# Course Syllabus

Chart

Description automatically generatedWant to download a "paper" copy of this syllabus? Here it is!

Original [Progress pride flagLinks to an external site.](https://www.pride.com/pride/2018/6/13/complete-guide-queer-pride-flags-0#media-gallery-media-6) design by [Daniel QuasarLinks to an external site.](https://quasar.digital/), periodic table design by John Megahan/Anne McNeil

General Policies

* It is my goal that this course will serve well students from all diverse backgrounds and perspectives. I am committed to establishing and maintaining an inclusive environment in our physical and virtual class spaces that supports a diversity of perspectives and experiences and honors your identities along any dimension (including race, gender, sexuality, religion, etc.). As a consequence, discriminatory or prejudiced behavior of any kind will not be tolerated. Your feedback is encouraged and appreciated – please reach out if you have suggestions or comments on improving the effectiveness of the course for yourself or for other students or student groups.

It would be reasonable to expect that chemistry, as a science, should be an objective field wherein all contributions are evaluated on their intellectual merits alone. However, that has often not been the case in its history, and the chemical disciplines have been developed primarily by a small number of privileged individuals. During the course, I will try to amplify voices from groups that have historically been (and still currently are) underrepresented in chemistry. I will do so for two reasons – the first is to showcase some fantastic science. Secondly, I am hoping that this will help everyone encounter successful chemists that they can identify with along any number of personal and experiential dimensions, and that this will foster thinking of yourself as an actual emerging scientist.

* Students are expected to abide by the policies set forth in the [Student Code and Policies Links to an external site.](https://www.fandm.edu/college-life-manual/student-code-policies)section of the College Life Manual, as well as in the [Academic Honesty Links to an external site.](https://www.fandm.edu/catalog/academic-honesty)section of the F&M Course Catalog. In particular, any and all forms of cheating and plagiarism will not be tolerated, and will be grounds for disciplinary action. This includes policies pertaining to any possible online assessments and exams.
* It is the policy of Franklin and Marshall College that all faculty and staff are mandated reporters of sexual misconduct. This policy was enacted to ensure compliance with [Title IXLinks to an external site.](https://www.fandm.edu/campus-life/title-ix) and other laws.
* If you need accommodations for testing or any aspect of the course, let me know! I'll be happy to help!

Assessment Criteria

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Notes:

* Exams (30%): we will have three in-class exams; the lowest grade will count for 6%, while the other two exams will count for 12% each.
* Quizzes (7%): we will have 9 in-class quizzes (typically at the start of lab on Fridays); the three lowest grades will be dropped, and no make-ups will be allowed.
* In-class activities (9%): we will work on group activities in class throughout the course; for each activity, one group member will submit a record of the group's work that includes the names of all participants. These activities, which are designed to give you an opportunity to engage in problem-solving and reflection in a team setting, will only be graded for completion. If you miss a class meeting, you can still complete any activities for credit by finding them here on Canvas.
* Take-home assignments (9%): you will submit weekly self-graded problems, designed to help you guide you through practicing key skills and receive immediate feedback that you can use to reflect on your progress and plan further study; these will be graded for completion only. You may occasionally be asked to submit other assignments that will also contribute to this portion of your grade.
* See the [Laboratory Canvas site](https://fandm.instructure.com/courses/19030/external_tools/1952) for information about the laboratory portion of the course. **You must receive a passing grade in the laboratory portion of the class in order to pass the course, regardless of your performance in the rest of the class!**

This is my interpretation of the meaning of letter grades as given in the Course Catalog. Graphical user interface, application

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Schedule

This is the tentative schedule for when we will tackle different units in the course. This schedule is subject to the vicissitudes of reality; more accurate day-to-day information can be found in each week's Module.

|  |  |
| --- | --- |
| *Topics* | *Week(s)* |
| Solutions | Week 1 |
| Chemical kinetics | Weeks 2-4 |
| Equilibrium | Weeks 4-6 |
| Thermodynamics | Weeks 6-7 |
| Ion combination reactions | Week 8 |
| Acid-base reactions | Weeks 9-12 |
| Electron-transfer reactions | Weeks 12-14 |

Exams

The ***tentative***exam schedule is as follows:

|  |  |
| --- | --- |
| *Exam* | *Date* |
| Exam #1 | 14-Feb (T) |
| Exam #2 | 23-Mar (R) |
| Exam #3 | 20-Apr (R) |
| Final Exam | TBA between 2-May and 6-May |

Class/lab meetings

* Class meetings will be on T/R, 8:30-9:50am ET in HAC 311
  + Please be on time - we will often start the meeting with a short problem or question, so you should be ready to go!
  + We will have weekly team activities during class meetings - these will be designed to provide you an opportunity to practice your new and developing skills in a low-stakes, team setting.
  + It will be helpful to always have a calculator with you.
* Lab meetings will be on F, 12:30-4:20pm ET in HAC 311
  + The laboratory section of the course will be taught by my colleague, prof. Kate Plass
  + The laboratory Canvas site can be accessed via the [CHM 112 LAB tab](https://fandm.instructure.com/courses/19030/external_tools/1952) on the left!
* See the [Communications and drop-in hours](https://fandm.instructure.com/courses/19030/pages/communication-and-drop-in-hours) page for information on meeting outside of class/lab!

Learning Outcomes/Objectives/Practices/Advice from former students

See the dedicated pages on [Learning outcomes and objectives](https://fandm.instructure.com/courses/19030/pages/learning-outcomes-and-objectives) and [Learning strategies](https://fandm.instructure.com/courses/19030/pages/learning-strategies-and-advice-from-past-chm112-students)!

Contingency plans for absences or remote operation

While the current plan is to meet for the entire course in-person, it is possible that circumstances will change and warrant a transition to remote learning, whether for everyone in the class or for a subset of students (or myself!), whether for a short term or for several weeks. If circumstances change, we will adapt as necessary to minimize the impact of any disruptions:

* If you happen to have to miss class because of illness or quarantining, we will work together to formulate a plan to enable you to continue to participate in the course and minimize the impact of these circumstances. If you have to miss an exam because of illness or quarantining, we will try to reschedule it, but depending on the circumstances I may also elect to drop one exam from your record, with the two remaining exams having the following weights: 18%/12% (the lowest grade on an exam would count the least).

Required Materials

* Canvas: here you are!
* Email: you must check your *fandm.edu* email regularly – this will be necessary for class announcements. During the week, I will try to respond to all emails within 24 hours; although I may check and respond to emails outside of regular work hours (8 am – 5 pm), this is not a guarantee, so do not expect an immediate reply if contacting me outside of regular work hours.
* Textbook: Flowers, P., Theopold, K., Langley, R., Neth, E. J., Robinson, W. R. *Chemistry, Atoms First, 2e* OpenStax, Rice University, 2019. This book is available *for free* online as a webpage or as a .pdf file. If you prefer, you can also buy a print copy. See the information at [https://openstax.org/details/books/chemistry-atoms-first-2e?Book%20detailsLinks to an external site.](https://openstax.org/details/books/chemistry-atoms-first-2e?Book%20details)
* Calculator: a scientific calculator will be necessary for activities, laboratory work, and exams, although it is recommended that you also have it with you during regular class meetings. Cell phones will not be sufficient as calculators, and will not be allowed on exams.

Learning and Support Resources

* [F&M Peer Support Collective](https://fandm.instructure.com/courses/19030/external_tools/1739)- aggregates all student resources in one location (including some listed individually below), from academic support to student wellness to accessibility accommodations
* [Office of Student Accessibilities ServicesLinks to an external site.](https://www.fandm.edu/office-of-student-accessibility-services) - information/resources for students with disabilities or additional needs
* [Chemistry @ F&M LibraryLinks to an external site.](https://library.fandm.edu/chemistry) - links to databases and other digital/physical resources
* [ITSLinks to an external site.](https://www.fandm.edu/its) - technology support
  + For help operating within Canvas, you can use the "Help" button on the left sidebar