**FACULTY OF SCIENCE**

**MODULES TO BE OFFERED IN JANUARY 2024 (SEM 2)**

 **Major: Applied Physics**

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| **Level** | **Type** | **Code** | **Modules** | **MC** |
| 1000 | Major Core | SP-1202 | ELECTRICITY AND MAGNETISM | 4 |
| 1000 | Major Core | SP-1203 | THERMAL PHYSICS AND OPTICS | 4 |
| 2000 | Major Core | SP-2203 | QUANTUM MECHANICS AND ATOMIC PHYSICS | 4 |
| 2000 | Major Core | SP-2204 | THERMODYNAMICS, FLUIDS AND STATISTICAL MECHANICS | 4 |
| 2000 | Major Core | SP-2206 | CONDENSED MATTER PHYSICS | 4 |
| 2000 | Major Option | SP-2305 | INTRODUCTION TO MATERIALS SCIENCE | 4 |
| 3000 | Breadth | SP-3407 | INTRODUCTION TO RENEWABLE ENERGY | 4 |
| 4000 | Major Option | SP-4302 | ENVIRONMENTAL PHYSICS | 4 |
| 4000 | Major Option | SP-4303 | RENEWABLE ENERGY | 4 |
| 4000 | Major Option | SP-4304 | PHYSICS IN MEDICINE AND BIOLOGY | 4 |

**Major: Chemical Sciences**

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| **Level** | **Type** | **Code** | **Modules** | **MC** |
| 1000 | Major Core | SC-1211 | FUNDAMENTALS OF INORGANIC CHEMISTRY | 4 |
| 1000 | Major Core | SC-1241 | FUNDAMENTALS OF PHYSICAL CHEMISTRY | 4 |
| 1000 | Breadth | SC-1483 | CHEMISTRY IN EVERYDAY LIFE | 4 |
| 2000 | Major Core | SC-2224 | CARBONYL CHEMISTRY AND ORGANIC SYNTHESIS | 4 |
| 2000 | Major Core | SC-2243 | CHEMICAL KINETICS AND PHOTOCHEMISTRY | 4 |
| 3000 | Major Core | SC-3262 | INSTRUMENTAL METHODS OF CHEMICAL ANALYSIS | 4 |
| 3000 | Major Core | SC-3213 | ORGANOMETALLIC CHEMISTRY | 4 |
| 4000 | Major Option | SC-4317 | BIO-INORGANIC CHEMISTRY | 2 |
| 4000 | Major Option | SC-4318 | NUCLEAR CHEMISTRY & F-BLOCK ELEMENTS | 2 |
| 4000 | Major Option | SC-4327 | BIO-ORGANIC CHEMISTRY | 2 |
| 4000 | Major Option | SC-4328 | SELECTED TOPICS IN ADVANCED SPECTROSCOPY | 2 |
| 4000 | Major Option | SC-4331 | ADVANCED SYTHESIS IN ORGANIC CHEMISTRY | 2 |
| 4000 | Major Option | SC-4347 | SURFACE CHEMICAL PHENOMENA | 2 |
| 4000 | Major Option | SC-4366 | FOOD CHEMISTRY AND CHEMICAL ANALYSIS OF FOODS | 2 |
| 4000 | Major Option | SC-4368 | BIOSENSORS, BIOCHIPS AND NANOBIOTECHNOLOGY | 4 |

**Major: Environmental and Life Sciences**

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| **Level** | **Type** | **Code** | **Modules** | **MC** |
| 1000 | Major Core | SB-1202 | ORGANISMS AND ENVIRONMENT | 4 |
| 2000 | Major Option | SB-2306 | PRINCIPLES OF ANIMAL PHYSIOLOGY | 4 |
| 2000 | Major Option | SB-2307 | PRINCIPLES OF PLANT PHYSIOLOGY | 4 |
| 2000 | Major Core | SB-2210 | CELLS, BIOMOLECULES AND MICROBIOLOGY | 4 |
| 2000 | Major Option | SB-2333 | PRINCIPLES OF BIOCHEMISTRY  | 4 |
| 2000 | Breadth | SB-2402 | DISCOVERING SCIENCE | 4 |
| 2000 | Breadth | SB-2405 | HUMAN LIFE AND ENVIRONMENT | 4 |
| 4000 | Major Option | SB-4302 | TROPICAL FOREST ECOLOGY | 4 |
| 4000 | Major Option | SB-4305 | ENTOMOLOGY | 4 |
| 4000 | Major Option | SB-4310 | SEED PLANT TAXONOMY AND DIVERSITY | 4 |
| 4000 | Major Option | SB-4311 | ANIMAL BEHAVIOUR | 4 |
| 4000 | Major Option | SB-4314 | BIOTECHNOLOGY  | 4 |
| 4000 | Major Option | SB-4330 | MARINE POLLUTION AND ECOTOXICOLOGY | 4 |
| 4000 | Major Option | SB-4333 | ICHTHYOLOGY | 4 |
| 4000 | Major Option | SB-4341 | ADVANCED BIOCHEMISTRY | 4 |
| 4000 | Major Option | SB-4342 | ADVANCED GENETIC ANALYSIS | 4 |
| 4000 | Major Option | SB-4344 | VEGETATION OF SOUTHEAST ASIA | 4 |

**Major: Geosciences**

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| **Level** | **Type** | **Code** | **Modules** | **MC** |
| 1000 | Major Core | SG-1204 | Introduction to Paleontology | 4 |
| 1000 | Major Core | SG-1206 | Introduction to Sedimentology and Stratigraphy | 4 |
| 2000 | Major Core | SG-2204 | Geophysics | 4 |
| 2000 | Major Core | SG-2205 | Geological Mapping | 4 |
| 2000 | Major Core | SG-2206 | Hydrogeology | 4 |
| 2000 | Major Option | SG-2306 | Environmental Geology | 4 |
| 2000 | Breadth | SG-2403 | Environmental Aspects of Earth Sciences | 4 |
| 4000 | Major Option | SG-4307 | Geotectonics | 4 |
| 4000 | Major Option | SG-4308 | Well Log Analysis | 4 |
| 4000 | Major Option | SG-4311 | Ore Deposits and Economic Geology | 4 |

**Major: Mathematical Sciences**

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| **Level** | **Type** | **Code** | **Modules** | **MC** |
| Level 1000 | Major Core | SM-1202 | Advanced Mathematical Methods for the Sciences | 4 |
| Level 1000 | Major Core | SM-1203 | Discrete Mathematics | 4 |
| Level 1000 | Breadth | SM-1402 | Basic Statistics | 2 |
| Level 2000 | Major Core | SM-2202 | Multivariate Calculus | 4 |
| Level 2000 | Major Core | SM-2204 | Numerical Analysis | 4 |
| Level 2000 | Major Core | SM-2205 | Intermediate Statistics | 4 |
| Level 2000 | Major Option | SM-2303 | History of Mathematics | 4 |
| Level 2000 | Breadth | SM-2403 | Introductory Statistics | 2 |
| Level 4000 | Major Core | SM-4290 | Research project | 4 |
| Level 4000 | Major Option | SM-4314 | Applied Mathematical Modelling II | 4 |
| Level 4000 | Major Option | SM-4315 | Dynamical Systems and Chaos | 4 |
| Level 4000 | Major Option | SM-4316 | Fluids and Waves | 4 |
| Level 4000 | Major Option | SM-4322 | Functional Analysis | 4 |
| Level 4000 | Major Option | SM-4325 | Integral Equations | 4 |
| Level 4000 | Major Option | SM-4328 | Introduction to Algebra & Number Theory | 4 |
| Level 4000 | Major Option | SM-4329 | Numerical Approximation | 4 |
| Level 4000 | Major Option | SM-4331 | Advanced Statistics | 4 |
| Level 4000 | Major Option | SM-4333 | Financial Mathematics | 4 |
| Level 4000 | Major Option | SM-4334 | Advanced Operation Research | 4 |
| Level 4000 | Major Option | SM-4339 | Survival Analysis | 4 |