I want you to know some important information before you register for the course. You will be required to purchase lab supplies for this course. The list of most of the required lab supplies is at the end of this syllabus. You will use a very small amount of each of the items and most can be gathered from your home or a friend's home. Be resourceful!

# This syllabus is tentative and will be updated.

## **CHEMISTRY 101 – Syllabus and Calendar**

Instructor: Professor Carnetta Skipworth E-mail address: <u>carnetta.skipworth@wku.edu</u> Office Phone #: (270) 745-8741

Office: KTH 4043 Office Hours: Posted on office door

## **Contacting Me:**

The best way to get in touch with me is through email. Emails must be in the following format:

- Email subject line Must state **Chem 101 online** and one of the following categories: grading, attendance, miscellaneous, appointment, blackboard, homework, etc.
- Salutation Professor Skipworth
- Body of email Brief statement/description of your question/request
- Closing Your name and 800 #

I am available to help you. I check my email several times throughout weekdays. I will help you!!! I typically respond within 48 hours during weekdays. If you haven't heard from me in 2-3 days, e-mail again with "Chem 101 online" in the subject area.

#### **Text and Materials:**

- Chem2 with OWLv2. Some students will use Big Red Backpack to purchase the eBook with online homework. Some students will opt out of Big Red Backpack and will need to purchase a code for the eBook with online homework. More information will be given by either a syllabus update or a Blackboard announcement. Call 1.800.423.0563 for technical assistance with Owlv2 or use the following address: http://support.cengage.com/magellan/ClassLandingPage.aspx?OptyId=1077110. Professor Skipworth can't answer technology questions.
- Goggles

## Learning Objectives:

Upon completion of this course, you will be able to:

- Apply the scientific method to laboratory experiments and other issues
- Use the periodic table and explain matter and its properties
- Explain and differentiate between the components of a chemical reaction
- Distinguish between several types of chemistry such as nuclear, organic, and water chemistry
- Recognize the importance of chemistry in our society

## Things You Need To Know To Be Successful In This Course:

- It is very important students read the instructor's documents, materials, and information carefully. **Do NOT** skip anything! Read every word.
- Students should have regular access to a computer with Microsoft Word.
- Check your WKU TopperMail multiple times per week.
- The course format for any text documents (from me or from you) is Word doc or rtf. You may have to save my files before opening it with some computer configurations. Do not send .pages documents to me.
- All work in this course must be your work! Students who cheat and plagiarize will be given an F for the course.
- There will be no synchronous (face-to-face) class meeting times. You can complete the work during your own schedule as long as you complete all assignments by the due date listed on the calendar.

## **Grading Details:**

## Grades:

Grades will be assigned based on the percent total of points earned. The university grading scale will be used to assign grades. The scale is A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=59% and below.

Your grade can be calculated by adding your points earned, dividing that amount by the points possible, and multiplying by 100.

Grade distribution:

| Syllabus Quiz                     | 5 points                       |
|-----------------------------------|--------------------------------|
| Chapter Homework                  | 165 points total (each chapter |
| (11 chapter homework assignments) | homework is worth 15 points)   |
| Exam 1                            | 100 points                     |
| Exam 2                            | 100 points                     |
| Exam 3                            | 100 points                     |
| Exam 4 (final exam)               | 100 points                     |
| Lab Portfolio                     | 100 points                     |
| Water Treatment Assignment        | 10 points                      |
| Total                             | 680 points                     |

**Lecture PowerPoints and Videos:** These materials can be found on Blackboard. Watching the videos and filling in the PowerPoint lecture notes are requirements for success in this course.

**Chapter Homework:** You are required to complete chapter homework using Owlv2. Each homework assignment is worth 15 points and can be found under the "ebook and Owlv2" button in Blackboard. You will be completing the EOC (End of Chapter) Homework Assignments in Owlv2. You may use your book and lecture notes to complete the homework assignments. You may NOT use the help of people (including classmates) to answer any questions. The homework questions will help prepare you for the exam. Owlv2 offers multimedia and mastery questions for you to use as review. These questions are not graded. Call 1.800.423.0563 for technical assistance with Owlv2 or use the following link: <a href="http://support.cengage.com/magellan/ClassLandingPage.aspx?OptyId=1077110">http://support.cengage.com/magellan/ClassLandingPage.aspx?OptyId=1077110</a>. Professor Skipworth can't answer technology questions.

**Exams:** There will be a total of 4 exams. Exams are worth 100 pts. each. The majority of your grade will be based on these exams.

Exam 1: Chapters 1, 2, and 3Exam 2: Chapters 13, 5, and 8Exam 3: Chapters 9, 10, and 11Exam 4: Chapters 12, 14, and comprehensive (covering all previous chapters)

It is very important to read the book chapters, watch the videos while completing the lecture note PowerPoints, study the lecture note PowerPoints, and complete the homework assignments to be prepared for the exams. Owlv2 also provides study tools for each chapter.

**Exams can be taken on your own computer**. Each exam will have a time limit. Exams will consist of multiple choice, true/false, and short answer questions. You are not allowed to receive any person's help while completing these exams. You will not have time to look up every answer to every question. You should study for the exam as if you were taking it in a classroom situation. You will see one question at a time and will not be able to go back to a previous question after submitting the answer.

You will be given 60 minutes to complete each exam. You will be required to complete the exam when you open it. You will not be allowed to close the exam and return later. You MUST make sure to have a good internet connection when you open the exam. I will not reset exams in case of an internet malfunction. You will not be able to see your incorrect questions once you submit your exam due to dishonesty issues.

All exams will be open as soon as they are prepared; therefore, I have only put the date that the exam is due on the calendar. Make sure to have the exam completed by the due date. You may complete exams early.

Do not share exam questions and/or answers with anyone!!! Cheating will not be tolerated.

**Lab Portfolio:** You are required to complete five labs and complete a lab portfolio during the course. All lab information can be found in the Assignments button in Blackboard. You will be required to purchase lab supplies and make a selfie of your face with the end result of each lab.

You will be required to purchase several materials for this portion of the course. A list of items needed for each lab is in the lab document on Blackboard. You can't pass the course without correctly completing this project. This exercise is worth 100 pts. I suggest spacing the labs out over the entire course. I do not suggest waiting to complete all the labs at one time. I have put suggested lab completion dates on the calendar. Do not submit the labs to me individually. You will be submitting the labs to me as one document via the Blackboard assignment link. DO NOT EMAIL THE LABORATORY PORTFOLIO TO ME! Use the template I provided on Blackboard when submitting the laboratory portfolio. You must use the template I provide when submitting

the lab portfolio. Make sure to follow the instructions when performing the lab. You need access to a camera or a phone with a camera. You are required to take a picture of yourself with the end result of every lab experiment. This picture confirms you were the one to actually complete the lab. Make sure your picture is included with the end result of every lab experiment. Make sure I can see your face and the actual end result of the lab in the picture. Take a selfie with your lab. I will not grade a lab without a selfie.

**Lab Project Safety:** Safety is an issue when completing any lab. You will need to purchase a pair of goggles to wear during all labs. You can purchase the goggles at the university bookstore or a department store. Please choose the goggles that make a complete seal around your eyes. Below is a picture of the style of goggles you will need.



## Lab Safety Rules - For your own safety, you must...

- Wear safety goggles at all times
- Dress with safety in mind (no loose clothing, open toed shoes, dangling jewelry)
- Tie up loose, long hair
- Never eat, drink, chew gum or use tobacco products while completing a lab
- Always think about what you are doing at all times
- Have a fire extinguisher available when using a flame.
- Use special caution when dealing with a glass material or a sharp object.

Water Treatment Assignment: Details can be found under the Assignment button in blackboard.

## **Technology Requirements:**

- Regular access to a high-speed internet connection
- Regular access to Microsoft Word
- Current version of Blackboard compatible internet browser, such as Firefox, Google Chrome, Safari or Internet Explorer. NOTE: You may have issues viewing Mediasite videos in Internet Explorer.
- Access to your TopperMail account
- The course format for any text documents (from me or from you) is Word doc or rtf. You may have to save my files before opening it with some computer configurations. Do not send .pages documents to me.
- Camera (phone will work great)
- I cannot answer your technology questions. The WKU IT Help Desk number is 270-745-7000.
- Call 1.800.423.0563 for technical assistance with Owlv2 or use the following link: http://support.cengage.com/magellan/ClassLandingPage.aspx?OptyId=1077110.

## Missed Assignments:

Make up work is for EXCUSED absences only and will require proper documentation. Students must notify instructor within 24 hours of absence in order to be eligible to make up any work. Students are responsible for getting missed material from a classmate when absent from class.

## **E-Mail Addresses:**

All students are required to have an active e-mail account listed as their preferred e-mail address under TopNet and Blackboard.

## **Plagiarism:**

Plagiarism is not acceptable. Students who are found plagiarizing will be giving an F for the course.

Academic Misconduct (Excerpt from the WKU Student Handbook):

The University expects students to operate with the highest standard of integrity in all facets of the collegiate experience. Broadly defined, academic misconduct is any unethical self-serving action in the performance of an academic activity, deliberate or unintentional, that affords a student an unfair, unearned, or undeserved advantage.

#### Any incident of cheating will result in the student being assigned an F for the course.

ADA Accommodation: 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 <u>sarc.connect@wku.edu</u>. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Title IX Discrimination and Harassment: Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070)

at https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf and

Discrimination and Harassment Policy (#0.2040)

at <u>https://wku.edu/policies/hr\_policies/2040\_discrimination\_harassment\_policy.pdf</u>.Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's <u>Counseling and</u> <u>Testing Center</u> at 270-745-3159.

The U.S. Department of Education requires that distance education courses must include regular and substantive interaction between students and faculty. For more information about Regular and Substantive Interaction at WKU, please visit the <u>Regular and</u> <u>Substantive Interaction in Online and Distance Learning webpage</u>.

In this course, regular and substantive interaction will take place in the following ways:

- You will receive weekly (or more frequent) announcements from me.
- I will provide information and will respond to questions about the content of the course.
- Assignment and assessment deadlines are spread throughout the term of our course.

Other syllabus information can be found at http://www.wku.edu/syllabusinfo/.

Instructor reserves the right to make changes to the syllabus at any time during the semester.

#### **Course Description:**

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.

#### **University General Education Goal:**

The course fulfills the WKU Colonnade Category E-NS E-SL and WKU Old General Education Category D1 DL.

It will help you attain an understanding of the scientific method and will give you knowledge of a natural science and its relevance in our lives.

Through coursework, literature research, and laboratory experiences the Chemistry 101 helps to improve the quality of life of citizens by elucidating the steps of the scientific method and giving the opportunity to realize the significance of chemistry in our lives.

Instructor reserves the right to make changes to the syllabus at any time during the semester.

Call 1.800.423.0563 for technical assistance with Owlv2. Call 270.745.7000 for assistance with other technology issues. Professor Skipworth can't answer technology questions.

## **Chem 101 Online Study Tips**

Chemistry Tutoring Center - Kelly Thompson Hall Room 1015

- 1. Make a study calendar, and do not wait until the due date to begin studying and/or completing assignments. Space your study time over each day so you are not overwhelmed with the material.
- 2. Read the chapter.
- 3. Read and learn the PowerPoints associated with each chapter.
- 4. Watch any videos I made describing specific course topics.
- 5. Complete the OWLv2 homework assignment for each chapter.
- 6. Complete the odd problems in the book if need more review. The answers to the odd problems are at the end of the book. The book chapters also contain examples with solutions that are helpful study tools.

# CHEM 101 Online Lab Supply List

## Look through the entire list. Some items repeat or can be reused. Before purchasing all items take the time to read through your lab instructions to have a general idea of how the labs work and to get an idea of how much and how the materials are used. It's likely you can gather materials from your home or a friend's home. You will use a very small amount of each of these supplies.

## Candy Chromatography

- M&M and Skittles candies (orange, green and red (6 pieces total))
- coffee filter (1)
- tall glass
- water
- table salt
- pencil (a pen or marker is not good for this experiment)
- scissors
- ruler
- 6 toothpicks
- aluminum foil
- an empty 2 liter bottle with cap or gallon jug

#### Glue

- ¼ cup hot water
- 1 tablespoon vinegar

- 2 tablespoons powdered dry milk (can use regular milk)
- 1/2 tsp baking soda
- water
- 2 cups
- coffee filter (1)
- spoon (1)
- plastic wrap (enough to cover one of your cups)

#### Iron

- Special K cereal or Total cereal (cereal should contain 100% RDA of iron)
- bowl
- Pencils
- Strong magnet
- Sandwich bags
- Tape
- Water
- white paper towels

#### рΗ

2 cups red cabbage Knife Distilled water (can be purchased at Kroger or Wal-Mart) Blender (optional) Measuring cups (or graduated cylinder) Measuring spoons (or graduated cylinder) Strainer Ziplock bags Hammer (or mortar and pestle) Clear plastic cups (or beakers) at least 10

Variety of Household Substances (about 2 tsp of each)

- 1. Lemon juice (pH = 2)
- 2. Vinegar (pH = 3)
- 3. Aspirin (pH = 5)
- 4. Milk (pH = 6)
- 5. Distilled water (ph = 7)(can be purchased at Kroger or Wal-Mart)
- 6. Baking soda (pH = 8)
- 7. Milk of magnesia (pH = 10
- 8. Clear ammonia (pH = 11)
- 9. 7up
- 10. Borax

## **Scientific Method and Polymers**

- 10 mL Interior wood glue (a home liquid measuring cup should have mL)
- Borax: Prepare by dissolving 1 Tablespoon in 250 mL of warm distilled water
- Craft sticks/popsicle sticks or another stirring device
- Glass cup
- 25 mL Distilled water
- Device that will measure from approximately 10 mL 80 mL (possible liquid measuring cup)

| Chem 101<br>Calendar<br>Week Number | What to do this week:<br>Chapter Homework, Assignments, Labs, and<br>Exams   | Due Date (all Fridays)<br>You may complete assignments<br>early! The due dates on the<br>calendar are the very last dates<br>you can complete the assignment. |
|-------------------------------------|--|---|
| Week 1                              | <ul><li>Read the Syllabus</li><li>Syllabus Quiz</li><li>Open the eBook to verify it is working for you</li></ul>   | Aug 25  |
| Week 2                              | <ul> <li>Read Chapters 1 (Living in a World of chemistry)<br/>and 2 (Chemical View of Matter), review the<br/>PowerPoints and watch videos</li> <li>Intro: Working with Owl Assignment, Intro:<br/>Non-mastery Assignment, and Chapter 2 OWLv2<br/>Homework</li> </ul> | Sept 1<br>Chapter 2 – omit unit<br>conversions  |
| Week 3                              | <ul> <li>Read Chapter 3 (Atoms and the Periodic Table),<br/>review the PowerPoint, and watch videos</li> <li>Chapter 3 OWLv2 Homework</li> <li>Complete Glue Lab – save to submit with the<br/>entire Lab Portfolio Assignment</li> </ul>                              | Sept 8  |
| Week 4                              | Exam 1 (Chapters 1, 2, and 3)  | Sept 15   |
| Week 5                              | <ul> <li>Read Chapter 13 (Nuclear Changes and Nuclear<br/>Power), review the PowerPoint, and watch<br/>videos</li> <li>Chapter 13 OWLv2 Homework</li> </ul>  | Sept 22   |
| Week 6                              | <ul> <li>Read Chapter 5 (Chemical Bonding and States of<br/>Matter), review the PowerPoint, and watch<br/>videos</li> <li>Chapter 5 OWLv2 Homework</li> <li>Complete Candy Chromatography Lab– save to<br/>submit with the entire Lab Portfolio Assignment</li> </ul>  | Sept 29   |
| Week 7                              | <ul> <li>Read Chapter 8 (Chemical Reactivity:<br/>Chemicals in Action), review the PowerPoint,<br/>and watch videos</li> <li>Chapter 8 OWLv2 Homework</li> <li>Complete Iron Lab– save to submit with the<br/>entire Lab Portfolio Assignment</li> </ul>               | Oct 6   |
| Week 8                              | Exam 2 (Chapters 13, 5, and 8)   | Oct 13  |
| Week 9                              | <ul> <li>Read Chapter 9 (Acid-Base Reactions), review<br/>the PowerPoint, and watch videos</li> <li>Chapter 9 OWLv2 Homework</li> <li>Complete pH Lab – save to submit with the<br/>entire Lab Portfolio Assignment</li> </ul>   | Oct 20  |

| Week 10 | Read Chapter 10 (Oxidation-Reduction          | Oct 27 |
|---------|---|--------|
|         | Reactions), review the PowerPoint, and watch  |        |
|         | videos  |        |
|         | Chapter 10 OWLv2 Homework                     |        |
|         | • Complete Scientific Method and Polymer Lab- |        |
|         | save to submit with the entire Lab Portfolio  |        |
|         | Assignment                                    |        |
|         | Laboratory Portfolio (entire assignment due)  |        |
| Week 11 | • Read Chapter 11 (Water, Water, Everywhere), | Nov 3  |
|         | review the PowerPoint, and watch videos       |        |
|         | Chapter 11 OWLv2 Homework                     |        |
|         | • Exam 3 (Chapters 9, 10, and 11)             |        |
| Week 12 | • Read Chapter 12 (Energy and Hydrocarbons),  | Nov 10 |
|         | review the PowerPoint, and watch videos       |        |
|         | Chapter 12 OWLv2 Homework                     |        |
|         | Complete Water Treatment Assignment           |        |
| Week 13 | Read Chapter 14 (Organic Chemicals and        | Nov 17 |
|         | Polymers), review the PowerPoint              |        |
|         | Chapter 14 OWLv2 Homework                     |        |
| Week 14 | Thanksgiving week – no assignments due        |        |
| Week 15 | • Final Exam (comprehensive)                  | Dec 1  |