



## Biochemistry & Molecular Biology (BS), Pre-Med Track

This sample academic plan was developed by the Pre-Med Committee to assist students interested in pursuing medical school after graduation from Truman with course sequencing. The listed courses fulfill the Biochemistry & Molecular Biology (BS) degree requirements while also incorporating prerequisites required by most medical schools. For a list of suggested pre-medical prerequisite courses, click [here](#).

### Semester 1

- **BCMB 145: Freshman Biochemistry and Molecular Biology Seminar** (1 cr)
- **CHEM 130: Chemical Principles I** (4 cr)
- **BIOL 107: Cells, Molecules, and Genes** (4 cr)
- TRU 120: First Year Seminar (3 cr)
- Dialogues Curriculum course (3 cr)

### Semester 3

- **CHEM 245: Sophomore Chemistry Seminar** (1 cr)
- **BIOL 330: Cell Biology OR BIOL 300: Genetics** (4 cr)
- **CHEM 329: Organic Chemistry I** (3 cr)
- **CHEM 275: Intro to Inorganic Principles** (1 cr)
- MATH 263: Analytic Geometry and Calculus II (4 cr)
- Dialogues Curriculum course (3 cr)

### Semester 5

- **BCMB elective with lab** (\*\*\*\*) (3-4 cr)
- **CHEM 345: Junior Chemistry Seminar** (1 cr)
- **CHEM 332: Organic Chemistry II Lab** (\*\*) (1 cr)
- **CHEM 335: Biochemistry I - Structure and Function** (3 cr)
- PHYS 185: College Physics I (\*\*\*) (4 cr)

### Semester 7

- **BCMB 445: Senior Biochemistry & Molecular Biology Capstone Seminar** (1 cr)
- **CHEM 323: Thermodynamics and Kinetics** (3 cr)
- **CHEM 324: Thermodynamics and Kinetics Lab** (2 cr)
- Dialogues Curriculum courses (9 cr)

### Semester 2

- **CHEM 131: Chemical Principles II** (4 cr)
- MATH 198: Analytic Geometry and Calculus I (5 cr)
- STAT 190: Basic Statistics (3 cr)
- Dialogues Curriculum course (3 cr)

### Semester 4

- **BIOL 300: Genetics OR BIOL 330: Cell Biology** (4 cr)
- **CHEM 331: Organic Chemistry II** (3 cr)
- **CHEM 330: Organic Chemistry I Lab** (\*\*) (1 cr)
- **CHEM 312: WE/Foundations of Chemical Analysis** (5 cr)
- Dialogues Curriculum course (3 cr)

### Semester 6

- **BCMB elective 2** (\*\*\*\*) (3-4 cr)
- PHYS 186: College Physics II (\*\*\*) (4 cr)
- JINS 3XX: WE/Junior Interdisciplinary Seminar (3 cr)
- Dialogues Curriculum courses (6 cr)

### Semester 8

- **BCMB elective 3** (\*\*\*\*) (3-4 cr)
- Dialogues Curriculum courses (12 cr)

### NOTES:

- Typically, students planning to enter medical school will take *PSYC 166: General Psychology* or a similar course as part of the Dialogues curriculum or as an elective course.
- (\*\*) = 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. Revised 10-4-2025.