**BASED ON CREDITS** 

# MATHEMATICS (Graduate School Preparation Track), B.S. 121 credits and Three 1-credit PE courses

GENERAL EDUCATION CORE	MAJOR (52 credits)
BASIC REQUIREMENTS	☐ MA 121: Calculus I
(6 credits and three 1-credit PE Courses)	☐ MA 122: Calculus II
Composition and Rhetoric	☐ MA 222: Statistical Analysis with R
☐ EN 103 Composition and Rhetoric I	•
☐ EN 104 Composition and Rhetoric II	☐ MA 223: Calculus III
Physical Education Courses	☐ MA 224: Calculus IV
□ PE 100	☐ MA 231: Discrete Mathematics
$\square$ PE	☐ MA 243: Differential Equations
□ PE □ PE	☐ MA 301: Probability Theory
	☐ MA 331: Linear Algebra
MODES OF THINKING (12 credits)	☐ MA 351: Fundamentals of Modern Geometry
Literature (Select one)	
□ EN 110, EN 112, EN 115	☐ MA 445: Advanced Calculus
Mathematics (Satisfied by Major – MA 121)	☐ MA 453: Senior Coordinating Seminar
,	☐ MA 471: Abstract Algebra
Natural Science (Select one)	☐ CS 115: Introduction to Python – 4 credits
□ BI 209, BI 210, BI 211, BI 242, CH 209,	☐ CS 260: Databases and Data Visualization
PH 209	
Philosophy	Choose two mathematics electives from the
□ PL 109	
Social Sciences (Select one)	<b>following:</b> any MA course at 300 or 400 level
☐ CJ 109, CM 130, EC 209, EC 112, HCM	
230, PO 103, PO 109, PS 109, SO 109	□
CULTURAL LITERACY (18 credits)  Humanities I and II. <i>Preferably</i> select a set (e.g., HI 201/202). However, a combination (e.g., PO 201 + HI 214) is acceptable.  □ Hum. I: HI 201, PO 201, HI 213 □ Hum. II: HI 202, PO 202, HI 214, HI 262  Humanities III: Great Works of Art & Music	FREE ELECTIVES (24 credits)
Humanities IV: Great Works of Literature	ODTIONAL MINOD
	OPTIONAL MINOR
Foreign Language/World Cultures	<u></u>
(Select either two of the same language, any	<u> </u>
two WC, or one WC and one approved	Ц
course with international study)	
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CHRISTIAN VALUES AND THEOLOGY	
(9 credits)	
Catholic Theology	
□ TH 109	
Intermediate Theology (200/300 level TH)	
□ TH	
Values Seminar	
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#### **DE SALES UNIVERSITY**

#### Example Plan: MATHEMATICS MAJOR (Graduate School Preparation Track), B. S.

#### FIRST YEAR

#### FALL SEMESTER (16 credits and 1-credit PE)

Calculus 1 (MA 121)

Introduction to Python (CS 115) – 4 credits Composition and Rhetoric I (EN 103)

Philosophy MOT (PL 109)

Foreign Language/World Cultures

Lifetime Fitness and Wellness (PE 100)

### **SPRING SEMESTER** (15 credits and 1-credit PE)

Calculus II (MA 122)

Statistical Analysis with R (MA 222) Composition and Rhetoric II (EN 104)

Social Science MOT

Foreign Language/World Cultures Physical Education (Activity)

#### SECOND YEAR

#### FALL SEMESTER (15 credits and 1-credit PE)

Calculus III (MA 223)

Differential Equations (MA 243)

Humanities I

Catholic Theology (TH 109)

Free Elective

Physical Education (Activity)

# **SPRING SEMESTER** (15 credits)

Calculus IV (MA 224)

Discrete Mathematics (MA 231)

Humanities II

Literature MOT Free Elective

THIRD YEAR

# FALL SEMESTER (15 credits)

Probability Theory (MA 301)

Linear Algebra (MA 331)

Fundamentals of Modern Geometry (MA 351)

Humanities III

Intermediate Theology

## **SPRING SEMESTER** (15 credits)

Advanced Calculus (MA 445)

Mathematics Elective \*

Humanities IV

Natural Science MOT

Free Elective

#### **FOURTH YEAR**

# **FALL SEMESTER** (15 credits)

Abstract Algebra (MA 471)

Senior Coordinating Seminar (MA 453) Databases and Data Visualizations (CS 260)

Values Seminar

Free Elective

#### **SPRING SEMESTER (15 credits)**

Mathematics Elective \*

Free Elective

Free Elective

Free Elective

Free Elective

Students pursuing Secondary Education Teacher Certification should follow the STEP Mathematics Graduation Requirement Forms.

A. Koefer, Director of Academic Success Center Effective fall, 2022

<sup>\*</sup> Choose two mathematics electives from the following: any MA course at 300 or 400 level