

Chemistry 1903: Freshman Seminar
Spring Semester 2018
Room and Time: Civil Engineering 214, Th 1:25-4:10

Renee R. Frontiera
Office: Smith Hall 233
r rf@umn.edu

CHEMISTRY IN THE KITCHEN

Class description: This seminar will look at the chemistry behind cooking and baking. In this course, we'll cover topics such as coffee roasting, gluten formation, caramelization, "unscrambling" an egg, the science of ice cream, and molecular gastronomy. We will discuss some of the fundamental processes and chemical transformation that occur when we step into the kitchen. In addition to chemistry, this course will touch on interdisciplinary concepts from biochemistry, neuroscience, materials science, and physics.

Office hours: By appointment. I am always happy to set up a meeting to talk about anything in the course or at the University of Minnesota. To set up a meeting, please email me at r rf@umn.edu at least two days before you'd like to meet.

Attendance: Attendance and participation are very important in this class! You are responsible for all material and reading covered. More than two unexcused absences will result in a failing grade.

Component	Weight
Course Participation	10%
Minute Papers	20%
Group Presentation	40%
Research Paper	30%

Minute Papers: Every week send a concise e-mail to r rf@umn.edu describing the major topics discussed in that class and readings. These e-mails are limited to <150 words and are due ~24 hours after class, by 5pm on Friday.

In-Class Group Presentation, with food tasting: Groups will be responsible for bringing in the results of a cooking experiment and presenting the background information on an assigned topic. Presentations will be approximately 30 minutes long. More details will be discussed in class.

Research Paper: Students will write a 10-page research paper on a related topic of their choosing. Students will be required to submit via e-mail a proposed topic no later than April 6th. The final paper will be due in class on May 3rd. All late assignments will be penalized 10% per day that they are submitted after the deadline.

Letter grades: Please refer to the Undergraduate Catalog at <http://www.catalogs.umn.edu/ug/> for details on the University's grading policy.

Students with Disabilities: Students with disabilities that affect their ability to participate fully in class or to meet all course requirements are encouraged to bring this to the attention of Prof. Frontiera as soon as possible so that appropriate arrangements can be made. You will need a letter from the Office of Disability Services (612-626- 1333).

Scholastic Dishonesty: Scholastic dishonesty is any conduct described as follows (from the CLA Classroom Grading and Examinations Procedures): "Scholastic dishonesty is any act that violates the rights of another student with respect to academic work or that involves misrepresentation of a student's own work. Scholastic dishonesty includes (but is not limited to) cheating on assignments or examinations; plagiarizing (misrepresenting as one's own anything done by another); submitting the same or substantially similar papers for more than one course without consent of all instructors concerned; depriving another of necessary course materials; sabotaging another's work." If a student is guilty of scholastic dishonesty, the instructor will assign a grade of zero on the work involved and will report the matter to the Office for Student Conduct and Academic Integrity

(<http://www1.umn.edu/oscai/conduct/student/index.html>).

Other important university policies: University policies on student conduct, personal electronic devices, makeup work, grading, sexual harassment, students with disabilities, mental health, and more can be found at: <http://policy.umn.edu/education/syllabusrequirements-appa>.