

Biology 48 – Spring 2012

Human Physiology – Presentation Guide Lines

Presentation Guide Lines:

Each student is required to do an oral presentation. Students will present to the class a researched topic relevant to human physiology. Each student will research a current relevant topic and present the topic. Researched information must include at least two recent (with the last 5 years) peer reviewed scientific periodicals or journals and must be referenced. Each student will be responsible for presenting for at least 5 -10 minutes and they must include a one page summary of their topic with the references included.

Oral Presentation Guide Lines:

Each student can do the presentation by themselves or in a group of no more than four other students. Each student will still be required to present for at least 5 minutes and will be graded solely on their component of the presentation. Students will research and present to the class a specific topic *relevant to human physiology*. Students can research any topic *current in human physiology* which is of particular interest to them. The assignment is designed to provide each student the opportunity to ask questions relevant in physiology and to independently research the topic by reading through peer reviewed scientific articles with a new understanding and insight to physiology. In addition the presentations will provide an opportunity for the students to practice disseminating information by communicating what they have learned to the class in a clear, professional manner. Effective presentation of your ideas and knowledge is a valuable skill and this activity is designed to allow you an opportunity to develop this skill.

Presentations should provide the class with enough background to allow for clear and thorough understanding of the *physiological mechanisms and the physiological relevance of the summary information*. The presentations **MUST EXPLAIN** a physiological mechanism (mechanics)! (*The explanation of physiological mechanism is the most important component of the presentation*). Students may use a variety of ancillary presentation materials (computer presentation –Power point-, posters, overhead transparencies, handouts, etc.) Presentations will be given during lab on the specific indicated days (5/3 or 5/8). Presentations *must be accompanied by a short type-written summary* of the information being presented (one per group), *a reference sheet* listing all sources utilized, and all individuals in the group.

The most difficult part of this assignment will be **choosing a topic**. There are a tremendous number of research choices considering how much is known in physiology, but not all will be appropriate or best suited for this assignment. You will need to find a topic where the mechanisms are fairly well established or hypothesized. It will be difficult to find information as well as present a topic where little is known. In addition you will want a topic broad enough that each member in the group can present information including physiological mechanisms.

During the 4th week of class a sign-up sheet for summary presentations will be passed out and students can choose a date and topic they which to cover – so start thinking!

Getting started:

Start by thinking of a question you would like to answer. It can be on anything related to physiology (the how and why of specific body functions – or malfunction). There are many topics to research-finding a topic should not be the limiting factor! For instance: you may want to understand better how lactic acid signals muscle training or maybe if creatine supplements improve muscle endurance or maybe you want to learn more about addictions and drugs or drug withdrawal symptoms. Maybe you want to see what affects caffeine has on the body's metabolism. There are so many things to

research. What will be difficult is limiting your research to a specific topic. The more specific your question the easier it will be to research. Start by “googling” the topic to get the generalized overview and begin to understand your topic better. Once you feel you have a pretty good handle on the topic then dive into the Scientific research. It can be very technical and difficult to understand, so having grounding first is very helpful. Each student will be required to have at least two peer review scientific articles which relate to their portion of the presentation and are at least 8 years recent. Below is a short list of some Scientific Resources.

Types of peer reviewed Scientific Journals where information may be found (a brief list):

American Journal of Physiology	Journal of Physiology
Annual Review of Pharmacology	Science
Annual Review of Physiology	Nature
Journal of the American Medical Association (JAMA)	Physiology Reviews
Journal of Neurophysiology	New England Journal of Medicine

Types of Journals / resources that are not acceptable as for use as a *primary reference* in a scientific report:

Newspapers Time / Newsweek or similar Omni / Discover or similar

Warning: The Internet is a readily available resource and is becoming more popular every day but beware that not everything you find there is valid. A recent study indicated that 42% of the medical information on the internet was unreliable and 6% contained false information. If you cannot determine the author of a source, or it is not referenced DO NOT use it. Any information obtained from the internet must be referenced with hard copy information and all internet information must be derived from reputable scientific sources (url. : .org., .edu., .gov).

Grading: Each student will be graded independently on the information they present.

The total presentation and summary page and written report is worth 50 points. Each student will be graded on his or her specific contribution to the presentation. It is important to note, for those doing group oral presentations, that simply compiling information for the group does not warrant points – actual dissemination of information and demonstration of mastery of the information does.

A grading rubric will be used to assign points to your presentation, this will be available for you to look at when preparing your presentations.