

## **MATHEMATICS**

Bachelor of Science

School of Mathematics, Science & Engineering

## **Program Overview**

The Bachelor of Science in Mathematics degree is designed to support those students whose career goals require a strong mathematical foundation. The required courses provide students with a solid theoretical foundation. A variety of elective courses provides students with knowledge and skills relevant to their career choices. The requirement of a minor establishes connections to other fields where mathematics is applicable. This degree prepares students for advanced study in mathematics or other mathematics intensive subjects, and for jobs requiring strong quantitative and problem solving skills. All full-time mathematics and statistics faculty members serve in this program.

## **Career Opportunities**

Mathematicians are in high demand, and this demand is expected to increase. In addition to a career in teaching, graduates can also pursue work in the following areas:

- Advanced study at graduate level in mathematics or other related fields
- Actuary work which combines mathematics and statistics with concepts in finance and insurance
- Operations Research, an interdisciplinary branch of mathematics which uses mathematical methods to arrive at optimal decisions to problems in maximizing or minimizing things, such as costs or profits
- Mathematical Biology or Biomathematics, an interdisciplinary field which uses mathematics to model natural and biological processes.
- Cryptography, branch of mathematics which studies hiding information such as ATM card and computer passwords.
- Statisticians

Contact

For more information on careers with mathematics degree, please visit www.uiw.edu/math/mathcareers.html

Dr. Joleen Beltrami Chair, Department of Mathematics and Statistics University of the Incarnate Word 4301 Broadway, San Antonio, TX 78209 beltrami@uiwtx.edu

Website

www.uiw.edu/math



continued on reverse side

## Bachelor of Science in Mathematics SCHOOL OF MATH, SCIENCE, AND ENGINEERING 2015-2017

Freshman Year: Fall	Hrs.
ENGL 1311 Composition I	3
PHIL 1381 Intro to Philosophy	3
MATH 2312 Calculus 1	3
MATH 2322 Linear Algebra	3
MATH 2340 Programming	3
(Not Math Elective)	
Total hours	15
Sophomore Year: Fall	
ENGL 2310 World Lit	3
Fine Arts Core	3
MATH 3320 Foundation of Higher Math	3
MATH 3314 Calculus 3	3
Math or general electives	3
Total hours	15
Junior Year: Fall	
Social Sciences	3
Modern Language I	3
Math Upper Level Elective	3
Minor	3
Minor	3
Total hours	15
Senior Year: Fall	
Math Upper Level Elective	3
Math Upper Level Elective	3
Minor	3
Minor	3
Minor  Math or General Upper Level Elective	3

Freshman Year: Spring	Hrs.
ENGL 1312 Composition II	3
PHIL 3312 Logic	3
DWHP 1200	2
Physical Education PE Activity Course	1
MATH 2313 Calculus 2	3
MATH 2303 Intro Prob & Stat (Math	3
Elective)	
Total hours	15
Sophomore Year: Spring	
RELS 1305, 1315, 1325, 1335 or 1327H	3
History Core	3
Math 2314 Differential Equation	3
Math 3325 Abstract Algebra	3
Math Upper Level Elective	3
Total hours	15
Junior Year: Spring	
DIIVC 2205 /2405 Dba. a. I	
PHYS 2305/2105 Physics I	4
Modern Language II	3
Modern Language II Math 3325 Intro Real Analysis	3
Modern Language II  Math 3325 Intro Real Analysis  Math Upper Level Elective	3 3 3
Modern Language II Math 3325 Intro Real Analysis	3
Modern Language II Math 3325 Intro Real Analysis Math Upper Level Elective Minor	3 3 3
Modern Language II  Math 3325 Intro Real Analysis  Math Upper Level Elective  Minor  Total hours	3 3 3
Modern Language II Math 3325 Intro Real Analysis Math Upper Level Elective Minor  Total hours Senior Year: Spring	3 3 3 3
Modern Language II  Math 3325 Intro Real Analysis  Math Upper Level Elective  Minor  Total hours  Senior Year: Spring  Math Upper Level Elective	3 3 3 3 16
Modern Language II  Math 3325 Intro Real Analysis  Math Upper Level Elective  Minor  Total hours  Senior Year: Spring  Math Upper Level Elective  Math Upper Level Elective	3 3 3 3 16
Modern Language II Math 3325 Intro Real Analysis Math Upper Level Elective Minor  Total hours Senior Year: Spring Math Upper Level Elective Math Upper Level Elective Minor	3 3 3 3 16 3 3 3
Modern Language II Math 3325 Intro Real Analysis Math Upper Level Elective Minor  Total hours Senior Year: Spring Math Upper Level Elective Math Upper Level Elective Minor Math or general electives	3 3 3 3 16 3 3 3
Modern Language II Math 3325 Intro Real Analysis Math Upper Level Elective Minor  Total hours Senior Year: Spring Math Upper Level Elective Math Upper Level Elective Minor	3 3 3 3 16 3 3 3

Core Curriculum - Total Hours 39 Major - Total Hours 81 Degree - Total Hours 120