The overall goal of a position paper is to convince readers to accept a claim on an unresolved research issue. In upcoming class meetings, you'll learn about the rhetorical goals and structural elements of the major sections of position papers.

Selecting Your Topic

To do your best on this paper, and to develop advanced thinking and writing skills in the process, you'll need to choose a topic that meets the following criteria:

1. Unresolved, debatable, and perhaps controversial

This project will challenge you to make an original scientific argument by interpreting data, evaluating research methods, and critiquing arguments in the scientific literature. To meet these challenges successfully, you'll need to choose a topic that is unresolved, debatable, and perhaps even controversial. If your topic isn't based on an unresolved research issue you'll wind up writing a review paper rather than a position paper. Review papers will not receive passing grades.

If you don't already have a good topic in mind within one week after we introduce this project, consider developing one based on low-carbohydrate diets or on a topic from the Argument TIPS Web site. To get to the TIPS site, click on the "Unit Handouts" link in the "Process Activities and Handouts" menu on the home page of the course Web site. Then, scroll down to the unit 4 materials and click on the link, "Argument TIPS (Topics In the Physiological Sciences)."

2. Interesting and personally meaningful

If you're interested in the topic you choose and it's personally meaningful, you'll be more motivated to work hard on the project and to get the best learning experience in the process. So, take some time to brainstorm topics in integrative physiology that interest you and relate to your personal and career goals.

3. Based on science and research that you already know a good deal about

Our class sessions over the rest of the semester will help you learn the rhetorical goals and strategies for position papers. You'll also learn cognitive techniques for generating content through critically evaluating research and written arguments. To do your best on this project, you'll need to spend a lot of time learning and applying these goals, strategies, and techniques. If you choose a paper topic that you don't know much about, you might have to spend too much time learning the science. That would be a problem, because this project isn't primarily meant to help you "write to learn science." Instead, it's meant to help you "learn to write in science." So if you already know a good bit about your topic, you'll be able to begin applying the advanced thinking and writing processes early in planning stages.
4. Offers opportunities to make original arguments

One of the high standards for this assignment is to make an original argument. Students in IPHY 3700 meet this challenge successfully all the time! To do so, they refine their topics in unique ways. Consider, for example, a former student who was interested in the effects of creatine supplementation on athletic performance. Most of the research on this issue involves artificial laboratory tests of anaerobic capacity rather than direct tests of athletic performance. So the student, who was a lacrosse player, argued for whether lacrosse athletes should use creatine supplements to improve their performance. In class, I'll tell you more about how the student developed a completely original argument, applying the laboratory research to support his real-world claim.

Defining Your Writing Project

Former students in IPHY 3700 have written successful position papers based on two types of projects, which are described as follows.

1. Base your paper on an issue characterized by sharply conflicting results and conclusions in published research papers.

As an example of this type of project, consider the debatable issue involving dietary zinc supplementation as a treatment for the common cold. In medical and nutrition journals, you'll find research papers in which the results support contrasting conclusions concerning whether zinc effectively reduces the duration and severity of cold symptoms. If you were to choose this project, you would (a) critically evaluate the studies and the scientists' arguments, (b) establish your own position on the issue, and (c) support your position with scientific knowledge, evidence, and reasoning. In our upcoming class meetings, we'll talk about how to make this type of project very manageable by focusing it on only 2 core research papers that reflect contrasting sides of your issue.

More Example Issues

- Does dietary Vitamin E supplementation reduce the risk for heart attack and stroke?
- Should endurance athletes live and train at altitude to improve their performance at sea level?
- Does pre-exercise stretching reduce the risk for soft tissue injury?
- Does dietary glucosamine supplementation prevent cartilage degeneration in individuals with early signs of osteoarthritis?
- What are the effects of low-carbohydrate diets on cardiovascular health in individuals who are overweight or obese?

2. Base your paper on a claim that has been established by nonscientists (in everyday life, the popular advertising media, or health-related professions) and that is associated with questionable scientific support.

As an example of this type of project, consider a claim that some chiropractors make for the beneficial effects of spinal manipulation therapy in treating asthma. The scientific support for this claim is debatable. If you were to choose this project, you would (a) critically evaluate the scientific validity of this claim, (b) take your own position on the issue, and (c) support your position with scientific knowledge, evidence, and reasoning.
More Example Issues

- Does post-event massage therapy help athletes avoid delayed-onset muscle soreness?
- To avoid the common cold, do you really need to dress warmly in the winter?
- Do endurance athletes benefit from wearing nasal strips?
- Will eating three servings of dairy foods each day help overweight and obese individuals lose body fat?
- How scientifically valid is the advice to drink 8 cups of water a day to promote optimal health? (This is a tough one!)

Format, Design, and Citations

The first draft of your paper should not exceed 1,500 words. The final revision should not exceed 2,000 words. Given these length restrictions you'll need to carefully plan which rhetorical goals and strategies to emphasize in your paper.

To get my feedback on your first draft, you must indicate your rhetorical goals and audience on the grade form that you submit.

You should plan to deeply read and cite at least 6 peer-reviewed journal articles. In addition to using research papers, you may use review papers; however, you shouldn't use secondary sources (review papers, web sites, and textbooks) to develop main lines of support for your argument.

See the handout "Instructions to IPHY 3700 Authors" for citation guidelines.

I'll reserve excellent grades for papers that effectively use graphics (tables and figures) to make arguments. We'll devote a class session or two to talking about how to design graphics for scientific papers. You don't need to count the words in your tables and figures as part of the 2,000-word limit.

Co-authoring Papers

You're welcome to co-author your paper with one other student in the class. Guidelines for co-authoring papers are in the Unit 4 materials of the "Process Activities and Handouts" section of the course Web site.

Attendance: Preparation for Peer Review

In the upcoming weeks of the semester you must attend class regularly to be prepared for two major process activities that involve peer review. In one of these process activities, you'll write a formal review of two position paper drafts written by your classmates. After you write your peer review, we'll devote several class sessions to an in-class process activity in which you'll meet with the authors in your group to discuss each other's drafts.

If you have more than two unexcused absences during the second half of the semester, I may decide to exclude you from the two peer review process activities, and you'll forfeit that part of your grade for the class. If you have any questions or concerns about this policy please let me know right away.
Deadlines

First Draft: Wednesday November 12 || Final Revision: Friday December 12

Heads Up!!!!

If you're shooting for the best learning experience and a good grade on this paper, you should select your topic, begin to gather and read articles, and start developing a goal-based plan right away. And you should set aside at least 6 hours a week for working on your paper out of class. Students generally find the position paper project to be quite challenging because it requires more independent work than our discussion essay project did. As we progress through this new project, I'll offer advice for staying on track in your planning, drafting, and revising.