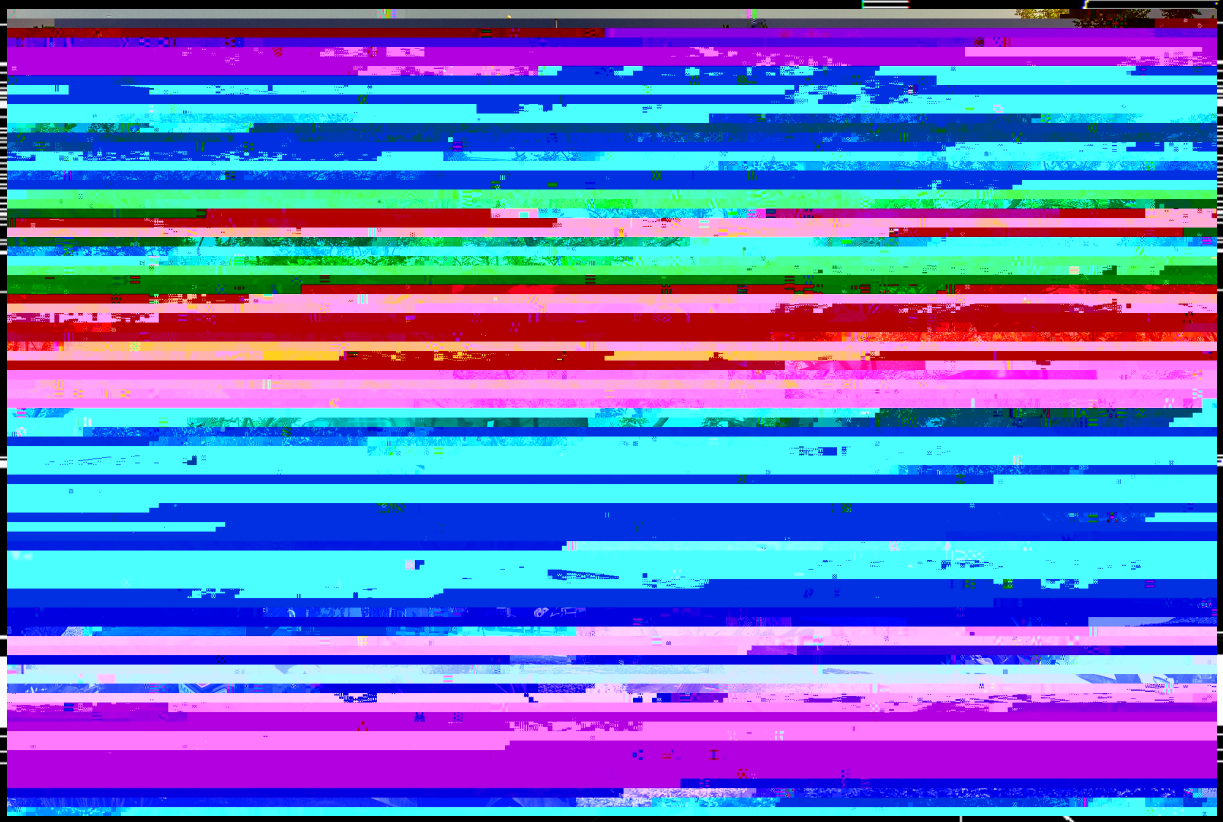
CVEN4405

Human Factors in Civil and Transport Engineering

Term 3, 2022



Course Overview

Staff Contact Details

Convenors

Name	Email	Availability	Location	Phone
Milad Haghani	milad.haghani@unsw.edu.au		Room 112, Civil Engineering Building (H20), Kensington Campus	

Administrators

Name	Email	Availability	Location	Phone
Milad Haghani	milad.haghani@unsw.edu.au		Room 112, Civil Engineering Building (H20), Kensington Campus	

School Contact Information

Engineering Student Support Services – The Nucleus - enrolment, progression checks, clash requests, course issues or program-related queries

Engineering Industrial Training – Industrial training questions

UNSW Study Abroad – study abroad student enquiries (for inbound students)

UNSW Exchange – student exchange enquiries (for inbound students)

UNSW Future Students – potential student enquiries e.g. admissions, fees, programs, credit transfer

Phone

(+61 2) 9385 8500 – Nucleus Student Hub

(+61 2) 9385 7661 – Engineering Industrial Training

(+61 2) 9385 3179 – UNSW Study Abroad and UNSW Exchange (for inbound students)

Course Details

Units of Credit 6

Summary of the Course

Human factors is the scientific discipline concerned with the understanding of interactions between humans and other elements of a system. The profession applies theory, principles, data and methods to the design process to optimise human well-being and overall system performance. This course, which also encompasses the field of engineering psychology, will equip students with the fundamental knowledge and skills necessary for human-centred design across many civil engineering disciplines, with a focus on the road and traffic management system to optimise its performance and make it safe, efficient and satisfying to use. Students will also gain an appreciation of the critical human considerations that are critical in the successful design, operation and evaluation of intelligent and automated transport systems (including connected and automated vehicles), now and into the future.

Course Aims

The aim of the course is to introduce students to fundamental Human Factors theory, principles, methods and data and their application to road and traffic engineering design, in order to optimise human well-being and overall performance of the road and traffic management system.

Course Learning Outcomes

1. Explain the Fundamental Principles of Human Factors that can be used by Civil and Transport Engineers to Facilitate User-Centred Design.
2. Apply and Integrate HF principles, methods and data into the design of the Road and Traffic Management Systems, now and in the future.
3. Utilise HF Research Methods to Design and Evaluate Road and Traffic Management Systems.

Teaching Strategies

Please refer to the information in Moodle

Assessment

Assessment task	Weight	Due Date	Course Learning Outcomes Assessed
1. Group Assignment	15%	03/10/2022 11:00 PM	1, 2, 3
2. Group Assignment			

03/10/2022 11:00 PM

A mark of at least 40% in the final examination is required before the class work is included in the final mark.

Attendance Requirements

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

Course Schedule

View class timetable

Timetable

Date	Type	Content
Week 4: 3 October - 7 October	Assessment	Group Assignment

Resources

Prescribed Resources

Not applicable

Recommended Resources

Not applicable

Submission of Assessment Tasks

Please refer to the Moodle page of the course for further guidance on assessment submission.

UNSW has a standard late submission penalty of:

- 5% per day, for all assessments where a penalty applies, capped at five days (120 hours), after which a student cannot submit an assessment, and no permitted variation.

Academic Honesty and Plagiarism

Beware! An assignment that includes plagiarised material will receive a 0% Fail, and students who plagiarise may fail the course. Students who plagiarise are also liable to disciplinary action, including exclusion from enrolment.

Plagiarism is the use of another person’s work or ideas as if they were your own. When it is necessary or desirable to use other people’s material you should adequately acknowledge whose words or ideas they

Academic Information

Final Examinations:

Final exams in T3 2022 will be held online between 25th November - 8th December 2022 inclusive, and supplementary exams between 9th - 13th January 2023 inclusive. You are required to be available on