Date: February 28, 2012

From: Thomas W. Lester, Dean
College of Engineering

To: Mark Kornbluh, Dean
College of Arts and Sciences

RE: Chemistry 105

The College of Engineering supports the addition of a one-credit recitation session to CHE 105. The data indicate that this will have a positive impact on our students' ability to perform well in this course and will enhance the overall retention rate in the College. We also appreciate the willingness of the College of Arts and Sciences to consider another option for satisfying the statistical inference UK Core requirement, which will better meet the needs of engineering students.

Open in full window.

Approved by Undergraduate Council 3/20/2012 Sharon Gill

**Attachments:**

Upload File

| | ID | Attachment |
|---|---|---|
| Delete | 100 | CHE 105 credit change Justification v2.pdf |
| Delete | 101 | DEW Comparisons with and without recitations.pdf |
| Delete | 102 | SY105-005_Generic.pdf |

First 1 2 3 Last

Select saved project to retrieve... Get New

# COURSE CHANGE FORM

**NOTE: Start form entry by choosing the Current Prefix and Number**
**(*denotes required fields)**

| | | | | |
|---|---|---|---|---|
| | **Current Prefix and Number:** | CHE - Chemistry<br>CHE 105 - GEN COLLEGE CHEMISTRY I | *Proposed Prefix & Number*: | |

| | | |
|---|---|---|
| * | What type of change is being proposed? | ☑ Major Change<br>☐ Distance Learning Only<br>☐ Minor – change in number within the same hundred series, exception 600–799 is the same "hundred series"<br>☐ Minor – editorial change in course title or description which does not imply change in content or emphasis<br>☐ Minor – a change in prerequisite(s) which does not imply a change in course content or emphasis, or which is made necessary by the elimination or significant alteration of the prerequisite(s)<br>☐ Minor – a cross listing of a course as described above |

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

**1. General Information.**

**a.** Submitted by the College of: College of Arts & Sciences Today's Date: 3/5/2012

**b.** Department/Division: Chemistry

**c.*** Is there a change in "ownership" of the course?

○ Yes ⊙ No If YES, what college/department will offer the course instead? Select...

**e.*** * Contact Person Name: Mark Meier Email: meier@uky.edu Phone: 257-7082

* Responsible Faculty ID (if different from Contact) Stephen Testa Email: testa@uky.edu Phone: 257-7081

**f.*** Requested Effective Date: ☐ Semester Following Approval OR Specific Term: [2] Fall 2011

**2. Designation and Description of Proposed Course.**

**a.** Current Distance Learning(DL) Status:

○ N/A
⊙ Already approved for DL*
○ Please Add
○ Please Drop

*If already approved for DL, the Distance Learning Form must also be submitted unless the department affirms (by checking this box ) that the proposed changes do not affect DL delivery.

**b.** **Full Title:** GENERAL COLLEGE CHEMISTRY I *Proposed Title*: * General College Chemistry

**c.** **Current Transcript Title** (if full title is more than 40 characters): GEN COLLEGE CHEMISTRY I

c. *Proposed Transcript Title (if full title is more than 40 characters)*:

**d.** **Current Cross-listing:** ☐ N/A OR Currently[3] Cross-listed with (Prefix & Number): none

*Proposed - ADD[3] Cross-listing (Prefix & Number):*

*Proposed - 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 hours [5] for each meeting pattern type.**

| | | | | | |
|---|---|---|---|---|---|
| Current: | Lecture: 3 | Laboratory[5]: | Recitation: | Discussion: | Indep. Study: |
| | Clinical: | Colloquium: | Practicum: | Research: | Residency: |
| | Seminar: | Studio: | Other: | Please explain: | |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| *Proposed:* * | Lecture: 3 | Laboratory[5]: | Recitation: 1 | Discussion: | Indep. Study: |
| | Clinical: | Colloquium: | Practicum: | Research: | Residency: |
| | Seminar: | Studio: | Other: | Please explain: | |

| | | |
|---|---|---|
| **f.** | **Current Grading System:** | ABC Letter Grade Scale |
| | *Proposed Grading System:** | ⊙ *Letter (A, B, C, etc.)*<br>○ *Pass/Fail* |

| | | | | |
|---|---|---|---|---|
| **g.** | **Current number of credit hours:** | 3 | *Proposed number of credit hours:** | 4 |

| | | |
|---|---|---|
| **h.*** | **Currently, is this course repeatable for additional credit?** | ○ Yes ⊙ No |
| * | *Proposed to be 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 |

**i. Current Course Description for Bulletin:**

A
study of the principles of chemistry and their application to the more important elements and their compounds. Not open to students who have already completed both CHE 104 and 106 or CHE 104 and CHE 108, but open to students who have completed just CHE 104.

* *Proposed Course Description for Bulletin*:

A
study of the principles of chemistry and their application to the more important elements and their compounds. Not open to students who have already completed both CHE 104 and 106 or CHE 104 and CHE 108, but open to students who have completed just CHE 104.

**j. Current Prerequisites, if any:**

| | |
|---|---|
| | Prereq:<br>Math ACT of 23 or above (or Math placement test), or MA 109, or MA 110,<br>or the Community College course CHE 102R or CHM 100. |
| * | *Proposed Prerequisites, if any:* |
| * | Prereq:<br>Math ACT of 23 or above (or Math placement test), or MA 109, or MA 110,<br>or the Community College course CHE 102R or CHM 100. |

| | | |
|---|---|---|
| k. | **Current Supplementary Teaching Component, if any:** | ○ Community-Based Experience<br>○ Service Learning<br>○ Both |
| | *Proposed Supplementary Teaching Component*: | ○ Community-Based Experience<br>○ Service Learning<br>○ Both<br>⊙ No Change |

| | | |
|---|---|---|
| 3. | **Currently, is this course taught off campus?** | ○ Yes ⊙ No |
| * | *Proposed to be taught off campus?* | ○ Yes ⊙ No |
| | If YES, enter the off campus address: | |
| 4.* | **Are significant changes in content/student learning outcomes of the course being proposed?** | ○ Yes ⊙ No |

If YES, explain and offer brief rationale:

We are proposing to add a mandatory 1 hour per week recitation to all sections of CHE 105. The recitations will be taught to relatively small groups (30) of students. While the course content will be the same, the recitations will allow for more time-on task, and more opportunity for individual students to work problems and get help. We conducted a pilot version of CHE 105 with recitations in the fall of 2010. The DEW rate reduced from 30% to 20% compared to the non-recitation sections (all sections took the exact same exams), and the number of A's and B's increased significantly.

| | | |
|---|---|---|
| 5. | **Course Relationship to Program(s).** | |
| a.* | **Are there other depts and/or pgms that could be affected by the proposed change?** | ⊙ Yes ○ No |

| | |
|---|---|
| | If YES, identify the depts. and/or pgms: |
| | All programs that require CHE 105 will see their degree programs increase by 1 credit hour. This includes Biology, Pre-Engineering (all except Computer Engineering), Animal Sciences, Human Nutrition, Agricultural Biotechnology, Psychology, Kinesiology, Equine Science and Management, Nutrition and Food Science, Physics, Middle School Education, Secondary Education (Science Education), Career and Technical Education, Geology, Plant and Soil Science, Forestry, Natural Resource Conservation and Management, and any departments where the students take the CHE 105/CHE 111 combination to satify General Education requirements. |

| | | |
|---|---|---|
| **b.*** | **Will modifying this course result in a new requirement[7] for ANY program?** | ○ Yes ◉ No |
| | If YES[7], list the program(s) here: | |
| | | |

| | | | |
|---|---|---|---|
| **6.** | **Information to be Placed on Syllabus.** | | |
| **a.** | ☐ | Check box if changed to 400G or 500. | If changed to 400G- or 500-level course you must send in a syllabus and *you must include the differentiation* 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.*) |

[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.*)
[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.

Submit Save Delete Form Data and Attachments

**Justification for Changing CHE 105 from a 3 to a 4 Credit Course**

We propose to add a required 1 hour a week recitation to all CHE 105 class sections, which would increase the credit hours of the course from 3 to 4. We believe that the enhanced performance of the students, as well as the decreased DEW rate, that will come as a result of adding the recitations justifies this change. Required recitations for freshman chemistry courses have been in existence for many years at the majority of our benchmark institutions. At the University of Kentucky other math-intensive freshman courses, like Calculus and Physics, currently require recitations.

It is well known that the more time students spend on any particular subject, the more they tend to learn about that subject. For subjects that many students find difficult, time on task is perhaps even more important. To test this, in the Fall of 2010 the Chemistry Department ran a pilot version of CHE 105 (General College Chemistry I) that included a 1 hour a week recitation. Registration for the pilot section was purely self-selecting by the students. The students were taught the same material as the non-pilot sections and they took the same exams. The students in the pilot section obtained higher average scores on exams (for example, 76.1% versus 74.0% on the final exam), had higher average final grades (84.0 versus 77.3), had a lower DEW rate in CHE 105 (20% versus 30%), and had a lower DEW rate in CHE 107 (25% versus 32%), which is the second general college chemistry course. In a follow-up survey of the students in the pilot section, they unanimously agreed that the recitations were beneficial in their learning. The recitation itself seemed particularly helpful (and appreciated) by the students that came into CHE 105 with weaker chemistry and math backgrounds. That the pilot students were successful in CHE 107 appears to indicate that they were able to learn and apply the material at least as well as the non-pilot students; an important factor seeing as some of the students might not have passed CHE 105 if they were not in the pilot section.

The chemistry department has a workshop course, CHE 195, which accompanies CHE 105. These students meet in small groups of 8 students and one advanced undergraduate peer-leader once a week to discuss course material and work problems. Because of the proven success of this workshop, we have many more students that want to take CHE 195 than we have seats for (about 200 seats for 1700 students), due in no small part to the students' advisors explaining the benefits of taking the workshop. These students are already essentially taking a 4 credit version of CHE 105 (3 credits for CHE 105 and 1 credit for CHE 195), without causing issues with their degree programs. We now propose to drop the workshop course entirely, and replace it with a 4 credit version of CHE 105 that includes an 1 hour recitation per week.

Dr. Stephen Testa
Director of General Chemistry
Associate Professor of Chemistry

# CHE 105 Final Grade Comparisons from Fall 2010
# With and Without Recitations

| | A | B | C | D | E | W | DEW |
|---|---|---|---|---|---|---|---|
| 2010 | 22.1 | 26.4 | 20.6 | 8.4 | 8.8 | 13 | 30.2 |
| | | | | | | | |
| 2010 recitation | 28.3 | 33.3 | 16.7 | 3.3 | 5 | 12.3 | 20.6 |

Numbers do not include 105 to 104 drop down students
All numbers are percentages
The recitation section consisted of a class of 60 students, which were split into 2 groups of 30 students for recitations.

Conclusions

1. The numbers of As and Bs increased substantially for the course with recitations.
2. The numbers of Cs, Ds, and Es decreased substantially for the course with recitations.
3. The withdraw (W) numbers did not change much. This might represent a relatively constant factor in the DEW numbers that we cannot do much about.
4. The DEW numbers decreased substantially for the course with recitations.
5. Student surveys at the end of the recitation course were unanimously in favor of having recitations. Students knew the benefit of the extra time, the extra problems, and especially the extra opportunities to ask the TAs questions about course material.

# CHE 105: GENERAL COLLEGE CHEMISTRY I

## UNIVERSITY OF KENTUCKY

| | |
|---|---|
| Semester: | TBA |
| Course: | CHE 105 |
| Time: | TBA |
| Location: | CP-139 |
| Prerequisites: | Math ACT of 23 or above; or math placement test; or MA 109; or the KCTCS course CHM 100 or CHM 102 |
| Textbook: | Nivaldo J. Tro, *Chemistry: A Molecular Approach, 2nd Edition*, Pearson, 2011 |
| Required Supplies: | 1. *TurningPoint* Remote Control Device<br>2. Mastering Chemistry access code |

### COURSE DESCRIPTION AND GOALS

A study of the principles of chemistry and their application to the more important elements and their compounds. The overall goal of this course is for students to learn the ways scientists work, to conduct basic science, and to actively engage chemical methods with the objective of attaining some understanding of the way science works in and with the natural and social worlds. By taking this course, students will be able to effectively learn and think like a chemist in a complex, multi-disciplinary society.

### GENERAL EDUCATION INFORMATION

CHE 105, when combined with CHE 111, will satisfy the general education curriculum requirements for Learning Outcome #1 (Intellectual Inquiry; Inquiry in the Natural Sciences). The overall goal of the general education curriculum is to incorporate experiences that produce understanding of the process of inquiry and help students develop critical thinking skills.

Student Learning Outcomes: By the end of CHE 105, students will be able to:

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) Conduct a hands-on project. This learning outcome will be fulfilled by the student taking the accompanying General Chemistry Lab (CHE 111).
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 *not* open to students who have completed both CHE 104 and CHE 108. However, this course *is* open to students who have completed only CHE 104.
2. This course is part of the UKcore program and can be taken together with CHE 111, ~~followed by CHE 107 and CHE 115~~ to fulfill the Natural Science requirement in University Studies.
3. 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).
4. Any student who needs an excused absence because of their observance of a major religious holiday must provide this information to the Assistant to the Director no later than the last day for adding a class (TBA).
5. Any student with a certified disability must provide appropriate documentation (obtained from the Disability Resource Center) to the Assistant to the Director no later than the last day for adding a class (TBA).

**Accommodations due to disability:**

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.

6. Administrative dates:

| | |
|---|---|
| TBA | Last day to add a course. |
| TBA | Labor Day–Academic Holiday |
| TBA | Last day to drop a course without it appearing on your transcript. |
| TBA | Last day to withdraw from a course. |
| TBA | Thanksgiving–Academic Holiday |

## GRADING

Grades for the course will be assigned on the basis of the scale shown below. Please note that final numerical grades will not be rounded in assigning final letter grades.

A: ≥90 B: ≥80 and <90 C: ≥70 and <80 D: ≥60 and <70 F: <60

The final grade for the course will be calculated as follows:

| | |
|---|---|
| Three examinations (17% each) | 51% |
| Class Participation | 5% |
| Assigned Homework | 10% |
| Comprehensive Final Examination | 21% |
| Recitation | 13% |
| Total | 100% |

The department 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.

Examinations

There will be three 75-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 presented after the third examination.

*Regular Exams*. For the three regular exams, instructions will be given at 7:50 PM on the day of the examination. Be on time; no student may leave prior to 8:20 PM, and no student will be admitted after 8:20 PM. If you show up after 8:20 PM, you will *not* be premitted to take the exam. You must bring a photo identification card (preferably in color), one or more #2 pencils, and your own simple scientific calculator (with exponents and logarithms) to all examinations. Graphing calculators, calculators with large memory banks, and calculators that permit the entering of alphabetic text are not permitted. No TI-80 series or higher graphing calculator is permitted. The instructor has the final say as to what is acceptable. If you have questions, ask your instructor. All materials (backpacks, purses, pagers, phones, other electronic devices, hats, jackets, water bottles, and other personal belongings) must be left at the front of the room during the exam. Your seating assignment for the examinations will be posted in Blackboard at least one day prior to the examination. The file is located under "Exam Information" / "Seating Charts for Exams". Please check all exam dates and times for school-related conflicts. If you have conflicts **with any of the exams in the course**, contact the Assistant to the Director (CP-120) *at least two weeks before the **first** exam* (September 1, 2011) to arrange an alternate exam time. We will not be able to accommodate changes to the exam schedule within one week of the exam.

*Final Exam*. The final exam will be held on (TBA). Contact the Assistant to the Director in CP-120 if you have a course conflict with this time. If you miss the final exam with an excused absence, contact the Assistant to the Director of General Chemistry within a week of the missed exam to make alternative arrangements, which may include receiving an "I" grade and taking the final exam given to students the following semester.

*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 students who miss one or more 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, an excused absence will be granted and a makeup exam will be allowed. To be excused from an exam, you must contact the Assistant to the Director of General Chemistry with legitimate documentation within a week of the missed exam. No exceptions to this policy will be made, as we cannot effectively accommodate last minute requests. In general, purchase of an airline ticket, participation in a wedding, participation in extracurricular activities that are not directly related to your education, and participation in any type of retreat not related to a religious holiday are not legitimate reasons to be excused from an exam. If in doubt, contact the Assistant to the Director of General Chemistry for clarification. A student with an excused absence from an exam will choose one of two options to earn a grade for the missed exam, (1) replacement with the corresponding portion of the final exam or (2) a make-up exam. The replacement option means that a student's score for the excused exam will be determined by how well the student does on the portion of the final exam that corresponds to the excused exam's material. The makeup option means that a student will take a makeup exam on the Tuesday evening of 'dead week' (TBA) from 8:00 PM to 9:15 PM according to the above rules for regular exams. If you have to make up more than one exam, or if you have a legitimate, documented conflict with the makeup exam time and date, contact the Assistant to the Director of General Chemistry for additional arrangements. You must notify Ms. Horner when you present your documentation for an excused absence which option you will be taking.

*By-pass Exam*. A CHE 105 by-pass examination will be administered on Friday, August 26th from 5:00 to 6:50 PM in CP-139. This exam is open to all students wishing to test out of CHE 105. Students who pass will be allowed to sign up for a CHE 107 by-pass exam which will be held on (TBA). There is no cost for these exams, and your score on the exam is not used in any way to determine your CHE 105 or CHE 107 grade. Students who pass the exam will receive a grade of P; students who do not pass will not receive any grade. To take the by-pass examination, you must register with Ms. Horner in CP-120 prior to 3:00 PM on (TBA). Bring #2 pencils, your student identification (or other photo ID) and your non-programmable calculator to the exam.

Class Participation

Class participation grades are obtained for each student using Turning Point 'clicker' devices to answer questions during each class. These grades will be uploaded into blackboard, usually within 48 hours of each class. At the end of the semester the two lowest grades will be dropped. If you attend class and your clicker device is not working, you will be able to sign an attendance sheet and automatically get 25% credit for that day. You are responsible for making sure that your clicker works each day. At the end of the course, if you have an 85% or higher on the overall participation grade, and if you have fewer than three unexcused absences, your class participation grade will automatically be increased to 100%.

Those students who miss class with a legitimate, documented excuse under the guidelines outlined in the University Senate Rules and who produce documentation to the General Chemistry Office within a week of the absence will be excused for the days missed. All questions related to class participation should be directed to Mr. Edward Duhr, as noted in the 'Whom to Contact' section below.

Class participation grades will start to be recorded on (TBA), although your instructor will probably ask practice questions earlier than that. It is very important to note that your instructor has the right to withdraw any or all class participation credit for students being disruptive in class.

Bonus Points

You will be given the opportunity to earn up to 10 bonus points during the semester. This is your only opportunity to earn extra credit. Each bonus point will add 0.1% to your final grade. For example, if you earn 7 bonus points and your average grade at the end of the semester is 89.3, your new average will be 90.0 and you will have earned an "A" for the semester. A bonus point will be given each time you attend the General

Chemistry Learning Center (CP-25, make sure to sign in), and as described by your instructor. You cannot earn bonus points after the final examination.

## 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. The fact that a student might 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.

The use of a TurningPoint clicker registered to anyone other than you constitutes cheating and both clickers will be confiscated immediately. Each infraction will result in a loss of 50% of the total class participation points for the course for all parties involved.

## GETTING HELP

*Learning Center*. The Chemistry Department provides a General Chemistry Learning Center that is staffed by Chemistry graduate student teaching assistants. The Learning Center is located in CP-25 in the basement of Chemistry-Physics. The schedule for the learning center will be posted on the door to CP-25 and in Blackboard under "Course Help" on the left-hand menu. If any teaching assistants are particularly unhelpful please report their names to the Director of General Chemistry (Dr. Testa).

*Help Sessions*. An instructor will offer help sessions on Tuesdays the week of each examination and the Tuesday of dead week from 6:30 – 7:20 PM in CP-139. Attendance at these help sessions is voluntary but highly recommended.

*Blackboard Resources.* The "Course Help" button in Blackboard lists your instructor's office hours, the Learning Center schedule, the tutor list, and other helpful information. Lecture notes will be posted in Blackboard under the "Lecture Notes" button on the menu to the left of the home screen. You will find several old examinations by clicking on "Old Exams" on the left-hand menu as well.

*Private Tutors*. A list of names of Department of Chemistry staff (usually graduate students) willing to be paid tutors for general chemistry can be obtained from the General Chemistry Office (CP-120) soon after the beginning of the semester. Tutoring slots fill up fast, so you should pick up a list as soon as possible if you want a tutor.

*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 105 section 005 with a question about homework would enter the following: CHE 105-005 Mastering Question.
- 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.

## WHOM TO CONTACT

*Your Instructor*: <u>All</u> issues regarding homework, including technical difficulties, questions about material, or questions about grades; help regarding course material, exam material, exam grades, and your class quizzes (if applicable).

*Class Participation Coordinator (Mr. Duhr)*. Class participation grades, TurningPoint questions, clicker problems, and lost clickers. Mr. Duhr may be reached in CP-133, at efduhr1@uky.edu, or at (859) 257-3899.

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

## 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 applies especially to "professional" note-taking services and companies that publish such material on the internet, in written form, or in any audio format.

## CELL PHONE AND LAPTOP POLICY

Pagers, cell phones, and any other form of electronic communication devices must be turned off during class and are strictly prohibited during exams. Any students found sending or receiving text messages during class may be required to show their student ID to the instructor and may lose half of their earned class participation for the semester for the first offense and may receive a zero for class participation for the semester for a second offense. Laptops are not permitted. Exceptions might be made if your specific situation is discussed with the instructor in their office.

## 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 |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | TBA | | |
| | | | | |
| | | | | |
| | | | | |

**COURSE SCHEDULE from Fall 2011**

| DATES | CHAPTER | TOPICS |
|---|---|---|
| Aug 25, 30<br>Sept 1 | CH 1 | Syllabus<br>Matter, Measurement, and Problem Solving |
| Sept 1, 6, 8 | CH 2 | Atoms and Elements |
| Sept 8, 13, 15 | CH 3 | Molecules, Compounds, and Chemical Equations |
| Sept 15 | CH 1 - 3.6 | **EXAM I (8:00-9:15 PM)** |
| Sept 20 | CH 3 | Molecules, Compounds, and Chemical Equations |
| Sept 22, 27, 29 | CH 4 | Chemical Quantities and Aqueous Reactions |
| Oct 4, 6 | CH 5 | Gases |
| Oct 11, 13 | CH 6 | Thermochemistry |
| Oct 13 | CH 3.6 - 6.3 | **EXAM II (8:00-9:15 PM)** |
| Oct 18, 20 | CH 6 | Thermochemistry |
| Oct 20, 25, 27 | CH 7 | The Quantum Mechanical Model of the Atom |
| Oct 27<br>Nov 1, 3, 8, 10 | CH 8 | Periodic Properties of the Elements |
| Nov 10 | CH 6.3 - 8.9 | **EXAM III (8:00-9:15 PM)** |
| Nov 15, 17, 22 | CH 9 | Chemical Bonding I: Lewis Theory |
| Nov 29<br>Dec 1, 6 | CH 10 | Chemical Bonding II: Molecular Shapes, Valence Bond Theory, and Molecular Orbital Theory |
| December 6 | | **Makeup Exam I, II, and III (8:00 – 9:15 PM)** |
| Dec 8 | CH 10 | Chemical Bonding II: Molecular Shapes, Valence Bond Theory, and Molecular Orbital Theory |
| **Monday, Dec 12** | CH 1 - 10 | **Final Exam**<br>**8:30 – 10:30 PM** |

| ONLINE HOMEWORK DUE DATES | | |
|---|---|---|
| Introduction Assignment | Thursday, September 1 | 10:00 PM |
| Math Review | Thursday, September 1 | 10:00 PM |
| Chapter 1 | Tuesday, September 6 | 10:00 PM |
| Chapter 2 | Wednesday, September 14 | 10:00 PM |
| Chapter 3 | Thursday, September 22 | 10:00 PM |
| Chapter 4 | Tuesday, October 4 | 10:00 PM |
| Chapter 5 | Tuesday, October 11 | 10:00 PM |
| Chapter 6 | Thursday, October 20 | 10:00 PM |
| Chapter 7 | Tuesday, November 1 | 10:00 PM |
| Chapter 8 | Wednesday, November 9 | 10:00 PM |
| Chapter 9 | Tuesday, November 29 | 10:00 PM |
| Chapter 10 | Thursday, December 8 | 10:00 PM |

| Current Topics for Class Discussion | | |
|---|---|---|
| *The Nature of Science* | CH 1.2 | Page 5 |
| *Where Did Elements Come From?* | CH 2.6 | Page 58 |
| *Acid Rain* | CH 3.6 | Page 96 |
| *Global Warming and the Combustion of Fossil Fuels* | CH 4.1 | Pages 127-128 |
| *Air Pollution and Ozone Depletion* | CH 5.11 | Pages 217-220 |
| *Energy Use and the Environment* | CH 6.10 | Pages 263-266 |
| *Radiation Treatment for Cancer* | CH 7.2 | Page 282 |
| *Nerve Signal Transmission* | CH 8.1 | Page 315 |
| *Free Radicals and the Atmospheric Vacuum Cleaner* | CH 9.9 | Page 383 |
| *How Soap Works* | CH 10.5 | Page 416 |

## BLACKBOARD AND MASTERING CHEMISTRY HOMEWORK INSTRUCTIONS

To access Blackboard, go to http://myuk.uky.edu. 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. Your first two assignments are due Thursday, September 1st @ 10:00 PM. Log in to Blackboard and the Mastering website as soon as possible following your first lecture so that any technical problems can be solved before your first assignment is due.

*Help with Blackboard*. If you need technical assistance with Blackboard, contact the UK IT Customer Service Center by calling 218-4357, by visiting McVey Hall, Room 111 (M-F, 7 AM – 6 AM), or by visiting The HUB at the WT Young Library (Sunday, 1 PM – 10 PM and M-F, 6 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 or personal visits to McVey Hall or the HUB.

Once in Blackboard, click on the link for CHE 105. You will use Blackboard to access the following content areas using the buttons on the left side of your screen:

I. Announcements: Current announcements will be displayed on the opening course screen. Be sure to log into Blackboard daily, so that you can read the announcements from your instructor or the General Chemistry office.

II. My Grades: Mastering grades, class participation grades, and exam grades will be posted here. Blackboard will calculate a *rough estimate* of your cumulative grade for the semester.

III. Exam Information: Here you will find seating assignments and keys for exams.

IV. TurningPoint Registration: Click on the "TurningPoint Registration" button to register your TurningPoint Device ID. This ID number is located on the back of your remote control device. This device, once purchased, can be used for multiple classes and for multiple semesters. Your instructor will give you a handout outlining how your Class Participation grade (5% of your grade) will be determined.

To access Mastering, go to www.masteringchemistry.com. You will need to register your Mastering access code the first time you visit the website. Remember your username and password because you will need to log on to this website to complete each of your Mastering homework assignments for the semester.

*Help with Mastering.* For issues relating to Mastering, first read the FAQ in Blackboard, then access the help section of the Mastering website, and as a last resort contact your instructor.

V. Assigned homework will be completed through Mastering. These assignments count as 10% of your grade. Follow the registration instruction given for Mastering, using the access code bought with your textbook or purchased separately at the University Bookstore or online and the Course ID. Follow the instructions carefully. Note that you must enter your student ID number during registration in order to get credit for the Mastering homework. Please note:

   a. The Course ID for CHE 105-005 is: **TBA**

   b. The Mastering homework is designed to help you learn the material in addition to study questions. It is important that you work the assignment yourself, taking the time to use the tutorials and hints in order to understand the problem. If you try to find shortcuts, have others give you the answer, etc., your performance on exams will suffer. This portion of your grade is

about learning, not just accumulating points.

c. To work an assignment, click on the Assignments link. You may print the assignment and enter and exit Mastering as often as you need.

d. You are allowed 4 attempts at each question. Each time you enter an answer, click on the Submit button at the bottom. Doing this will grade the question and give you feedback. If a question asks for a multiple part answer, you must correctly enter all parts of the answer before hitting Submit; otherwise, your attempt will be counted incorrect.

e. Some problems in Mastering require the answer to have the correct number of significant figures. If you get an answer wrong on the first couple of attempts, go back through your work to make sure it is correct, then check for the correct number of significant figures.

f. Although you receive four attempts for each question, you will lose partial credit for each incorrect attempt at a multiple choice question.

g. Your first assignment, Introduction Assignment, will teach you how to enter answers into Mastering properly. It will demonstrate many of the features of Mastering, such as hints and tutorials. This should be the easiest assignment of the semester and is very important for proper understanding of how Mastering works. Do not miss it!

h. The one assignment with the lowest score will be dropped during final homework grade calculations at the end of the semester. Therefore, one assignment is automatically excused through this drop policy. A percentage score will be calculated for each of the homework assignments. After the one lowest percentage is dropped, the homework score will be the average of the remaining percentages.

i. To receive an extension on an assignment, you must provide a legitimate, documented excuse that is consistent with University policy. This excuse must explain why you could not work on the homework for a whole week prior to the due date. Homework extensions will rarely be granted. The documentation must be turned in to the Assistant to the Director in the General Chemistry Office (CP-120) within one week of the homework due date. Extensions will not be granted after you have viewed the key.

j. You can view your score on each of the Mastering assignments through the Gradebook link on the Mastering website. At midterm and at the end of the semester, your overall grade for the Mastering assignments will be loaded onto Blackboard. Be sure to check your grades from time to time to ensure that you are receiving credit for your assignments. If you find an error, contact Ms. Horner right away.

k. You can access other helpful information in Mastering in addition to homework assignments. Click on Study Area on the left side of the homepage. This area will contain various study aids to supplement the course.