**GEOSCIENCES PROGRAMME**

**MASTER OF SCIENCE IN MINERAL EXPLORATION**

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| **Course code** | **Course Title** | **Course status** | **Credit unit** | **Hours of Lecture** | **Hours of Practical** | **Total hours** |
| PME 701 | Research Design and Proposal | R | 2 | 30 | - | 30 |
| PME 702 | Geosciences Research Seminar | R | 1 | 15 |  | 15 |
| PME711 | Ore Deposits Modeling and Regional Metallogeny | C | 3 | 30 | 45 | 75 |
| PME 712 | Fluid Phase Petrology, Applied Geochronology and Structural Geology | R | 3 | 30 | 45 | 75 |
| PME 721 | Exploration Geophysics | C | 3 | 30 | 45 | 75 |
| PME 722 | Exploration Geochemistry | C | 3 | 30 | 45 | 75 |
| PME 723 | Remote Sensing and Photogeology | R | 2 | 15 | 45 | 60 |
| PME 731 | Geostatistics, Ore Evaluation and Reserve Calculation | C | 2 | 30 | - | 30 |
| PME 732 | GIS Techniques and Interpretation | R | 2 | 15 | 45 | 60 |
| PME 741 | Mineral Economics | R | 3 | 30 | 45 | 75 |
| PME 742 | Mining – Induced Environment Impact Assessment | R | 2 | 15 | 45 | 60 |
| PME 743 | Mining Legislation and Contract Negotiation | R | 2 | 30 | - | 30 |
| PME 751 | Internship | C | 1 | 15 | - | 15 |
| PME 752 | Field School in Mineral Exploration | C | 2 | 15 | 45 | 60 |
| PME 753 | Independent Research Project | C | 6 | - | 270 | 270 |

**DOCTOR OF PHILOSOPHY IN MINERAL EXPLORATION**

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| **Course Code** | **Course Title** | **Course Status** | **Credit Unit** | **Hours of Lecture** | **Hours of Practical** | **Total hours** |
| PME 811 | Geochemistry of Ore Genesis | C | 2 | 30 | - | 30 |
| PME 812 | Metallogeny | C | 2 | 30 | - | 30 |
| PME 813 | Advanced Studies in Mineralogy of Deposits | C | 2 | 30 | - | 30 |
| PME 823 | Special Topics in Applied Geochemistry | C | 2 | 30 | - | 30 |
| PME 826 | Mineral Exploration Techniques and Data management | C | 2 | 30 | - | 30 |
| PME 827 | Environment Impact of Mining Industry and Challenges of Sustainable Development | C | 2 | 30 | - | 30 |
| PME 830 | PHD Seminars | R | 3 | 45 | - | 45 |
| PME 900 | PHD thesis | C | 6 | 270 | - | 270 |

**MASTER OF SCIENCE IN PETROLEUM GEOSCIENCE**

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| **Course Code** | **Course Title** | **Course Status** | **Credit Unit** | **Hours of Lecture** | **Hours of Practical** | **Total hours** |
| PPG 701 | Research Methodology and Proposal Writing | R | 2 | 15 | 45 | 60 |
| PPG 702 | Geoscience Research Seminar | C | 1 | 15 | 0 | 15 |
| PPG 711 | Basin Evolution, Analysis and Modelling | C | 2 | 15 | 45 | 60 |
| PPG 712 | Petroleum Geochemistry | C | 3 | 30 | 45 | 75 |
| PPG 713 | Subsurface Geology, Prospect Generation and Well Proposition | C | 2 | 15 | 45 | 60 |
| PPG 714 | Well Logging and Seismic Interpretation | C | 2 | 15 | 45 | 60 |
| PPG 721 | Sequence Stratigraphy | C | 2 | 15 | 45 | 60 |
| PPG 722 | Reservoir Characterization and Modelling | C | 2 | 15 | 45 | 60 |
| PPG 723 | Basin Analysis and Modelling | C | 2 | 15 | 45 | 60 |
| PPG 724 | Petrophysics and Formation Evaluation | R | 2 | 15 | 45 | 60 |
| PPG 731 | Introduction to Reservoir Engineering Techniques | R | 2 | 15 | 45 | 60 |
| PPG 732 | Petroleum Economics | R | 2 | 15 | 45 | 60 |
| PPG 733 | Environmental Impact of Petroleum Exploration and Exploitation | R | 2 | 15 | 45 | 60 |
| PPG 734 | Field Geology | C | 2 | 15 | 45 | 60 |
| PPG 743 | Project/Dissertation | C | 6 | - | 270 | 270 |
| PPG 745 | Internship | C | 1 | 15 | - | 15 |
| PPG 746 | Petroleum Structural Geology | C | 2 | 15 | 45 | 60 |

**DOCTOR OF PHILOSOPHY IN PETROLEUM GEOSCIENCE**

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| **Course Code** | **Course Title** | **Course Status** | **Credit Unit** | **Hours of Lecture** | **Hours of Practical** | **Total hours** |
| PPG 811 | Techniques in Structural Geology | C | 3 | 30 | 45 | 75 |
| PPG 814 | Special Topics in Sedimentology | C | 3 | 30 | 45 | 75 |
| PPG 821 | Special studies in Micropalaeontology | C | 3 | 30 | 45 | 75 |
| PPG 823 | Basin Analysis | C | 3 | 30 | 45 | 75 |
| PPG 832 | Special Topics in Unconventional Resources | C | 3 | 30 | 45 | 75 |
| PPG 881 | Geoscience Research Seminar | C | 3 | 45 | - | 45 |
| PPG 882 | Special Geological Geological Research Project | C | 6 | - | 270 | 270 |