Sample Four Year Plan

Mathematics (BA/BS), Pre-MAE

Semester 1
- TRU 120: First Year Seminar (3 cr)
- MATH 198: Analytic Geometry and Calculus I (5 cr)
- Dialogues Curriculum course (6 cr)

Semester 2
- MATH 263: Analytic Geometry and Calculus II (4 cr)
- CS 170: Intro to Computer Science I (4 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)
- ED 100: Introduction to Education (1 cr)
- CHEM 130: Chemical Principles I (4 cr), **OR** PHYS 185: College Physics I (4 cr)
- Elementary Foreign Language I (3 cr)

Semester 4
- MATH 357: Linear Algebra (3 cr)
- ED 388: Exploratory Field Experiences (1 cr)
- ED 389: WE/Foundations of Education (3 cr)
- STAT 290: Statistics (3 cr), **OR** STAT 370: Probability (3 cr)
- Elementary Foreign Language II (3 cr)

Semester 5
- MATH 451: Algebraic Structures I (3 cr) **(**)**
- MATH 455: History of Mathematics I (3 cr) **(*)**
- JINS 3XX: WE/Junior Interdisciplinary Seminar (3 cr)
- Dialogues Curriculum course (3 cr), **OR** BA/BS coursework (3 cr)
- Elective (3 cr)

Semester 6
- MATH 363: College Geometry (3 cr)
- MATH 398: Junior Seminar in Mathematics (1 cr)
- MATH XXX: One course from List A or B (3 cr) **(***)**
- ED 393: Clinical Experiences in Teaching (3 cr)
- ED 394: Experiences in Classroom Teaching (1 cr)
- Dialogues Curriculum course (3 cr), **OR** BA/BS coursework (3 cr)

Semester 7
- MATH 461: Advanced Calculus (3 cr) **(**)**
- MATH 499: WE/Mathematics Capstone (3 cr)
- ED 593: Psychological Foundations of Education (3 cr)
- Electives (3-6 cr)

Semester 8
- MATH XXX: One course from List A or B (3 cr) **(***)**
- MATH XXX: One course from List A or B (3 cr) **(***)**
- ED 410: Capstone: On Becoming an Educator (2 cr)
- Dialogues Curriculum course (6 cr), **OR** BA/BS coursework (6 cr)

Electives (as needed) to total at least 120 hours

NOTES:

- **(*) =** This course is only offered every other year so it may need to be taken in a *different* year.
- **(**) =** Math 451 and 461 are only offered in the fall. Math 452 is only offered in the spring of even years, and Math 462 is only offered in the spring of odd years. So students may need to swap years for the Math 451-452 and 461-462 sequences.
- **(***) =** The following courses are recommended as options for Math electives: Math 335, Math 347, Math 452, Math 454, Math 462, Math 464, Math 467
- 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 Portfolio 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 Assessment & Testing page 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 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 Center for Academic Excellence with any updates to the plan above. Rev. 8-5-24