



General Chemistry I

**CHM 1045 (CRN
10590)**
3 credit hours

Classes: Tuesdays & Thursdays 8.00 am - 9:15 AM, Academic Building 7 (AB7) Room 336

Instructor: Dr. Rebekah Brosky

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Office Location: 461B Library East

Office Hours: T,R 11.00AM – 1.30PM
W 3.00-6.00PM

other times by Canvas mail request

Teaching Assistants Contact Information:

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General Information

Course description: Intended for science majors. Explores the fundamental laws of chemistry including: states of matter, atomic and molecular structure, the periodic table, stoichiometry, chemical bonding, enthalpy, acid-base reactions, and the gas laws.

Prerequisite(s): MAC 1105, MAC 1147, MAC 2311 OR MAC 2157 with a minimum grade of C or Accuplacer Coll. Math Subscore test with a minimum score of 066. **Corequisite:** CHM 1045L.

Student learning goals: Students will become familiarized with the fundamental laws of chemistry including states of matter, atomic and molecular structure, the periodic table, stoichiometry, theories of chemical bonding, acid-base reactions, and the gas laws. The curriculum for CHM 1045 lecture is inquiry based that emphasizes active learning strategies. Students must also take a concurrent laboratory section during the same semester (CHM1045L). The development of problem solving and critical thinking skills are strongly emphasized. Please note that CHM 1045 is the standard course for science majors and biomedical pre-professionals (including pre-meds, PT, OT and nursing). For some students (lacking good algebra skills and/or a background in high school chemistry) an introductory chemistry course may be needed before engaging CHM 1045. If you need to take an “intro” course, please note that most science and pre-professional programs do not accept “Intro to Chem” as a substitute for CHM 1045.

Materials: Items 1-3 are required for each class, item 4 for homework and quiz work.

1. **Textbook:** " *Chemistry: The Central Science*" by Brown, Lemay, Bursten, and Murphy, 12th Edition. (11th edition acceptable alternative)
2. **Scientific calculator:** Root, log, exponent scientific notation and y^x keys, statistical functions like standard deviation and linear regression are also required.
(Graphing and programmable calculators will NOT be allowed on the exams.)
TI 36XPro calculator is also not allowed on exams due to built-in unit conversion functions.
3. **Dry erase blue or black markers** for board problems (1 set per group)
4. **Access code** for the " *Chemistry: The Central Science*" by Brown, Lemay, Bursten, and Murphy, 12th Edition textbook (black cover). All HOMEWORK and QUIZ assignments must be submitted online via the "Mastering Chemistry" Website:

<http://www.masteringchemistry.com/>

Please download the instructions from Canvas in order to register for this homework service. Register and begin work immediately. Access code can be purchased either from campus bookstore or directly from the <http://www.masteringchemistry.com/> website (\$66 without etext, \$122 Mastering Chemistry with etext).

Course Name: CHEM1045-Sp2015-Brosky

Course ID: MCBROSKY16782

5. This course (CHM 1045) is on the FGCU's Canvas website. You can access and download this syllabus and posted lecture materials. Canvas Website address: <http://canvas.fgcu.edu>

syllabus is tentative and is subject to periodic adjustments. Changes will be announced via Canvas

Assignments and Grading

Assignment types:

Exams: Regular semester exams will be a mixture of show-all-work and multiple choice questions. The show-all-work questions will be graded with some partial credit if deserved. The multiple choice questions allow for educated guesses if you are slightly unsure and will be graded by scantron. The cumulative final exam will be multiple-choice only.

Only the exam scantron forms (and show work sheets) will be returned to students. Exams may be reviewed with questions and key during office hours or by appointment. A test key will be available after the exam is returned in class to you--please scrutinize the key carefully before asking for a re-grade.

When a test is submitted for re-grade (**only written requests will be honored**) I reserve the right to re-grade the entire test not just the question being challenged. This policy is intended to ensure fairness since errors in favor of the student might have been overlooked. The exam must be submitted for re-grading within one week of being returned. The last exam will not be returned and a key will not be provided.

Group Problem Sets: These will be completed in class within your six-person groups. Note that group members may be rotated after each exam, throughout the semester. The problems in each set are directly related to not only lecture material, but also to 1—semester exams and 2—the cumulative final

exam. Part of your grade for these problems will be dependent upon periodic presentations to your sector of the classroom or to another single group, as a trade-off.

Memorization Quizzes: Quizzes will be given (during lecture time) to cover material for each set of chapters (pertaining to the four in-class exams). The purpose of these quizzes is to prepare the student for material which must be committed to memory for use on the chapter exams and the final exam.

MasteringChemistry Homework and Quizzes: Homework and quiz assignments must be completed through MasteringChemistry.com. If you do not already have an access code (for the 12th edition *Chemistry: The Central Science* by Brown, Lemay, ...), you can purchase a code directly from the website. If you believe Mastering Chemistry to have incorrectly scored your answer for any assignment, please email me with the assignment, question number, and the reason you believe Mastering Chemistry is incorrect. I will review the problem.

Quizzes: The quizzes are based on your **watching videos BEFORE class** and **pre-reading** the sections that are scheduled to be discussed in the next class meeting. Since the quizzes are intended for completion *before class* the questions are generally easier than the homework and exam questions will be. The difference in difficulty level is because I do not expect you to have mastered the material before class, but I do expect some familiarity. The online quizzes are timed, the timer begins as soon start the quiz. You will have up to 30 minutes to complete the quiz. You will only have one chance to answer the questions. Quizzes are randomized so you will not necessarily have the same questions as another student.

Homework: The homework is assigned as the minimum amount of problem-solving practice. If you struggle with the homework, you should be coming to office hours, SI, tutoring, working more problems, or seeking help in some other fashion. The online homework is set up to allow for 6 attempts for “fill-in-the-blank” style questions. Your score will not be affected until the final attempt or the question is correctly answered. Multiple choice and True/False questions have fewer attempts and do have grade penalties for earlier tries to discourage guessing the correct answer. Some questions are tutorial based and have hints. These hints break the problem into smaller steps and help guide you through the process. Not using the hints will result in a small extra credit bonus. Answering hint questions incorrectly will negatively affect your grade. If you are using the hints, don’t be hasty. Take the time to understand.

The homework may be submitted late for a penalty (-20% per day late). The late penalty only affects work that was completed after the assigned deadline. For instance, if you started the Chapter 1 homework one hour before the deadline, you would earn full credit on all questions completed before the 11:59 pm deadline. However, if you completed questions #12 - #15 after the deadline, questions #12 - #15 would have the penalty. *A question is completed only if all the parts to the question is complete.*

Many General Chemistry students do earn high homework scores. Keep in mind that a high homework score may reflect the use of multiple tries, using the textbook, studying with a friend, using a lot of time, or other aids. A high homework score does not necessarily mean that you have mastered the material well enough for a time, closed-book exam. Make sure that you can work questions by yourself using only a calculator, scratch paper, and a periodic table.

Grading: Your final grade for the course will be calculated according to your performance in four categories—the categories and value towards your final grade are listed below. *No grades will be dropped!!* Make sure to complete all assignments by the posted deadline.

Group Problem Sets (5%)	5% or 0.05 weighting
Memorization Quizzes (7%)	7% or 0.07 weighting
Quizzes (5%)	5% or 0.05 weighting
Online Homework (10%)	10% or 0.10 weighting
Exam 1 (Chapter 1 only, 7%)	7% or 0.07 weighting
Exams 2, 3, and 4 (3 chapter units, 17% each):	51% or 0.51 weighting
Cumulative Final Exam (ACS Standardized Exam)	15% or 0.15 weighting

Grading Scale*	
90.0 - 100%	A
80.0 - 89.9%	B
70.0 - 79.9%	C
60.0 - 69.9%	D
< 60.0%	F

Instructor reserves the right to assign +/- grades as appropriate (A- = 90.0-92.9; B+ = 87.0- 89.9; B- = 80.0-82.9; C+ = 77.0-79.9)

Course Policies and Expectations

Students are expected to adhere to the following:

- **Attendance:** come to class on time. Tardiness, leaving class early or failure to come to class minimizes your opportunity to learn. If you are not in class at the time when attendance is taken or when assignments are given or begin, you forfeit the opportunity to take part in that assignment. **EACH UNEXCUSED ABSENCE WILL RESULT IN A 3% REDUCTION OF YOUR OVERALL GRADE.** Make-ups for the exams will only be allowed with documented proof of reason for absence (ex. doctor's note with doctor's phone number).
- **Attention & Disturbances:** Pay attention. You, your parents or someone is paying for you to take this class. You will get more from this class if you pay attention. You may use laptops to take notes. I expect you to not check facebook, your email, work on other classes, or similar activities. Using computers for purposes other than class work will result in loss of privileges for the rest of the semester. For cell phones, I expect the phone to be silenced and you not text during class. Further violations will result in grade penalties. Not only will you be missing valuable class material, you will not be able to participate fully and will distract other students as well.
- **Email:** Please **use Canvas for course related email**. This will help me answer your emails more efficiently. I will check my email a couple of times before 5 pm each day. I will try to answer emails within 24 hours. I generally do not check my email on weekends.
- **Student Preparation:** Read text book chapters prior to attending class. This is not a punishment. Reading the chapters before class will help you understand the lectures and work board problems. The pre-class quizzes are based on reading the sections that will be covered in the next class.
- **Studying:** Allot sufficient time to study course material outside of the class period. A rule of thumb for all classes is to allot 1-3 hours outside of class for each hour in class. For this class you should spend **a minimum of 7 hours each week studying** chemistry and doing related chemistry course work (not including lab related work).

Tutoring and Other Help: If you are struggling with this class, please seek help. I want you to succeed. You are welcome to come to my office hours or set up a time to ask me questions. You may also see or

email myself or one of the TA's. Each teaching assistant (TA) will offer weekly office hours to assist your learning. See Canvas for an updated list of locations and times.

You may also want to visit the Center for Academic Achievement <http://www.fgcu.edu/caa/>. The Center for Academic Achievement provides free tutoring, supplemental instruction classes (like big review sessions), as well as tips and strategies for improved study skills. They also offer Math lessons online if you need a little refresher.

Academic Behavior Standards and Academic Dishonesty: Any incident of cheating on exams, or discussion questions, quizzes, or deliberately misrepresenting reports of assignments will result in a "0" grade for that assignment and possibly an "F" grade for the entire course. In addition, you **WILL** be referred to the Judicial Department of the Dean of Students' Office for violation of the Student Code of Conduct. All students are expected to study this document which outlines their responsibilities and consequences for violations of the policy. The FGCU Student Guidebook is available online at <http://studentservices.fgcu.edu/judicialaffairs/new.html>

Disability Accommodations Services: Florida Gulf Coast University, in accordance with the Americans with Disabilities Act and the university's guiding principles, will provide classroom and academic accommodations to students with documented disabilities. If you need to request an accommodation in this class due to a disability, or you suspect that your academic performance is affected by a disability, please contact the Office of Adaptive Services. The Office of Adaptive Services is located in Howard Hall 137. The phone number is 239-590-7956 or TTY 239-590-7930

Student Observance of Religious Holidays: All students at Florida Gulf Coast University have a right to expect that the University will reasonably accommodate their religious observances, practices, and beliefs. Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence. Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances. Where practicable, major examinations, major assignments, and University ceremonies will not be scheduled on a major religious holy day. A student who is to be excused from class for a religious observance is not required to provide a second party certification of the reason for the absence.

For further information please read the General Counsel Policies at:

<http://www.fgcu.edu/generalcounsel/policies-view.asp>

CHM 1045 LECTURE Schedule

(Tentative schedule, subject to change as needed. Changes will be posted on Canvas.)

Register for MasteringChemistry.com IMMEDIATELY to complete online quizzes and homework!!!!!!! See Canvas for Registration Instructions.

All quiz and exam dates are in red letters, homework due dates are underlined

January				
Monday	Tuesday	Wednesday	Thursday	Friday
5	6 Introduction: Syllabus and Other Policies In class -- Chapter 1	7	8 In class -- Chapter 1 Review Chapter 1 Videos	9 <i>Deadlines: drop/add and 100% tuition refund</i>
12 Watch - Chapter 2 Videos	13 In Class -- Chapter 2 Due -- Chapter 1 Quiz Due -- Syllabus Quiz	14 Due -- Ch. 2 Quiz	15 In Class -- Chapter 2 <u>Due -- Ch 1 homework</u> <i>*Chapter 1 memorization quiz*</i>	16
19 No class MLK Birthday Holiday	20 Exam 1 (Covers Chapter 1 only)	21 Watch - Chapter 6 Videos	22 In Class -- Finish Chapter 2 and begin Chapter 6	23
26 Due -- Ch 6 Quiz	27 In Class -- Chapter 6 <u>Due -- Ch 2 homework</u>	28	29 In Class -- Finish Chapter 6 and begin Chapter 7 <u>Due -- Ch 6 homework</u>	30

On exam days you are responsible for bringing a scientific calculator, sharpened pencils, erasers,
(Graphing and programmable calculators will NOT be allowed on the exams.)

February				
Monday	Tuesday	Wednesday	Thursday	Friday
2 Due – Ch 7 Quiz	3 In Class – Finish Ch 7 <i>*Chapters 2,6,7 memorization quiz*</i>	4 <u>Due -- Ch 7 homework</u>	5 In class -- Exam 2 (Ch 2, 6 & 7)	6 <i>Deadline: total withdrawal for 25% tuition refund</i>
9	10 In Class – Ch 8 Watch -- Ch 8 Videos	11 Due – Ch 8 Quiz	12 In Class – Ch 8	13
16	17 In Class – Chapter 9 Watch -- Ch 9 Videos <u>Due -- Ch 8 homework</u>	18 Due -- Ch. 9 Quiz	19 In Class – Ch 9	20
23	24 In class -- Chapter 3 <u>Due -- Ch 9 homework</u>	25 Watch -- Ch 3 Videos	26 In class -- Chapter 3 Watch -- Ch 3 Videos	27

March				
Monday	Tuesday	Wednesday	Thursday	Friday
2 SPRING	3 BREAK	4 WEEK	5 2-6 MARCH	6 2015
9	10 In class -- Chapter 3 Due -- Ch. 3 Quiz	11	12 In class -- Review <u>Due -- Ch 3 homework</u> <i>*Chapters 3,8,9 memorization quiz*</i>	13 Midterm Survey DUE
16	17 Exam 3 (Ch 8, 9 & 3)	18	19 In Class -- Chapter 4 Watch -- Ch 4 Videos	20

23	24	25	26	27
Due -- Ch. 4 Quiz	In Class -- Chapter 4		In Class -- Finish Chapter 4 and begin Chapter 5 <u>Due -- Ch 4 homework</u> <u>Watch -- Ch 5 Videos</u>	<i>Last day to Drop w/out Academic Penalty</i>

NOTE: *March 27th is the last day to withdraw without academic penalty.* “Without academic penalty” means that you would have a grade of “W” on your transcript, but that it would not affect your grade point average (GPA). If you withdraw after this deadline, you will earn the grade “WF”, which would affect your GPA. When making the decision about whether or not to remain in the class, keep in mind that there are many factors involved. Perhaps most importantly, the two most difficult exams are after the drop deadline.

April				
Monday	Tuesday	Wednesday	Thursday	Friday
March 30 Due -- Ch. 5 Quiz	March 31 In Class -- Chapter 5	1	2 In Class -- Chapter 5 & Section 8.8	3
6	7 In Class -- Chapter 10 <u>Due -- Ch 5 homework</u> Watch -- Ch 10 Videos	8	9 In Class -- Chapter 10 Watch -- Ch 10 Videos <i>*Chapters 4,5,10 memorization quiz*</i>	10
13 Due -- Ch. 10 Quiz	14 In Class -- Catch-up & Review <u>Due -- Ch 10 homework</u>	15	16 Exam 4 (Ch 4, 5 & 10)	17
20	21 In Class -- Ch 11 Watch -- Ch 11 Vid.	22 Due -- Ch. 11 Quiz	23 In Class -- Ch 11 <i>*Chapter 11 memorization quiz*</i>	24 Last Day of Classes <u>Due -- Ch 11 homework</u>
27	28	29	30	May 1
Final Exam Week: CHM1045 FINAL: Tuesday, 07:30AM - 10:15AM				

The final exam is cumulative (covering all chapters from the entire semester) and an ACS standard exam. The final exam will be 2 hours long and take place in the regular classroom (AB7, ROOM 336).