This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designed as critical (!) must be completed in the semester listed to ensure a timely graduation.

<table>
<thead>
<tr>
<th>Critical</th>
<th>Course Subject and Title</th>
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Graduation Requirements Summary

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<th>Minimum Total Hours</th>
<th>Minimum Upper-Division Hours 30000 - 40000 level course</th>
<th>Minimum Kent Core Hours</th>
<th>Minimum Major GPA</th>
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1. US 10097 is not required of transfer students with 25 credits (excluding College Credit Plus and dual-enrollment) or students age 21+ at time of admission.

2. Offered in fall and summer only

3. Contact department for offerings

4. Offered in spring only

5. Offered in spring and summer only

6. Offered in fall only

7. Offered every other year; contact department for details

8. Fulfills College General Requirement

9. Chemistry elective (1-2 credits)

Choose from the following:

- CHEM 30107 Analytical Chemistry Laboratory I (1) (WIC)
- CHEM 30108 Analytical Chemistry Laboratory II (2) (WIC)
- CHEM 40477 Intermediate Organic Chemistry Laboratory (1)
- CHEM 40483 Intermediate Organic Chemistry (1)
- CHEM 40568 Elementary Physical Chemistry Laboratory (1)
- CHEM 40571 Surface Chemistry (2)
- CHEM 40796 Individual Investigation (1 - 2)

10. Credits required depend on meeting minimum 120 credit hours and minimum 42 upper-division credit hours.

11. Minimum C (2.000) grade must be earned in CHEM 30107 or CHEM 30108 in order to fulfill the writing-intensive requirement.

University Requirements: Bachelor's degree-seeking students must meet Kent Core (general education requirements), diversity, writing-intensive and experiential learning requirements. For more information about these requirements, please read the following sections in the University Catalog:

- Kent Core – [www.kent.edu/catalog/kent-core](http://www.kent.edu/catalog/kent-core);
- Diversity Course Requirement – [www.kent.edu/catalog/diversity](http://www.kent.edu/catalog/diversity);
- Writing-Intensive Course Requirement – [www.kent.edu/catalog/wic](http://www.kent.edu/catalog/wic);

Attribute Legend: DD Diversity–Domestic; DG Diversity–Global; ELR Experiential Learning; KAD Kent Core Additional; KBS Kent Core Basic Sciences; KCM Kent Core Composition; KFA Kent Core Fine Arts; KHU Kent Core Humanities; KMC Kent Core Mathematics and Critical Reasoning; KSS Kent Core Social Sciences; WIC Writing Intensive