

Chemistry: Four Year Plan Dentistry  
Blue text major requirements  
(updated April 2024 H.Banks & updated April 2024 A. Nienow)

**First Year: Fall**

*BIO 110 Principles of Biology (DAT) & BIO 111 Lab*

*\*CHE 110 General Chemistry (DAT) & CHE 111 General Chemistry Lab OR CHE 105 Foundations of Chemistry I (DAT) & CHE 106 Foundations of Chemistry I Lab*

*Before you can register for CHE 105 or CHE 110, you are required to take the Chemistry placement exam. (CHE 105/106 offered Fall only and CHE 107/108 offered Spring only) taking both are equivalent to CHE 110. Find out more about the CHE placement exam, [click here](#).*

FTS 100 First Term Seminar (Writing Intensive course- WRIT)

PSY 100 Introductory Psychology (or Spring)

**First Year: Spring**

*BIO 120 Organismal Biology (DAT) & BIO 121 Lab*

*CHE 120 Organic Chemistry I (DAT) & CHE 121 Organic Chemistry I Lab (offered Fall and Spring)*

OR

*CHE 107 Foundations of Chemistry II (DAT) & CHE 108 Foundations of Chemistry II Lab (CHE 105/106 offered Fall only and CHE 107/108 offered Spring only) taking both are equivalent to CHE 110).*

*MCS 121 Calculus I or MCS 142 Introduction to Statistical Methods*

**Second Year: Fall**

*CHE 220 Organic Chemistry II (DAT) & CHE 221 Organic Chemistry II Lab (offered Fall only)*

*If you took CHE 105/106 and CHE 107/108 in the first year, take CHE 120 Organic Chemistry I (DAT) & CHE 121 Organic Chemistry I Lab (offered Fall and Spring) instead of CHE 220/221. It is possible to take Che 220 Org Chem. II in Fall of third year and take Che 270 Biochem in the fourth year.*

*PHY 200 Physics for Scientists and Engineers II w/calculus & PHY 201 Lab*

\*English- composition (some composition recommendations: ENG 100 Writing Process, ENG 112 Creative Writing, ENG 253 Writing Fiction WRITD, ENG 256 Writing Creative Nonfiction WRITD)

\*(U of M prerequisite requirement: Two composition courses are preferred; or one composition course, and one additional course in either literature, humanities, or public speaking that is designated as writing intensive)

### **Second Year: Spring**

*CHE 230 Inorganic Chemistry I (DAT recommended) & CHE 231 Inorganic Chemistry I Lab (offered Spring only)*

*PHY 210 Physics for Scientists and Engineers II w/calculus & PHY 211 Lab*

*MCS 122 Calculus II (if not taken yet)*

### **Third Year: Fall**

*CHE 260 Physical Chemistry I & CHE 261 Lab*

*If you took CHE 120 in the fall of second year, take CHE 220 Organic Chemistry II (DAT) & CHE 221 Organic Chemistry II Lab (offered Fall and Spring) instead of or with CHE 260/261*

*CHE 399 Chemistry Seminar\**

*HES 230 Human Anatomy & Physiology I & HES 231 Human Anatomy & Physiology I Lab (offered Fall only)\*\**

*\*\*ART 141 Form and Surface, Ceramic Tech (\*U of MN top recommendation) Spring semester only or ART 110 Drawn Conn and Visual Narratives (Fall & Spring) or ART 121 Sculptural Modes (Fall and Spring) (recommended)*

### **Third Year: Spring**

*CHE 250 Environmental Chemistry & CHE 241 Lab or CHE 240 Quantitative Analysis & CHE 241 Lab*

*CHE 399 Chemistry Seminar\**

*HES 240 Anatomy & Physiology II & HES 241 Anatomy & Physiology II Lab (offered Spring only)\*\**

**Fourth Year: Fall**

*CHE 270 Biochemistry & CHE 271 Lab or Spring or CHE elective\*\**

*If haven't already done so, take CHE 260 Physical Chemistry I & CHE 261 Lab*

CHE 399 Chemistry Seminar\*

**Fourth Year: Spring**

*CHE 270 Biochemistry & CHE 271 Lab or Fall or CHE elective\*\**

CHE 399 Chemistry Seminar\*

Recommended: BIO 218 Fundamentals of Microbiology & BIO 219 Lab or BIO 360 Microbiology & BIO 361 Lab required for some programs. (BIO 250 and BIO 260 required, including labs, if planning to take BIO 360/261)

\* a total of three semesters of CHE 399 is required for the chemistry major. Students could enroll in CHE 399 as early as sophomore year.

\*\* the timing of these courses is flexible

This is a general plan of study including only the requirements for Dentistry and the Chemistry Major. Please speak with your faculty advisor about if this is the best layout of classes for you, if you are off-track, and about fitting in your general liberal arts education courses. It is important to note the minimum grade needed for any course to count towards the Chemistry major and to satisfy any prerequisites. This is outlined in the catalog.