



PSYO8922

Human Factors in New Technology

Session 1, Weekday attendance, North Ryde 2021

Archive (Pre-2022) - Department of Psychology

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Notice

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff

Mark Wiggins

mark.wiggins@mq.edu.au

Credit points

10

Prerequisites

Admission to MOrgPsych

Corequisites

Co-badged status

Unit description

This unit examines the relationship between human performance and advanced technology, and the role of organisational psychologists in optimising this relationship. This unit will provide students with knowledge of theories and practical perspectives relating to the application of human factors principles in a range of operational settings. Practical components of the unit focus on the conduct of hazard analyses, task analyses, risk assessments, usability analyses, and human factors tests.

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: Demonstrate knowledge by critically analysing models and theories that purport to explain human performance and technology.

ULO2: Apply and differentiate the strategies associated with proactive and reactive human performance assessment, including practical issues and challenges.

ULO3: Prepare and undertake a usability analysis.

ULO4: Undertake and summarise the outcomes of a cognitive interview.

ULO5: Develop and defend a human factors test plan.

ULO6: Propose solutions to improve the relationship between human performance and technology.

Assessment Tasks

Name	Weighting	Hurdle	Due
User Experience report	35%	No	01/04/21
Human Factors Test plan	35%	No	20/05/21
Closed book examination	30%	No	02/06/21
Fortnightly Quiz questions	0%	No	04/06/21

User Experience report

Assessment Type ¹: Report

Indicative Time on Task ²: 35 hours

Due: **01/04/21**

Weighting: **35%**

This 2000 word assessment task involves a report in which you examine a website of your choice and provide recommendations to address any user experience or usability issues identified.

On successful completion you will be able to:

- Prepare and undertake a usability analysis.
- Undertake and summarise the outcomes of a cognitive interview.
- Propose solutions to improve the relationship between human performance and technology.

Human Factors Test plan

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 35 hours

Due: **20/05/21**

Weighting: **35%**

This 2500 word task involves the development of a human factors test plan to evaluate the outcomes of an initiative that is intended to improve human performance.

On successful completion you will be able to:

- Apply and differentiate the strategies associated with proactive and reactive human performance assessment, including practical issues and challenges.
- Develop and defend a human factors test plan.
- Propose solutions to improve the relationship between human performance and

technology.

Closed book examination

Assessment Type ¹: Examination

Indicative Time on Task ²: 35 hours

Due: **02/06/21**

Weighting: **30%**

In class Closed book 50 minute examination of 25 short answer questions.

On successful completion you will be able to:

- Demonstrate knowledge by critically analysing models and theories that purport to explain human performance and technology.
- Apply and differentiate the strategies associated with proactive and reactive human performance assessment, including practical issues and challenges.

Fortnightly Quiz questions

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 3 hours

Due: **04/06/21**

Weighting: **0%**

Completion of the multiple choice questions associated with each video recording

On successful completion you will be able to:

- Demonstrate knowledge by critically analysing models and theories that purport to explain human performance and technology.
- Apply and differentiate the strategies associated with proactive and reactive human performance assessment, including practical issues and challenges.

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

This unit consists of alternating face-to-face and on-line classes. Where a class is delivered on-

line, students will be expected to: (a) Review a 20 minute (approx.) video clip, read the relevant chapter in the textbook together with one or two additional papers, answer questions to a short, on-line quiz, and undertake any activities as directed for that week.

Students are expected to attend all scheduled classes. Learning objectives and assessment activities are based on the requirements of a minimum 80% class attendance. If there are exceptional circumstances where a session must be missed, this will need to be arranged with the unit convener in advance. Failure to do so implies a lack of professionalism.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS Required readings include chapters from the textbook, and readings listed in the Topic Notes

Textbook: Stone, N.J., Chaparro, A., Keebler, J.R., Chaparro, B.S., & McConnell, D.S. (2018). Introduction to human factors: Applying psychology to design. Boca Raton, FL: CRC Press

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.