

**Sample Four Year Plan** 

# Mathematics (BA/BS), Actuarial Science

## Semester 1

- TRU 120: First Year Seminar (3 cr)
- MATH 198: Analytic Geometry and Calculus I (5 cr)
- Dialogues Curriculum course (6 cr)

# **Semester 3**

- MATH 200: WE/Foundations of Mathematics (3 cr)
- MATH 264: Analytic Geometry and Calculus III (4 cr)
- ECON 200: Principles of Macroeconomics (3 cr)
- BSAD 153: Intro to Business Data Analytics (1 cr)
- Elementary Foreign Language I (3 cr)

# Semester 5

- MATH 451: Algebraic Structures I (3 cr)
- STAT 570: Mathematical Probability and Statistics I (3 cr)
- ACCT 220: Introduction to Financial Accounting (3 cr) - JINS 3XX: WE/ (3 cr)
- JINS 3XX: WE/\_\_\_\_\_ (3 cr) - Dialogues Curriculum course (3 cr), **OR** BS/BA
- coursework (3 cr)

# Semester 7

- MATH 461: Advanced Calculus (3 cr)
- MATH 499: WE/Mathematics Capstone (3 cr)
- Electives (6 cr)

### Semester 2

- MATH 263: Analytic Geometry and Calculus II (4 cr)
- CS 170: Intro to Computer Science I (4 cr)
- CHEM 130: Chemical Principles I (4 cr), OR PHYS 185:
- College Physics I (4 cr)
- Dialogues Curriculum course (3 cr)

# Semester 4

- MATH 357: Linear Algebra (3 cr)
- MATH 330: Mathematics of Finance (3 cr)
- ECON 201: Principles of Microeconomics (3 cr)
- STAT 290: Statistics (3 cr)
- Dialogues Curriculum course (3 cr)
- Elementary Foreign Language II (3 cr)

## **Semester 6**

- MATH 398: Junior Seminar in Mathematics (1 cr)
- STAT 481: Loss Models (3 cr) (\*)
- STAT 571: Mathematical Probability and Statistics II (3
- cr)
- BSAD 329: Principles of Finance (3 cr)
- Dialogues Curriculum course (3 cr), **OR** BS/BA coursework (3 cr)

#### Semester 8

MATH 425: Intro. to the Math. of Life Contingencies (3 cr) (\*)
Dialogues Curriculum course (6 cr), OR BS/BA coursework (6 cr)

Electives (as needed) to total at least 120 hours

#### **NOTES:**

- (\*) = MATH 425 in only offered in odd years and STAT 481 in even years, so these courses may
  need to be swapped in the plan
- Graduation Requirements: Total credit hrs>=120 (40 credit hrs @ 300-level or higher)
- WE = Writing Enhanced course
- If you have not completed the Civics Exam, we recommend doing so in your first year.
- Truman students are required to complete a <u>Portfolio</u> to graduate. We recommend starting to compile your work for the Portfolio sooner than later.
- Students must complete their Application to Graduate **the semester prior to graduating**. Apply to graduate through TruView.
- Graduating seniors need to complete their seniors test and questionnaire. We recommend reviewing the <u>Assessment & Testing page</u> to plan accordingly.
- **The Dialogues curriculum** requires a certain number of courses/credit hours in the following Perspectives: Social, Arts and Humanities, STEM, Communications, and Statistics. The exact number of courses a student will be required to take during their undergraduate career varies individually according to the credit transferred in.

#### List A of Elective Courses (3 cr):

MATH 363: College Geometry MATH 440: Topology MATH 447: Combinatorial Analysis MATH 452: Algebraic Structures II MATH 454: Theory of Numbers MATH 462: Advanced Calculus II MATH 464: Higher Geometry MATH 464: Higher Geometry MATH 465: Differential Geometry MATH 468: Intro to Set Theory MATH 469: Intro to Mathematical Logic MATH 515: Complex Variables I STAT 570: Mathematical Probability and Statistics I

#### List B of Elective Courses (3 cr):

MATH 300: Introduction to Numerical Analysis MATH 330: Mathematics of Finance MATH 335: Game Theory MATH 345: Introduction to Mathematical Biology MATH 347: Discrete Mathematics MATH 364: Vector Analysis MATH 365: Ordinary Differential Equations MATH 400: Methods of Optimization MATH 425: Intro. To the Math. of Life Contingencies MATH 455: History of Mathematics I MATH 456: History of Mathematics II MATH 511: Numerical Analysis MATH 521: Partial Differential Equations MATH 530: Topics in Mathematical Modeling MATH 564: Advanced Linear Algebra STAT 571: Mathematical Probability and Statistics II

**Department Chair:** Please contact the <u>Center for Academic Excellence</u> with any updates to the plan above. Rev. 8-5-24