

| BACHELOR OF SCIENCE IN MATHEMATICS                       |   |       |     |       |  |  |
|--|---|-------|-----|-------|--|--|
| EFFECTIVE ACADEMIC YEAR 2018-2019                        |   |       |     |       |  |  |
| (Updated Program of Study as of Academic Year 2020-2021) |   |       |     |       |  |  |
|  |   |       |     |       |  |  |
| COURSE CODE  | COURSE TITLE                                      | HOURS |     | UNITS | PRE-REQUISITE                                      |  |
|  |   | LEC   | LAB |       |  |  |
| FIRST YEAR   |   |       |     |       |  |  |
| FIRST SEMESTER   |   | 15    | 3   | 21    |  |  |
| MATH137A   | Calculus 1 with Analytic Geometry                 | 4     | 0   | 4     | Precalculus Mathematics (Algebra and Trigonometry) |  |
| CSIT121  | Fundamentals of Programming/ Computing I          | 2     | 3   | 3     | Precalculus  |  |
| MATH031  | Mathematics in the Modern World                   | 3     | 0   | 3     |  |  |
| ENGL031  | Purposive Communication                           | 3     | 0   | 3     |  |  |
| PSYCH031   | Understanding the Self                            | 3     | 0   | 3     |  |  |
| PE103  | Movement Enhancement                              |       |     | 2     |  |  |
| NSTP111  | National Service Training Program 1               |       |     | 3     |  |  |
|  |   |       |     |       |  |  |
| SECOND SEMESTER  |   | 15    | 3   | 21    |  |  |
| MATH138A   | Calculus II                                       | 4     | 0   | 4     | MATH137A   |  |
| MATH152  | Fundamental Concepts of Math                      | 3     | 0   | 3     | Precalculus  |  |
| CSIT112  | Discrete Structures 1                             | 3     | 0   | 3     | Precalculus  |  |
| CSIT122  | Intermediate Programming                          | 2     | 3   | 3     | CSIT121  |  |
| SOCSCI031  | Readings in Philippine History                    | 3     | 0   | 3     |  |  |
| PE104  | Fitness Exercises                                 |       |     | 2     | PE103  |  |
| NSTP112  | National Service Training Program 2               |       |     | 3     |  |  |
|  |   |       |     |       |  |  |
| SECOND YEAR  |   |       |     |       |  |  |
| FIRST SEMESTER   |   | 18    | 6   | 22    |  |  |
| MATH215  | Calculus III                                      | 4     | 0   | 4     | MATH138A   |  |
| MATH233  | Abstract Algebra 1                                | 3     | 0   | 3     | MATH152  |  |
| MATH235  | Linear Algebra                                    | 3     | 0   | 3     | MATH152  |  |
| PHYS231  | General Physics, lec                              | 3     | 0   | 3     | Precalculus  |  |
| PHYS281  | General Physics, lab                              | 0     | 3   | 1     | Precalculus  |  |
| CSIT221  | Data Structures and Algorithms                    | 2     | 3   | 3     | CSIT122  |  |
| CS231  | Discrete Stuctures 2                              | 3     | 0   | 3     | CSIT112  |  |
| PE205  | Physical Activities Towards Health and Fitness I  |       |     | 2     | PE103  |  |
|  |   |       |     |       |  |  |
| SECOND SEMESTER  |   | 20    | 3   | 23    |  |  |
| MATH232  | Advanced Calculus 1                               | 3     | 0   | 3     | MATH215  |  |
| MATH234  | Abstract Algebra 2                                | 3     | 0   | 3     | MATH233  |  |
| MATH236  | Probability Theory                                | 3     | 0   | 3     | MATH215  |  |
| MATH238  | Modern Geometry                                   | 3     | 0   | 3     | MATH235; MATH233                                   |  |
| CSIT227  | Object-oriented Programming                       | 2     | 3   | 3     | CSIT122  |  |
| ENGL014  | Technical Writing/ Communication                  | 3     | 0   | 3     |  |  |
| PHILO031   | Ethics  | 3     | 0   | 3     |  |  |
| PE206  | Physical Activities Towards Health and Fitness II |       |     | 2     | PE103  |  |
|  |   |       |     |       |  |  |

| THIRD YEAR   |   |     |    |     |                   |
|--|---|-----|----|-----|-------------------|
| FIRST SEMESTER   |   | 24  | 0  | 24  |                   |
| MATH237  | Differential Equations                                | 3   | 0  | 3   | MATH215           |
| MATH335  | Advanced Calculus 2                                   | 3   | 0  | 3   | MATH232           |
| STAT337  | Statistical Theory                                    | 3   | 0  | 3   | MATH152; MATH 215 |
| CHEM113  | Inorganic Chemistry, lec                              | 3   | 0  | 3   |                   |
| SOCSCI032  | The Contemporary World                                | 3   | 0  | 3   |                   |
| GE-MATH1   | General Education Elective 1                          | 3   | 0  | 3   |                   |
| RIZAL031   | The Life and Works of Rizal                           | 3   | 0  | 3   |                   |
|  |   |     |    |     |                   |
| SECOND SEMESTER  |   | 18  | 0  | 18  |                   |
| MATH334  | Numerical Analysis                                    | 3   | 0  | 3   | MATH237; MATH235  |
| MATH336  | Number Theory   | 3   | 0  | 3   | MATH152           |
| THESIS338  | Research 1  | 3   | 0  | 3   | MATH335           |
| CSIT212  | Quantitative Methods                                  | 3   | 0  | 3   | CSIT112           |
| GE-MATH2   | General Education Elective 2                          | 3   | 0  | 3   |                   |
| HUM031   | Art Appreciation                                      | 3   | 0  | 3   |                   |
|  |   |     |    |     |                   |
| FOURTH YEAR  |   |     |    |     |                   |
| FIRST SEMESTER   |   | 14  | 3  | 15  |                   |
| MATH431  | Complex Analysis                                      | 3   | 0  | 3   | MATH232           |
| THESIS435  | Research 2  | 3   | 0  | 3   | THESIS338         |
| IT365  | Data Analytics 1                                      | 2   | 3  | 3   | CSIT212           |
| FREE EL1   | Free Elective 1                                       | 3   | 0  | 3   |                   |
| STS031   | Science, Technology and Society                       | 3   | 0  | 3   |                   |
|  |   |     |    |     |                   |
| SECOND SEMESTER  |   | 12  | 0  | 12  |                   |
| MATH432  | Practicum   | 6   | 0  | 6   | THESIS435         |
| FREE EL2   | Free Elective 2                                       | 3   | 0  | 3   |                   |
| GE-MATH3   | General Education Elective 3                          | 3   | 0  | 3   |                   |
|  |   |     |    |     |                   |
| GRAND TOTAL  |   | 133 | 18 | 153 |                   |
|  |   |     |    |     |                   |
|  |   |     |    |     |                   |
| RECOMMENDED FREE ELECTIVES   |   |     |    |     |                   |
| Any relevant courses under the BSCS and BSIT curricula without pre-requisites                        |   |     |    |     |                   |
| Any relevant professional education or major courses under the BSED major in Mathematics curriculum. |   |     |    |     |                   |
| GENERAL EDUCATION ELECTIVES  |   |     |    |     |                   |
| ES036B   | Environmental Science                                 | 3   | 0  | 3   |                   |
| SSP033   | Gender and Society                                    | 3   | 0  | 3   |                   |
| LIT031   | Sosyedad at Literatura/Panitikang Panlipunan (SOSLIT) | 3   | 0  | 3   |                   |