

**Western Kentucky University
Ogden College of Science and Engineering
Department of Chemistry**

CHEM 101.A74: Introduction to Chemistry – Web Course

CRN: 35115

Summer 2018

<i>Lecture/Discussion Meetings</i>	<i>Instructor</i>	<i>Office Hours</i>
Web Course 3.0 Credit Hours Colonnade E-NS & E-SL Old Gen Ed Category D & DL	Dr. Stuart Burris SH 2115 745-2973 stuart.burris@wku.edu	By appointment only Contact by e-mail with questions

Course Description (WKU Undergraduate Catalog)

A one semester terminal course covering applied chemistry and environmental considerations which can be used for general education requirements in the science field for non-science majors and minors. In-class laboratory constitutes 20 percent of class. It does not count toward a major or minor in chemistry, nor does it satisfy the requirements for certain home economics and agriculture majors.

Course Learning Objectives

In CHEM 101 students will:

1. learn how to apply the scientific method in basic chemical experimentation
2. be able to describe molecular structure and how it relates to intermolecular forces
3. be able to recognize simple chemical reactions such as acid-base and redox reactions in their everyday life

Learning Materials

eBook: *CHEM 2: Chemistry in Your World, 2nd ed.*, 4LTR Press, Cengage Learning: Stamford, CT, 2015.

Your student account will automatically be charged ~\$50, and you will have access through Blackboard.

DO NOT purchase anything directly from Cengage or from ANY OTHER SOURCE.

Loose leaf copies available at WKU Store for \$25.

Course Content

Chapters 1-3, 5, 8-12, & 14 are required. Chapters 4, 6, 7, 13, & 15-19 are optional.

Laboratory Content

You will complete five (5) laboratory exercises you can do in your kitchen. Laboratory exercise titles include:

Preparation of Glue from Milk
Coffee Filter Chromatography
Bonding & Molecular Shape
Household Acids & Bases
Preparation of Polymers

Handouts for labs will be available on Blackboard and reports will be submitted on Blackboard. A master materials list for all labs will be available on Blackboard.

Evaluation

Final grades will be assigned with the following divisions. The grade you receive will be the grade you earn.

Points	950+	850-949	700-849	500-699	≤ 499
Letter	A	B	C	D	F

Item	Points Available
Chapter 1 (Required)	50
Other Required Chapters 2, 3, 5, 8, 9, 10, 11, 12, 14 – 100 points each	900
Lab Exercises – 40 points each	200
Optional Chapters 4, 6, 7, 13, 15-19 – 15 points each	135
Total	1285

How the course works

The majority of the work for this course is *mastery* oriented. You will have access to certain parts of the course immediately while access to later parts of the course depends upon your demonstrating *mastery* of earlier parts of the course.

Your grade-oriented goal is to accumulate enough points to reach your desired grade level, as indicated in the first table above. If you are satisfied with a 'C,' you need only accumulate 700 points. If you desire an 'A,' you will need to accumulate 900 or more points. As is evident from the second table above, there is ample opportunity to accumulate points.

Chapter 1 is an introductory chapter with 50 points available. Once you have demonstrated mastery of the quiz material in Chapter 1, you will be given access to the 100 points of quiz material for Chapter 2. Once you have demonstrated mastery of the quiz material in Chapter 2, you will be given access to the 100 points of quiz material for Chapter 3. The pattern follows for the other required material, Chapters 5, 8, 9, 10, 11, 12, & 14.

After demonstrating mastery of the required chapters, you will be given access to the quiz material for the remaining chapters (4, 6, 7, 13, 15, 16, 17, 18, and 19). These chapters have only 20 points of quiz material each.

Lab reports are worth 40 points each. Lab exercise descriptions will be released as you cover appropriate course material and must be submitted with that chapter before the next chapter will become available. A master materials list for all labs will be available on Blackboard.

Policies and Brief Assignment Descriptions

The academic policies stated in the Undergraduate Catalog will be followed with the following highlights and additions. Students will be notified of any changes to this syllabus verbally and in writing. In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center. Further information on ADA and Title IX can be found at <https://www.wku.edu/syllabusinfo/>.

Quiz Materials

Quiz materials will be broken down into three types: Terminology Quizzes, Thinkwell Video Quizzes, and General Quizzes. An 80% minimum score will be required on the Terminology Quiz in any given chapter before the other quiz materials for that chapter will become available. Unlimited attempts will be allowed on Terminology Quizzes. Thinkwell Video Quizzes will directly cover specific Thinkwell Videos. There will be no minimum score required on Thinkwell Video Quizzes. Only two attempts will be allowed on Thinkwell Video Quizzes. A 70% minimum score will be required on the General Quizzes in 'required' chapters before subsequent 'required' chapters will be made available. Initially, there will be a limit of 10 attempts on General Quizzes. Additional attempts may be requested by e-mail to Dr. Burris if the 70% minimum has not been met.

Laboratory

Photo evidence is required in all lab reports. **Lab reports will not be graded without the required photos and will receive a score of zero, regardless of how the questions are answered.** The photos are what prove you actually did the lab work and must be included. This course earns Colonnade SL (Science Lab) credit; therefore, not doing any of the labs will result in a grade of F. If you have already earned over 950 points prior to doing Lab 5 (Polymers), there will be no penalty. Omitting any other lab by submitting a report with no photos will result in an automatic loss of one letter grade. In other words, completing a minimum of four (4) labs with photo evidence will allow a maximum grade of A, completing a minimum of three (3) labs with photo evidence will allow a maximum grade of B, completing two (2) labs with photo evidence will allow a maximum grade of C, completing only one (1) lab with photo evidence will allow a maximum grade of D, and completing zero (0) labs will result in a grade of F. Independent work is required of each student on all labs, and photos will be compared across all student submissions for each lab to verify work is done independently.

Timely Submission of Work

In order to ensure timely submission of work, the schedule below will be followed in assessing a penalty of **5% per day late** (excluding weekends). Deadlines are all 11:59 PM on the date indicated. Working ahead is **strongly** encouraged.

Day	Date	Material Due
1	6/4	None (get a head start)
2	6/5	Chapter 1 Quiz Material
3	6/6	Chapter 2 Quiz Material
4	6/7	Lab 1 (Glue from Milk)
5	6/8	Chapter 3 Quiz Material
6	6/11	Chapter 5 Quiz Material
7	6/12	Lab 2 (Bonding & Molecular Shape)
8	6/13	Lab 3 (Coffee Filter Chromatography)
9	6/14	Chapter 8 Quiz Material
10	6/15	Chapter 9 Quiz Material

Day	Date	Material Due
11	6/18	Lab 4 (Household Acids & Bases)
12	6/19	Chapter 10 Quiz Material
13	6/20	Chapter 11 Quiz Material
14	6/21	Chapter 12 Quiz Material
15	6/22	Chapter 14 Quiz Material
16	6/24-25	<u>Blackboard unavailable</u>
17	6/26	-
18	6/27	Lab 5 (Polymers)-
19	6/28	-
20	6/29	All Optional Chapters Course Closes at 11:59:59 PM