

## DEGREE OF BACHELOR OF SCIENCE IN APPLIED MATHEMATICS (04G12070)

### DESIGNATED DEGREE OF BACHELOR OF SCIENCE IN APPLIED MATHEMATICS (04G12089)

Students must also comply with the University General Regulations and the Supplementary Regulations for the Degree of Bachelor of Science

**All the courses listed below are prescribed for this degree**

| PROGRAMME YEAR 1 – 120 Credit Points          |                            |               |                     |              |               |
|---|----------------------------|---------------|---------------------|--------------|---------------|
| First Half Session                            |                            |               | Second Half Session |              |               |
| Course Code                                   | Course Title               | Credit Points | Course Code         | Course Title | Credit Points |
| PD 1001                                       | Professional Skills Part 1 | 0             |                     |              |               |
| MA 1005                                       | Calculus I                 | 15            | MA 1508             | Calculus II  | 15            |
| MA 1006                                       | Algebra                    | 15            | MA 1511             | Set Theory   | 15            |
| Plus 60 credit points from courses of choice. |                            |               |                     |              |               |

| PROGRAMME YEAR 2 – 120 Credit Points          |                           |               |                     |                   |               |
|---|---------------------------|---------------|---------------------|-------------------|---------------|
| First Half-Session                            |                           |               | Second Half-Session |                   |               |
| Course Code                                   | Course Title              | Credit Points | Course Code         | Course Title      | Credit Points |
| EG 2012                                       | Engineering Mathematics 2 | 15            |                     |                   |               |
| MA 2008                                       | Linear Algebra I          | 15            | MA 2508             | Linear Algebra II | 15            |
| MA 2009                                       | Analysis I                | 15            | MA 2509             | Analysis II       | 15            |
| Plus 45 credit points from courses of choice. |                           |               |                     |                   |               |

| PROGRAMME YEAR 3 – 120 Credit Points  |  |               |                          |                         |               |
|---|--|---------------|--------------------------|-------------------------|---------------|
| First Half-Session  |  |               | Second Half-Session      |                         |               |
| Course Code   | Course Title                                 | Credit Points | Course Code              | Course Title            | Credit Points |
| MX 3020   | Group Theory                                 | 15            | MX 3535                  | Analysis IV             | 15            |
| MX 3035   | Analysis III                                 | 15            | MX 3536                  | Differential Equations  | 15            |
| Plus 45 credits from:   |  |               |                          |                         |               |
| MX 3036   | Metric and Topological Spaces                | 15            | MX 3531                  | Rings and Fields        | 15            |
| MX 4087<br>OR<br>MX 4086  | Financial Maths*<br><br>Optimisation Theory* | 15            | MX 4540<br>OR<br>MX 4549 | Knots*<br><br>Geometry* | 15            |
| Plus 15 credit points from courses of choice.   |  |               |                          |                         |               |
| * Courses are offered in alternate years. MX 4086 and MX 4549 will be offered in 2019-2020. |  |               |                          |                         |               |

| PROGRAMME YEAR 4 – 120 Credit Points  |  |               |                     |  |               |
|---|--|---------------|---------------------|--|---------------|
| First Half-Session  |  |               | Second Half-Session |  |               |
| Course Code   | Course Title                           | Credit Points | Course Code         | Course Title                           | Credit Points |
| PX 4011   | Project A                              |               |                     |  | 30            |
| MX 4085   | Non-Linear Dynamics and Chaos Theory 1 | 15            | MX 4553             | Modelling Theory                       | 15            |
|   |  |               | MX 4555             | Non-Linear Dynamics and Chaos Theory 2 | 15            |
| Plus a further 30 credit points from MX4 courses and 15 credits from courses of choice.               |  |               |                     |  |               |
| A graduating curriculum for the Honours programme must include 90 credit points from Level 4 courses. |  |               |                     |  |               |

| Notes |  |
|-------|--|
| 1.    | Designated Programme:<br>See Supplementary Regulation 1  |
| 2.    | Where alternatives are offered, choice may be restricted by timetable constraints.   |
| 3.    | Candidates seeking entry to the Junior Honours programme must have accumulated, by award or recognition, or been exempted from, at least 240 credit points at levels 1 and 2, including those compulsory courses required to enter programme year 3. |