims

Weekly topic quiz

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 9 hours

Due: **23:59, Fridays, weekly from week 3 – 11**

Weighting: **25%**

A total of 9 weekly online multiple choice topic quizzes, each of 5 minutes duration, will be conducted in ilearn. The best 7 scores in these quizzes will count toward the final mark for this component of the assessment.

On successful completion you will be able to:

- describe and critically evaluate the basic features and limitations of a scientific approach to evaluating evidence and claims
- identify typical indicators of pseudo-science in evaluating evidence and claims
- critically evaluate at a basic level a range of claims and evidence from a range of academic and non-academic sources
- explain common factors that contribute to errors in human judgement when evaluating claims

¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

Required and recommended texts

There is no set text but readings will be available through Leganto.

Information about the unit iLearn site

This unit has a full web presence through *iLearn*.

Students will need regular access to a computer and the Internet to complete this unit.

Weekly access to iLearn is compulsory for all students. Important assessment information will be posted here, as will other relevant unit notices and materials, including a reading template and guide to lecture note taking to assist your studies.

Various activities and materials for discussion and critical reflection are included and external students especially are encouraged to use this web component. Electronic links and suggested references will be included in the Resources section. Please check the iLearn unit regularly.

Weekly lectures are available on the web through the ECHO360 lecture component. You must listen to all lectures if you do not attend these 'live'.

PowerPoint slides are available in iLearn in advance of the weekly lecture and/or are available in the Active Learning Tool.

Access and technical assistance

Information for students about access to the online component of this unit is available at <https://ilearn.mq.edu.au/login/index.php>. You will need to enter your student username and password.

Please do **NOT** contact the Unit Convenor regarding *iLearn* technical help.

No extensions will be given for any technical issues. Allow enough time for your submissions.

Assistance is available from IT Helpdesk ph: 1800 67 4357, or log a request at help.mq.edu.au. OneHelp is the online IT support service for both students and staff.

This unit requires students to use several ICT and software skills:

- **Internet access:** The iLearn site contains materials for this unit; it is also required for the online submission of all Assessment Tasks, and for the use of Turnitin submission for ALL tasks.
- **Word processing, visual representations, and document formatting:** You are required to use an appropriate form of software to present your assignments.
- **Uploading** of assessment tasks to **iLearn**.

Other useful information about how the teaching is structured. Suggested wording below. Please amend for your unit.

Structure

The unit comprises a weekly one-hour lecture and a one-hour tutorial. In the tutorial students will discuss issues and questions arising from the lectures and prescribed readings. They are expected to base their arguments/discussions on evidence from published research and other relevant material. There will be a supporting website for the unit providing additional readings, links and materials. Lectures will also be available through Echo in iLearn from the following website link: <http://ilearn.mq.edu.au>

Students are required to participate in small group activities, whole class discussion, to read the weekly material in advance, and to complete brief tasks either as individuals or in pairs. The weekly program for the course with the accompanying readings/ preparation is available on the following pages or on the unit iLearn site.

Unit Schedule

Wk	Week Start	Lecture	Tutorial Topic	Quiz	Reading
1	26 July	Introduction	What Do You Believe?	No	1. Hoggart, S., & Hutchinson, M. (1995). Bizarre beliefs. Cohen Books: London, UK. Chapter 1, Introduction., pp. 9 – 17. 2. SPED102 Unit Guide
2	2 Aug	Critical thinking	Critical Thinking Skills	No	Facione, P.A. (2015), Critical Thinking: What It is and Why it Counts. <i>Insight Assessment</i> .
3	9 Aug	Cognitive Biases 1	The Fallacy of Personal Validation	Yes	French, C. C., & Wilson, K. (2007). Cognitive factors underlying paranormal beliefs and experiences. In S. Della Sala (ed.). Tall tales about the mind and brain: Separating fact from fiction. Oxford University Press: Oxford. pp. 3-22.
4	16 Aug	Cognitive Biases 2	Thanks for the Memories!	Yes	Loftus, E. F. (2005). Planting misinformation in the human mind: A 30-year investigation of the malleability of memory. <i>Learning and Memory</i> , 12, 361-366.
5	23 Aug	Science vs Pseudoscience	Astrology – Science or Pseudoscience?	Yes	Hines, T. (2003). Pseudoscience and the paranormal. Prometheus Books: Amherst, NY. The nature of pseudoscience, Chapter 1, pp.13-41.
6	30 Aug	Pathological Science	Lets Make an Ology!	Yes	Huizenga, J. R. (1993). Cold fusion : The scientific fiasco of the century. Oxford University Press: Oxford. Chapter 12, Pathological science, pp. 201 – 214.
7	6 Sep	Research methods – Good vs Bad Science	Research Methods	Yes	Jackson, S. L. (2006) Research methods and statistics. Thomson Wadsworth. Chapter 1, pp. 11-25.
	13 Sep	Assignment 1 due			
		Recess			
	20 Sep				
		Recess			
8	27 Sep	Use and Misuse of Statistics	Preparation of Bad Science Proposals	Yes	Goldacre, B. (2008). Bad science. McClelland & Stewart: London. Chapter 14, Bad stats, pp. 256-277.

9	4 Oct	Education Related Pseudoscience	Presentation of Bad Science Proposals	Yes	Carter, M. & Wheldall, K. (2008). Why can't a teacher be more like a scientist? Science, pseudoscience and the art of teaching. Australasian Journal of Special Education, 32, 5-21.
10	11 Oct	Health Related Pseudoscience	Alternative Medicines	Yes	Hall, H. (2013). Down the garden path: Faulty thinking and self-delusion. Skeptical Inquirer, 37 (4), 32-35.
11	18 Oct	Paranormal – The Truth is Out There	Psychics Exposed – Cold Reading Workshop	Yes	1. Hyman, R. (2003). How not to test mediums: critiquing the Afterlife Experiments, Skeptical Inquirer, 27 (1), 20-30. 2. Nickell, J. (2001) John Edward: Hustling the bereaved: Skeptical Inquirer, 25(6), 19-23.
12	25 Oct	Putting it all together – the take home message	Revision	No	No reading. Personal study time.
13	1 Nov	No Lecture	Revision	No	No reading. Personal study time.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies \(https://students.mq.edu.au/support/study/policies\)](https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- [Getting help with your assignment](#)
- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

5Rs Framework

5Rs Framework

The 5Rs Framework, developed by the School of Education at Macquarie University, is embedded throughout your teacher education course. Your use of the 5Rs Framework will help you develop the capabilities that will make your teaching career sustainable and fulfilling. The 5 Rs are:

Resilience practiced inside and outside of the classroom.

Reflexive in their teaching practice.

Responsive to students, colleagues, parents and professional communities.

Ready to learn.

Research engaged throughout their career.

In this unit, you will learn using the 5Rs framework in the following important ways:

Resilience will be developed through a major focus on critical thinking skills via exposure to a diversity of ideas (i.e., problematic knowledge) which challenge belief systems and academic orthodoxy. Tutorial and assessment tasks encourage reflection on pseudo-science perpetuated within teacher education programs and their comprehension from a critical thinking lens. The subject develops research and investigative skills, i.e., students critically evaluate a range of claims and evidence from a number of academic and non-academic sources.