

FOOD SCIENCE

FOOD SCIENCE –the biochemistry of food and nutrition
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All assignments are due on everyday of class in folders or handed into the appropriate location. No late assignments will be accepted. If illness occurs, assignments are due the following Fridays. Assignments maybe be added with designated due dates and curriculum may vary with the availability of resources. IDPH sanitation rules will be followed because of health safety issues with food products. Research projects and experiments will be intermixed with standard assignments. Tests maybe given as a practical, oral, or written exam on materials in textbook, lecture, videos, discussion, and laboratories.

Week 1 – Chapter 1 – What is food science?

Pages 12–32

Assignment: check the facts 1–11 & critical thinking 1–10

Labs: Measurements, scales, volume

Internet: [Why are the rain forests critical to the world?](#)

Week 2 – Chapter 2 –The Scientific Evaluation of Food

Pages 34–46

Assignment: check the facts 1–10 & critical thinking 1–7

Labs: taste tests; green eggs and ham, sounds

Internet: [What does the Illinois Research Lab in Peoria, Il do and what are the contributions to society?](#)

Week 3 – Chapter 17– Food Safety

Pages 274–288

Assignment: check the facts 1–13 & critical thinking 1–9

Labs: bacteria, labels, milk, green beans

Internet: Check out the CDC and the IDPH and explain their role in food and agriculture.

Week 4– Chapter 18–Dehydration

Pages 291–303

Assignment: check the facts 1–12 & critical thinking 1–10

Labs: dehydrating apples, banana, herbs, corn

Week 5– Chapter 19– Canning

Pages 305–318

Assignment: check the facts 1–12 & critical thinking 1–7

Labs: canning tomatoes, other produce upon availability

Week 6– Chapter 20–New Techniques of Food Preservation

Pages 319–333

Assignment: check the facts 1–10 & critical thinking 1–8

Labs: freezing, heat processing, 20.1

Week 7– Chapter 3– Basic Science for food scientists

Pages 48–64

Assignment: check the facts 1–11 & critical thinking 1–4

Labs: 3–1 volume & mass, 3–2 NaCl

Week 8– Chapter 4–Energy

Pages 67–79

Assignment: check the facts 1–11 & critical thinking 1–8

Labs: surface area, grilled cheese

Week 9– Chapter 5–Acids and Bases

Pages 80–95

Assignment: check the facts 1-15 & critical thinking 1-7
Labs: salad dressings, ph, digestion, neutralization

Week 10- Chapter 6-Water

Pages98-

Assignment: check the facts 1-11 & critical thinking 1-6

Labs: jello, ice, drinks, steamed rice , popcorn

Week11- Chapter 7-Carbohydrates

Pages 113-130

Assignment: check the facts 1-16 & critical thinking 1-7

Labs: pancakes, fudge, fondant, gravy

www.mypyramid.com

Week12- Chapter 8-Lipids

Pages 131-145

Assignment: check the facts 1-12 & critical thinking 1-8

Labs: hamburger, pie crust, cakes, frying

www.cook.com www.allrecipes.com

Week 13- Chapter 9-Protein

Pages146-159

Assignment: check the facts 1-12 & critical thinking 1-9

Labs: deviled eggs, omelets, meringue, custards

www.eggcouncil.com

Week 14- Chapter 10 - Vitamins and Minerals

Pages 160--175

Assignment: check the facts 1-12 & critical thinking 1-7

Labs: vegetable soup, carrots, French fries, vitamin C
www.webmed.com

Week 15- Chapter 11-Metabolism

Pages 176-193

Assignment: check the facts 1-10 & critical thinking 1-7

Labs: candies, peanut brittle, stir-fry, osmosis

Week 16- Chapter 12-Enzymes

Pages 194-209

Assignment: check the facts 1-12 & critical thinking 1-9

Labs: dried fruits, cheesecake, yeast bread, quick breads

Week 17- Chapter 13-Solutions, Colloidal Dispersion, and Emulsions

Pages 210-223

Assignment: check the facts 1-9 & critical thinking 1-11

Labs: whip cream, V&O dressings, butter, gravy, ice cream, mayonnaise

Week 18- Chapter 14-Leavening Agents and Baked Goods

Pages 224-237

Assignment: check the facts 1-12 & critical thinking 1-9

Labs: quick breads, cream puffs, pasta, angel food

www.homebaking.org

Week 19- Chapter 15-Fermentation and Food

Pages 238-253

Assignment: check the facts 1-13 & critical thinking 1-9

Labs: dill pickles, brownies, yeast, tea, coffee

Week 20- Chapter 16-Dairy Products and Processing

Pages 254-271

Assignment: check the facts 1-14 & critical thinking 1-10

Labs: cottage cheese, ice cream, cheese dips, puddings

www.nationaldairycouncil.com