

COURSE CHANGE FORM

Complete 1a – 1f & 2a – 2c. Fill out the remainder of the form as applicable for items being changed.

1. General Information.					
a.	Submitted by the College of: <u>Arts and Sciences</u>	Today's Date: <u>August 30, 2011</u>			
b.	Department/Division: <u>Chemistry</u>				
c.	Is there a change in "ownership" of the course?			YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
	If YES, what college/department will offer the course instead? _____				
d.	What type of change is being proposed?	<input checked="" type="checkbox"/> Major	<input type="checkbox"/> Minor ¹ (place cursor here for minor change[OSC1] definition)		
e.	Contact Person Name: <u>Kim Woodrum</u>	Email: <u>kwood2@uky.edu</u>	Phone: <u>7-1551</u>		
f.	Requested Effective Date:	<input type="checkbox"/> Semester Following Approval	OR	<input checked="" type="checkbox"/> Specific Term ² :	<u>Summer 2012</u>
2. Designation and Description of Proposed Course.					
a.	Current Prefix and Number: <u>CHE 101</u>	Proposed Prefix & Number: <u>CHE 101</u>			
b.	Full Title: <u>Molecular Science for Citizens</u>	Proposed Title: <u>Molecular Science for Citizens</u>			
c.	Current Transcript Title (if full title is more than 40 characters):	<u>N/A</u>			
c.	Proposed Transcript Title (if full title is more than 40 characters):	<u>N/A</u>			
d.	Current Cross-listing:	<input checked="" type="checkbox"/> N/A	OR	Currently ³ Cross-listed with (Prefix & Number):	_____
	Proposed – <input type="checkbox"/> ADD ³ Cross-listing (Prefix & Number):	_____			
	Proposed – <input type="checkbox"/> REMOVE ^{3,4} Cross-listing (Prefix & Number):	_____			
e.	Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours⁵ for each meeting pattern type.				
Current:	<u>3</u> Lecture	_____ Laboratory ⁵	_____ Recitation	_____ Discussion	_____ Indep. Study
	_____ Clinical	_____ Colloquium	_____ Practicum	_____ Research	_____ Residency
	_____ Seminar	_____ Studio	_____ Other – Please explain: _____		
Proposed:	<u>3</u> Lecture	_____ Laboratory	_____ Recitation	_____ Discussion	_____ Indep. Study
	_____ Clinical	_____ Colloquium	_____ Practicum	_____ Research	_____ Residency
	_____ Seminar	_____ Studio	_____ Other – Please explain: _____		
f.	Current Grading System:	<input checked="" type="checkbox"/> Letter (A, B, C, etc.)	<input type="checkbox"/> Pass/Fail		
	Proposed Grading System:	<input checked="" type="checkbox"/> Letter (A, B, C, etc.)	<input type="checkbox"/> Pass/Fail		
g.	Current number of credit hours: <u>3</u>	Proposed number of credit hours: <u>3</u>			
h.	Currently, is this course repeatable for additional credit?			YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>

¹ See comment description regarding minor course change. *Minor changes are sent directly from dean's office to Senate Council Chair.* If Chair deems the change as "not minor," the form will be sent to appropriate academic Council for normal processing and contact person is informed.

² Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

³ Signature of the chair of the cross-listing department is required on the Signature Routing Log.

⁴ Removing a cross-listing does not drop the other course – it merely unlinks the two courses.

⁵ Generally, undergrad courses are developed such that one semester hr of credit represents 1 hr of classroom meeting per wk for a semester, exclusive of any lab meeting. Lab meeting generally represents at least two hrs per wk for a semester for 1 credit hour. (See SR 5.2.1.)

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<i>Proposed to be repeatable for additional credit?</i>		YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
<i>If YES:</i>	<i>Maximum number of credit hours:</i> _____		
<i>If YES:</i>		<i>Will this course allow multiple registrations during the same semester?</i>	
		YES <input type="checkbox"/>	NO <input type="checkbox"/>
i. Current Course Description for Bulletin:	<u>A conceptual introduction to the molecular nature of all natural and man-made materials as well as the key molecules of biological organisms. The important classes of molecules (structural and high-technology materials, cosmetics, fibers, fuels, polymers, metals, water, carbon dioxide, food, vitamins, detergents, pharmaceuticals, proteins, bio-molecules, environmental pollutants) will be discussed in terms of their properties, synthesis, transformations, and utility.</u>		
<i>Proposed Course Description for Bulletin:</i>	<u>A conceptual introduction to the molecular nature of natural and man-made materials as well as the key molecules of biological organisms. The important classes of molecules will be discussed in terms of their properties and impact on our everyday real world experience. .</u>		
j. Current Prerequisites, if any:	<u>None</u>		
<i>Proposed Prerequisites, if any:</i>	<u>None</u>		
k. Current Distance Learning (DL) Status:	<input type="checkbox"/> N/A	<input type="checkbox"/> Already approved for DL*	<input checked="" type="checkbox"/> Please Add ⁶
<input type="checkbox"/> Please Drop			
<small>*If already approved for DL, the Distance Learning Form must also be submitted <u>unless</u> the department affirms (by checking this box <input type="checkbox"/>) that the proposed changes do not affect DL delivery.</small>			
l. Current Supplementary Teaching Component, if any:	<input type="checkbox"/> Community-Based Experience	<input type="checkbox"/> Service Learning	<input type="checkbox"/> Both
<i>Proposed Supplementary Teaching Component:</i>	<input type="checkbox"/> Community-Based Experience	<input type="checkbox"/> Service Learning	<input type="checkbox"/> Both
3. Currently, is this course taught off campus?	YES <input type="checkbox"/>		NO <input checked="" type="checkbox"/>
<i>Proposed to be taught off campus?</i>	YES <input type="checkbox"/>		NO <input checked="" type="checkbox"/>
4. Are significant changes in content/teaching objectives of the course being proposed?	YES <input checked="" type="checkbox"/>		NO <input type="checkbox"/>
If YES, explain and offer brief rationale:			
<u>At the same time that I am submitting it for approval for an online course, I will also be submitting it for acceptance into the UKCore offerings.</u>			
5. Course Relationship to Program(s).			
a. Are there other depts and/or pgms that could be affected by the proposed change?	YES <input type="checkbox"/>		NO <input checked="" type="checkbox"/>
If YES, identify the depts. and/or pgms: _____			
b. Will modifying this course result in a new requirement⁷ for ANY program?	YES <input type="checkbox"/>		NO <input checked="" type="checkbox"/>
If YES ⁷ , list the program(s) here: _____			
6. Information to be Placed on Syllabus.			
a.	<input type="checkbox"/> Check box if changed to 400G or 500.	If <u>changed to</u> 400G- or 500-level course you must send in a syllabus and <i>you must include the differentiation</i> between undergraduate and graduate students by: (i) requiring additional assignments by the graduate students; and/or (ii) establishing different grading criteria in the course for graduate students. (See SR 3.1.4.)	

⁶ You must *also* submit the Distance Learning Form in order for the course to be considered for DL delivery.

⁷ In order to change a program, a program change form must also be submitted.

COURSE CHANGE FORM

Signature Routing Log

General Information:

Course Prefix and Number: CHE 101 (adding online option; and UK Core area Inquiry in Natural Sciences forms revised to meet IGEOC concerns of Nov. 2011)

Proposal Contact Person Name: Kim Woodrum Phone: 7-1551 Email: kwood2@uky.edu

INSTRUCTIONS:

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

Internal College Approvals and Course Cross-listing Approvals:

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
Chemistry, DUS	8/30/11	Arthur Cammers / 3-8977 / a.cammers@uky.edu	
Chemistry, Chair	10/13/11	Mark Meier / 7-3937 / meier@uky.edu	
College of A&S	10/26/11	Anna Bosch, Associate Dean / 7-6689 / bosch@uky.edu	
		/ /	
		/ /	

External-to-College Approvals:

Council	Date Approved	Signature	Approval of Revision ⁸
Undergraduate Council	3/20/2012	Sharon Gill	
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:

⁸ Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

Distance Learning Form

This form must accompany every submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL delivery. **All fields are required!**

Introduction/Definition: For the purposes of the Commission on Colleges Southern Association of Colleges and Schools accreditation review, *distance learning* is defined as a formal educational process in which the majority of the instruction (interaction between students and instructors and among students) in a course occurs when students and instructors are not in the same place. Instruction may be synchronous or asynchronous. A distance learning (DL) course may employ correspondence study, or audio, video, or computer technologies.

A number of specific requirements are listed for DL courses. **The *department* proposing the change in delivery method is responsible for ensuring that the requirements below are satisfied at the individual course level.** It is the responsibility of the instructor to have read and understood the university-level assurances regarding an equivalent experience for students utilizing DL (available at <http://www.uky.edu/USC/New/forms.htm>).

Course Number and Prefix: CHE101	Date: August 30, 2011
Instructor Name: Kim Woodrum	Instructor Email: kwood2@uky.edu
Check the method below that best reflects how the majority of course of the course content will be delivered.	
Internet/Web-based <input checked="" type="checkbox"/>	Interactive Video <input type="checkbox"/>
	Hybrid <input type="checkbox"/>

<i>Curriculum and Instruction</i>	
1.	<p>How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?</p> <p>Units will be available through Blackboard giving students reading, viewing of prerecorded videos and other assignments followed by quizzes in Blackboard to ensure students understand the content. Office hours will be available via on-line resources so students can get assistance. Email will be utilized to answer students questions with a 24 hour turn around time expected.</p>
2.	<p>How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc.</p> <p>Students will have the same book, course objectives and goals for the DL course as the students taking the in-class (albeit hybrid) course. The activities that the students do in class will be similar to the ones created for the DL course. Lectures given in class will be recorded and available to view in Blackboard. The exams will be of similar format and content as that of the on-campus course.</p>
3.	<p>How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.</p> <p>All on-line assignments will be completed through Blackboard and therefore password protected. The largest portion of the students grade will be assigned based on exams. The students will take the exams at approved proctoring centers.</p>
4.	<p>Will offering this course via DL result in at least 25% or at least 50%* (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above?</p> <p>No</p> <p>If yes, which percentage, and which program(s)?</p>

Abbreviations: TASC = Teaching and Academic Support Center DL = distance learning DLP = Distance Learning Programs

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	<p>*As a general rule, if approval of a course for DL delivery results in 50% or more of a program being delivered through DL, the effective date of the course's DL delivery will be six months from the date of approval.</p>
5.	<p>How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?</p> <p>All materials for the DL course will be available for the student through Blackboard and their textbook. There is a hands on component to the class and both the DL students and the in-class students will be able to find the materials needed in a typical grocery store.</p>
<i>Library and Learning Resources</i>	
6.	<p>How do course requirements ensure that students make appropriate use of learning resources?</p> <p>Exam questions will be drawn from readings in their textbook, learning activities available on Blackboard and the viewing of lecture material videos available on Blackboard. Quizzing in Blackboard prior to enable students to assess their understanding of the material prior to the exams.</p>
7.	<p>Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.</p> <p>Access to laboratories is not required. Students will need access to a kitchen for an assignment for this course. Students must gain access to a computer on their own. Access to any facilities that might help the student will can be granted upon student request.</p>
<i>Student Services</i>	
8.	<p>How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Teaching and Academic Support Center (http://www.uky.edu/TASC/index.php) and the Information Technology Customer Service Center (http://www.uky.edu/UKIT/)?</p> <p>Students will be informed of procedures for resolving technical complaints in the syllabus and within blackboard under a section designated for technical issues. Links to both web sites will be provided to the students.</p>
9.	<p>Will the course be delivered via services available through the Teaching and Academic Support Center?</p> <p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>If no, explain how students enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.</p> <p>The course will be delivered through Blackboard which is supported by what was formerly known as TASC.</p>

Distance Learning Form

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10.	<p>Does the syllabus contain all the required components, below? <input checked="" type="checkbox"/> Yes</p> <ul style="list-style-type: none"><input type="checkbox"/> Instructor's <i>virtual</i> office hours, if any.<input type="checkbox"/> The technological requirements for the course.<input type="checkbox"/> Contact information for TASC (http://www.uky.edu/TASC/; 859-257-8272) and Information Technology Customer Service Center (http://www.uky.edu/UKIT/; 859-257-1300).<input type="checkbox"/> Procedure for resolving technical complaints.<input type="checkbox"/> Preferred method for reaching instructor, e.g. email, phone, text message.<input type="checkbox"/> Maximum timeframe for responding to student communications.<input type="checkbox"/> Language pertaining academic accommodations:<ul style="list-style-type: none"><input type="checkbox"/> "If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Resource Center. The Center will require current disability documentation. When accommodations are approved, the Center will provide me with a Letter of Accommodation which details the recommended accommodations. Contact the Disability Resource Center, Jake Karnes, Director at 859-257-2754 or jkarnes@email.uky.edu."<input type="checkbox"/> Information on Distance Learning Library Services (http://www.uky.edu/Libraries/DLLS)<ul style="list-style-type: none"><input type="checkbox"/> Carla Cantagallo, DL Librarian<input type="checkbox"/> Local phone number: 859 257-0500, ext. 2171; long-distance phone number: (800) 828-0439 (option #6)<input type="checkbox"/> Email: dllservice@email.uky.edu<input type="checkbox"/> DL Interlibrary Loan Service: http://www.uky.edu/Libraries/libpage.php?lweb_id=253&llib_id=16
11.	<p>I, the instructor of record, have read and understood all of the university-level statements regarding DL.</p> <p>Instructor Name: Kim Woodrum</p> <p>Instructor Signature:</p>

CHE 101 ONLINE: Molecular Science for Citizens

UNIVERSITY OF KENTUCKY, COLLEGE OF ARTS AND SCIENCES

Instructor:	Dr. Kim Woodrum
Semester:	Summer 2012
Contact	(859) 257-1551
Information:	Kim.woodrum@uky.edu
Course:	CHE 101
Office Location:	135 Chemistry Physics Building
Teaching Asst.	
Prerequisites:	None.
Textbook:	Molecular Science for Citizens, Custom Edition for University of Kentucky.
Required Supplies:	Darling Model Set. The University of Kentucky Online System, Blackboard. All University of Kentucky students enrolled in the course will have free access to this resource.

COURSE PRIMARY LEARNING GOAL

This course is designed to enable you to identify and understand the chemistry around you in your everyday life. You should be able to recognize the chemicals and be able to classify them according to various classification schemes used by chemists. Upon classifying the chemical you should be able to make judgments as to their physical and chemical properties.

COURSE'S SECONDARY LEARNING GOALS

This course will be divided into four parts. Part 1: General Chemistry Concepts and Inorganic Chemistry; Part 2: Organic Chemistry; Part 3: Biochemistry; and Part 4: Scientific Method. In the course of covering the topics to meet the primary goal, you will also develop critical thinking skills, reading comprehension skills, and an understanding and implementation of the scientific method.

COURSE LEARNING OUTCOMES. These outcomes are fully explained at the end of the syllabus.

1. Describe methods of inquiry that lead to chemical knowledge, and distinguish scientific fact from pseudoscience.
2. Explain fundamental principles of chemistry.
3. Apply chemical principles to interpret and make predictions.
4. Demonstrate an understanding of discoveries that changed our understanding of the world.
5. Give examples of how chemistry interacts with society.
6. Develop a scientific project using scientific methods and produce a laboratory report on the design, data collection, analysis and conclusions of the project.
7. Recognize when information is needed and demonstrate the ability to find, evaluate, and use sources of chemical information.

ADMINISTRATIVE INFORMATION

1. This course is part of the UK Cores Program and can be taken to fulfill the Natural Science requirement. (Note to DL approval committee: This course is being submitted simultaneously to be approved for the UK Core requirements.)
2. Professor Stephen Testa, Director of General Chemistry, and Ms. Amy Horner, Assistant to the Director, coordinate and administer all of the general chemistry courses. They are located in the Office of General Chemistry (CP-120) and can be contacted via email (GenChemOffice@uky.edu), by phone (257-3882), or by visiting the office during normal office hours (8:00 AM to 4:30 PM).
3. If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Resource Center. The Center will require current disability documentation. When accommodations are approved, the Center will provide the instructor with a Letter of Accommodation that details the recommended accommodations. Contact Jake Karnes, the Director of the Disability Resource Center, at 859-257-2754 or jkarnes@email.uky.edu
4. Students will be provided with a Midterm Evaluation of course performance based on the criteria in the syllabus.
5. All Distance Learning Services can be found at <http://www.uky.edu/DistanceLearning/>. Distance Learning Library Services can be found at <http://www.uky.edu/Libraries/DLLS>
Carla Cantagallo, DL Librarian, Email: dlservice@email.uky.edu
Local phone number: 859. 257.0500, ext. 2171
Long-distance phone number: (800) 828-0439 (option #6)

Administrative dates:

June 7	First day of the course
June 21	Last day to drop a course
July 4	Independence Day: Academic Holiday
August 2	Last day of the course

COURSE MATERIAL

Textbooks may be purchased from the following:

- Kennedy Bookstore, 405 S. Limestone, (859) 252-0331 <http://www.kennedys.com>
- UK Bookstore 106 Student Center Annex, (859) 257-6304 <http://www.uk.bkstr.com>
- Wildcat Text Books, 563 S. Limestone, (859) 225-7771 <http://www.wildcattext.com>

Other materials will be provided, as appropriate in Blackboard within your learning units. Information as to how to access Blackboard will follow.

GRADING

Grades for the course will be assigned on the basis of the scale shown below. Total points: 1000.

A: 900-1000 pts B: 800-899 pts C: 700-799 pts D: 600-699 pts E: <600 pts

The Course will be divided into four units. The point break-down is as follows:

Unit 1: General and Inorganic Chemistry	20%		
A. Blackboard assignments and quizzes, averaged for a total of		50 pts.	} 200 pts
B. Exam I		100 pts.	
C. "Real Life" activity I		50 pts	
Unit 2: Organic Chemistry	20%		
A. Blackboard assignments and quizzes, averaged for a total of		50 pts.	} 200 pts
B. Exam II		100 pts	
C. "Real Life" activity II		50 pts	
Unit 3: Biochemistry	15%		
Blackboard assignments and quizzes, averaged for a total of		50 pts	} 150 pts
Exam III		100 pts	
Unit 4: Hands on Project Using Scientific Method	25%		
A. Experiment Design		50 pts	} 250 pts
B. Data and Results		100 pts	
C. Conclusion and Summary		100 pts	
Final Exam, Comprehensive	20%		200 pts
<hr/>			
Grand total			1000 pts

The Department of Chemistry adheres rigorously to University policy about awarding grades of "I" (Incomplete). See "Student Rights and Responsibilities" at: www.uky.edu/StudentAffairs/Code/. Go to Part II: Rules of University Senate, Section V, 5.1.3.2.

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (<http://www.uky.edu/Registrar/AcademicCalendar.htm>)

Examinations

There will be three 50-minute examinations and a 2-hour comprehensive final in this course. The final examination will be divided into four sections that correspond to the three regular examinations and the material learned concerning the Hands-on Project. Arrangements must be made by the student to take the exam at one of the Distance Learning Proctoring Locations. (Insert information as to how this is accomplished here.)

Exam Replacement Policy. On the final examination, you have the opportunity to improve your lowest score of the three regular exams. The final exam is divided into four sections, with the first three sections corresponding to regular exams 1, 2, and 3. If your grade on the part of the final that corresponds to your lowest exam grade is improved, we will use the grade from the final in place of the regular exam grade. The purpose of this policy is to motivate students to improve their understanding of the material they found most difficult. If an exam is missed and is not excused, a zero will be given, and this will then be considered your lowest exam score.

Excused Absences from Exams. For those students who miss one of the regular examinations with a legitimate, documented excuse under the guidelines outlined in the University Senate Rules, and who obtain permission within a week of the regular exam date, a make-up exam will be administered. This too must be arranged through the proctoring center once an exam is excused. To be excused, you must contact the Assistant to the Director of General Chemistry with legitimate documentation within a week of the exam. No exceptions to this policy will be made. Purchase of airline tickets and participation in weddings are not legitimate reasons to be excused from an exam.

Excused Absences (boilerplate):

Students need to notify the professor of absences prior to class when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit “reasonable cause for nonattendance” by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

Verification of Absences (boilerplate):

Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request “appropriate verification” when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

On-Line Units

The Four Units have corresponding buttons in Blackboard. These units have activities and assignments which HAVE DUE DATES. Enter each Unit and complete the activities and assignments by the due dates specified. Each assignment or quiz will be equally weighted within a unit with the lowest assignment of each unit dropped. Complete instructions on how to complete the assignments or quizzes will be provided with the assignment. Be sure to complete the assignment well in advance of the due date for the unit so that if technical difficulties arise you will have an opportunity to resolve the issue prior to the due date. Not submitting the assignment or quiz by the due date will result in zero credit unless legitimate documentation for the missed assignment is provided.

“Real-Life” Activity

You will be assigned 2 activities during the course of the semester. I will provide you with a picture where chemistry exists in your everyday world. You are to examine the picture and tell about the chemicals present and anything you know about the chemistry of the chemicals. You are to use the concepts and properties you learned in class in your presentation. You are not to look it up on the internet and present what you found there. The activity is to show your ability to take what you have learned and apply it to a real-life situation where chemistry exists. After demonstration of the understanding of the concepts learned in the class, you will then do a web search of the compound and find other useful and interesting facts about the compound in the product. A breakdown of how these Real Life activities will be graded will be given within Blackboard.

Hands-on Project

This project is designed to teach a chemical concept and the scientific method. You are to design the experiment, collect the data, analyze the data and present a summary of the results and a conclusion. You will turn in a written report of your activity, again instruction are in Blackboard. The details for this project will be a separate “button” in Blackboard. You can work on and turn this portion in at any time. It will be due no later than midnight on the last day of class, August 2.

CHEATING

According to the University Senate Rules (6.3.2), cheating includes, but is not limited to, the wrongful giving, taking, or presenting of any information or material by a student with the intent of aiding himself/herself or another on any academic work which is considered in any way in the determination of the final grade. Presenting falsified documents to obtain an excuse from an exam, assignment, or class constitutes cheating and will result in a grade of “E” for the course. The fact that a student could not have benefited from an action is not by itself proof that the action does not constitute cheating. The penalty for cheating is a minimum of an “E” on the assignment involved and can be as severe as an “E” for the course. Sanctions imposed may include, and have included, suspension, dismissal, and expulsion from the University.

GETTING HELP

Blackboard Resources. The “Course Help” button in Blackboard lists your instructor’s office hours and other helpful information.

Email Communication. In all e-mails to faculty or staff in General Chemistry, please include the following:

- In the subject field: Course / Section / Subject. For example, a student in CHE 101 section 001 with a question about homework would write the following: CHE 101-001 Homework.
- In the body of the message: Full name and UK student ID number.
- E-mails containing inappropriate or offensive language or tone may not be answered. We will respond to emails within 1 business day.

WHOM TO CONTACT

University of Kentucky Technical Support: The University of Kentucky maintains a plethora of resources to aid students with technological problems. If you have problems regarding your computer and accessing Blackboard contact the UKIT Help Desk at (859) 218-Help (4357) or email them at helpdesk@uky.edu. Online support can also be obtained at <http://wiki.uky.edu/blackboard/Wiki%20Pages/Home.aspx>

Your Instructor (Dr. Woodrum): All issues regarding homework, including technical difficulties, questions about material, questions about grades, help regarding course material, exam material, and exam grades.

Assistant to the Director of General Chemistry (Ms. Horner): Excused absences, alternate exams, and certified disability forms. If you are in doubt about whom to contact and if your question is not related to homework then contact Ms. Horner.

Director of General Chemistry (Professor Stephen Testa): Anything you would like to discuss regarding the administration of the course, including issues with your instructor.

Accommodations due to disability (boilerplate): If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address: jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

COPYRIGHT

All course material is copyrighted (either by the instructor or others). Therefore, transcribing and then selling, publishing, or posting any of the lecture material presented in class is strictly prohibited. This policy applies especially to “professional” note-taking services and companies that publish such material on the internet, in written form, or in any audio format.

APPROPRIATE ONLINE BEHAVIOR

Students are expected to maintain decorum that includes respect for other students and the instructor, to regularly log in to the course, and to display an attitude that seeks to take full advantage of the educational opportunity. All students are expected to be prepared to work and actively participate in class activities. Virtual communication and discussion "in cyberspace" occur in a social environment where normal rules of social interaction apply. The remoteness of the recipients is no excuse to behave in an anti-social manner and post unacceptable messages. Unacceptable messages include those that harass, intimidate, threaten, belittle, ridicule, expressed hatred for, or aggression toward others. Let us be mindful to avoid words that imply

that some groups of people are less worthy than others (e.g., avoid racist, sexist, anti-Semitic, age-ist, and homophobic language). Discussion board and other electronic communication for this course should relate only to the course subject matter, generally respond to the instructor threads, and always seek to further the aims of that particular discussion forum or chat session (e.g. stay on topic). Contributions to discussion boards and synchronous chat are the intellectual property of the authors. Students who quote another person in class projects, publications or even in remarks made on the discussion board should always acknowledge the source of that quote (e.g., do not plagiarize your classmates). Personal comments about other users and their views should not be placed in any of our Blackboard course areas that are viewable by other users. Do not copy private messages to another person without the author's explicit permission. Consult the UK Student Rights and Responsibilities regarding the steps for addressing unresolved academic issues at <http://www.uky.edu/StudentAffairs/Code/part2.html>

OFFICE HOURS

You are encouraged to make use of your instructor's office hours. Office hours for the CHE 105 instructors are as follows:

Instructor	Section	Phone/E-mail	Office Hours	Office
Dr. Woodrum, Sr. Lecturer	???	(859) 257-1551 holler@uky.edu	To Be Determined	CP-135
TA info here				

COURSE SCHEDULE

The schedule will be detailed in Blackboard for each unit. A brief overview is provided here:

Weeks 1 and 2	General Chemistry and Inorganic Compounds. Introduction to Chemistry Understanding Atoms Classification of Matter: Pure Substances and Mixtures Elements of Interest Electron Configuration Chemical Bonding and Nomenclature Gas Phase, Physical Change, Chemical Change. Balancing Equations
Date?	Exam I, General Inorganic Chemistry
Date ?	Real-Life Activity I Due

Weeks 3 and 4	Organic Compounds Understanding Shorthand Structures or Organic Compounds Hydrocarbon Nomenclature Hydrocarbon Properties Making Polymers from Monomers, Properties of Polymers Organic compounds containing oxygen Condensation Polymerization
Date ?	Exam 2, Organic Chemistry
Date ?	Real-Life Activity II Due
Weeks 5 and 6	Biochemistry Carbohydrates Sugar bonding and nomenclature, Understand difference between cellulose and polysaccharides Fats, triglycerides, Organic Compounds Containing Nitrogen Anti-depressants and Stimulants Half-Life
Date ?	Exam 3, Biochemistry
Weeks 7 and 8	Develop and work on Hand-on project. Due Aug 2`
Aug 2	Final Exam

TECHNOLOGY REQUIREMENTS

Complete the following steps to make sure your computer is correctly configured and the necessary software is installed. Note: You will not be able to access course material if you fail to complete these steps.

1. Go to this site to check the minimum hardware, software and browser requirements: <http://wiki.uky.edu/blackboard/Wiki%20Pages/Bb9%20Hardware%20and%20Software%20Requirements.aspx>
2. Internet Explorer is NOT recommended for Blackboard. Firefox is the recommended Internet browser for the course. Go to <https://download.uky.edu/> to download a free version of Firefox. Log in with your LINK BLUE id and password and search for Firefox.
3. Go to <http://java.com> and click on the Free Java Download button. Run the installer to get the latest version.
4. You will also need Flash, Adobe Acrobat Reader and QuickTime movie player. Go to <http://wiki.uky.edu/blackboard/Wiki%20Pages/Browser%20Check.aspx> then click BbGO! If you do not have these installed, you can download them from this site.

5. To download Windows Media Player, click this link:
<http://www.microsoft.com/windows/windowsmedia/player/10/default.aspx>

6. Students and faculty can download Microsoft Office Suite (including Word and PowerPoint) from this site: <https://download.uky.edu/>.

To access Blackboard, go to <http://myuk.uky.edu>. Follow the links to Blackboard. Your username and password are the same as your UK e-mail address. It is your responsibility to log in and not to miss announcements and assignments. Computer problems or ignorance of an assignment's due date is no excuse for missing assignments.

Help with Blackboard. If you need technical assistance with Blackboard, contact the UK-IT Customer Service Center by calling 218-4357, or if on the University of Kentucky campus by visiting McVey Hall, Room 111 (M-F, 7 AM – 6 PM), by visiting the Student Center, Room 255 (M-F 10 AM – 6PM), or by visiting The HUB at the W.T. Young Library (Sunday- Thursday, 1 PM – 10 PM). You may also e-mail your questions to helpdesk@uky.edu. Keep in mind that the helpdesk may be slower in responding to e-mail requests than to phone calls.

Once in Blackboard, click on the link for CHE 101 Molecular Science for Citizens.

Learning Outcomes: Each required learning outcome will be met for the UK Core course as described in the attached Course Review Form. It is also summarized in the tables that follow.

Learning Outcomes – Course Specific vs. GenEd Reform criteria

Course Specific Learning Outcomes (CHE101)		Intellectual Inquiry – Nat/Phy/Math Sciences
Foundational Knowledge		Learning Outcome 2 & 4.
Description	Using means of lecture (via videos), reading comprehension, and POGIL activities (see below), students will learn the concepts of classification of matter, chemical vs. physical change, atomic structure and the way that structure determines chemical properties. Organic chemistry and biochemistry topics will also be covered.	2. Explain fundamental principles in a branch of science. 4. Demonstrate an understanding of a least one scientific discovery that changed the way scientists understand the world. This learning outcome will be addressed in many ways. Example include: 1) the understanding of the atom; 2) the discovery and understanding of polymers; 3) the understanding of biological impact of trans-fats and omega-3 fatty acids.
Assessment	Students will be given quizzes and exams to test their understanding of these concepts.	
Critical Thinking		Learning Outcome 2 & 3.

Description	Using POGIL activities, students will learn to examine models of chemical concepts, analyze the data, and draw conclusion of chemical behavior and concepts. The concept will then be reinforced through application problems.	3. Apply fundamental principles to interpret and make predictions in a branch of science.
	Assessment	The students will be graded on the activities based upon completion of the activity in Blackboard. Exams will measure whether they appropriately learned to apply the concept or not.
Reading Comprehension		Learning Outcome 2.
Description	Students will be assigned reading passages from their textbook on a regular basis.	2. Explain fundamental principles in a branch of science.
Assessment	For EACH reading assignment, students will be quizzed to see that they gained reading comprehension of the topic. They will be permitted to use notes they took from their reading. Students will also be tested on their exams on the content of what they read. This material (from reading comprehension) will NOT be covered in class in the form of a video lecture, though students will be encouraged to ask questions if needed.	

Understanding and Using the Scientific Method		Learning Outcomes 1, 6 & 7.
Description	Students will be taught, via video recordings, the scientific method and the concepts behind an experiment they will conduct. Students will design their experiment. They will write a report of their data, analysis, and conclusion. They will research their results to try to identify an unknown substance based upon their conclusions. They will discuss alternate approaches as well as future studies of the concepts learned.	<ol style="list-style-type: none"> 1. Describe methods of inquiry that lead to scientific knowledge and distinguish scientific fact from pseudosciences. 6. Conduct a hands-on project using scientific methods to include design, data collection, analysis, summary of the results, conclusions, alternative approaches, and future studies. 7. Recognize when information is needed and demonstrate the ability to find, evaluate and use effectively sources of scientific information.
Assessment	This report will be graded to see that they met the criteria for good experimental design. It will also be graded for clarity in reporting the data, results and conclusions. Students will also be given exam questions to test their understanding of the scientific method and the concepts learned in this activity.	
Recognizing Chemistry in Everyday World		Learning Outcome 5 & 7.
Description	A year or more after this course is finished I hope that students will be able to recognize the role of chemistry in their everyday world.	<ol style="list-style-type: none"> 5. Give examples of how science interacts with society. 7. Recognize when information is needed and demonstrate the ability to find, evaluate and use effectively sources of scientific information.
Assessment	Students will be assigned two "Real-Life" activities (one for inorganic chemistry and one for organic chemistry) in which they will be presented with a picture of a product label. They will identify and classify the substances and tell what properties (chemical and physical) they know of the product based upon what they have learned in class. . Then, students will research other properties, uses and/or hazards associated with the chemical. Students will present their findings in a visually appealing way via a PowerPoint presentation or other creative outlet.	

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

Reviewer Recommendation

Accept Revisions Needed

Course: CHE 101 Molecular Science for Citizens

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:

Hands-on Project

This project is designed to teach a chemical concept and the scientific method. You are to design the experiment, collect the data, analyze the data and present a summary of the results and a conclusion. You will turn in a written report of your activity.

Brief Description:

Within the context of Unit 4 - The Hands-on Project, students will first be taught the scientific method by way of video recording and readings from their textbook. This will be the starting point for the hands-on project.

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

Example(s) from syllabus:

On-Line Units

The four units have corresponding buttons in Blackboard. These units have activities and assignments which HAVE DUE DATES. Enter each Unit and complete the activities and assignments by the due dates specified. Each assignment or quiz will be equally weighted within a unit with the lowest assignment of each unit dropped. Complete instructions on how to complete the assignments or quizzes will be provided with the assignment.

Brief Description:

These units consist of three major means of learning fundamental principles in chemistry. 1) Students will view a video lecture followed by questions based upon the content. 2) Students will be assigned reading from their textbook, followed by questions based upon the content. 3) Students will work Process-Oriented Guided Inquiry Learning (POGIL) activities (by themselves or with a group - via conferencing tools). These activities are designed to help students discover a concept by way of looking at a model and having questions given that guide them to a conclusion about the concept. These have been used as group activities for my in-class meetings but I did studies that show the learning is affective even if completed alone. For all three methods of learning the fundamental principles, the students will be given exams to demonstrate mastery of the principles.

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:

On-Line Units

The Four Units have corresponding buttons in Blackboard. These units have activities and assignments

which HAVE DUE DATES. Enter each Unit and complete the activities and assignments by the due dates specified. Each assignment or quiz will be equally weighted within a unit with the lowest assignment of each unit dropped. Complete instructions on how to complete the assignments or quizzes will be provided with the assignment.

Brief Description:

See point number 3) above. The POGIL activities are specifically designed to force students to look at material and make logical predictions and conclusions based upon the models.

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:

On-Line Units

The Four Units have corresponding buttons in Blackboard. These units have activities and assignments which HAVE DUE DATES. Enter each Unit and complete the activities and assignments by the due dates specified. Each assignment or quiz will be equally weighted within a unit with the lowest assignment of each unit dropped. Complete instructions on how to complete the assignments or quizzes will be provided with the assignment.

Brief Description:

Within the units, especially with regard to assigned reading and video lecture students will see many cases where scientific discovery changed the way scientist understand the word. The material in this class is replete with examples of where the discoveries of chemistry changed the world as well as man's understanding of the world. To list them all would be too lengthy. An example: The discovery that nitrogen (an extremely stable component of air) could be converted to a useful fertilizer by the Haber process. This affordable process has enabled the feeding of millions. The discussion portion of this will be accomplished in the on-line version by way of short answer questions.

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

Example(s) from syllabus:

"Real-Life" Activity

You will be assigned 2 activities during the course of the semester. I will provide you with a picture where chemistry exists in your everyday world. You are to examine the picture and tell about the chemicals present and anything you know about the chemistry of the chemicals. You are to use the concepts and properties you learned in class in your presentation. You are not to look it up on the internet and present what you found there. The activity is to show your ability to take what you have learned and apply it to a real-life situation where chemistry exists. After demonstration of the understanding of the concepts learned in the class, you will then do a web search of the compound and find other useful and interesting facts about the compound in the product.

Brief Description:

The presentation of the activity will take on the form of a PowerPoint presentation that I can click through. A specific rubric will be given to students so they will know exactly what pieces I am looking for and how it will be graded.

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.

The students will first be taught about the scientific method via video recordings. They will then be given instructions in using common kitchen supplies and common foods to see how certain acids, bases, and salts interact with each other. Upon the observation of these interactions the student will then design an experiment to identify an unknown substance. They will write a laboratory report on their scientific discovery and how they utilized the scientific method in their discovery.

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

Example(s) from syllabus:

Real-Life Activity

You will be assigned 2 activities during the course of the semester. I will provide you with a picture where chemistry exists in your everyday world. You are to examine the picture and tell about the chemicals present and anything you know about the chemistry of the chemicals. You are to use the concepts and properties you learned in class in your presentation. You are not to look it up on the internet and present what you found there. The activity is to show your ability to take what you have learned and apply it to a real-life situation where chemistry exists. After demonstration of the understanding of the concepts learned in the class, you will then do a web search of the compound and find other useful and interesting facts about the compound in the product

Brief Description:

The Real Live Activities will first be designed to demonstrate that students can understand common compounds found in everyday products. After they have demonstrated that they can utilize the learned methods of categorization of compounds and properties of these categories of compounds, the student will then research the compound to find interesting and useful information concerning the compound. This will be included in the final presentation of this activity.

Reviewer's Comments

General Education Course Approval Cover Sheet

Date of Submission 08/30/2012

1. Check which area(s) this course applies to

- | | | | |
|----------------------------------|-------------------------------------|--|--------------------------|
| Inquiry - Arts & Creativity | <input type="checkbox"/> | Composition & Communications - II | <input type="checkbox"/> |
| Inquiry - Humanities | <input type="checkbox"/> | Quantitative Foundations | <input type="checkbox"/> |
| Inquiry - Nat/Math/Phys Sci | <input checked="" type="checkbox"/> | Statistical Inferential Reasoning | <input type="checkbox"/> |
| Inquiry - Social Sciences | <input type="checkbox"/> | U.S. Citizenship, Community, Diversity | <input type="checkbox"/> |
| Composition & Communications - I | <input type="checkbox"/> | Global Dynamics | <input type="checkbox"/> |

2. Provide Course and Department Information.

Department: Chemistry

Course Prefix and Number: CHE 101 Credit hours: 3

Course Title: Molecular Science for Citizens

Expected # of Students per Calendar Yr: 150 Course Required for Majors in your Program (check one)? Yes No

Prerequisite(s) for Course? None

This request is for (check one) A New Course An Existing Course

Departmental Contact Information

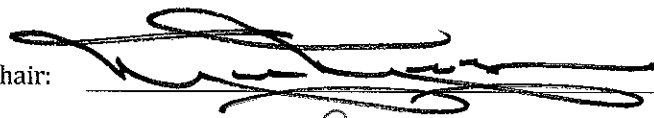
Name: Kim Woodrum Email: kwood2@uky.edu


Office Address: 135 Chemistry-Physics Building Phone: 7-1551

3. In addition to this form, the following must be submitted for consideration:

- A syllabus that conforms to the Senate Syllabi Guidelines, including a mapping of the stated learning outcomes to those presented on the corresponding Course Template.
- A completed Course Review Form. See the Gen Ed website <http://www.uky.edu/gened/forms.html> for these forms. Proposals prepared prior to September 15th, 2010 are allowed to use a narrative instead of the Course Review Form. *Included GEOC approval notification*
- If applicable, a major course change form for revision of an existing course, or a new course form for a new course.

4. Signatures

Department Chair:  Date: 8/30/11

Dean:  Date: 9/12/11

All proposals are to be submitted from the College Dean's Office
Submission is by way of the General Education website <http://www.uky.edu/gened>

August 19, 2010

MEMORANDUM

To: Kim Woodrum
Chemistry

From: Nichole Knutson
Office of Undergraduate Education

Re: Status of General Education Course Submission

Associate Provost for
Undergraduate Education
217 Funkhouser Building
Lexington, KY 40506-0054

859 257-3027
Fax: 859 323-1932

www.uky.edu/ugs

I am pleased to inform you that your proposed General Education course,

Molecular Science for Citizens

has been approved as meeting the General Education course template in the area of

Foundations of Inquiry: Natural Sciences

The vetting team found that the course met all five learning outcomes as outlined on the course template.

As a new submission, the Undergraduate Council must still evaluate this course for inclusion in the course catalog. If you have not yet submitted this course for permanent inclusion in the UK course catalog, please do submit it to your departmental committee with the appropriate forms as soon as possible. You will be notified through normal channels as to the final status of the course.

We look forward to the inclusion of this course in the new General Education curriculum. If you have questions, do not hesitate to contact me.

C: Dr. Bill Rayens, Chair, Interim General Education Oversight Committee