HLTH 217-SPORTS NUTRITION
Active Ingredients & Marketing Claims
(10 Points)

Determine the active ingredient in your nutritional supplement and make a power point slide with the name of your supplement, Active Ingredient (as a title or sub-title), and then actually name or list the active ingredient(s) with a picture or description, or both. Your active ingredient could be the same as your supplement, or your supplement could contain several important ingredients, but you must pick one. Please check with me for approval if you are unsure.

Also, identify the most popular marketing claims of your supplement, and make a slide titled, Marketing Claims, and then list them using bullet points. Please be sure to highlight, or circle, or underline the ONE primary marketing claim that you will be focusing your research project on for the remainder of the semester, and as the primary focus of your presentation. This primary claim should make sense, and be the one that is most commonly accepted for that supplement, and it should best fit the course. Please check with me and have it approved if you are unsure. A marketing claim is what the supplement company tells you (the consumer) the supplement will do for you if you buy it (e.g., supplement xyz will make your muscles huge in just 5 minutes!).

At this stage of your project, you can use Google, Wikipedia and other basic search engines, but please do not reference them. All important stuff that you find about your supplement will need to be confirmed with peer-reviewed sources eventually anyway. For now, you are just trying to find out what is popular with your supplement.

To earn your points for this assignment, show me your Ingredients & Claims PowerPoint slides (can simply show me at the beginning or end of class; or if you are a USG student, then please email it to me).
HLTH 217-SPORTS NUTRITION
PubMed Hits & Preliminary Reference List
(10 Points)

At this stage of your project, you should have been searching on PubMed, web of knowledge, Google scholar, HighWire press and others for a few weeks, you should have numerous manuscripts in your possession relating to your specific topic, and you should be reading all of these papers and highlighting them.

For this assignment, you simply need to make a PowerPoint slide entitled, PubMed Hits, and on the slide you only need to list 3 to 5 specific searches that you performed on PubMed that are very logical in helping you to find some relevant papers on your topic. Next to the search terms, record the number of hits that you retrieved on PubMed for that search. Be sure to go from more broad to more specific in your searches. This information gives your listener an idea about how much research has been done on your topic, and gives us a feel of whether or not your conclusions will be very reliable or maybe not so much.

Also, make a Preliminary Reference List, listing all of the references for which you actually have the Full-text pdf file of the entire article. Attached to the back of this, please staple a photocopy of the first page of each manuscript (the pdf full-text article) that you have listed on your reference list. Just including the abstract does not count, it must be the actual first page of the pdf file of the manuscript (or a photocopy of the first page of the manuscript). At this time, you should have several references (10 or more). You may format your reference list however you like. Just use the formatting that is used in one of your references.

To earn your points for this assignment, show me your PowerPoint slides for your PubMed hits and your Reference list (as well as the first page of each of your references). If you are a USG student, please email me your PowerPoint slides and your pdf articles.
HLTH 217-SPORTS NUTRITION
Cellular Mechanism of Active Ingredient
(15 Points)

At this stage of your project, you should have a great understanding of your topic, and you should have exhausted the literature finding numerous relevant manuscripts on the topic. From all of you reading, you should have some idea or theory as to how your supplement (or ingredient) is proposed to cause what it is claimed to do. You may need to do further searching to find a good cellular mechanism, and your searches may actually move away from your topic area. If you find a keyword related to your supplement suggesting that, via PKB cell signaling, your supplement is proposed to cause muscle hypertrophy, then you can begin searching PKB cell signaling and hypertrophy (without even including your supplement or ingredient) until you find an excellent review paper that contains an excellent explanation of the cellular mechanism, and preferably a schematic figure or graph showing the mechanism of how PKB signaling is involved in muscle hypertrophy. Regardless of where you find your figure or schematic, you MUST PROVIDE A SCIENTIFIC REFERENCE where your cellular mechanism is explained or proposed.

For this assignment, you simply need to make a powerpoint slide entitled, Cellular Mechanism, and on the slide you should paste a picture, schematic, figure or graph that shows the steps or details of how your ingredient could cause something related to your primary claim, typically a cellular or physiological process or mechanism. You can also make your own mechanism figure. Regardless of whether you find a cell mechanism figure, or if you make your own, you will still need to provide a scientific reference at the bottom of your Cell Mechanism slide. This is very important, and worth lots of points. Be sure that your reference is a reputable scientific, peer-reviewed source, and that it actually contains an explanation or a figure detailing your cell mechanism.

To earn your points for this assignment, show me your Cell Mechanism PowerPoint slide. If you are a USG student, please email me your Cell Mechanism PowerPoint slide.
At this stage of your project, you should have been searching on PubMed, web of knowledge, Google scholar, HighWire press and others for a really large number of hours now (truly exhausting the literature on your topic), you should have practically all of the necessary/pertinent manuscripts in your possession relating to your specific topic, and you should be reading all of these papers and highlighting them. You should also have a good feel of who (which author) is probably an expert in the field on your particular topic. This is simply the author who you feel has studied your topic more than anyone else, and who seems to be respected as the most informed scientist on your topic.

For this assignment, you simply need to make a PowerPoint slide entitled, Expert Author, and on the slide you only need to list the name of the expert author, the number of publications that author has ON YOUR TOPIC, and the number of review papers the author has ON YOUR TOPIC. Please list his or her place (or University and Department) of employment, and position titles. If you want, you could also try to find a picture of the expert and include it on the slide.

To earn your points for this assignment, show me your Expert Author PowerPoint slide. If you are a USG student, please email me your Expert Author PowerPoint slide.
**Nutritional Supplement Research Project:**

Students must select one performance enhancing, or weight-loss nutritional supplement. You must give a class presentation on your supplement that includes the following (but is not limited to):

1. Title Slide
2. Background Slide
3. The supplements active ingredient(s)
4. PubMed Hits w/search terms
5. Marketing claims (what does the company claim the supplement will do?)
6. *scientifically documented bioenergetic or physiological mechanism of the active ingredient, w/reference at bottom of slide*
7. Scientific support, or lack thereof, that the supplement actually does what they claim, w/figures or tables, and w/reference at bottom of slide, should do this for two (maybe three) different studies.
8. Explanation (IF NECESSARY) of how the marketing claims for this supplement tie into the scientific support for the active ingredient.
9. Scientific support (IF NECESSARY) of risks and side effects of using the supplement.
10. Your best advice regarding the use of your supplement based on the available research on the topic.
11. Reference List (with complete reference information). References MUST also be included at the bottom of each slide (not animated), with the first authors last name et al., *the journal title abbreviated*, and the year. Internet references are not acceptable. Must be peer-reviewed journals.

This project will NOT be graded on your appearance, nor on your ability to present. Rather, you will be graded subjectively by the instructor on the effort that you put into researching (exhausting the literature), and on your subsequent UNDERSTANDING of the cellular mechanisms of how your supplement is proposed to work, the safety of the supplement, and the supporting (or lack thereof) scientific evidence that the supplement actually does what they claim. Also, your grade will be based on how well you follow the formatting listed above, and how well you prepare your slides to be UNDERSTANDABLE to your listeners (i.e., animations, figures, tables, mechanisms, data, etc.). You will be required to email your powerpoint presentation to me after you have finished presenting. This project will be worth 100pts for the presentation, with 45pts distributed across numerous smaller assignments throughout the semester. Thus, this project can really boost your grade in the course, but you need to really understand the scientific literature on your supplement (i.e., cellular mechanism of your supplement, supporting data, risks, etc.).

Only above average efforts will be given above average grades. For example, if it is apparent to me that you did not exhaust the literature, and you used some lame sources off of the internet, and you copied and pasted information from your sources, you will be given a below average grade, such as a D or C. Please be sure to EXHAUST THE LITERATURE, and UNDERSTAND how your supplement is proposed to work, as this is the PRIMARY FOCUS of this project.

**Presentation Grading (out of 100 pts)**

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