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## 1. INFORMATION ABOUT THE COURSE

|              |              |      |    |        |    |               |       |
|--------------|--------------|------|----|--------|----|---------------|-------|
| Course Code: | PTR2020      | Term | T2 | Level: | UG | Units/Credits | 6 UOC |
| Course Name: | Petrophysics |      |    |        |    |               |       |

|                  |  |        |                      |
|------------------|--|--------|----------------------|
| Course Convenor: | Dr Hamid Roshan  |        |                      |
| Contact Details  | School of Minerals and Energy Resources Engineering<br>TETB 21   | EMAIL: | h.roshan@unsw.edu.au |
|                  |  | Phone: | +61 2 9385535        |
| Contact times    | Lecture and tutorial time schedule<br>Lectures are on Wednesday from 14:00 to 17:00 pm<br>Tutorials are on Thursday from 11:00 to 13:00<br>Laboratory sessions are on Tuesday from 16:00 to 1800 (week 2, 4, 8 and 10)<br>All components of the course will be delivered online on Blackboard in Moodle. |        |                      |
| Course Tutor     | TBC  |        |                      |

### 1.1. Course Description

Physics and Principle of Well Logging  
Well Logging Tools  
Well Log interpretation (lithology)  
Well Log interpretation (Petrophysical Properties)  
Petrophysical Laboratory measurements

### 1.2. Course Completion

Course completion requires submission of all assessment items; fay)

### 1.3. Assumed Knowledge

Prerequisite: N/A

### 1.4. Attendance

To pass this course it is expected that you will attend at least 80% of tutorials ~~and~~ and if your attendance is below 80% your final report might not be considered. Attendance will be recorded when applicable. Normally, there is no ~~make~~ work for poor attendance. If you have misadventure or ill health, please contact your course coordinators ~~as~~



## 4.2. Learning Activities Summary

| Week | Lecture   | Tutorial  | Laboratory                              |
|------|---|---|---|
| 1    | x Introduction to petrophysics and well logging | x Analysis of the scaling factor<br>x DTS analysis      | x None                                  |
| 2    | x Resistivity logging                           | x Caliper response<br>x Temperature and NaCl equivalent | x Measurement of gas permeability       |
| 3    | x SP and radioactive logging                    | x SP example<br>x Hydrogen index and coexample          | x None                                  |
| 4    | x Continue radioactive and Sonic logging        | x Young modulus and Poisson ratio from sonic logs       | x Measurement of electrical resistivity |
| 5    | x Lithology interpretation                      | x Lithology interpretation examples                     | x None                                  |



## 5. COURSE ASSESSMENT

### 5.1. Assessment Summary

The course will have assignment, laboratory reports, mid-term and final exam.

| Assessment Task    | Due date                    | Weight (%) |
|--------------------|-----------------------------|------------|
| Assignment1        | End of week5                | 10         |
| Laboratory reports | Will be provided by Dr Chen | 25         |
| Mid-term exam      | Week6 in lecture hrs        | 25         |
| Final exam         | As per University schedule  | 40         |

Assignments related details/submission box will be available online through Moodle. Access to the Moodle site is via the Moodle icon on the MyUNSW homepage.

## 6. ASSESSMENT CRITERIA

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.

## 7. STUDYING A UG COURSE IN UNSW MINERALS AND ENERGY RESOURCES ENGINEERING

### 7.1. How We Contact You

At times, the School or your course convenor may need to contact you about your course or your enrolment. Your course convenor will use the email function within Moodle or we will contact you on your @student.unsw.edu.au email address.

We understand that you may have an existing email account and would prefer for your UNSW emails to be redirected to your preferred account. Please see these instructions on how to redirect your UNSW emails:

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



We ask that you please contact the 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](http://www.student.unsw.edu.au/special-consideration)

## 7.8. Course Results

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

- x WD – which usually indicates you have not completed one or more items of assessment or there is an issue with one or more assignments
- x WC – which indicates you

## 7.11. Continual Course Improvement

At the end of each course, all students will have the opportunity to ~~provide~~ complete a course evaluation form. These anonymous surveys help us understand your views of the course, your lecturers and the course materials. We are continuously improving our courses based on student feedback, and your perspective is valuable.

Feedbacks given via <https://student.unsw.edu.au/myexperience> and you will be notified when this is available for you to complete.

We also encourage all students to share any feedback they have any time during the ~~course~~ ~~course~~ – have a concern, please contact us immediately.

