



UNSW Course Outline

BLDG1021 Industrial & Infrastructure Construction - 2024

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General Course Information

Course Code : BLDG1021

Year : 2024

Term : Term 2

Teaching Period : T2

Is a multi-term course? : No

Faculty : Faculty of Arts, Design and Architecture

Academic Unit : School of Built Environment

Delivery Mode : Multimodal

Delivery Format : Standard

Delivery Location : Kensington

Campus : Sydney

Study Level : Undergraduate

Units of Credit : 6

Useful Links

[Handbook Class Timetable](#)

Course Details & Outcomes

Course Description

Industrial & Infrastructure Construction extends your knowledge on technologies, systems and processes of Industrial and Infrastructure Construction (IIC). It covers fundamental construction methods and processes for a variety of industrial and infrastructure projects such as

warehouses, factories, highways, rail work, bridges, and tunnelling. This course also introduces you to construction innovations including new equipment, plant and information technologies, which may be used in industrial and infrastructure projects. You will learn what IIC is, and distinguish the differences between it and non-industrial construction. Particularly, you will become familiar with how to build, which equipment and technology should be used, and why this technology should be utilised in infrastructure construction projects.

Course Learning Outcomes

Course Learning Outcomes
CL01 : Analyse the management requirements and outcomes for different infrastructure construction projects.
CL02 : Explain the processes and technologies used in infrastructure construction projects.
CL03 : Assess operational challenges of infrastructure construction projects.

Course Learning Outcomes	Assessment Item
CL01 : Analyse the management requirements and outcomes for different infrastructure construction projects.	<ul style="list-style-type: none"> • Online Quiz • Final Exam
CL02 : Explain the processes and technologies used in infrastructure construction projects.	<ul style="list-style-type: none"> • Online Quiz • Final Exam
CL03 : Assess operational challenges of infrastructure construction projects.	<ul style="list-style-type: none"> • Group Project • Final Exam

Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Online Quiz Assessment Format: Individual	20%	Start Date: 17/06/2024 09:00 PM Due Date: 23/06/2024 11:00 PM
Group Project Assessment Format: Group	30%	Start Date: 24/06/2024 09:00 PM Due Date: 28/07/2024 11:55 PM
Final Exam Assessment Format: Individual	50%	Start Date: Not Applicable Due Date: Not Applicable

Assessment Details

Online Quiz

Assessment Overview

You will be quizzed on your knowledge of topics covered in the course. Feedback will be provided in the form of the correct answers.

Course Learning Outcomes

- CL01 : Analyse the management requirements and outcomes for different infrastructure construction projects.
- CL02 : Explain the processes and technologies used in infrastructure construction projects.

Detailed Assessment Description

Note: Full details of assessments are provided separately (available on Moodle).

Assignment submission Turnitin type

Not Applicable

Group Project

Assessment Overview

In a group, you will document and analyse an industrial and infrastructure construction project. Grading will be done against assessment criteria, accompanied by written feedback to the group.

Course Learning Outcomes

- CL03 : Assess operational challenges of infrastructure construction projects.

Detailed Assessment Description

Note: Full details of assessments are provided separately (available on Moodle).

Assessment Length

500 words max. per Wiki page.

Assignment submission Turnitin type

This is not a Turnitin assignment

Final Exam

Assessment Overview

The final exam will assess your knowledge of the key concepts and theories covered in the course. Feedback will be provided by the course convenor upon request.

Course Learning Outcomes

- CL01 : Analyse the management requirements and outcomes for different infrastructure construction projects.
- CL02 : Explain the processes and technologies used in infrastructure construction projects.
- CL03 : Assess operational challenges of infrastructure construction projects.

Detailed Assessment Description

Note: Full details of assessments are provided separately (available on Moodle).

Assignment submission Turnitin type

Not Applicable

General Assessment Information

Use of Artificial Intelligence (AI) – such as ChatGPT – in UNSW Assessments*

The following levels of generative AI use may be applied to assessments (**NB: *The specific permitted level of AI use will be specified in the Assessment brief.***)

- 1. NO ASSISTANCE:** It is prohibited to use any software or service to search for or generate information or answers. If its use is detected, it will be regarded as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.
- 2. SIMPLE EDITING ASSISTANCE:** For this assessment task, you may use standard editing and referencing software, but not generative AI. You are permitted to use the full capabilities of the standard software to answer the question (e.g. Microsoft Office suite, Grammarly, etc.). If the use of generative AI such as ChatGPT is detected, it will be regarded as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.
- 3. PLANNING ASSISTANCE:** As this assessment task involves some planning or creative processes, you are permitted to use software to generate initial ideas. However, you must develop or edit those ideas to such a significant extent that what is submitted is your own work, i.e. only occasional AI generated words or phrases may form part of your final submission. It is a good idea to keep copies of the initial prompts to show your lecturer if there is any uncertainty about the originality of your work. If the outputs of generative AI such as ChatGPT form a part of your submission, it will be regarded as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.

4. FULL ASSISTANCE WITH ATTRIBUTION: You can use generative AI software in this assessment to the extent specified in the assessment instructions. Any output of generative software within your assessment must be attributed with full referencing. If the outputs of generative AI such as ChatGPT form part of your submission and is not appropriately attributed, it will be regarded as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.

*** To cite:** OpenAI (Year Accessed). ChatGPT. OpenAI. <https://openai.com/models/chatgpt/>

** Please note that the outputs from these tools are not always accurate, appropriate, nor properly referenced. You should ensure that you have moderated and critically evaluated the outputs from generative AI tools such as ChatGPT before submission.*

Submission of Assessment Tasks

All assessment tasks must be submitted via either Turnitin or a Moodle assignment. In instances where this is not possible, it will be stated on your course's Moodle site with alternative submission details.

You are advised to submit well before the deadline to avoid unanticipated submission errors. Always retain a copy of work submitted, and keep all drafts, original data and other evidence of the authenticity of your work for at least one year after assessment. If an assessment is mislaid you are responsible for providing a further copy.

For information on how to submit assignments online via Moodle:

<https://student.unsw.edu.au/howsubmit-assignment-moodle>

Feedback is an indispensable part of assessment. All assessment tasks include written provided feedback. In addition to the feedback strategy for assessment tasks, students will be encouraged to ask questions during lectures and tutorials and the lecturer will be available for questions directly after class.

Feedback Mechanism

1. Assessment 1

Mechanism: Written feedback in Moodle and group discussion in class/tutorials

Delivery date: Within 12 working days of submission as per UNSW Assessment Procedure

2. Assessment 2

Mechanism: Written feedback in Moodle

Delivery date: Within 15 working days of submission as per UNSW Assessment Procedure

3. Assessment 3

Feedback mechanism: Provided upon request.

Grading Basis

Standard

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 0 : 20 May - 26 May	Other	Introductory activity • Welcome students • Course introduction
Week 1 : 27 May - 2 June	Lecture	Welcome and Course Introduction • Types of Infrastructure • Categories of IIC projects • Tutorial
Week 2 : 3 June - 9 June	Lecture	• Site Preparation and Earthmoving • Tutorial
Week 3 : 10 June - 16 June	Lecture	• Introduction to Reinforced and Pre-stressed Concrete Structures • Tutorial
Week 4 : 17 June - 23 June	Lecture	• Temporary Structures and Underpinning • Tutorial
Week 5 : 24 June - 30 June	Lecture	• Road Construction • Tutorial
Week 6 : 1 July - 7 July	Other	• Flexibility Week (No lectures and tutorials)
Week 7 : 8 July - 14 July	Lecture	• Railway Construction • Tutorial
Week 8 : 15 July - 21 July	Lecture	• Introduction to Tunnel Construction • Tutorial
Week 9 : 22 July - 28 July	Lecture	• Superstructure and Bridge Construction • Tutorial
Week 10 : 29 July - 4 August	Lecture	• Building Demolition Technology • Tutorial

Attendance Requirements

You are expected to be regular and punctual in attendance at all classes for the School of Built Environment courses in which you are enrolled. If and where individual courses have specific attendance requirements, these will be stated in the course outline.

If you do not attend, engage, or participate in scheduled class activities, including lectures, tutorials, studios, labs, etc, you run the risk of failing a course.

If illness or unexpected and beyond your control circumstances prevent you from completing a task on time, or substantially disturb your assessment performance, you should apply for [Special Consideration](#), as soon as practicable, accompanied by appropriate documentation.

No special consideration will be provided if you miss out on essential course information and materials, or if you miss assessment tasks and deadlines due to unexplained absences or an unapproved lack of attendance.

You may be advised by the Course Convenor to withdraw from the course if significant learning activities are missed.

Course Resources

Prescribed Resources

To increase the learning outcomes of this course, the students are also expected to draw on materials from other references and guidelines including academic journals, standards, guide notes and reference document both within and outside the field of construction management. **Links to some of the key resources required for this course are provided in Moodle under the sections for the respective weeks.**

Course Evaluation and Development

We encourage and support students to maintain regular contact with the course convenor to provide informal feedback throughout the course. For specific issues or detailed feedback, please arrange a meeting with the course convenor via email.

In this course there is an option for students to provide anonymous feedback via the course's Moodle page, which is directly sent to the convenor. As a final step, students are invited to share their insights and experiences by completing the MyExperience survey. The feedback gathered each year is integral to the continuous enhancement and development of the course.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Samuel Fri mpong			0415752084	By appointment – organise via email.	No	Yes
Administrator	Riza Yosia Sunindjo		Anita B. Lawrence Building – 3008		By appointment – organise via email.	Yes	No

Other Useful Information

Academic Information

Due to evolving advice by NSW Health, students must check for updated information regarding online learning for all Arts, Design and Architecture courses this term (via Moodle or course information provided).

Please see: <https://www.unsw.edu.au/arts-design-architecture/student-life/resources-support/protocols-guidelines> for essential student information relating to:

- UNSW and Faculty policies and procedures;
- Student Support Services;
- Dean's List;
- review of results;
- credit transfer;
- cross-institutional study and exchange;
- examination information;
- enrolment information;
- Special Consideration in the event of illness or misadventure;
- student equity and disability;

And other essential academic information.

Academic Honesty and Plagiarism

Plagiarism is using the words or ideas of others and presenting them as your own. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement.

UNSW groups plagiarism into the following categories:

- Copying: Using the same or very similar words to the original text or idea without acknowledging the source or using quotation marks. This includes copying materials, ideas or concepts from a book, article, report or other written document, presentation, composition, artwork, design, drawing, circuitry, computer program or software, website, internet, other electronic resource, or another person's assignment without appropriate acknowledgement.
- Inappropriate paraphrasing: Changing a few words and phrases while mostly retaining the original information, structure and/or progression of ideas of the original without acknowledgement. This also applies in presentations where someone paraphrases another's ideas or words without credit and to piecing together quotes and paraphrases into a new whole, without appropriate referencing.
- Collusion: Working with others but passing off the work as a person's individual work. Collusion also includes providing your work to another student for the purpose of them plagiarising, paying another person to perform an academic task, stealing or acquiring another person's academic work and copying it, offering to complete another person's work or seeking payment for completing academic work.
- Inappropriate citation: Citing sources which have not been read, without acknowledging the "secondary" source from which knowledge of them has been obtained.
- Duplication ("self-plagiarism"): Submitting your own work, in whole or in part, where it has previously been prepared or submitted for another assessment or course at UNSW or another university.

The UNSW Academic Skills support offers resources and individual consultations. Students are also reminded that careful time management is an important part of study. One of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and proper referencing of sources in preparing all assessment items. UNSW Library has the ELISE tool available to assist you with your study at UNSW. ELISE is designed to introduce new students to studying at UNSW, but it can also be a great refresher during your study.

Completing the ELISE tutorial and quiz will enable you to:

- analyse topics, plan responses and organise research for academic writing and other assessment tasks
- effectively and efficiently find appropriate information sources and evaluate relevance to your needs
- use and manage information effectively to accomplish a specific purpose
- better manage your time
- understand your rights and responsibilities as a student at UNSW
- be aware of plagiarism, copyright, UNSW Student Code of Conduct and Acceptable Use of UNSW ICT Resources Policy
- be aware of the standards of behaviour expected of everyone in the UNSW community
- locate services and information about UNSW and UNSW Library

Use of AI for assessments

As AI applications continue to develop, and technology rapidly progresses around us, we remain committed to our values around academic integrity at UNSW. Where the use of AI tools, such as ChatGPT, has been permitted by your course convener, they must be properly credited and your submissions must be substantially your own work.

In cases where the use of AI has been prohibited, please respect this and be aware that where unauthorised use is detected, penalties will apply.

[Use of AI for assessments | UNSW Current Students](#)

Submission of Assessment Tasks

Turnitin Submission

If you encounter a problem when attempting to submit your assignment through Turnitin, please telephone External Support on 9385 3331 or email them on externalteltsupport@unsw.edu.au

Support hours are 8:00am – 10:00pm on weekdays and 9:00am – 5:00pm on weekends (365 days a year). If you are unable to submit your assignment due to a fault with Turnitin, you may apply for an extension, but you must retain your ticket number from External Support (along with any other relevant documents) to include as evidence to support your extension application. If you email External Support, you will automatically receive a ticket number, but if you telephone, you will need to specifically ask for one. Turnitin also provides updates on their system status on Twitter.

Generally, assessment tasks must be submitted electronically via either Turnitin or a Moodle assignment. In instances where this is not possible, alternative submission details will be stated on your course's Moodle site. For information on how to submit assignments online via Moodle: <https://student.unsw.edu.au/how-submit-assignment-moodle>

Late Submission Penalty

UNSW has a standard late submission penalty of:

- 5% per calendar day,
- for all assessments where a penalty applies,
- capped at five calendar days (120 hours) from the assessment deadline, after which a student cannot submit an assessment, and

- no permitted variation.

Students are expected to manage their time to meet deadlines and to request [Special Consideration](#) as early as possible before the deadline. Support with [Time Management is available here](#).

School Contact Information

beadmin@unsw.edu.au