

**SP287 – Kitchen Chemistry – Spring 2009**  
**At the Experimental Study Group's Kitchen**  
**Tuesdays from 3 to 5 pm.**

**Led by** Dr. Patti Christie  
ESG Lecturer, Head of Biology and Chemistry

**Required Textbook:** On food and Cooking, The Science and Lore of the Kitchen, by Harold McGee (ISBN 0-684-84328-5)

Welcome to the seminar entitled Kitchen Chemistry. This is a Pass/Fail, 6-unit seminar (2-0-4). This seminar is designed to look at cooking from a scientific basis. Each week we will do an edible experiment and look at the science behind how it all works. Not only will chemical principles be examined, but also biochemical, biological, microbiological and maybe even a little physics.

You are required to attend at least 80 % of the classes. If you know that you are going to be away, e-mail Patti ([patti@mit.edu](mailto:patti@mit.edu)) so that the appropriate adjustments in food purchasing will be done.

As a student in this seminar you are required to participate in at least 80 % of the experiments, and fill in the weekly logs for each class (what worked well, what did not work well, ways that the session could be improved for next year). These weekly logs will not be read until the end of the term, so honesty is appreciated. You are also required to do the weekly problem sets and hand them in at the beginning of the following class. If you have any suggestions for an edible experiment, please let Patti know the syllabus is very flexible and can be easily changed. You will also be required to write a 2 to 4 page paper on some aspect of chemistry of food. Details will be discussed in class. Paper is due on the last day of class, Tuesday May 12<sup>th</sup>, 2009.

The second to last class (May 5th) will be an exercise in peer teaching. Working either alone or in pairs, you will be required to find at least two people to come to class and you will become the teacher. You will teach your fellow students about one of the recipes we did in class or one of your own. There will be reference books available to research your recipe.

If you have any special dietary requirements, or allergies, please let Patti know and the appropriate precautions will be taken.

<b>Syllabus</b>	
<b>Date</b>	<b>Topic of the week</b>
Week 1-Tuesday, February 3rd	Guacomole, Salsa, make your own hot sauce and Quesadillas
Week 2 - Tuesday, February 10th	Cookie -Death by Chocolate
Week 3 -Tuesday, February 17th	No class since it is a Monday on a Tuesday schedule- optional experiment is Pancakes
Week 4 -Tuesday, February 24th	Bread
Week 5- Tuesday, March 3rd	Scones and coffee
Week 6 - Tuesday, March 10th	Meringes
Week 7 - Tuesday, March 17th	Jams and Jellies
Week 8 - Tuesday, March 24th	Spring Vacation - no class
Week 9 - Tuesday, March 31st	Three Bean Chili and cornbread
Week 10 - Tuesday, April 7th	Cheese
Week 11- Tuesday, April 14th	Molecular Gastronomy
Week 12 - Tuesday, April 21st	No class since it is an MIT holiday (Patriot's day) - optional experiment Wacky Cake
Week 13 -Tuesday, April 28th	Ice Cream
Week 14 - Tuesday, May 5th	Peer Teaching
Week 15 – Tuesday, May 12th	Pasta, meatballs, and Crème Brulee. Paper is due.