**Exam 1 Study Guide**

**Scientific Method:**

Know key research terms discussed in class, such as placebo controlled, double blind, single blind, independent and dependent variables, confounding variables, randomly assigned, experimental, observational, prospective, retrospective, statistically significant, clinically significant, crossover…

What should be controlled for?

What are some of the criteria for a research study to be defined as “well controlled”?

What does a study that utilized “good methodology” look like?

What does “peer reviewed” mean and why is information from them considered reliable?

**Dietary Supplements/Ergogenic Aids:**

Understand the pros and cons of the Dietary Supplement Health and Education Act (DSHEA).

Define ergogenic aid.

What types of ergogenic aids are there? Give examples.

Name some nutritional ergogenic aids?

Know the 5 nutritional ergogenic aids discussed at length in class, as well as, their mode of action and potential effects on performance.

Why are so many questionable supplements available for sale?

Why do active people frequently rely on dietary supplements & ergogenic aids? What influences their decision-making?

What are some cautions for people taking supplements?

What factors should be considered when making a decision to use an ergogenic aid?

Define nutrition quackery, food faddism, health fraud, and misdirected claims. Be able to give examples.

How can we recognize nutrition quackery? Be able to spot red flags if given an ad.

**General Nutrition:**

What are the 6 classifications of micro- & macro essential nutrients?

Know the difference between essential and non-essential nutrients.

Understand the term nutrient density and how it applies to making health-promoting food choices.

Understand the DRI’s, RDA & AI.

How are RDAs determined?

Understand MyPlate/Food Exchange System/Portion Size Guide in detail for example: what is a serving size? How many calories, grams of protein and carb provided in each (limited to what was discussed in class and on video)?

Be able to estimate content of a meal or snack: for example: how many grams of protein are in a snack consisting of 1 ounces of meat, 1 cup of lettuce, a fruit yogurt and 1 slice of wheat bread?

How many calories and grams of carbohydrate in a snack of ½ cup of carrot sticks, a bagel (equal to 4 grain servings) and an orange?

What are five key messages of A Prudent Healthy Diet?

Why do Prudent Healthy Diet guidelines exist?

**Carbohydrates:**

Review the different forms of dietary carbohydrate; simple, complex, monosaccharides, disaccharides, polysaccharides, glycogen, starch, fiber. How are they digested, absorbed and what is their fate after absorption?

What is fiber? In which foods is it found? What are the health benefits of both soluble and insoluble fiber? What is the mechanism of action for the benefits for both soluble and insoluble fiber?

Describe why lactose intolerance occurs. What are options for lactose intolerant people?

Describe the functions of carbohydrate, where is it stored in the body and why?

Why is carbohydrate the preferred fuel during physical activity?

What is gluconeogenesis? Why does it occur? When does it occur? How is it prevented?

How are blood glucose level maintained between meals? During an overnight fast? During exercise?