

Organic Chemistry Course Options

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Organic Chemistry is taught in two different course structures at Truman. This document is an attempt to clarify these two options for academic advisors and their students who might need these courses for their undergraduate degrees and/or for pre-requisites for various professional programs. The organic faculty wants all of our students to get the most appropriate and rewarding possible experience in our subject!

Option #1: The first and most popular course structure is the two-semester sequence, which includes two 3-credit-hour lecture courses and associated labs. This sequence is required for many professional programs, such as medical school and veterinary school. Some physical therapy schools also require this sequence, but some are content with the one-semester course described below; students should carefully check with the schools that they are interested in attending to be sure that they are getting the pre-requisites that they need!

The lecture courses for the two-semester sequence are Chem. 329 and 331, and they are both offered in both spring and fall semesters, with Chem. 331 usually also being offered in the summer. This means that a student can begin this lecture sequence in either the spring or fall, whenever their schedule allows. The associated labs are offered in two ways: as either two one-credit hour labs (Org I lab: Chem. 330 and Org II lab: Chem. 332) or one 2-credit hour lab (Organic Lab, affectionately called "Superlab": Chem. 333). Note that a student would only need to take either the two-lab sequence OR Superlab, not all of them!

One idiosyncrasy of these lab courses at Truman is that we require that the student has completed Organic I lecture (329) PRIOR to enrolling in either Org I lab or Superlab. These labs are also taught with the expectation that a student is concurrently enrolled in Organic II lecture (or has successfully completed it). In other words, Org II is a co-requisite of Org I lab and Organic Superlab. The labs do use knowledge from the beginning of Org II lecture within the first several lab periods.

The content of this two-semester sequence includes the essential structural issues of organic compounds, and surveys reaction chemistry of the various functional groups over the course of both semesters. The result of this organization is that the fundamental chemistry of the biomolecules in which health care professionals might be most interested is covered in Organic II. Thus, if a student who is interested in a career in health care is not expecting to complete the entire sequence, they should take the course structure option given below instead.

Option #2: The second course structure is the one-semester organic course, which includes one 4-credit-hour lecture and lab combination (Chem. 320: Fundamentals of Organic Chemistry). For this course, you must enroll concurrently in a lecture and lab combination. This course streamlines the reaction chemistry of all of the functional groups, lightly touching on all of these functional groups in a single semester. The reaction chemistry is chosen to emphasize applications to biomolecules and polymers, so that students can learn in one semester some of the ways that organic chemistry impacts their lives. Because demand is so small for this course at Truman at this time, it is offered only in alternate spring semesters (in even numbered years). If a student completes their General Chemistry requirements in their freshman and sophomore years, they should then have enough time to complete this course in the spring of either their junior or senior years at the latest, prior to graduating.

I hope that this memo has clarified the differences in these two course structure options. If you find that you do still have questions, I would be happy to speak with you further about this subject. Please do not hesitate to call me at X-4591 or email me at amoody@truman.edu if I can help you in any way with your organic chemistry course decisions.

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