

Faculty of Engineering

# Postgraduate Course Outline

# PTRL 5022 Drilling Systems Design and Optimisation

Dr Zhixi Chen

# CONTENTS

1.	INFORMATION ABOUT THE COURSE	.3
	AIMS, LEARNING OUTCOMES AND GRADUATE ATTRIBUTES	
3.	REFERENCE RESOURCES	.4

4.

1.	INFORMATION ABOUT THE COURSE									
	Course Code:	PTRL5022	Term:	T2, 2020	Level:	PG	Units/Credits	6 UOC		
	Course Name:									

T2 2020

3|Page

PTRL 5022 - Drilling Systems Design and Optimisation

## 4. COURSE CONTENT AND LEARNING ACTIVITIES

# 4.1. Course content

- 1. Casing Types and Physical Properties
- 2. Performance Properties under Load Conditions
- 3. Principles of Casing Design
- 4. Aspects of Casing Design in Deviated and Horizontal Wells
- 5. Well Planning
- 6. Survey Calculations
- 7. Surveying Methods & Tools
- 8. Directional Control, MWD & Rotary steerable system
- 9. Drilling Tools and Downhole Motors

#### 7.5. Assignment Submissions

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 either in hardcopy or electronic form.

All assessments must have an assessment cover sheet attached.

#### 7.6. Late Submission of an Assignment

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

We 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 following section.

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

#### 7.7. Special Consideration

You can apply for special consideration through <u>UNSW Student Central</u> when illness or other circumstances interfere with your assessment performance. Sckness, misadventure or other circumstances beyond your control may:

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

We ask that you 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: <u>www.student.unsw.edu.au/special-</u> <u>consideration</u>

#### 7.8. 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

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.

## 7.9. Students Needing Additional Support

The Student Equity and Disabilities Unit (SEADU) aims to provide all students with support and professional advice when circumstances may prevent students from achieving a successful university education. Take a look at their webpage: <a href="https://www.studentequity.unsw.edu.au/">www.studentequity.unsw.edu.au/</a>

#### 7.10. 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 <u>www.student.unsw.edu.au/plagiarism</u>.

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