Typical Course of Study for the Bachelor of Science in Mathematics
(Fall 2013 – Summer 2017)

Freshman Year

Fall Semester: 14 Credits

- MA-UY 1024 Calculus I for Engineers *4 Credits* [1]
- MA-UY 1002 The Art of Mathematics *2 Credits*
- CM-UY 1004 General Chemistry for Engineers *4 Credits*
- EXPOS-UA 1 Writing the Essay *4 Credits*

Spring Semester: 15 Credits

- MA-UY 1124 Calculus II for Engineers *4 Credits*
- PH-UY 1013 Mechanics *3 Credits*
- EXPOS-UA 2 The Advanced College Essay *4 Credits*
- CS-UY 1114 Introduction to Programming and Problem Solving *4 Credits*

Sophomore Year

Fall Semester: 16 Credits

- MA-UY 2034 Linear Algebra and Differential Equations *4 Credits*
- PH-UY 2023 Electricity, Magnetism and Fluids *3 Credits*
- MA-UY 2314 Discrete Mathematics *4 Credits*
- PH-UY 2121 General Physics Laboratory I *1 Credits*
- Humanities Social Sciences Elective *4 Credits*

Spring Semester: 15 Credits

- MA-UY 2114 Calculus III: Multi-Dimensional Calculus *4 Credits*
- PH-UY 2033 Waves, Optics and Thermodynamics *3 Credits*
- PH-UY 2131 General Physics Laboratory II *1 Credits*
- Free Elective *3 Credits* [2]
- Humanities Social Sciences Elective *4 Credits*

Junior Year

Fall Semester: 17 Credits

- MA-UY 2224 Data Analysis *4 Credits*
- Free Elective *3 Credits* [2]
- Minor Specialty *3 Credits*
- Humanities Social Sciences Elective *4 Credits*
- Minor Specialty *3 Credits*

Spring Semester: 17 Credits

- MA-UY 3113 Advanced Linear Algebra and Complex Variables *3 Credits*
- MA-UY 3914 Project in Mathematics I *4 Credits* [3]
- Minor Specialty *3 Credits*
- Humanities and Social Sciences Elective *4 Credits*
- Free Elective *3 Credits* [2]

Senior Year

Fall Semester: 17 Credits

- MA-UY 4613 Analysis I *3 Credits*
- MA-UY 4413 Applied Partial Differential Equations *3 Credits* [3]
- MA-UY 3022 Probability Theory II *2 Credits*
- Free Elective *3 Credits* [2]
- Minor Specialty *3 Credits*
- Minor Specialty *3 Credits*

Spring Semester: 16 Credits

- MA-UY 4623 Analysis II *3 Credits*
- MA-UY 4423 Introductory Numerical Analysis *3 Credits* [3]
- Free Elective *3 Credits* [2]
- Humanities and Social Sciences Elective *4 Credits*
- Minor Specialty *3 Credits*

Total credits required for the degree: 127 Credits