Document Management:
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Course Code:	PTRL5010	Term:	T1 2021	Level:	PG	Units/Credits	6 UOC
Course Name:							

Course Convenor:			
Contact Details	School of Minerals and Energy Resources Engineering TETB	EMAIL:	h.zughbi@unsw.edu.au
		Phone:	+61 043 174 62 78
Contact times			

This course focusses on three key areas in the development of natural gas projects. First, the course provides an introduction to the various types of natural gas resources including conventional and unconventional gas resources. Secondly, the majority of the course examines the thermodynamics of natural gases and the estimation of their behaviour using cubic equations of state. Thirdly, the course explores briefly the methods of processing produced gas and getting it to market.

Course completion requires submission of all assessment items; failure to submit all assessment items can result in the award of an Unsatisfactory Failure (UF) grade for the Course.

Prerequisite: MATH1231 or MATH1241

To pass this course it is expected that you will attend at least 80% of tutorials and lectures.

Attendance will be recorded when applicable. Normally, there is no make-up work for poor attendance. If you have misadventure or ill-health, please contact your course coordinator soon as possible. The attendance requirement is not meant to be punitive. It is included because participation is an important part of achieving the course outcomes.

Natural gas is becoming an increasingly important part of Australia's and the world's energy supply. Further, natural gas is put forward as a low emission alternative to other fossil fuels. Finally, the development of technologies to allow the development of unconventional gas resources has further added to the expansion in the supply and demand for natural gas. It is important that Petroleum Engineering graduates understand the technical, economic and social issues at play in the development of natural gas resources.

The technical aspects of natural gas developments are covered throughout the Petroleum Engineering Program as part of other reservoir engineering, geology, drilling and production courses. This course complements these other courses by aiming to:

1. Combine students existing knowledge of fluid flow with a thorough grounding in the analysis and prediction of the PVT behaviour of natural gases through the application of the thermodynamic concepts and equations of state by applying these concepts to selected unit operations,
2. Introduce students to the types of natural gas resources and the economic and social context of their development.

At the conclusion of this course, students should be able to:

1. Apply thermodynamic theory to predict & explain the properties and PVT behaviour of natural gases.
2. Perform preliminary design/analysis calculations for common unit operations in natural gas handling.
3. Critically engage in contemporary debates around the development of the various types of natural gas resources.

2.3. Graduate Attributes

UNSW aspires to develop graduates who are rigorous scholars, capable leaders, profession practitioners and global citizens.

The University has articulated a comprehensive list of Graduate Attributes (GAs) as a set of desired

1.

Study Period 24 Apr – 29 Apr 2021
Exam Period 30 Apr – 13 May 2021

Other UNSW Key dates: https://student.unsw.edu.au/new-calendar-dates

The assessment criteria provide a framework for you to assess your own work before formally submitting major assignments to your course convenor. Your course convenor will be using this framework to assess your work and as a way to assess whether you have met the listed learning outcomes and the graduate attributes for your program. We ask that you don't use the assessment criteria guidelines as a checklist, but as a tool to assess the quality of your work. Your course convenor will also be looking at the quality, creativity and the presentation of your written assignment as they review the framework. Rubrics, wherever applicable, will be provided at the time of the assignment release.

More information about system requirements is available a

Course Convenor: _____

Course Code: _____ Course Title: _____

Assignment: _____

Due Date: _____

Student Name: _____ Student ID: _____

Before submitting this assignment, the student is advised to review:

the assessment requirements contained in the briefing document for the assignment;
the various matters related to assessment in the relevant Course Outline; and
the website at < http:/www.lc.unsw.edu.au/plagiarism/pintro.html >
to ensure they are familiar with the requirements to peW* -4(isa5(r)->-1e)9(re)-app(isa5(piefi)a)-3nsuatwwict r