

PTRL4011

Integrated Oil/Gas Field Evaluation B (Thesis)

Term Two // 2021

Course Overview

Staff Contact Details

Convenors

Name	Email	Availability	Location	Phone
Furqan Le-Hussain	furqan.hussain@unsw.edu.au	TBC	219 TETB	9385 5187

Lecturers

Name	Email	Availability	Location	Phone
Michael Skinner	michael.skinner			

Course Details

Credit Points 6

Summary of the Course

The students gain hand-on experience of the complete evaluation of an actual field offshore Australia. this course covers (a) the construction of a computerised economic model incorporating the fiscal terms for oil and gas developments offshore Australia, (b) reservoir engineering and simulation of reservoir(s) to predict reserves, production performance and field development options (this also involves assessing the economics of the field development options) and (c) valuing the field and formulating a bid to acquire a participating interest in the property.

Course Learning Outcomes

After successfully completing this course, you should be able to:

Learning Outcome	EA Stage 1 Competencies
1. Understand the engineering and economic aspects of evaluating of an oil field and the issues involved in estimating its value.	PE3.2, PE3.3, PE3.4, PE2.2, PE2.3

Teaching Strategies

Please refer to the information in Moodle

Assessment

Assessment Tasks

Assessment task	Weight	Due Date	Student Learning Outcomes Assessed
PTRL4011 (Thesis B)	100%	12/08/2021 05:00 PM	1

Assessment Details

Assessment 1: PTRL4011 (Thesis B)

Details:

PTRL4011 (Thesis B) Overall contribution to final mark 50%

- Written Report (35%);
- Participation Marks (5%);
- Video Presentation (10%);
- PTRL4010 (50%)
- Engineering Report & Economic Model will be graded as (SY/FL).

Attendance Requirements

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

Course Schedule

[View class timetable](#)

Timetable

Date	Type	Content
O Week: 25 May - 28 May		
Week 1: 31 May - 4 June	Lecture	Thesis introduction and expectations
	Tut-Lab	Building initial dynamic model and Calibration
Week 2: 7 June - 11 June	Tut-Lab	Sweet spot identification
Week 3: 14 June - 18 June	Tut-Lab	Multiple well simulations
Week 4: 21 June - 25 June	Tut-Lab	Multiple well simulations
Week 5: 28 June - 2 July	Lecture	Lecture-1 Economic modelling
	Assessment	Engineering report
Week 6: 5 July - 9 July		
Week 7: 12 July - 16 July	Tut-Lab	Economic modelling
	Lecture	Lecture-2 Economic modelling
Week 8: 19 July - 23 July	Tut-Lab	Economic modelling
	Lecture	Lecture-3 Valuation
Week 9: 26 July - 30 July	Assessment	Economic model
Week 10: 2 August - 6 August		

Resources

Recommended Resources

www.appea.com.au (The Australian Petroleum Production and Exploration Association)

www.pesa.com.au (The Petroleum Exploration Society of Australia)

www.spwla.org (Society of Petrophysicists & Well Log Analysts)

www.spe.org (Society of Petroleum Engineers)

www.api.org (American Petroleum Institute – For Petroleum Standards)

Students seeking resources can also obtain assistance from the UNSW Library. One starting point for assistance is:

Course Evaluation and Development

Submission of Assessment Tasks

The School has developed a guideline to help you when submitting a course assignment.

We encourage you to retain a copy of every assignment submitted for assessment for your own record in hardcopy or electronic form.

All assessments must have an assessment cover sheet attached.

Course completion

Course completion requires submission of all assessment items. Failure to submit all assessment items will result in the award of an Unsatisfactory Failure (UF) grade for the Course unless special consideration has been submitted and approved. Please note, a competency hurdle of 50% is applied to final assessment.

The Submission of an Assignment

Marks for an assignment are only possible when an assignment is received by the due date.

Understand that at times you may not be able to submit an assignment on time, and the School will accommodate any fair and reasonable extension. We would recommend you review the UNSW Special Consideration guidelines – see section below.

A late submission will not be accepted and will be considered as no submission.

Special Consideration

You can apply for special consideration through [The Nucleus Student Hub](#) when illness or other circumstances interfere with your assessment performance. Sickness, misadventure or other circumstances beyond your control may:

- Prevent you from completing a course requirement
- Prevent you from attending an assessable activity
- Prevent you from submitting assessable work for a course
- Affect your performance in assessable work, be it a formal end-of-semester exam, a class test, a laboratory test, a seminar presentation or any other form of assessment

If you are granted special consideration, please contact the Course Convenor immediately once you have completed the special consideration application, no later than one week from submission.

More details on special consideration can be found at: www.student.unsw.edu.au/special-consideration

- UNSW Learning Centre - www.lc.unsw.edu.au
- Counselling support - www.counselling.unsw.edu.au

Equitable Learning Services aims to provide all students with a free and confidential service that provides practical support to ensure that your health condition doesn't adversely affect your studies.

<https://student.unsw.edu.au/els>

Academic Honesty and Plagiarism

Your lecturer and the University will expect your submitted assignments are truly your own work. UNSW has very clear guidelines on what plagiarism is and how to avoid it. Plagiarism is using the words or ideas of others and presenting them as your own. Plagiarism is a type of intellectual theft. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement. The University has adopted an educative approach to plagiarism and has developed a range of resources to support students. All the details on plagiarism, including some useful resources, can be found at www.student.unsw.edu.au/plagiarism.

All Mining Engineering students are required to complete a student declaration for academic integrity which is outlined in the assignment cover sheets. By signing this declaration, you agree that your work is your own original work.

If you need some additional support with your writing skills, please contact the Learning Centre or view some of the resources on their website: www.lc.unsw.edu.au. The Learning Centre is designed to help you improve your academic writing and communication skills. Some students use the Centre services because they are finding their assignments a challenge, others because they want to improve an already successful academic performance.

Academic Information

Course Results

For details on UNSW assessment policy, please visit: www.student.unsw.edu.au/assessment

In some instances your final course result may be withheld and not released on the UNSW planned date. This is indicated by a course grade result of either:

- LE – indicates you have not completed one or more items of assessment; or
- WD – indicates there is an issue with one or more assignment; or
- WC – which indicates you have applied for Special Consideration due to illness or misadventure and the course results have not been finalised.

In either event it would be your responsibility to contact the Course Convener as soon as practicable but no later than five (5) days after release of the course result. If you don't contact the convener on time, you may be required to re-submit an assignment or re-sit the final exam and may result in you failing the course. You would also have a NC (course not completed) mark on your transcript and would need to re-enroll in the course.

Studying a course in the School of Minerals and Energy Resources Engineering at UNSW

Report writing guide

The School has a [Report Writing Guide \(RWG\)](#) available. A copy of this is available on the course Moodle site.

Computing Resources and Internet Access Requirements

UNSW Minerals and Energy Resources Engineering provides blended learning using the on-line Moodle LMS (Learning Management System). Also see - Transitioning to Online Learning: www.covid19studyonline.unsw.edu.au

It is essential that you have access to a PC or notebook computer. Mobile devices such as smart phones and tablets may compliment learning, but access to a PC or notebook computer is also required. Note that some specialist engineering software is not available for Mac computers.

- Mining Engineering Students: OMB G48
- Petroleum Engineering Students: TETB LG34 & LG 35

It is recommended that you have regular internet access to participate in forum discussion and group work. To run Moodle most effectively, you should have:

Acknowledgement of Country

We acknowledge the Bedegal people who are the traditional custodians of the lands on which UNSW Kensington campus is located.

Appendix: Engineers Australia (EA) Professional Engineer Competency Standard

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