## Modular Structure

| **Year 01** | | |
|---|---|---|
| **Semester 01 – Compulsory Modules** | | |
| **Module Code** | **Module** | **Credit Value** |
| NAT 1110102 | Mathematics for Biology Students | 2* |
| NAT 1110202 | Biology for Physical Sciences/Engineering students | 2* |
| NAT 1110301 | Statistical Methods and Data Analysis | 1* |
| NAT 1110402 | Introduction to Nanoscience & Nanotechnology | 2** |
| NAT 1110502 | Solid State Physics | 2** |
| NAT 1110602 | Advanced Characterization Techniques | 2** |
| NAT 1110702 | Nanochemistry | 2** |
| NAT 1110815 | Research Project | 15 |
| *Not computed to the GPA<br>** Compulsory for all the students entering from any levels of qualifications (SLQF 6/SLQF 5) | | |
| **Year 01** | | |
| **Elective Modules (Students must complete four elective courses out of five courses offered within Year 01, any TWO per semester)** | | |
| NAT 1110902/ NAT 1120902 | Cell and Molecular Biology | 2 |
| NAT 1111002/ NAT 1121002 | Quantum Mechanics | 2 |

| | | |
|---|---|---|
| NAT 1111102/ NAT 1121102 | Nanomedicine | 2 |
| NAT 1111202/ NAT 1121202 | Photonics | 2 |
| NAT 1111302/ NAT 1121302 | Molecular modelling and computational Chemistry | 2 |
| **Credits from core courses** | | **26** |
| **Credits from elective courses** | | **4** |
| **Total Credits in Year 01, Semester 01** | | **30** |

| **Year 01** | | |
|---|---|---|
| **Semester 02** | | |
| **Module Code** | **Module** | **Credit Value** |
| NAT 1121402 | Advanced Materials and Industrial Nanotechnology | 2** |
| NAT 1121502 | Advanced Materials Laboratory (Practical Course) | 2** |
| NAT 1121602 | Nanoelectronics | 2 |
| NAT 1121702 | Nanobiotechnology | 2 |
| NAT 1121802 | Photovoltaic and Energy Devices | 2 |
| NAT 1121901 | Seminar Presentation | 1 |
| NAT 1122017 | Research Project | 17 |
| **Credits from core courses** | | **28** |
| **Credits from elective courses** | | **4** |
| **Total Credits in Year 01, Semester 02** | | **32** |

| | |
|---|---|
| ** Compulsory for all the students entering from any levels of qualifications (SQLF 5 / SQLF 6) | |

| **Year 02** | | |
|---|---|---|
| **Semester 01** | | |
| **Module Code** | **Module** | **Credit Value** |
| NAT 1112122 | Research Project | 22 |
| **Total Credits in Year 02, Semester 01** | | **22** |

| **Year 02** | | |
|---|---|---|
| **Semester 02** | | |
| **Module Code** | **Module** | **Credit Value** |
| NAT 1122224 | Research Project | 24 |
| NAT 1122304 | Presentation of a Novel Research Idea | 4 |
| NAT 1122408 | Thesis and defense | 8 |
| **Total Credits in Year 02, Semester 02** | | **36** |
| **Grand total credits (for two years)** | | **120** |