| Honours in Mathematics (120 credits) |  | Honours in Mathematics (111 credits) Program abolished |  |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Requirements } \\ & \text { 2003-2005 } \end{aligned}$ |  | New course codes |  |
| Compulsory first-year credits | 32 | Compulsory first-year credits | 30 |
| Suggested course stream for full-time students |  | Suggested course stream for full-time students |  |
| Fall: |  | Fall: |  |
| ITI1220 Introduction to Computer Science I | -3 | ITI1120 Introduction to Computer Science I | 3 |
| MAT1320 Calculus I | 3 | MAT1320 Calculus I | 3 |
| MAT1341 Introduction to Linear Algebra | 3 | MAT1341 Introduction to Linear Algebra | 3 |
| PHY1101 Fundamentals of Physics I | 3 | PHY1121 Fundamentals of Physics I | 3 |
| or |  | or |  |
| PHY1301 Principles of Physics I | 3 | PHY1321 Principles of Physics I | 3 |
| Three credits from the Faculties of Science or Engineering | 3 | Three credits from the Faculties of Science or Engineering | 3 |
| Winter: |  | Winter: |  |
| ITH1224 Introduction to Computer Science II | 3 | ITI1121 Introduction to Computer Science II | 3 |
| ENG1100 Workshop in Essay Writing | 3 | ENG1100 Workshop in Essay Writing | 3 |
| MAT1322 Calculus II | 3 | MAT1322 Calculus II | 3 |
| PHY1102 Fundamentals of Physics II | 3 | PHY1122 Fundamentals of Physics II | 3 |
| or |  | or |  |
| PHY1302 Principles of Physics II | 3 | PHY1322 Principles of Physics II | 3 |
| Three credits from the Faculties of Science or Engineering | 3 | Three credits from the Faculties of Science or Engineering | 3 |
| Compulsory second-year credits | 29 | Compulsory second-year credits | 21 |
| Fall: |  | Fall: |  |
| ESI2114 Data Structures |  | CSI2110 Data Structures and Algorithms | 3 |
| MAT2122 Caleulus II |  |  |  |
| MAT2141 Honotrs Linear Algebral | 3 | MAT2141 Linear Algebra I | 3 |
| MAT2371 Introduction to Probability | 3 | MAT2371 Introduction to Probability | 3 |
| MAT2324 Ordinary Differential Equation and Laplace Transformation | 3 | MAT2324 Ordinary Differential Equation and Laplace Transformation | 3 |
| or |  | or |  |
| MAT2331 Ordinary Differential Equations and Numerical Methods | 4 | MAT2384 Ordinary Differential Equations and Numerical Methods | 3 |
| Winter: |  | Winter: |  |
| CSI2165 Prolog Concepts Laboratory өr |  |  |  |
| ESI2172 C++ Concepts Laboratory өf |  |  |  |
| ESI2173 Java Concepts Laboratory | 2 |  |  |
| MAT2375 Introduction to Statistics | 3 | MAT2375 Introduction to Statistics | 3 |
| MAT2125 Mathematical Antlysis I | 3 |  |  |
| MAT2143 Group Theory and Applications | 3 | MAT2143 Algebraic Structures | 3 |
| Three credits from the Faculties of Science or Engineering | 3 | Three credits from the Faculties of Science or Engineering | 3 |
| Third and fourth-year credits | 59 | Third and fourth-year credits | 60 |
| Twenty-one credits from: | 21 | Twenty-one credits from: | 21 |
| Fall: |  | Fall: |  |


| MAT2355 Introduction to Geometry | 3 | MAT2355 Introduction to Geometry | 3 |
| :---: | :---: | :---: | :---: |
| MAT3121 Complex Analysis I | 3 | MAT3121 Complex Analysis I | 3 |
| MAT3125 Mathematical Analysis II | 3 | MAT3120 Analysis III | 3 |
| MAT3141 Honours Linear Algebra II | 3 | MAT3141 Linear Algebra II | 3 |
| MAT3153 Introduction to Topology | 3 | MAT3153 Introduction to Topology | 3 |
| MAT3175 Introduction to Mathematical Statistics | 3 | MAT3175 Introduction to Mathematical Statistics | 3 |
| MAT3341 Applied Linear Algebra | 3 | MAT3341 Applied Linear Algebra | 3 |
| MAT3343 Applied Algebra | 3 | MAT3343 Applied Algebra | 3 |
| MAT3344 Diserete Mathematies |  |  |  |
| MAT3361 Introduction to Mathematical Logic | 3 | MAT3361 Introduction to Mathematical Logic | 3 |
| Winter: |  | Winter: |  |
| MAT2343 Elements of Discrete Mathematics | 3 |  |  |
| MAT3130 Introduction to Dynamical Systems | 3 | MAT3130 Introduction to Dynamical Systems | 3 |
| MAT3143 Ring Theory and Applications | 3 | MAT3143 Ring Theory | 3 |
| MAT3166 Introduction to Number Theory | 3 | MAT3166 Introduction to Number Theory | 3 |
| MAT3172 Probability II | 3 | MAT3172 Probability II | 3 |
| MAT3376 Analysis of Variance | 3 | MAT3378 Analysis of experimental designs | 3 |
| MAT3377 Sampling and Surveys | 3 | MAT3377 Sampling and Surveys | 3 |
| MAT3380 Introduction to Numerical Methods | 3 | MAT3380 Introduction to Numerical Methods | 3 |
| Eleven credits of science or engineering at the 2000 level or above. | 41 | Twelve credits of science or engineering at the 2000 level or above. | 12 |
| Six MAT credits at the 3000 level or above | 6 | Six MAT credits at the 3000 level or above | 6 |
| Twelve credits of MAT at the 4000 level or from MAT3121, 3125, 3130, 3141, 3143 not used to satisfy the previous requirements. | 12 | Twelve credits of MAT at the 4000 level or from MAT3121, 3130, 3141, 3143 not used to satisfy the previous requirements. | 12 |
| Nine credits from the Faculties of Arts, Education, Law, Social Science or the School of Management. | 9 | Nine credits from the Faculties of Arts, Education, Law, Social Science or the School of Management. | 9 |

