

EASTERN CONNECTICUT STATE UNIVERSITY
Liberal Arts Program Committee
 Course Submission Application for the Liberal Arts Curriculum

Tier I: Natural Sciences

Department: Physical Sciences _____ Course Prefix and Number: CHE 205 _____ Course Title: Chemistry of Life with Laboratory _____ Contact Name and E-mail: Dr. John Toedt ToedtJ@easternct.edu _____	% of sections of this course typically taught by adjuncts per academic year: 0% Does this course also fit a GER Category? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, which GER Category? <u> IIIIB </u> _____ Date of Submission: 12/13/2006
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- Descriptions of the tiers, content areas and integrated curricular elements* and narratives are at <http://www.easternct.edu/depts/lapc>
- *This form should be submitted with a course syllabus and the appropriate (two) Curriculum Committee forms.*

TIER I: NATURAL SCIENCES			
Student Learning Outcomes	Emphasis Ranking 3 Critically Important 2 Important 1 Less Important	Specific Course Activities	Assessment Method
1. Understand basic scientific principles underlying knowledge of the natural world	3	Reading assignments in textbook and other sources (WebCT content), Course Lectures	Demonstration of knowledge on examinations, laboratory assignments, and class room discussion
2. Understand methods by which scientists observe natural phenomena, formulate testable hypotheses, and design and perform experiments	3	Reading assignments in textbook and other sources; laboratory and lecture assignments and examination questions requiring students: to design protocols, evaluate experimental designs, analyze experimental results	Demonstration of knowledge on examinations, laboratory assignments, and class room discussion
3. Obtain and critically evaluate scientific information from various information sources	3	Students will be exposed to various scientific literature and general media. Course lectures stress a scientific approach to evaluating and interpreting information	Demonstration of knowledge on examinations, laboratory assignments, and class room discussion informal evaluation of new
TIER I: Methods and Concepts (required for all Tier I courses)			

Student Learning Outcomes	Emphasis Ranking 3 Critically Important 2 Important 1 Less Important	Specific Course Activities	Assessment Method
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1. Recognize and articulate the major concepts and ideas that are foundational to a range of liberal arts disciplines		Obtained by cumulative activities of multiple requirements of courses in Tier I	
2. Comprehend the relationships among and distinctions between disciplines and areas of study		Obtained by cumulative activities of multiple requirements of courses in Tier I	
3. Understand and employ multiple modes of inquiry and analysis		Obtained by cumulative activities of multiple requirements of courses in Tier I	
4. a. Effectively communicate ideas orally:*	2	Informal class discussions, group participation in laboratory exercises, presentations related to scientific topics for FYR cluster	Participation grade in laboratory, general evaluation of students ability to communicate ideas and interact with fellow students in a productive manner
4. b. Effectively communicate ideas visually:*	1	Students will be required to interpret and create basic scientific graphs, diagrams, and tables as part of laboratory procedures and lecture material	General evaluation in classroom and laboratory setting Exam questions, laboratory assignments
4. c. Effectively communicate ideas in writing:*	3	Students will be required to write about scientific concepts and make quantitative evaluation of scientific data	General evaluation in classroom and laboratory setting Exam questions, laboratory assignments
5. a. Understand the value of rigorous inquiry and research	3	Course lectures will highlight the value and limitations of scientific research. Information will presented from historical achievements and will include discussions of erroneous results and theories including their effects on society	Exam questions, laboratory assignments
5. b. Understand the value of academic integrity	3	Statement included on course syllabus and emphasized in lecture	Violations of academic integrity will be penalized as described in the course syllabus and under standard university policy
5. c. Understand the value of active engagement in the ECSU learning community and beyond	1	Students will be encouraged to participate in campus activities (e.g., guest speakers; performances) that relate to course topics If this course remains in the first year program as it has for the past 5 years, significant involvement in the university will be stressed in both the chemistry course and FYR	Extra credit may be assigned

Student Learning Outcomes	Emphasis Ranking 3 Critically Important 2 Important 1 Less Important	Specific Course Activities	Assessment Method
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6. Discern the ethical dimensions of the production and acquisition of knowledge within disciplines*	2	Considerable time in lecture will be used to address current scientific issues in society and more importantly pursuing students perception and thoughts regarding the ethically issues related to a number of topics (stem cells, genetic engineering, genetic/genomic information)	Exam questions, laboratory assignments, informal classroom discussions
7. Ability to think critically*	3	The ability to critically analyze information, experimentation, and complex societal issues will be continually addressed throughout the course. Students will be required to analyze experiments and will be exposed to scientific approaches to critically assess information	Exam questions, laboratory assignments, informal classroom discussions
8. Effectively seek and employ information to achieve academic goals*	2	Homework assignments and formal and informal oral presentation: Lecture will include current topics and student will be asked to form opinions and present there ideas and viewpoints on scientific research, and scientific issues related to societal issues today. Student presentations related to chemistry as part of the associated FYR 3 R course allow a link in the cluster and discussion of scientific issues related to topics presented in class or current issues	Exam questions, laboratory assignments, quizzes informal classroom discussions classroom presentations

Course Submission Application for the Liberal Arts Curriculum

General Information

The liberal arts curriculum is designed to achieve specific student learning outcomes.

Departments propose courses for submission into the Liberal Arts Curriculum to the Curriculum Committee and the Liberal Arts Program Committee. In submitting course proposals, departments are indicating that the syllabus presented is representative of all sections of the proposed course and acknowledge that all syllabi will contain the LAC tier and category student learning outcomes and other requisite components of a LAC syllabus. Departments will insure that the objectives of the LAC will be declared and taught in all sections of the proposed course. *This is not to impede academic freedom.* The LAPC recognizes that there are multiple methods to achieve the student outcomes. The diversity of approaches to achieve these ends promotes creativity and enriches the curriculum.

Outcomes

These student learning outcomes are identified as the learning outcome for a particular tier of the liberal arts curriculum and for the specific category of the tier. All courses accepted for inclusion within the Liberal Arts Curriculum must develop the student learning outcomes for each of the outcomes for the categories and contribute to the development of learning outcomes for the tier and for the entire curriculum.

Emphasis Ranking

Identify your intention and active effort to assist students to achieve each of the goals. All outcomes are not equally addressed in every course. The value placed on the outcomes may be evidenced by the time, grade weight or other factors. Ranking of your emphasis assists the LAPC in understanding the focus of the course and how all courses within LAC tiers contribute to student learning.

Emphasis Ranking:

3 This outcome is critically important to the course and will be strongly emphasized

2 This outcome is important to the course and will receive some emphasis

1 This outcome is less important to the course and will be addressed but not emphasized

NA If there is a compelling reason based on the nature of the course that precludes meeting one of these requirements, please insert the rationale in the specific course activities box.

Specific Course Activities

How will the instructor insure that the learning objectives are met? Please provide specific course activities designed to achieve student outcomes in each area. Your syllabus will illustrate the overall requirements and content of your course. Please highlight specific teaching approaches, student activities, resources employed, reading assignments or other strategies to produce these learning outcomes.

Active learning activities are encouraged to promote student engagement and learning at higher levels. These may include: debates, presentations, student team reports, demonstrations, experiments, discussion, problem-solving, assessing, designing, role playing, simulation and other activities.

Assessment Methods

How will the instructor evaluate whether students in the class achieve these outcomes and at what level of achievement? How will the instructor evaluate whether the course achieved the expectations for overall student learning of these objectives? If available, attach copies of assessment tools to your submission. There are a variety of sources of evidence of student achievement of goals. These may include:

- Embedded assessments such as papers, exams, projects, lab reports, presentations, journals
- Methods to communicate assessment such as rubrics, comments, grade reports, feedback mechanisms
- Student self-evaluation tools

Syllabus

Course syllabi for the Liberal Arts Curriculum (LAC) must include the learning outcomes for the appropriate tier and category of the LAC.

Curriculum Committee Forms

All courses submitted for the LACC for the first time will be treated as new courses to be approved by the Curriculum Committee.