Sample Four Year Plan

Data Science (BS)

*The following plan is possible on the presumption that an incoming student **begins at the MATH 186 (Precalculus) level** upon enrolling at Truman State University.*

FALL - Semester 1
- TRU 120: First Year Seminar (3 cr)
- MATH 186: Precalculus (4 cr)
- STAT 190: Basic Statistics (3 cr)
- CS 180: Intro to Computer Science I (4 cr)

SPRING - Semester 2
- STAT 101: New Majors Seminar (1 cr)
- CS 181: Intro to Computer Science II (3 cr)
- ENG 190: Writing as Critical Thinking (3 cr)
- MATH 198: Analytic Geometry and Calculus I (5 cr)
- DATA 222: Fundamentals of Data Science (3 cr)

FALL - Semester 3
- MATH 263: Analytic Geometry and Calculus II (4 cr)
- COMM 170: Public Speaking (3 cr)
- STAT 330: Linear Models (3 cr)
- Elementary Foreign Language I (3 cr)
- Dialogues Curriculum coursework

SPRING - Semester 4
- STAT 250: Statistical Computing (3 cr)
- DATA 344: WE/Data Ethics (3 cr)
- DATA 322: Intermediate Data Science (3 cr)
- MATH 357: Linear Algebra (3 cr)
- Elementary Foreign Language I (3 cr)

FALL - Semester 5
- STAT 398: Intermediate Seminar in Statistics and Data Science (1 cr)
- STAT 370: Probability **OR** CS 191: Computing Structures **OR** MATH 347: Discrete Mathematics (3 cr)
- DATA 324: Data Visualization (3 cr)
- *Specialization Block course^:* STAT 310: Data Collection & Statistical Communication (3 cr) **OR** CS 260: Object-Oriented Programming and Design (3 cr)
- Dialogues Curriculum coursework
- Major Electives (as needed)

SPRING - Semester 6
- DATA 520: Data Mining and Multivariate Statistics (3 cr)
- *Specialization Block course^:* STAT 392: Statistical Consulting with Practicum (3 cr) **OR** CS 310: Data Structures and Algorithms (3 cr)
- JINS 3XX: WE/Junior Interdisciplinary Seminar (3 cr)
- Dialogues Curriculum coursework

FALL - Semester 7
- STAT 497: Statistics Capstone Experience* (2 cr)
- STAT 498: Senior Seminar in Statistics and Data Science* (1 cr)
- CS 430: Databases (3 cr)
- Bachelor of Science Required Support (3 cr)
- Dialogues Curriculum coursework
- Major Electives (as needed)

SPRING - Semester 8
- Bachelor of Science Required Support (3 cr)
- Dialogues Curriculum coursework
- Major electives (as needed)

NOTES:

- WE = Writing Enhanced course
- (^) - The Data Science major offers 3 ***specialization blocks***, all of which require at least 6 credits hours of coursework: **Intermediate Coding**, **Data Consulting**, or **Statistics**. Students have the choice to complete one or more of the specialization blocks.
- (*) - STAT 497 and STAT 498 are co-requisites
- **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.

Department Chair: Please contact the Center for Academic Excellence (advise@truman.edu) with

any updates to the plan above.