Units of Credit	6	
Contact hours	CVEN9820: 4 hours per week	
Lecture	Tuesday 09:00 11:00	online
Workshop	Tuesday 11:00 13:00	online
Computer Session	Wednesday 10:00 12:00	online
Course Coordinator and Lecturer	Professor Chongmin Song email: c.song@unsw.edu.au office: CE717 phone: (02) 9385 5021	

INFORMATION ABOUT THE COURSE

You will study modern numerical methods and their applications to structures and other civil engineering problems by the use of commercial finite element software. The acquired knowledge is applicable to the analysis and design of many types of civil engineering constructions such as buildings, foundations, dams, etc. You are expected to be familiar with the theories and concepts introduced in the previous structural engineering courses. This course lays the foundation for in-depth study on the numerical simulation, which is a rapidly evolving and multi-disciplinary field. The material covered in this course is essential in modern structural analysis and design.

The flow chart in Figure 1 shows diagrammatically how this course relates to other courses in the Civil Engineering program.

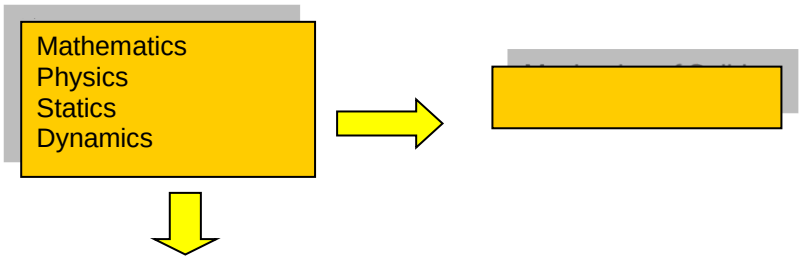

Figure 1. How this course relates to other courses in Civil Engineering.

	¶ Study relevant references ¶ Download materials from Moodle ¶ Keep up with notices and find out marks via Moodle
Assessments (assignments, examinations)	¶ Demonstrate your knowledge and skills ¶ Demonstrate higher understanding and problem solving

SUGGESTED APPROACHES TO LEARNING IN THE COURSE

Suggested approaches to learning in this course include:

- ¶ Regular participation in lectures and workshops. *Review course materials. Follow worked examples. Reflect on class problems and quizzes.*
- ¶ Weekly reading and recording of your learning.
- ¶ Appropriate preparation for workshops.
- ¶ Planning your time to achieve all assessment requirements (see assessment).
- ¶ We encourage you to work with your peers. A good way to learn the material is in small study groups. Such groups work best if members have attempted the problems individually before meeting as a group. A valued

22/09/2020 (Week 2)	Finite-element method for 1D potential problem (using seepage flow as example) a

- ¶ Correct referencing and using of source materials
- ¶ Completeness of reports and solutions
- ¶ Neatness of assignment submissions

The final grade for this course will normally be based on the sum of the scores from each of the assessment tasks. The Final Examination is worth 50% of the Final Mark if class work is included and 100% if class work is not included. The class work is worth 50% of the Final Mark if included. ***A mark of at least 40% in the final examination is required before the class work (quizzes and assignment) is included in the final mark.*** *The formal exam scripts will not be returned but you are permitted to view the marked script.*

Students who perform poorly in the quizzes are recommended to discuss progress with the lecturer during the term.

Please note that late submissions of the quizzes and final examination will not be accepted. A late submission of assignment will be penalised at the rate of 10% per day after the due time and date have expired. The deadline for absolute fail of the assignment is 5 days after the due time and date.

It is your responsibility to ensure that all the assessment materials are properly submitted, and that your submission is finalised for marking and recorded accordingly in the system.

Supplementary Examinations for Term 3 2020 will be held on Monday 11th January Friday 15th January 2021 (inclusive) should you be required to sit one. You are required to be available during these dates. Please do not to make any personal or travel arrangements during this period.

RELEVANT RESOURCES

COURSE MATERIALS

The course materials consist of

- ¶ Lecture notes provided on selected topics,
- ¶

or ideas as if they were your own. When it is necessary or desirable to them (giving the complete reference details, including page number(s)). The Learning Centre provides further information on what constitutes Plagiarism at:

https://student.unsw.edu.au/plagiarism

ACADEMIC ADVICE

For information about:

- Notes on assessments and plagiarism;
- Special Considerations: student.unsw.edu.au/special-consideration;
- General and Program-specific questions: The Nucleus: Student Hub
- Year Managers and Grievance Officer of Teaching and Learning Committee, and
- CEVSOC/SURVSOC/CEPCA

Refer to Academic Advice on the School website available at:

https://www.engineering.unsw.edu.au/civil-engineering/student-resources/policies-procedures-and-forms/academic-advice

Appendix A: Engineers Australia (EA) Competencies

Stage 1 Competencies for Professional Engineers

	Program Intended Learning Outcomes
PE1: Knowledge and Skill Base	PE1.1 Comprehensive, theory-based understanding of underpinning fundamentals
	PE1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing