

The Eastern Integrative Experience
The College of Sciences
Department of Chemistry

The EIU Experience	Integrative Elements	Next Steps
Advising	<p>Academic advisors help students map out course schedules based on chosen concentration, eligibility (completion of pre-requisites), and other mitigating factors.</p> <p>All graduating majors participate in an exit interview conducted by two faculty. In this interview, students are asked to reflect upon and share their experiences at Eastern by responding to a series of posed questions.</p> <p>(type: global and personal; characteristics: intentionality and reflection)</p>	<p>Expand opportunities for students to learn about career choices and opportunities.</p> <p>Explore adopting alternative and perhaps more comprehensive methods (e.g. journal or portfolio) for graduating majors to reflect upon and share their experiences at Eastern.</p>
General Education	<p>Chemistry majors do extensive writing and therefore draw upon skills developed in coursework across the university. CHM writing intensive courses are CHM 2845, 3455, 3780, 3915, 4770, and 4915. All majors take CHM 2845. CHM 3455, 3780 and 3915 are required for the biochemistry concentration and CHM 3780, 3915, 4770 and 4915 are required for the chemistry concentration.</p> <p>(type: horizontal, vertical and global; characteristics: problem solving, collaboration, engagement)</p>	
Required Courses Outside Major	<p>Courses in math (MAT 1414 and 2442) and physics (PHY 1351/52 and 1361/62) are taken by all majors. These courses lay the foundation for material covered in CHM 3910 and 3920 and help students see the interconnectivity of these different disciplines.</p> <p>The biochemistry concentration includes required courses in Biological Sciences.</p> <p>The management concentration includes required courses in the School of Business.</p> <p>The Science with Teacher Certification program includes required courses in all the natural sciences, professional education courses, science methods, and student teaching.</p> <p>(type: horizontal, vertical, and global; characteristics: metacognition and problem solving)</p>	
Major Curricula	<p>The chemistry major is hierarchal and vertically integrated by necessity and design. Courses are deliberately sequenced because content is linked or built upon.</p>	

<p>Capstone Experience</p>	<p>CHM 3000/3001, Junior Seminar (taken by all majors) and CHM 4000/4001, Senior Seminar (taken by students in the Chemistry and Biochemistry concentrations). These courses expose students to a variety of new scientific information and ideas. Students give the department (upper division and graduate students and the faculty) a 20 minute (CHM 3001) and a 40 minute (CHM 4001) presentation on a current chemical topic.</p> <p>CHM 3100, Practicum in Chemistry (taken by students pursuing science with teacher certification degree; includes observation, supervised instruction and grading in CHM 1040G.) This course allows future teachers to get first-hand practice of the pedagogical knowledge they have gained via educational coursework.</p> <p>CHM 4400, Undergraduate Research. In this course students extend their classroom learning via intense faculty/student collaborative research. An ideal way for students to “put the pieces” together and interact closely with faculty and graduate students, many of whom are from different cultures.</p> <p>(type: all; characteristics: all)</p>	
<p>Student Life</p>	<p>Membership and participation in Student Affiliates of the American Chemical Society (SA-ACS). This student group does a substantial amount of community service and chemistry outreach, organizes field trips, and develops external speaker series.</p> <p>(type: global, personal, and cosmic; characteristics: collaboration and engagement)</p>	<p>Promote additional opportunities including membership and participation in WiSM and COS advisory board.</p>
<p>Academic Co-Curricula</p>	<p>Summer research with a faculty member</p> <p>Research presentations at the annual chemistry department poster session and Sciencefest.</p> <p>Research presentations at regional and national chemistry conferences.</p> <p>Peer Tutoring (majors who serve as tutors for CHM 1310, 1315, 1410, 1415, 2430, 2435, 2440, and 2445).</p> <p>A department tradition is for a group of 3-4 majors to take external seminar speakers to lunch.</p> <p>Informal discussion with graduate students, faculty and departmental advisors (who are chemistry faculty).</p> <p>(type: all; characteristics: all)</p>	