

The following recommended readings are from **On Food and Cooking by Harold McGee**.

Each section is given both by page number, and, for the benefit of students with an e-textbook, by a brief citation from the beginning and end of the assigned chapter.

Week	Topic	Readings by page	Readings by citation for e-textboks
1	Introduction and Food Components	<ol style="list-style-type: none"> 1. Introduction and History: p.1-7 2. The Four Basic Food Molecules, p.792-809 3. Chemistry Primer: p.811-818 	<ol style="list-style-type: none"> 1. "This is the revised and expanded"....to..."source of interest, ideas, and delight" 2. "This chapter describes the four chemical protagonists"....to...."gradual heating to denaturing temperatures" 3. "Cooking is applied chemistry" ...to..."beer are all foams"
2	Energy, Temperature and Heat	<ol style="list-style-type: none"> 1. Eggs (p. 68-92) 2. Milk Biology and Chemistry (p.16-21) 	<ol style="list-style-type: none"> 1. "the egg is one" ...to..."cooked in a moderate oven" 2. "milk is food for the newborn" ...to..."opaque cartons prevent it"
3	Phase Transitions	<ol style="list-style-type: none"> 1. Ice cream: p. 39-44 2. Fats (reread from above):p. 797-802 	<ol style="list-style-type: none"> 1. "Ice cream is a dish that" ...to..."the water is in liquid form" 2. "Fats and oils are members" ...to..."blocking starch retrogradation"
4	Elasticity	<ol style="list-style-type: none"> 1. Candy (p. 680-87) 2. Gluten (p. 521-525) 	<ol style="list-style-type: none"> 1. "All sugar candies, whether brittle or creamy"...to ..."slower to register on the tongue" 2. "wheat flour is strange" ...to..."forces between chains"
	EXTRA: Chocolate!	<ol style="list-style-type: none"> 1. Chocolate: p. 694-712 	<ol style="list-style-type: none"> 1. "Chocolate is one of our most" ...to..."that is powerfully appealing"
5	Gelation, Diffusion & Spherification	<ol style="list-style-type: none"> 1. Gelatin, Other Protein Thickeners, Carbohydrate gels: (p. 597-610) 	<ol style="list-style-type: none"> 1. "if we gently heat"...to..."release their flavor well"

6	Heat Transfer		
7	Viscosity & Polymers	<ol style="list-style-type: none"> 1. Sauces and gelation agents: p. 597-616, 2. Polysaccharides (p .804-805) 	<ol style="list-style-type: none"> 1. "If we gently heat"...to..."labels as modified starch" 2. "Polysaccharides which include"...to..."bacteria in industrial fermentation"
8	Emulsions & Foams	<ol style="list-style-type: none"> 1. Emulsions: p. 625-639 	<ol style="list-style-type: none"> 1. "Sauces thickened with droplets"...to..."rather than over direct stovetop heat"
9	Baking	<ol style="list-style-type: none"> 1. Bread (p. 521-546) 2. Cakes (p. 554-560) 3. Cookies (p. 568-571) 4. Seeds (p.451-468) 	<ol style="list-style-type: none"> 1. "Wheat flour is strange"...to..."the dough during baking" 2. "batter breads and muffins"...to..."moisture-retaining sugar" 3. "common cookies are simple"...to..."microbes, and keep well" 4. "Seeds are our most"...to..."eaten fresh or dried for keeping"
10	Fermentation & Enzymatic Reactions	<ol style="list-style-type: none"> 1. Milk fermentation (p. 44-50) 2. Wine and vinegar (p. 713-16, p. 771-73) 3. Fermenting vegetables (291-95) 	<ol style="list-style-type: none"> 1. "one of the remarkable qualities"...to..."sharpness typical of yogurt" 2. "Like all good foods"...to..."than it was when fresh"; "vinegar is alcohol's fate"...to..."ferment their wine straight" 3. "Fruits and vegetables can be preserved"...to..."gives them a slippery quality"
	EXTRA: Sustainability!		