Chemistry S101 **Summer 2024**

Chemistry in Context

Instructor:	Dr. N. Ganapathi
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Required Text:	Chemistry in Context, by Fahlman, B. D. et al., 10th edition, **ISBN 978-1-259-92015-8**
Class meetings:	**In person in Sterling Chemistry Laboratory (SCL), room 18 (tentative)** Classes start on Monday, July 1. Class hours: Monday thru Friday, 9:00 to 10:15 am
Goal / Purpose	Understanding basic chemistry facts and concepts. Applying that knowledge to appreciate how chemistry is intricately involved in everything we do in our daily lives. Making prudent decisions for sustainability which is essential not only for our well-being but also those of our future generations.
Syllabus:	Chapters (and most subtitles in each chapter) in the textbook will be covered in numerical order; see next page for details. In class, important basic chemical facts and concepts mentioned in each chapter in the textbook will be discussed and demonstrated. Studying each chapter ahead of time before it is discussed in class is essential to appreciate how these facts and concepts help us understand what goes on in our everyday lives, and what we can / should do.
Items needed	**Textbook (see above), either hard copy or ebook, computer, scientific calculator**
Attendance	All class meetings will be mainly discussions of basic chemical concepts and facts. **Numerous live demonstrations** will be carried out in class to illustrate these concepts and facts. The instructor intends to bring to life all important features of chemistry including myriad substances, their properties, reactions, and other chemical phenomena. He hopes these activities, the proper way to learn science, render each class meeting interesting enough that students look forward to each class meeting with enthusiasm and interest.
Homework	One problem set for each chapter covered. Select set of questions at the end of each chapter from the book, plus a few additional problems.
Office hours	From 10:30 to 11:30 am Monday thru Thursday from July 1 to August 1. Appointments at other times can be arranged by email.
Midterm tests	
	A practice test will be offered in the week of July 8 prior to the first midterm test
Midterm test 1	July 12, Friday, 9:15 to 10:15 am, closed book
Midterm test 2	July 26, Friday, 9:15 to 10:15 am, closed book
Final exam	August 2, Friday 9 am to 11:00 am, closed book

Grading: Homework (Problem sets): 15%
Midterm test 1: 25%
Midterm test 2: 25%
Final Exam: 35%

Letter grades: The **class average** of the overall scores (as calculated above) will correspond to a letter grade of **B or B+**. Overall scores slightly less than the class average will correspond to a B, whereas overall scores slightly greater than the class average will correspond to a B+. Other letter grades will be assigned with reference to the class average, and by utilizing discernible gaps in the distribution of overall scores.

Some friendly advice: Please take this course with the attitude that you are taking it because you want to learn chemistry. Chemistry S101 classes start on Monday, July 1. Try to not miss a single class. If you must, be sure to talk to the instructor. Participate in-class activities with enthusiasm. Cultivate in you, and practice the good habit of asking a lot of questions, the best way to learn any science. Always keep yourself informed of everything that is happening in class, including demonstrations. The midterm tests and the final exam may have questions related to the demonstrations. Do not hesitate to seek help from Dr. G if and when needed. Do not procrastinate. To do well in the midterm tests and the final exam, make sure you can do all the examples we do in class, and answer all the questions / problems in the assigned homework sets on your own (with no help) the second time around.

Syllabus: The following chapters in the book will be covered in the same order.

Chapter 1	Portable Electronics
Chapter 2	The Air We Breathe
Chapter 3	Radiation from the Sun
Chapter 4	Climate Change
Chapter 5	Energy from Combustion
Chapter 6	Energy from Alternate Sources
Chapter 7	Energy Storage
Chapter 8	Water Everywhere: A Most Precious Resource
Chapter 9	The World of Polymers and Plastics
Chapter 10	Brewing and Chewing
Chapter 11	Nutrition
Chapter 12	Health & Medicine