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| Module code | SG-1206 | | |
| Module Title | Introduction to Sedimentology and Stratigraphy | | |
| Degree/Diploma | Bachelor of Science (Geology) | | |
| Type of Module | Major Core | | |
| Modular Credits | 4 | Total student Workload | 10 hours/week |
| | | Contact hours | 6 hours/week |
| Prerequisite | None | | |
| Anti-requisite | SG-2303 Sedimentology and Stratigraphy | | |
| Aims | | | |
| Formation and evolution of clastic and chemical sedimentary rocks will be discussed including study of texture and mineralogical composition of sedimentary rocks in hand specimens and under the petrographic microscope. The development of different sedimentary facies and interpretation of their depositional environments is discussed. Diagenesis and its role to the reservoir quality evolution is studied. The module includes lectures on Stratigraphy and various methods for stratigraphic correlation and age relationships. | | | |
| Learning Outcomes | | | |
| <i>On successful completion of this module, a student will be expected to be able to:</i> | | | |
| Lower order : | 30% | <ul style="list-style-type: none"> - understand the basic difference between Sedimentology and Stratigraphy - understand and identify the basic sedimentary rocks and their formation - understand the significance of Stratigraphy | |
| Middle order : | 50% | <ul style="list-style-type: none"> - analyse various univariable, categorical and numerical data - describe the diagenetic processes affecting sedimentary rocks - distinguish the different sedimentary rock-types in hand specimens and in thin sections using a microscope | |
| Higher order: | 20% | <ul style="list-style-type: none"> - justify sedimentary textures and structures and to communicate them - appraise the quality of sedimentary rocks from their composition | |
| Module Contents | | | |
| <ul style="list-style-type: none"> - The effect of the "Sedimentary cycle" on concentrations of clastic and chemical components - Primary sedimentary structures and textures; classification and composition of sedimentary rocks - Diagenesis and its impact on reservoir evolution and quality; reservoir characterisation - Lithostratigraphy, Biostratigraphy and Chronostratigraphy | | | |
| Assessment | Formative assessment | Practical tests, assignments and feedback. | |
| | Summative assessment | Examination: 50% Coursework: 50% <ul style="list-style-type: none"> - 6 written assignments (30%) - 2 class tests (20%) | |