**Bachelor of Science Program in Mathematics (2013)**

**Name of Degree:** Bachelor of Science (Mathematics)

**Abbreviation:** B.Sc. (Mathematics)

**Admission Requirements**

Hold a Certificate of Upper Secondary Education or any equivalent qualification, or currently studying in the final semester of upper secondary education or equivalent education level

**Curriculum**

**Total Credits** **135 Credits**

**Curriculum Structure**

Required Courses (\*) 93 Credits

Elective Courses (\*\*) 36 Credits

Free Elective 6 Credits

**Total 135 Credits**

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| **First Year, 1st Semester** | | **Number of Credits** |
| **Course Number** | **Course Title** |
| 000 101\* | English for Communication | 3(3-0-6) |
| 000 146\* | Happiness of Life | 3(3-0-6) |
| 311 111\* | Biology for Physical Science | 3(3-0-6) |
| 311 112\* | Biology for Physical Science Laboratory | 1(0-3-2) |
| 314 121\* | Calculus for Physical Science I | 3(3-0-6) |
| 315 102\* | General Physics I | 3(3-0-6) |
| 315 181\* | General Physics Laboratory I | 1(0-3-2) |
| **Total credits** | | **17** |
| **Cumulative credits** | | **17** |

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| **First Year, 2nd Semester** | | **Number of Credits** |
| **Course Number** | **Course Title** |
| 000 102\* | English for Academic Purposes I | 3(3-0-6) |
| 000 130\* | Information Literacy Skills | 3(3-0-6) |
| 312 106\* | General Chemistry Laboratory | 1(0-3-2) |
| 312 108\* | Fundamental Chemistry | 3(3-0-6) |
| 314 122\* | Calculus for Physical Science II | 3(3-0-6) |
| 315 103\* | General Physics II | 3(3-0-6) |
| 315 182\* | General Physics Laboratory II | 1(0-3-2) |
| **Total credits** | | **17** |
| **Cumulative credits** | | **34** |

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| **Second Year, 1st Semester** | | **Number of Credits** |
| **Course Number** | **Course Title** |
| 000 103\* | English for Academic Purposes II | 3(3-0-6) |
| 000 141\* | Fundamental Rights and Civil Society | 3(3-0-6) |
| 314 201\* | Principles of Mathematics | 3(3-0-6) |
| 314 211\* | Linear Algebra I | 3(3-0-6) |
| 314 221\* | Advanced Calculus | 3(3-0-6) |
| 322 161\* | Introduction to Information and Communication Technology | 3(2-2-5) |
| **Total credits** | | **18** |
| **Cumulative credits** | | **52** |

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| **Second Year, 2nd Semester** | | **Number of Credits** |
| **Course Number** | **Course Title** |
| 000 145\* | Leadership and Management | 3(3-0-6) |
| 000 169\* | Creative Thinking | 3(3-0-6) |
| 314 212\* | Number Theory I | 3(3-0-6) |
| 314 231\* | Differential Equations | 3(3-0-6) |
| 314 313\* | Abstract Algebra I | 3(3-0-6) |
| 316 207\* | Probability and Statistics | 3(3-0-6) |
| **Total credits** | | **18** |
| **Cumulative credits** | | **70** |

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| **Third Year, 1st Semester** | | **Number of Credits** |
| **Course Number** | **Course Title** |
| 000 156\* | Multiculturalism | 3(3-0-6) |
| 050 108\* | English for Sciences | 3(3-0-6) |
| 314 321\* | Mathematical Analysis I | 3(3-0-6) |
| 314 341\* | Mathematical Information | 2(1-2-3) |
| 314 361\* | Numerical Method I | 3(3-0-6) |
| 314 371\*\* | Probability Theory I | 3(3-0-6) |
| 300 302 | Elementary to Forensic Science | 3(3-0-6) |
| **Total credits** | | **20** |
| **Cumulative credits** | | **90** |

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| **Third Year, 2nd Semester** | | **Number of Credits** |
| **Course Number** | **Course Title** |
| 314 323\* | Complex Variable | 3(3-0-6) |
| 314 331\* | Introduction to Partial Differential Equations | 3(3-0-6) |
| 314 314\*\* | Theory of Equations | 3(3-0-6) |
| 314 322\*\* | Mathematical Analysis II | 3(3-0-6) |
| 314 372\*\* | Discrete Mathematics | 3(3-0-6) |
| 400 245 | Isan History and Archaeology for Eco-tourism | 3(3-0-6) |
| **Total credits** | | **18** |
| **Cumulative credits** | | **108** |

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| **Fourth Year, 1st Semester** | | **Number of Credits** |
| **Course Number** | **Course Title** |
| 314 491\* | Seminar in Mathematics | 1(1-0-2) |
| 314 411\*\* | Group Theory | 3(3-0-6) |
| 314 414\*\* | Introduction to Ring Theory | 3(3-0-6) |
| 314 421\*\* | Introduction to Functional Analysis | 3(3-0-6) |
| 314 473\*\* | Introduction to Combinatorics | 3(3-0-6) |
| 323 241\*\* | Computer Programming for Mathematical Works | 3(2-2-5) |
| **Total credits** | | **16** |
| **Cumulative credits** | | **124** |

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| **Fourth Year, 2nd Semester** | | **Number of Credits** |
| **Course Number** | **Course Title** |
| 314 494\* | Project in Mathematics | 2(0-4-2) |
| 314 311\*\* | Linear Algebra II | 3(3-0-6) |
| 314 412\*\* | Introduction to Semigroups | 3(3-0-6) |
| 314 422\*\* | Special Functions | 3(3-0-6) |
| **Total credits** | | **11** |
| **Cumulative credits** | | **135** |

**Program Lecturers**

1. Asst. Prof. Dr. Bundit Pibaljommee

2. Asst. Prof. Dr. Sawian Jaidee

3. Asst. Prof. Prapat Wisetmongkolchai

4. Dr. Kanokwan Wongchan

5. Dr. Pongsakorn Yotkaew