Syllabus  
**CHEM 103-02  Calculations in Chemistry  Fall II 2019**

Friday 1:00-2:40pm  SSMB 245
Instructor:  Dr. Gamil A. Guirgis
Office:  SSMB # 316
Phone:  (843) 953-5943
E-mail:  guirgisg@cofc.edu
Office Hours:  Tuesday and Thursday 10:00-11:00 am or by appointment

About this course:  This course previews mathematical manipulations common to general chemistry.  It serves as a good preparation course for Chem 111 and 111L.

**Student Learning Outcomes:**
1. To practice fundamental math skills as applied to Chemistry problems
2. To develop problem-solving techniques that will serve throughout your college career
3. To be able to properly name, manipulate and write chemical compounds and formulas
4. To use stoichiometry to calculate theoretical and percent yields

Attendance:  Students are expected to attend all class sessions.  Attendance counts 10% of the final grade calculation.  Students may have one excused absence without penalty.  Each absence after that will incur a loss of 2%.

Textbook:  Some materials will be provided as handouts in class.  An online general chemistry textbook to read as a supplement to lecture can be found here:  
[https://openstax.org/details/books/chemistry](https://openstax.org/details/books/chemistry)

**Tentative Schedule**

- **Friday, October 11**  Syllabus, numbers in scientific calculations, home work
- **Friday, October 18**  The metric system (metric metric prefixes, and calculations with units).  Review quiz.
- **Friday, October 25**  Atoms and significant figures (calculating with significant figures, zeros and exact numbers).  Review quiz.
- **Friday, November 1**  Conversion factors (single step conversion, multistep conversion).  Test 1
- **Friday, November 8**  Atoms, ions, and periodicity (structure of atoms, elements and compounds, and periodic table).  Review quiz.

Friday, November 22  Stoichiometry (limiting reactants, and limiting reactants Review quiz.

Friday, November 29  Molarity and Molarity calculations, Concentration calculations, And Dilutions. Test 2

**Wednesday December 11** Final (place and time to be announced).

**Grading:**
Homework:  20%  
Attendance:  10%  
Quizzes:  30%  
Tests:  40%

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**Accommodations for Disability:** Any student eligible for and needing accommodations because of a disability is requested to speak with the professor during the first two weeks of class or as soon as the student has been approved for services so that reasonable accommodations can be arranged.

**Academic Integrity:** Students are expected to abide by the College of Charleston’s Honor Code and are referred to the Student Handbook to review this policy: [http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php](http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php).