UNSW Course Outline

BENV7800 Digital Documentation - 2024

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General Course Information

Course Code : BENV7800
Year : 2024
Term : Term 3
Teaching Period : T3
Is a multi-term course? : No
Faculty : Faculty of Arts, Design and Architecture
Academic Unit : School of Built Environment
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Postgraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

In this course, you will learn the technical and legal aspects involved in the successful completion of a comprehensive set of construction documents for major buildings. You will use architectural documentation technologies, primarily Building Information Modelling (BIM) to

prepare and assess working drawings, including design details, specifications and schedules. You will develop knowledge of the relevant design information technologies, Australian Standards, and their application to the design and construction of a major building.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Document a given design, inclusive of construction methods and materials, using professional standard drawings and building information modelling
CLO2 : Specify and apply the relevant Australian Standards related to access and mobility in the documentation of major buildings
CLO3 : Collaborate effectively in the preparation of design documentation and the production of building information

Course Learning Outcomes	Assessment Item
CLO1 : Document a given design, inclusive of construction methods and materials, using professional standard drawings and building information modelling	• BIM Report • Individual Documentation • Collaborative Documentation • Quiz
CLO2 : Specify and apply the relevant Australian Standards related to access and mobility in the documentation of major buildings	• Individual Documentation • Collaborative Documentation • Quiz
CLO3 : Collaborate effectively in the preparation of design documentation and the production of building information	• BIM Report • Collaborative Documentation • Quiz

Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams

Additional Course Information

Aims

The course aims to introduce you to the range and nature of drawings and associated documents required, in particular, to develop a comprehensive set of documents for the construction of major buildings. Through lectures and related assignment tasks the course provides opportunities for you to experience and gain an appreciation of the production of this form of documentation and information using BIM.

In particular, the course aims to provide you with experiences that will allow you to engage with confidence with the production of such documentation in practice and a renewed familiarity with the relevant digital design technologies and documentation standards governing typical major buildings and collaborative production of building information.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
BIM Report Assessment Format: Individual	15%	Due Date: Week 4: 30 September - 06 October
Individual Documentation Assessment Format: Individual	45%	Due Date: Week 7: 21 October - 27 October
Collaborative Documentation Assessment Format: Group	25%	Due Date: Week 11: 18 November - 24 November
Quiz Assessment Format: Individual	15%	Due Date: Week 3: 23 September - 29 September, Week 7: 21 October - 27 October, Week 10: 11 November - 17 November

Assessment Details

BIM Report

Assessment Overview

You will develop BIM documentation to define the key elements of a project. Marking will be done against the assessment criteria and rubric. You will receive feedback verbally in weekly tutorials and in written form.

Course Learning Outcomes

- CLO1 : Document a given design, inclusive of construction methods and materials, using professional standard drawings and building information modelling
- CLO3 : Collaborate effectively in the preparation of design documentation and the production of building information

Detailed Assessment Description

Part A – **BIM Report**

- BIM Brief/BIM Management Plan/Level of Development (LOD) table (5%)
- A working model including two families and one detail (a three-sheet PDF + an RVT) (10%)

Assignment submission Turnitin type

This is not a Turnitin assignment

Generative AI Permission Level

Simple Editing Assistance

In completing this assessment, you are permitted to use standard editing and referencing functions in the software you use to complete your assessment. These functions are described below. You must not use any functions that generate or paraphrase passages of text or other media, whether based on your own work or not.
If your Convenor has concerns that your submission contains passages of AI-generated text or media, you may be asked to account for 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.
For more information on Generative AI and permitted use please see here.

Individual Documentation

Assessment Overview

You will develop the BIM model of a building and generate a typical set of documents with reference to the relevant Australian Standards. Marking will be done against the assessment criteria and rubric. Individual documentation will be reviewed each week in class by the tutor and student peers. Written feedback will be provided online.

Course Learning Outcomes

- CLO1 : Document a given design, inclusive of construction methods and materials, using professional standard drawings and building information modelling
- CLO2 : Specify and apply the relevant Australian Standards related to access and mobility in the documentation of major buildings

Detailed Assessment Description

Part B (Individual documentation) **submission - Due in Week 7**

- Documentation (40%)
- Five-minute video presentation - Peer assessment on the short video (5%)

Assignment submission Turnitin type

This is not a Turnitin assignment

Generative AI Permission Level

Simple Editing Assistance

In completing this assessment, you are permitted to use standard editing and referencing

functions in the software you use to complete your assessment. These functions are described below. You must not use any functions that generate or paraphrase passages of text or other media, whether based on your own work or not.
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Collaborative Documentation

Assessment Overview

In a small group, you will develop a building complex integrating individual building designs. Grading will be done against assessment criteria with a component being determined by individual contributions. Marking will be done against the assessment criteria and rubric with feedback provided in written form.

Course Learning Outcomes

- CLO1 : Document a given design, inclusive of construction methods and materials, using professional standard drawings and building information modelling
- CLO2 : Specify and apply the relevant Australian Standards related to access and mobility in the documentation of major buildings
- CLO3 : Collaborate effectively in the preparation of design documentation and the production of building information

Detailed Assessment Description

Part C (Collaborative documentation for major buildings)

- Group work – Team assessment
- Individual model revision

Assignment submission Turnitin type

This is not a Turnitin assignment

Generative AI Permission Level

Simple Editing Assistance

In completing this assessment, you are permitted to use standard editing and referencing functions in the software you use to complete your assessment. These functions are described below. You must not use any functions that generate or paraphrase passages of text or other media, whether based on your own work or not.

If your Convenor has concerns that your submission contains passages of AI-generated text or media, you may be asked to account for 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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Quiz

Assessment Overview

You will respond to a series of online quizzes with multiple choice.

Course Learning Outcomes

- CLO1 : Document a given design, inclusive of construction methods and materials, using professional standard drawings and building information modelling
- CLO2 : Specify and apply the relevant Australian Standards related to access and mobility in the documentation of major buildings
- CLO3 : Collaborate effectively in the preparation of design documentation and the production of building information

Generative AI Permission Level

No Assistance

This assessment is designed for you to complete without the use of any generative AI. You are not permitted to use any generative AI tools, software or service to search for or generate information or answers.
For more information on Generative AI and permitted use please see here.

General Assessment Information

Grading Basis

Standard

Requirements to pass course

Students must make a genuine attempt at all assessment tasks and complete the course with a Pass grade of 50 or above.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 0 : 2 September - 8 September	Other	Install REVIT2023 with your own Autodesk Account (using a name-format email address, e.g., john.doe@student.unsw.edu.au or Jane.doe@unsw.edu.au) Start forming a team of four students in your tutorial group
Week 1 : 9 September - 15 September	Lecture	Introduction • Course Introduction / Tutorial Plan • Assessments and Assignments • Why do you need to know Documentation and BIM? • Lecture Recap/Q&A and Tutorial Overview
	Tutorial	Revit Modelling Practice I • Revit Modelling Basics I • Revit Modelling Basics II • Team formation and model coordination
Week 2 : 16 September - 22 September	Lecture	Documentation • Documentation (+Modelling Principles) • Building Information Modelling (BIM) • Parametric Design (+REVIT Families) • Lecture Recap/Q&A and Tutorial Overview
	Tutorial	Revit Modelling Practice II • Revit Families • Revit Modelling Principles • Team Meeting - Finalising team members with your tutor
Week 3 : 23 September - 29 September	Lecture	Documentation and Standard I • Australian Standard I • BIM Brief/BIM Management Plan (BMP) • Level of Development (+ Details) • Q&A and Quiz 1 (Weeks 1-3) in Moodle (5%)
	Tutorial	Documentation I • Annotations • Details, Sheets and Schedules • Team Meeting (BIM Report)
Week 4 : 30 September - 6 October	Lecture	Documentation and Standard II • Australian Standard II • Classification and Specifications • Video Presentation • Lecture Recap/Q&A and Tutorial Overview
	Tutorial	Developing Assignment - Part A • Layout, scales and publishing • Team Meeting (BIM Report)
	Assessment	Part A (BIM Report) submission - Due in Week 4 (By 5 pm, Friday) • BIM Brief/BIM Management Plan/Level of Development (LOD) table (5%) • A working model including two families and one detail (a three-sheet PDF + an RVT) (10%)
Week 5 : 7 October - 13 October	Lecture	BIM Development • BIM-enabled Design Analysis and Simulation • BIM Lifecycle Management • Keynotes, Drawings and Presentations • Lecture Recap/Q&A and Tutorial Overview
	Tutorial	Documentation II • Specifications, Tags and Keynotes • Drawings and Presentations • Q&A
Week 6 : 14 October - 20 October	Other	Flexibility week Part B (Individual documentation) preparation for Pre-review: • Uploading individual models Due in Week 6 (By 5 pm, Friday) for review
Week 7 : 21 October - 27 October	Lecture	Documentation Management • Construction Schedule and BIM 360 (or ACC360) • Revit Worksharing • BIM Development Framework (+ Assignment - Part B) • Q&A and Quiz 2 (Weeks 4-7) in Moodle (5%)
	Tutorial	Developing Assignment - Part B • Review I • Review II

	Assessment	Part B (Individual documentation) submission - Due in Week 7 (By 5 pm, Friday) • Documentation (40%) • Five-minute video presentation - Peer assessment on the short video (5%)
Week 8 : 28 October - 3 November	Lecture	ONLINE pre-recordings - Collaborative Documentation • Mixed-use Development • Assignment – Part C • Collaboration and Cloud-based Documentation MS TEAMS meeting (3:30 PM) - Lecture Recap/Q&A and Tutorial Overview
	Tutorial	MS TEAMS meeting - BIM 360 and REVIT Worksharing • BIM 360 Basics and Documentation Management • BIM360 Model Coordination • Team Meeting
Week 9 : 4 November - 10 November	Lecture	ONLINE pre-recordings - Advanced Documentation • Tender documentation • Code Checking • Clash Detection (+BIM 360 Clash Detection and Model Coordination) MS TEAMS meeting (3:30 PM) - Lecture Recap/Q&A and Tutorial Overview
	Tutorial	MS TEAMS meeting - BIM360 and Clash Detection • ACC Takeoff • BIM360 Clash Detection • Team Meeting
Week 10 : 11 November - 17 November	Lecture	ONLINE pre-recordings - Documentation Futures • Design Information Management • Documentation Futures I • Documentation Futures II (+BIM 360 Design Collaboration) MS TEAMS meeting (3:30 PM) - Q&A and Quiz 3 (Weeks 8-10) in Moodle (5%)
	Tutorial	MS TEAMS meeting - Developing Assignment - Part C • Coordinating and Presenting BIM models (BIM 360) • 5 min “Team” reviews

Attendance Requirements

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

Course Resources

Prescribed Resources

AS 1100.101—1992 Technical drawing: General principles (Please log in to **UNSW library** first and search for **SAI Global**. Sign in the website and then you can get **all Australian Standards** from SAI Global).

AS 1100.301—2008 Technical drawing: Architectural drawing

AS 1428.1-2009 - Design for Access and Mobility

BIM Handbook: A Guide to Building Information Modeling for Owners, Designers, Engineers, Contractors, and Facility Managers

Level-of-development-specification

Design Thinking and Building Information Modelling

BIM-Enabled Design Collaboration Processes in Remote Architectural Practice and Education in Australia

Course Evaluation and Development

Students' feedback on the course will be gathered both formally and informally throughout the course duration and upon completion via face-to-face conversation, email and the myExperience system. Where possible, they will be addressed immediately to improve the student learning experience. Alternatively, changes to the content or delivery of the course will be addressed before the beginning of the following year.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	JuHyun Lee		Room 2006 (Anita B. Lawrence Centre West)		By appointment – organise via email	Yes	Yes
Tutor	Tony Jin					No	No
	Michael Da wes					No	No

Other Useful Information

Academic Information

For essential student information relating to:

- UNSW and Faculty policies and procedures;
- Student Support Services;
- Student equity and disability;
- Special Consideration in the event of illness or misadventure;
- Examination information;
- Review of results;

Please see: https://www.unsw.edu.au/arts-design-architecture/student-life/resources-support/protocols-guidelines

Academic Honesty and Plagarism

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

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.

Important note: UNSW has a "fit to sit/submit" rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit to do so and cannot later apply for Special Consideration. This is to ensure that if you feel unwell or are faced with significant circumstances beyond your control that affect your ability to study, you do not sit an examination or submit an assessment that does not reflect your best performance. Instead, you should apply

for Special Consideration as soon as you realise you are not well enough or are otherwise unable to sit or submit an assessment.

School Contact Information

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