Sample Four Year Plan

Biochemistry and Molecular Biology (BS), Alternative Plan

If math placement is lower than calculus, students will complete College Algebra prior to beginning their chemistry courses with CHEM 130: Chemical Principles I, as shown in the example plan below.

Semester 1
- TRU 120: First Year Seminar (3 cr)
- BIOL 107: Cells, Molecules, and Genes (4 cr)
- BCMB 145: Freshman Biochemistry and Molecular Biology Seminar (1 cr)
- MATH 156: College Algebra (3 cr)
- Dialogues Curriculum course (3 cr)

Semester 2
- CHEM 130: Chemical Principles I (4 cr)
- MATH 157: Plane Trigonometry (2 cr)
- STAT 190: Basic Statistics (*) (3 cr)
- Dialogues Curriculum course (3 cr)

(*) = Dialogues requirement

Semester 3
- CHEM 131: Chemical Principles II (4 cr)
- CHEM 245: Sophomore Chemistry Seminar (1 cr)
- BIOL 300: Genetics (4 cr)
- MATH 198: Analytic Geometry and Calculus I (5 cr)

Semester 4
- BIOL 330: Cell Biology (4 cr)
- CHEM 329: Organic Chemistry I (3 cr)
- CHEM 312: WE/Foundations of Chemical Analysis (5 cr)
- MATH 263: Analytic Geometry and Calculus II (4 cr)

Semester 5
- PHYS 185: Physics I (***) (4 cr)
- CHEM 275: Intro to Inorganic Principles (1 cr)
- CHEM 331: Organic Chemistry II (3 cr)
- CHEM 330: Organic Chemistry I Lab (**) (1 cr)
- CHEM 345: Junior Chemistry Seminar (1 cr)
- Dialogues Curriculum course (3 cr)

(**) = Organic Chemistry I and II Labs (CHEM 330 and CHEM 332) can be replaced by CHEM 333: Organic Chemistry Laboratory (2 credits)
(***) = PHYS 195/196 also possible which would add 1 credit hour each semester

Semester 6
- PHYS 186: Physics II (***) (4 cr)
- CHEM 332: Organic Chemistry II Lab (**) (1 cr)
- CHEM 335: Biochemistry I - Structure and Function (3 cr)
- BCMB elective with lab (****) (3-4 cr)
- Dialogues Curriculum course (3 cr)

(**) = Organic Chemistry I and II Labs (CHEM 330 and CHEM 332) can be replaced by CHEM 333: Organic Chemistry Laboratory (2 credits)
(***) = PHYS 195/196 also possible which would add 1 credit hour each semester

Semester 7
- BCMB 445: Senior Biochemistry and Molecular Biology Capstone Seminar (1 cr)
- CHEM 337: Physical Chemistry of Biochemical Systems (3 cr)
- JINS 3XX: WE/_____ (3 cr)
- Elective (3 cr)
- Dialogues Curriculum course (3 cr)

Semester 8
- CHEM 326: WE/Quantum Mechanics and Spectroscopy Laboratory (2 cr)
- BCMB elective 2 (****) (3-4 cr)
- BCMB elective 3 (****) (3-4 cr)
- Elective (3 cr)
- Dialogues Curriculum course (3 cr)

NOTES:

- (*) = Dialogues requirement
- (**) = Organic Chemistry I and II Labs (CHEM 330 and CHEM 332) can be replaced by CHEM 333: Organic Chemistry Laboratory (2 credits)
- (***) = PHYS 195/196 also possible which would add 1 credit hour each semester
- 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.

Department Chair: Please contact the Center for Academic Excellence with any updates to the plan above. Rev. 7-31-24