

Review Sheet for Exam #1

Ch. 1

What are macronutrients? What are micronutrients? Give four examples of each. What is a calorie? What is a Calorie? What is a kilocalorie?

What are undernutrition and overnutrition? Which is more common in the US? What are some effects of each?

What is a covalent bond? What is the chemical formula of water? What is a polar molecule? What is a non-polar molecule? What is an acid? What is a base? How do we write chemical reactions?

What is science? What is necessary for a good scientific experiment or study? What is the "Gold Standard" of medical testing?

Ch. 2

What are the dietary guidelines published by the US Department of Health and Human Services? What do they recommend? (see p. 33, 34) What are DRIs? What are RDAs, AIs, EARs and ULs?

What do all the things on a food label mean? What assumptions do the food manufacturers make when they print the food label?

Ch. 3

What are carbohydrates? What are the different kinds of carbohydrates? How are they different? Where do we find them? What are their roles in nutrition?

What are the parts of a grain of wheat? What is the nutritional significance of each part?

Why do we need carbohydrates? How do we store carbohydrates?

How do we regulate blood glucose levels? What hormones are involved, and what are their functions? What is diabetes (Diabetes Mellitus)? What are the different kinds of diabetes? Why are they so dangerous?

What are the different kinds of artificial sweeteners?

What is dietary fiber? Why do we need it? Where do we get it?

Ch. 4

What are lipids? How are oils different from fats? What is a triglyceride? What is a fatty acid? What is glycerol? What are the different kinds of fatty acids? How are they different? What is an "omega-6" or "omega-3" fatty acid? Why are they important? What is a trans fatty acid? Where do we get the various fatty acids in our diet?

What are phospholipids? How do we use them? What are sterols and cholesterol? How do we use them? Where do we get them? What are the functions of lipids?

Ch. 5

What are amino acids? What are proteins? What do we use proteins for? What are some good sources of proteins? What is an essential amino acid? Name the 9 essential amino acids. How do proteins work? How are they made? How is the shape of a protein related to its function? What are the functions of proteins in our body? Do we store proteins? Where do we get proteins? What is meant by an “incomplete protein” and a “complete protein”?

How are proteins folded? What are the four levels of structure in a protein?

What happens when we have too little protein? Too much protein? What is Nitrogen Balance? What is the difference between negative and positive nitrogen balance? When would we expect to see either one?

What is DNA? How is it important in the production of proteins? Is DNA an essential nutrient?