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Courses	Distance Learning	Syllabus	Request Tracking	UG Program	Masters Program	Doctoral Program	Program Suspension/Close
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New Course Form

Open in full window.

Attachments:

Browse...

ID	Attachment
Delete 148	Memo to Bosch - CHE 109.pdf
Delete 163	SY109_recitation_FA12_updated.doc
Delete 178	Course Review Form CHE 109_110_111.doc

First 1 2 Last

Select saved project to retrieve...

(*Denotes required fields)

1. General Information

- a. * Submitted by the College of: COLLEGE OF ARTS & SCIENCES Today's Date: 4/17/2012
- b. * Department/Division: Chemistry
- c.
 - * Contact Person Name: Mark Meier Email: meier@uky.edu Phone: 7-7082
 - * Responsible Faculty ID (if different from Contact): Stephen Testa Email: testa@uky.edu Phone: 7-7081
- d. * Requested Effective Date: Semester following approval OR Specific Term/Year Fall 2012
- e. Does the change make the course a UK Core course? Yes No

If YES, check the areas that apply:

- Inquiry - Arts & Creativity
- Composition & Communications - II
- Inquiry - Humanities
- Quantitative Foundations
- Inquiry - Nat/Math/Phys Sci
- Statistical Inferential Reasoning
- Inquiry - Social Sciences
- U.S. Citizenship, Community, Diversity
- Composition & Communications - I
- Global Dynamics

2. Designation and Description of Proposed Course.

- a. * Will this course also be offered through Distance Learning? Yes No
- b. * Prefix and Number: CHE 109
- c. * Full Title: General Chemistry I
- d. Transcript Title (if full title is more than 40 characters):
- e. To be Cross-Listed with (Prefix and Number):
- f. * Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours² for each meeting pattern type.

3 Lecture	1 Laboratory ¹	1 Recitation	Discussion
Indep. Study	Clinical	Colloquium	Practicum
Research	Residency	Seminar	Studio
Other	If Other, Please explain:		
- g. * Identify a grading system: Letter (A, B, C, etc.) Pass/Fail
- h. * Number of credits: 4
- i. * Is this course repeatable for additional credit? Yes No
 - If YES: Maximum number of credit hours:
 - If YES: Will this course allow multiple registrations during the same semester? Yes No
- j. * Course Description for Bulletin:

A study of the principles of chemistry and their application to the more important elements and their compounds. The two-semester CHE 109/110 Sequence covers the same material as CHE 105.

k. Prerequisites, if any:

Math ACT of 23 or above; or math placement test; or MA 109; or KCTCS course CHM 100 or CHM 102

i. Supplementary teaching component, if any: Community-Based Experience Service Learning Both

3. * Will this course be taught off campus? Yes No

If YES, enter the off campus address:

4. Frequency of Course Offering.

a. * Course will be offered (check all that apply): Fall Spring Summer Winter

b. * Will the course be offered every year? Yes No

If No, explain:

5. * Are facilities and personnel necessary for the proposed new course available? Yes No

If No, explain:

6. * What enrollment (per section per semester) may reasonably be expected? 120

7. Anticipated Student Demand.

a. * Will this course serve students primarily within the degree program? Yes No

b. * Will it be of interest to a significant number of students outside the degree pgm? Yes No

If YES, explain:

This course will be of interest to students in all majors that require CHE 105, but who do not have sufficient background to be successful in CHE 105

8. * Check the category most applicable to this course:

- Traditional - Offered in Corresponding Departments at Universities Elsewhere
- Relatively New - Now Being Widely Established
- Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).

a. * Is this course part of a proposed new program? Yes No

If YES, name the proposed new program:

b. * Will this course be a new requirement for ANY program? Yes No

If YES, list affected programs::

10. Information to be Placed on Syllabus.

a. * Is the course 400G or 500? Yes No

If YES, the differentiation for undergraduate and graduate students must be included in the information required in 10.b. You must include: (i) identification of assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR 3.1.4.)

b. * The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from 11 above) are attached.

11) Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

12) The chair of the cross-listing department must sign off on the Signature Routing Log.

13) In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, represents at least two hours per week for a semester for one credit hour. (from SR 5.2.1)

14) You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.

15) In order to change a program, a program change form must also be submitted.

Rev 8/09



Hi Janie
 Your password will expire on Oct 9, 2012 (14 days).
[Change it now?](#)

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Courses	Distance Learning	Syllabus	Request Tracking
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eCATS Request Tracking

Click the icon to the left of a record to display detail of the approval routing-to-date for a request.

No Filter
 Filter By College Name
 Filter By CourseID
 Filter By Date Range

 FromDate
 ToDate

Course/ Prog ID	Display Form	Course/ Program	Request Type	College	Date
CHE 109	Display Form	Course	New	ARTS & SCIENCES	1/5/2012 12:00:00 AM

Details of Course/Program ID(CHE 109)

WORKITEM ID	Workflow Status	Date	Time
000008977844	RECEIVED BY DEPARTMENT	2012-01-05	16:08 PM
000008977832	PROCEED WITHOUT ADDITIONAL REVIEW	2012-01-05	16:12 PM
000008983813	APPROVED BY DEPARTMENT	2012-01-09	15:21 PM
000009002993	RECEIVED BY COLLEGE	2012-01-09	15:21 PM
000009002994	PROCEED WITHOUT ADDITIONAL REVIEW	2012-02-03	13:29 PM
000009195444	RECEIVED BY COLLEGE	2012-02-03	13:29 PM
000009195445	APPROVED BY COLLEGE	2012-02-03	13:30 PM
000009195449	RECEIVED BY UNDERGRADUATE COUNCIL	2012-02-03	13:30 PM
000009195450	PROCEED WITHOUT ADDITIONAL REVIEW	2012-03-22	13:29 PM
000009819961	RECEIVED BY COLLEGE	2012-03-22	13:30 PM
000009819962	APPROVED BY UNDERGRADUATE COUNCIL	2012-04-16	07:27 AM
000009974284	RECEIVED BY SENATE COUNCIL	2012-04-16	07:27 AM

CHE 110	Display Form	Course	New	ARTS & SCIENCES	1/5/2012 12:00:00 AM
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MEMORANDUM

TO: Anna Bosch, Assoc. Dean of Undergraduate Education
FROM: Professor Dr. Stephen Testa, Chemistry Department
DATE: 11-3-11
RE: Fall 2012, A&S 100

We propose to offer an experimental course as A&S 100 in the Fall of 2012. This course has not been offered before and [may] be offered [again] as an experimental course. Some details regarding the course are listed below. Our current plan necessitates four sections of A&S100. All sections meet in the same room at the same time for the lecture (3 times/week) and in groups of 30 for a once a week recitation. A complete course syllabus based on the University Senate Syllabi Guidelines is attached.

Crs: sub-title: Special Intro Course: [General Chemistry I]
Crosslisted: [NA]
Enrollment: [120]
E/W: [No]
Off campus: [NA]
Distance/Lrng: [No]
Instructor(s): Stephen Testa, ID 00010894
Credit Hr: [4]
Day/Time: Lecture: MWF/2:00PM-2:50PM
Recitation: M/3:00PM-3:50PM
M/4:00PM-4:50PM
W/3:00PM-3:50PM
W/4:00PM-4:50PM

Session: [Fall 2012]
Room: CP-320
Spec. Note: [This is the first half of a new course where the material in CHE 105 is covered in two semesters (CHE 109 and then CHE 110). Taking CHE 109, CHE 110, and CHE 111 satisfies a UKcore requirement for the Natural Sciences. Note: CHE 111 and CHE 110 are corequisites, so CHE 109 students cannot take CHE 111.]
Pre-reqs: [Math ACT of 23 or above (or Math placement test), or MA 109, or MA 110, or the Community College course CHE 102R or CHM100.]
UKCore: [Yes, if students also take CHE 110 and CHE 111]
Grade: [Letter]
Final Exam: [Yes]
Format: [Lecture + Recitation]
Resources: [Tuition-based]

Rationale: [This course will fill a gap that exists in the chemistry curriculum. There are students who need CHE 105 for their majors, but do not have sufficient background to do well in the course. The only option for these students that the department offers is for the students to take CHE 104 to enhance their chemistry background. Unfortunately, this is a General, Organic, and Biochemistry survey course, which is not a good course for CHE 105 remediation. CHE 109 and CHE 110 (together) will fill this void by having the exact same material as CHE 105, but it will give the students twice the time to learn it, thereby allowing for time and instruction to overcome background deficiencies. Sixty seats will be reserved for students who sign up for the course before the semester starts, and sixty seats will be reserved for students who normally would drop down from CHE 105 to CHE 104.]



Course Review Form
Inquiry in the Natural/Mathematical/Physical Sciences

Reviewer Recommendation

Accept Revisions Needed

Course: Combination of CHE 109, CHE 110, and CHE 111

Using the course syllabus as a reference, identify when and how the following learning outcomes are addressed in the course. Since learning outcomes will likely be addressed multiple ways within the same syllabus, please identify a representative example (or examples) for each outcome.

Course activities that enable students to demonstrate an understanding of methods of inquiry that lead to scientific knowledge and distinguish scientific fact from pseudoscience.

Example(s) from syllabus:

We cover The Scientific Method in Chapter 1, and we cover methods of inquiry that led to the discovery of atoms and electrons in Chapter 2. These topics are shown in the 'Course Schedule' section of the CHE 109 syllabus. We distinguish scientific fact from pseudoscience in the discussion of global warming in Chapter 4, and in the discussion of energy and the environment in Chapter 6. These topics are shown in the 'Current Topics for Class Discussion' sections of the CHE 109 and CHE 110 syllabi. Students will demonstrate their understanding on the exams and in homework.

Brief Description:

Nearly all chapters of the textbook describe methods of inquiry. We will stress the methods involved and focus on teaching the students how to utilize, as well as adapt, these methods to their necessary situations. The textbook also has chapter sections that specifically tie in the course material with society. These 'Chemistry in Action' sections will be used as a foundation for teaching the students how to distinguish scientific fact from pseudoscience. The students will demonstrate their understanding of scientific inquiry, and their ability to distinguish scientific fact from pseudoscience, on the exams.

Course activities that enable students to demonstrate an understanding of the fundamental principles in a branch of science.

Example(s) from syllabus:

The fundamental principles of science are outlined throughout the 'Course Schedule' sections of the CHE 109 and CHE 110 syllabi. The students will demonstrate their understanding on the exams, which is also mentioned in the 'Course Schedule'.

Brief Description:

The fundamental principles of chemistry are described at length in the required textbook, and are outlined in the accompanying syllabus. The students will demonstrate their understanding of these fundamental principles on the exams.

Course activities that enable students to demonstrate the application of fundamental principles to interpret and make predictions in that branch of science.

Example(s) from syllabus:

Students will learn periodic table trends in Chapter 8 (CHE 110), and Chemical Bonding theories in Chapters 9 and 10 (CHE 110) that will allow them to interpret and make predictions about how chemicals form compounds, and then how these compounds react. The students will demonstrate their understanding on exams and in homework.

Brief Description:

This will take on many forms in this class, including utilizing the periodic table to interpret and predict chemical reactions, reaction quantities, and chemical properties. The students will demonstrate their understanding of these principles by making predictions of chemical reactions on homework and exams.

Course activities that enable students to demonstrate their ability to discuss how at least one scientific discovery changed the way scientists understand the world.

Example(s) from syllabus:

In the 'Current Topics for Class Discussion' sections of the CHE 109 and CHE 110 syllabi are a variety of topics that explain how scientific discoveries changed the way scientists (and non-scientists) understand the world. These topics will be taught in a class discussion format, and the students will demonstrate their understanding of these topics on the exams (and in class participation format -i.e. class clickers).

Brief Description:

The student will be introduced to a variety of important discoveries, especially the discovery of the atom, electron, and nucleus. The impact of these discoveries, both current and future, will be discussed. The students will also be exposed to important chemical discoveries through in-class discoveries. The students will demonstrate their understanding of these discoveries on the exams.

Course activities that enable students to demonstrate their ability to discuss the interaction of science with society.

Example(s) from syllabus:

In the 'Current Topics for Class Discussion' sections of the CHE 109 and CHE 110 syllabi are a variety of topics that explain the interaction of science with society, for example 'radiation treatment for cancer' and 'acid rain'. These topics will be taught in a class discussion format, and the students will demonstrate their understanding of these topics on the exams (and in class participation format -i.e. class clickers).

Brief Description:

Each chapter of our textbook has one or more sections that discuss how chemistry interacts with society. These sections are given names like 'Chemistry in Medicine, Chemistry in the Environment, and Chemistry in your Day'. These sections will be covered in detail in the course lectures, and will be the nucleation point for class discussions on how the course material interacts with society, especially including societal problems. The students will demonstrate their understanding of these examples on the exams.

A hands-on student project is required. This project enables students to demonstrate their ability to conduct a scientific project using scientific methods that include design, data collection, analysis, summary of the results, conclusions, alternative approaches, and future studies. Describe the required student product (paper/ laboratory report) based on the hands-on project.

This learning outcome will be fulfilled by the student taking the accompanying General Chemistry Lab (CHE 111), in which 10 hands-on projects are conducted. See the CHE 111 syllabus for more detailed information regarding the individual projects. Throughout the class, the students will fulfill all the requirements mentioned above, and the students product will be their laboratory reports. The lab reports will also provide opportunities for students to hone their scientific writing skills.

Course activities that demonstrate the integration of information literacy into the course.

Example(s) from syllabus:

Students will have to obtain information from the literature for the introductions of their laboratory reports in CHE 111. They will have to reference this material, thus integrating it into their course material.

Brief Description:

In many ways this learning outcome is the crux of chemical inquiry. The student will learn precisely where to go to find certain types of chemical information, how to understand such information, how to use this information for predictive purposes (even when dealing with unforeseen types of problems), and how to evaluate the answers obtained. The students will extensively use the periodic table (our greatest source of information), the textbook and lab book (and their accompanying data charts and tables, usually from the CRC), and the internet (chemistry web sites, tutorials, homework, and chemical tables) in this learning outcome. Although this will be covered in CHE 109 and CHE 110, all lab reports (in CHE 111) also require the students to incorporate scientific information that they find in scientific sources.

Reviewer's Comments

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