

Get Homework Help From Expert Tutor

Get Help

BIOL2420 Term Paper Assignment

Each student is responsible for writing one term paper over the course of the semester. This is your opportunity to explore topics in Human Physiology that go beyond what you will be learning in lecture and explore a topic that is of personal relevance to you or one in which you are highly interested. In general, any topic that deals with some aspect of normal human physiology or disease (pathophysiology) will be accepted. If you are in doubt as to whether a subject is suitable or not, please discuss your ideas with the instructor. Topics that involve organ systems covered in either 2410 or 2420 are acceptable, and the level of detail that you should include in your paper should be at least at the level of detail that you have seen in lecture notes.

Examples of possible topics:

The physiological effects of microgravity on the musculoskeletal system. Physiological adaptations of the cardiorespiratory systems in humans living at high altitude. The pathophysiology of type II diabetes and its treatment with Metformin. The pathophysiology of micropsia (Allice in Wonderland Syndrome). The effect of leptin on obesity. Loss of olfactory sensation in COVID-19 as a result of SARS-CoV-2 infection. Etc....

All written work produced for the course must be an original work by the student involved. Plagiarism, inappropriate collaboration or duplicate submission in this matter, as in connection with all course activities is strictly forbidden. Please visit <u>https://umanitoba.ca/governance/sites/governance/files/2021-</u> <u>06/Student%20Academic%20Misconduct%20Procedure%20-%202018_09_01.pdf</u> regarding the University's policy on Academic Misconduct.

Your audience for this paper are your peers, graders and instructor. As a result you can assume that we all have a certain degree of background knowledge in Human Physiology. That being said, if you are using technical or scientific terms in your paper that have not been covered in BIOL2410 or BIOL2420, these should be defined as they appear in your writings.

If you require assistance with the writing process, the Academic Learning Centre has writing tutors who are available to help you. <u>https://umanitoba.ca/student-supports/academic-learning/tutoring-group-study</u>. Science librarians may also be useful in helping you to find articles/resources for writing in the Sciences.

The term paper assignment will be completed in 3 parts:

- 1. A proposal of your topic. (5%)
- 2. A rough draft of your paper. (5%)
- 3. A final polished version of your paper. (10%)

1. <u>Proposal: Due Monday February 28th to Peerceptiv</u>

Your submission should include the following elements:

- a. The title of your proposed term paper topic.
- b. A brief (150 words, 1 or 2 paragraphs excluding citations and references) informative description of the main topic and subtopics you plan to cover in your term paper. The proposal should give the reader a sense of how the paper will be organized (similar to an introduction or an abstract). The paragraph(s) are to be double spaced and computer generated using a 12 pt font in either Arial or Times New Roman. All margins should be set to 1 inch (2.5cm). Please do not submit handwritten papers, they will not be accepted.
- c. The paragraph can be written in the first person or the third person (i.e. you may incorporate first person personal pronouns such as "I", "my","we", "our", etc. into the work if you wish, since you are the person proposing to write about a particular topic).
- d. A list of 3 potential references that you intend to use for your paper, formatted in the style of the Journal of Physiology (see the <u>Citations and References</u> instructions section of this document). At least 1 of these references should be a journal article from the primary literature.
- e. In-text citations to acknowledge where the information in your proposal is coming from.

2. Draft: Due Monday March 28th to Peerceptiv

Your submission should include the following elements:

- a. The title of your proposed term paper topic.
- b. The draft should be at least 800 words (showing that you are working toward the 1000 word total for the final draft), excluding figures and tables (if any) and citations/references.
- c. The draft should be double spaced and computer generated using a 12 pt font in either Arial or Times New Roman. All margins should be set to 1 inch (2.5cm). Please do not submit handwritten papers, they will not be accepted.
- d. The text of the essay (including introduction, body, and conclusion) must be written in the third person (i.e. avoid the use of first person personal pronouns such as I/my/we/our). You are synthesizing information that is based on the work of others, so first person is not required.
- e. Any figure pages. In some instances including a figure or diagram may help to summarize or provide a visual reference for material being discussed in the text.
- f. Any table pages. Tables can be useful for summarizing information in an easy to read format that can free up word count.

- g. The references should be listed on a separate page titled References. All references used should be matched to an in-text citation and all citations used should be listed in the references (see the <u>Citations and References</u> instructions section of this document).
- h. Your draft must be annotated with a <u>minimum</u> of 6 references to the scientific or popular literature. While you may use the textbook as a reference, it will not count as one of the 6 references. The references list must demonstrate evidence that the student has read <u>at least 3</u> research articles from a scientific journal (as opposed to a book or popular science magazine).

3. Final Paper: Due Monday April 11th to UM-Learn

- a. The term paper should be 1000 words, excluding figures and tables (if any) and citations/references.
- b. Term papers are to be double spaced and computer generated using a 12 pt font in either Arial or Times New Roman. All margins should be set to 1 inch (2.5cm). Please do not submit handwritten papers, they will not be accepted.
- c. Your final submission of your paper to UM-Learn should include the following elements in the following order:
 - i. A Title Page (including the title of your paper, your name, and the date submitted),
 - ii. The text of the essay (including introduction, body, and conclusion) should be written in the third person (i.e. avoid the use of first person personal pronouns such as I/my/we/our). You are synthesizing information that is based on the work of others, so first person is not required.
 - iii. Any figure pages. In some instances including a figure or diagram may help to summarize or provide a visual reference for material being discussed in the text.
 - iv. Any table pages. Tables can be useful for summarizing information in an easy to read format that can free up word count.
 - v. A References page in which you list the references for the paper in alphabetical order by author's last name. All references used should be matched to an in-text citation and all citations used should be listed in the references (see the <u>Citations</u> <u>and References</u> instructions section of this document).

Your essay must be annotated with a <u>minimum</u> of 6 references, to the scientific or popular literature. While you may use the textbook as a reference, it will not count as one of the 6 references. The references must demonstrate evidence that the student has read <u>at least 3</u> primary research articles from a scientific journal.

Citations and References

The goal of citing references is to give your reader ALL the information he/she/they needs to trace the information you present to those sources in the scientific literature which you yourself used. You MUST cite the references you use as sources of information, whether you quote them or paraphrase them. This must be done both in the text of the essay at the point where information from the article is used (known as "in text citations") AND as a list of references at the end of the essay (known as the "references" section or "literature cited"). Only original ideas, observations or data do not require a citation (i.e. all information that comes from a source other than your own head, must be cited). This may mean that almost every sentence in your essay will have a citation associated with it.

Older articles may not reflect current knowledge in the field, so references should be current (published within the last 5-10 years) unless referring to a foundational paper on the topic being discussed.

There exist a large variety of different reference sources. These include the following popular level scientific magazines: Scientific American, American Scientist, New Scientist, Science, Discover, Nature (any version), Science News. In addition to the popular magazines concerning science, there exist a number of more formal scientific journals used by the professionals in the field. You may find some of these articles too advanced to be read easily, but the Abstract, Introduction and Discussion sections of most scientific journal articles often contain a more general overview of the topic being researched and so may be more understandable. In particular, <u>review</u> articles published in some journals like Trends in Neurosciences, Physiological Reviews, and Annual Review of Physiology are often of value as they tend to summarize and synthesize results of numerous studies on a particular topic without introducing new research or analysis. That being said, the methodology and results sections of primary literature articles will expose you to various research techniques, methods of data collection, analysis and results interpretation used in physiological and medical research. For anyone interested in these disciplines it will eventually be important for you to critique and evaluate these sections to determine the value of the research conducted and the accuracy of the conclusions drawn.

You can find information on how to access full-text versions of primary literature articles in the following UofM Libraries Biological Sciences Subject Guide: <u>https://libguides.lib.umanitoba.ca/biology/findarticles</u>. The videos linked to on the page may be particularly useful for finding good sources of information and full text primary literature articles.

Google Scholar, can also serve as a good place to start looking for journal articles (scholar.google.ca). Searching for your topic in Google scholar will often return many articles, some of which may link directly to a pdf copy of the article itself which you can then read, cite and reference. Note that journal article references should not be listed as websites, but use the authors, article, title, journal title, volume number and page numbers that would be used if you had read the actual physical journal.

The most popular journal article database in health sciences is PubMed, which can be accessed online (<u>http://www.ncbi.nlm.nih.gov/pubmed</u>). You can use this database (and others) through UofM Libraries to obtain full articles (<u>https://pubmed-ncbi-nlm-nih-</u>

gov.uml.idm.oclc.org/?otool=icaumlib), or you can locate an article on the PubMed site, and search its title or the journal title using the UofM libraires search in order to get the full text version of the article.

The internet is an extraordinary source of information and ideas. However, be careful of information from this source as most material is almost completely un-refereed, and may (and often does) contain significant errors. You are responsible for checking your sources to be sure that the information you report is correct. This is an important part of modern scholarship. You may not use only the Web as a source of information, however if you use peer-reviewed publications that are available online, such as medical journals and the scientific journals listed above, they should be cited as journals whether accessed online or in print.

Web sites of interest that should contain accurate information include:

www.medlineplus.gov http://www.cdc.gov/ http://www.fda.gov/ http://www.nih.gov/ http://www.usda.gov/

Reference and Citation Formatting

The format for the references list of articles, books, and chapters in books will follow those outlined by the The Journal of Physiology. The reference list should be organized alphabetically by the first author's last name, with references formatted with a hanging indent. Within a given reference, authors names are listed in the order they appear on the journal article. The authors last names are listed first followed by the authors first/middle name initials. If there are two or more authors, an "&" is placed before the last authors last name. For each reference, the list of authors is followed by the year of publication in parentheses. Then comes the title of the article. Next comes the title of the journal or book in which the article was published (journal titles are always abbreviated following international standard abbreviations). After an abbreviated journal title, you would include the volume number of the journal (in bold font) and the page numbers that correspond to the article. After a book title you would include the edition (if any), the editors of the book (if any), the name of the Publisher of the book, and end with the location (city) of publication. Care should be taken to ensure that all references adhere to the formatting and punctuation outlined by The Journal of Physiology. In the examples below, be sure to pay attention to location of periods, commas, brackets, "&", etc. Below is a sample references list that shows the formatting and organization for most types of references that you may encounter, including books, chapters within edited books, and scientific journal articles.

Adrian ED (1932). The Mechanism of Nervous Action. Humphrey Milford, London.

- Buchan AMJ, Bryant MG, Polak JM, Gregor M, Ghatei MA & Bloom SR (1981). Development of regulatory peptides in the human fetal intestine. In *Gut Hormones*, 2nd edn, ed. Bloom SR & Polak, JM, pp. 119-124. Churchill Livingstone, Edinburgh.
- Smith S & Zwart S (2008). Nutritional biochemistry of spaceflight. *Adv Clin Chem* **46**, 87–130, 2008.
- Smith SM, Zwart SR, Block G, Rice BL & Davis-Street JE (2005). The nutritional status of astronauts is altered after long-term space flight aboard the International Space Station. *J Nutr* **135**, 437–443,
- Trappe S, Costill D, Gallagher P, Creer A, Peters JR, Evans H, Riley DA & Fitts RH (2009). Exercise in space: human skeletal muscle after 6 months aboard the International Space Station. *J Appl Physiol* **106**, 1159-1168.

Note that book titles and journal titles are <u>italicized</u>. The volume of the journal should be indicated in bold font. Journal titles should also be abbreviated using the established abbreviations. See the PubMed journals database for accepted abbreviations: <u>http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=journals</u>.

When citing information from journals or books in the text of your essay, in text citations should be made by giving the author and the year of publication in parentheses, for example (Adrian, 1932), except when the author's name is part of the sentence e.g. "Adrian (1932) showed that.....

When several references are given in one place, they should be listed in chronological order, separated by semicolons.

When a source is written by two authors is cited, both names should be given, for example (Smith & Zwart, 2008).

When there are multiple authors, the last name of the first author is used followed by the abbreviation "*et al.*" (short for "*et alia*", meaning "and others"). Note the "*et al.*" should be italicized.

All of the references that appear in your references list must be cited somewhere in your essay (if you do not cite the article in the essay, then it should not appear in your list) and likewise all articles cited in the essay must appear in the references list.

Here is a brief example of using in-text citations in the correct format for The Journal of Physiology.

After several months in space muscles atrophy and become weaker, even with regular moderate exercise (Trappe *et al.* 2009). The matter is further complicated by the fact that voluntary food intake during space flights is often 20% lower than on earth (Smith *et al.* 2005; Smith & Zwart, 2008).

If you use a website as a resource, the url of the page on which the information you are citing was found should be used instead of a citation to the references list. As such, website citations will not count toward the number of references. See the following example:

Type 1 diabetes comprises 10–15% of the diabetic population in countries such as Australia, but contributes in certain countries up to 40% of the total cost of diabetes, given its early onset, generally before the age of 30 years (<u>http://www.jdrf.org.au/about-jdrf-australia/media-room</u>).

Articles that are published in online journals should be cited and referenced in the same way as any other journal articles/books, using the author(s) name(s), year of publication, article title, journal title, volume number, and page numbers.

If you are having trouble accessing a particular article, journal, book, or other reference, please contact the library. You can use the "Ask Us" function <u>https://apps.lib.umanitoba.ca/chat/pop_up/uml.html</u> or make an appointment with the Biological Sciences Librarian Maureen Babb <u>https://libguides.lib.umanitoba.ca/sb.php?subject_id=60224</u>.

Evaluation:

Both the proposal and draft of your paper will be assessed in Peerceptiv using the Proposal Peerceptiv Rubric and the Draft Peerceptiv Rubric. Your grade on these assessments will be based on a combination of the written work submitted, as well as your review of your peers work, and the completion of all tasks in Peerceptiv (including submission of your written work, your reviews of peers work, and your feedback to the reviewers on the helpfulness of their comments.

Your final submission of your paper will be to the UM-Learn Assignments dropbox (got the Assessments menu on the UM-Learn Homepage for the course, and from the drop-down menu, select "Assignments".

Rubrics:

Peerceptiv Rubric for Topic Proposal

Formatting	
Word Count	Rating 2 – The word count is ~150 words not including citations. Rating 1 – The word count is greater than OR less than 150 words not including citations.
Line Spacing	Rating 2 – The line spacing is double spaced. Rating 1 – The line spacing is not double spaced.
Font & Font Size	 Rating 3 – The font is 12 pt Arial or Times New Roman. Rating 2 – The font is 12 pt, but not Arial or Times New Roman OR the font is Arial or Times New Roman, but not 12pt. Rating 1 – The font used is of the incorrect type and size.
Margins	Rating 2 – The margins are 1" (2.54cm). Rating 1 – The margins are greater than 1" (2.54cm) or less than 1" (2.54cm)
Mechanics	
Logic and Organization	 Rating 5 – An original title is present. The paragraph(s) have a clear beginning, middle & ending. Ideas & details are presented in logical order. Transitions are used to show the relationships among ideas. For examples of transitions use this link: Effective Transition Words in Academic Papers Rating 4 – An appropriate title is present. The ideas and details are mostly presented in logical order. The writer uses some transitions to show the relationships among ideas. The paragraph(s) seem complete. Rating 3 – A title is present. The paragraph(s) are somewhat organized, but seem unfinished. Sometimes it is not clear how the details used connect to the main idea. Some of the details are not in the right spot. Rating 2 – A title is present but not informative. There is little organization to the paragraph(s). There is no beginning or end to the paragraph(s). Ideas seem scrambled, jumbled, and disconnected. The paragraph is confusing. The details do not fit with the main idea.
Spelling and Grammar	 Rating 5 – The paragraph is written clearly and contains no spelling or grammar mistakes. Rating 4 – The paragraph is written clearly but contain 1-2 spelling or grammar mistakes that do not detract from the reader's ability to understand. Rating 3 – The paragraph is written clearly but contain 3-5 spelling or grammar mistakes that do not detract from the reader's ability to understand. Rating 2 – The paragraph contains >5 spelling or grammar mistakes that somewhat impact the reader's ability to understand. Rating 1 – The paragraph is not written clearly for the reader to understand and contains multiple spelling and grammar mistakes.

References	and Citations
Reference Number	Rating 4 – The references list contains 3 references. Rating 3 – The references list contains 2 references.
	Rating 2 – The references list contains 1 reference. Rating 1 – There is no references list.
Reference Quality	Rating 3 – At least 1 reference is from the primary literature and at least 2 references were published in the last 5 years.
	Rating 2 – At least 1 reference is from the primary literature, and at least 1 reference was published in the last 5 years.
	Rating 1 – No references to the primary literature AND/OR no references published within the last 5 years. Heavy reliance on un-refereed websites or other non-peer reviewed sources.
	Rating 5 – Reference list follows the format of The Journal of Physiology with no errors.
	Rating 4 – Reference list follows the format of The Journal of Physiology, but contains 1-2 formatting errors.
Reference Formatting	Rating 3 – Reference list follows the format of The Journal of Physiology, but contains 3 or more formatting errors.
	Rating 2 – References page does not follow the format of The Journal of Physiology, some other format is used.
Citation Use	Rating 1 – There is no references list.Rating 5 – All borrowed ideas/information are fully documented and cited.Rating 4 – Most borrowed ideas/information are fully documented and cited.Rating 3 – Some borrowed ideas/information are fully documented and cited.Rating 2 – Rarely are borrowed ideas/information fully documented and cited.Rating 1 – There are no in-text citations.
	Rating 5 – All in-text citations are formatted properly as per the Journal of Physiology style. All citations are listed on the references page and all references appear as in-text citations.
Citation Formatting	 Rating 4 – There is 1 formatting mistakes in the in-text citations. All citations are found in the references list and all references appear as in-text citations. Rating 3 – There are 2 formatting mistakes in the in-text citations AND/OR a citation is missing from the references list OR a reference is not cited. Rating 2 – There are 3 or more formatting mistakes in the in-text citations AND/OR 3 or more citations are missing from the references list OR 3 or more references are not cited as in-text citations. Rating 1 – There are no in-text citations.
Paragraph Content	
Content	 Rating 4 – The paragraph is engaging, states the main topic and purpose of the paper, and previews the structure and subtopics of the paper. Rating 3 – The paragraph states the main topic and purpose of the paper, and previews the structure and subtopics of the paper. Rating 2 – The paragraph states the main topic and purpose of the paper but does not adequately preview the structure and subtopics of the paper.

Rating 1 – The main topic of the paper is unclear or unfocused and there is no
preview of the structure and subtopics that the writer plans to cover.

Peerceptiv Rubric for Draft

Formatting	
Word Count	Rating 2 – The word count is at least ~800 words not including citations. Rating 1 – The word count is less than 800 words or more than 1000 words not including citations.
Line Spacing	Rating 2 – The line spacing is double spaced. Rating 1 – The line spacing is not double spaced.
Font & Font Size	 Rating 3 – The font is 12 pt Arial or Times New Roman. Rating 2 – The font is 12 pt, but not Arial or Times New Roman OR the font is Arial or Times New Roman, but not 12pt. Rating 1 – The font used is of the incorrect type and size.
Margins	Rating 2 – The margins are 1" (2.54cm). Rating 1 – The margins are greater than 1" (2.54cm) or less than 1" (2.54cm)
Mechanics	
Point of View	 Rating 2 – The draft is written in the third person, avoiding I/my/we/our statements. Rating 1 – The draft contains 1 or more first person statements.
Logic and Organization	 Rating 5 – An original title is present. The paper have a clear beginning, middle & ending. Ideas & details are presented in logical order. Transitions are used to show the relationships among ideas. For examples of transitions use this link: Effective Transition Words in Academic Papers Rating 4 – An appropriate title is present. The ideas and details are mostly presented in logical order. The writer uses some transitions to show the relationships among ideas. The paper seems complete. Rating 3 – A title is present. The paper is somewhat organized, but seems unfinished. Sometimes it is not clear how the details used connect to the main idea. Some of the details are not in the right spot. Rating 1 – The title if present is uninformative. There is no organization to the paper. There is no introduction or conclusion to the paper. Ideas seem mixed up and disconnected. The paragraph is confusing. The details do not fit with the main idea.
Introduction	 Rating 4 – The introduction is engaging, states the main topic and purpose of the paper, and previews the structure of the paper. Rating 3 – The introduction states the main topic and previews the structure of the paper. Rating 2 – The introduction states the main topic and purpose of the paper but does not adequately preview the structure of the paper. Rating 1 – There is no clear introduction or main topic and the structure of the paper is missing.

Body	Rating 4 – Each paragraph has thoughtful supporting detail sentences that	
	develop the main idea. Rating 3 – Most paragraphs have sufficient supporting detail sentences that	
	develop the main idea.	
	Rating 2 – Most paragraphs lack supporting detail sentences that develop the	
	main idea.	
	Rating 1 – Each paragraph fails to develop the main idea.	
	Rating 4 – The conclusion is engaging and restates/summarizes the paper's	
	purpose and includes a recommendation for future research directions.	
	Rating 3 – The conclusion restates/summarizes the paper's purpose and	
Conclusion	includes a recommendation for future research directions.	
	Rating 2 – The conclusion does not adequately summarize/restate the paper's	
	purpose OR does not offer a recommendation for future research directions.	
	Rating 1 – There is no conclusion.	
	Rating 5 – The paper is written clearly and contains no spelling or grammar mistakes.	
	Rating 4 – The paper is written clearly but contain 1-2 spelling or grammar	
	mistakes that do not detract from the reader's ability to understand.	
Spelling and	Rating 3 – The paper is written clearly but contain 3-5 spelling or grammar	
Grammar	mistakes that do not detract from the reader's ability to understand.	
	Rating 2 – The paper contains >5 spelling or grammar mistakes that somewhat	
	impact the reader's ability to understand.	
	Rating 1 – The paper is not written clearly for the reader to understand and	
	contains multiple spelling and grammar mistakes.	
	Rating 5 – The paper contains no direct quotes and the material is effectively	
	paraphrased/summarized in the writer's own words.	
	Rating 4 – The paper contains no direct quotes and the material is mostly effectively paraphrased/summarized in the writer's own words.	
	Rating 3 – The paper contains 1-2 direct quotes AND/OR the attempts to	
	paraphrase/summarize borrowed material in the writer's own words is not	
Paraphrasing	effective.	
	Rating $2 -$ The paper contains >2 direct quotes and attempts to	
	paraphrase/summarize borrowed material in the writer's own words is not	
	effective.	
	Rating 1 – The paper contains many direct quotes and there is no attempt to	
	paraphrase/ summarize borrowed material in the writer's own words.	
References and Citations		
Reference Number	Rating 5 – The references list contains 6 or more references.	
	Rating 4 – The references list contains 5 references.	
	Rating 3 – The references list contains 3-4 references.	
	Rating 2 – The references list contains 1-2 references.	
	Rating 1 – There is no references list.	
Reference	Rating 5 – At least 3 references are from the primary literature and at least 3 references were published in the last 5 years.	
Quality	Rating 4 – At least 3 references are from the primary literature, but majority of	
	references published more than 5 years.	
L		

	 Rating 3 – 2 references from the primary literature. Rating 2 – 1 reference from the primary literature and/or most references published more than 5 years ago. Rating 1 – No references to the primary literature and/or no references published within the last 5 years. Heavy reliance on un-refereed websites or
	other non-peer reviewed sources.
	Rating 5 – References page follows the format of The Journal of Physiology with no errors.
Reference Formatting	 Rating 4 – References page follows the format of The Journal of Physiology, but contains 1-2 formatting errors on the whole page. Rating 3 – References page follows the format of The Journal of Physiology, but contains 3 or more formatting errors on the whole page.
	Rating 2 – References page does not follow the format of The Journal of Physiology, some other format is used.
	Rating 1 – There is no references list.
Citation Use	 Rating 5 – All borrowed ideas/information are fully documented and cited. Rating 4 – Most borrowed ideas/information are fully documented and cited. Rating 3 – Some borrowed ideas/information are fully documented and cited. Rating 2 – Rarely are borrowed ideas/information fully documented and cited. Rating 1 – There are no in-text citations.
Citation Formatting	 Rating 5 – All in-text citations are formatted properly as per the Journal of Physiology style. All citations are listed on the references page and all references appear as in-text citations. Rating 4 – There are 1-2 formatting mistakes in the in-text citations. All citations are listed on the references page and all references appear as in-text citations. Rating 3 – There are 3-5 formatting mistakes in the in-text citations AND/OR 1-2 citations are missing from the references list OR 1-2 references are not cited. Rating 2 – There are 6 or more formatting mistakes in the in-text citations AND/OR 3 or more citations are missing from the references list OR 3 or more references are not cited as in-text citations. Rating 1 – There are no in-text citations.
Content	
Physiology content	 Rating 5 – Topic is well developed and incorporates both cellular and organ/organ system level details in order to translate what is happening at a cellular level to cause/create effects at higher levels of organization. Writer demonstrates strong understanding of the ideas, and connects them to basic physiological principles learned in BIOL2410 or BIOL2420 through the use of detail and tone. Rating 4 – Topic is mostly well developed and incorporates both cellular and organ/organ system level details in order to translate what is happening at a cellular level to cause/create effects at higher levels of organization. Writer demonstrates good understanding of the ideas and connects them to basic physiological principles learned in BIOL2410 or BIOL2420 through the use of detail and tone. Rating 3 – Topic is adequately developed and but may be missing some clarifying details that would help to translate what is happening at a cellular level

	to affect function at higher levels of organization. Student demonstrates a little
	understanding of the ideas and connects them to basic physiological principles
	learned in BIOL2410 or BIOL2420 through the use of detail and tone.
	Rating 2 – Topic is poorly developed with few details that help to connect what
	is happening at the cellular level to observable changes in organ/organ system
	function. Writer shows a lack of understanding of the ideas and fails to connect
	them to basic physiological principles learned in BIOL2410 or BIOL2420,
	making the topic difficult to understand.
	Rating 1 – Topic is not well developed, repetitive, and gives too broad of an
	overview the physiological process without supporting details. Writer shows a
	lack of understanding of the ideas and fails to connect them to basic
	physiological principles learned in BIOL2410 or BIOL2420, making the topic
	impossible to understand.
	Rating 3 – All points are relevant and concise without unnecessary repetition.
Relevance of	Rating 2 - Most points are relevant to the topic; little to no unnecessary
ideas and	repetition.
Conciseness	Rating 1 – Main points are irrelevant to the topic and/or unnecessary repetition
	of points that hinders development of the topic.

UM-Learn Rubric for Final Paper Submission - total of 48 marks.

Formatting	
Title Page	 Mark – The title page includes the title of your paper, your first and last names, student number and the date submitted. 0.5 Marks – The title page is missing one or more of the elements listed above. 0 Marks – There is no title page.
Word Count	 1 Mark – The word count is ~1000 words not including citations (~5 pages double spaced, excluding references page). 0 Marks – The word count is less than or greater than 1000 words not including citatoins (shorter or longer than ~5 pages double spaced).
Line Spacing	 Mark – The line spacing is double spaced. Marks – The line spacing is not double spaced.
Font & Font Size	 1 Mark – The font is 12 pt Arial or Times New Roman. 0.5 Marks – The font is 12 pt, but not Arial or Times New Roman OR the font is Arial or Times New Roman, but not 12pt. 0 Marks – The font used is of the incorrect type and size.
Margins	 1 Mark – The margins are 1" (2.54cm). 0 Marks – The margins are greater or less than 1" (2.54cm).
Mechanics	
Point of View	Rating 2 – The draft is written in the third person, avoiding I/my/we/our statements. Rating 1 – The draft contains 1 or more first person statements.
Logic and Organization	 4 Marks – The paper has a clear introduction, body & conclusion. Ideas & details are presented in logical order. Transitions are used to show the relationships among ideas. For examples of transitions use this link: Effective Transition Words in Academic Papers 3 Marks – The ideas and details are mostly presented in logical order. The writer uses some transitions to show the relationships among ideas. The paper seems complete. 2 Marks – The paper is somewhat organized, but seems unfinished. Sometimes it is not clear how the details used connect to the main idea. Some of the details are not in the right spot. 1 Mark – There is little organization to the paper. A lot of the writing does not connect to the main idea. 0 Marks – There is no organization to the paper. There is no introduction or conclusion to the paper. Ideas seem mixed up and disconnected. The paper is confusing and the details do not fit or clearly describe the main topic.
Introduction	 3 Marks – The introduction is engaging, states the main topic and purpose of the paper, and previews the structure of the paper. 2 Marks – The introduction states the main topic and previews the structure of the paper. 1 Mark – The introduction states the main topic and purpose of the paper but does not adequately preview the structure of the paper.

	0 Marks – There is no clear introduction or main topic and the structure of the
	paper is missing.
[
	3 Marks – Each paragraph has thoughtful supporting detail sentences that
	develop the main idea.
Dedu	2 Marks – Most paragraphs have sufficient supporting detail sentences that
Body	develop the main idea.
	 Mark – Most paragraphs lack supporting detail sentences that develop the main idea.
	0 Marks – Each paragraph fails to develop the main idea.
	3 Marks – The conclusion is engaging and restates/summarizes the paper's
	purpose and includes a recommendation for future research directions.
	2 Marks – The conclusion restates/summarizes the paper's purpose and
Conclusion	includes a recommendation for future research directions.
	1 Mark – The conclusion does not adequately summarize/restate the paper's
	purpose OR does not offer a recommendation for future research directions.
	0 Marks – There is no conclusion.
	4 Marks – The paper is written clearly and contains no spelling or grammar
	mistakes.
	3 Marks – The paper is written clearly but contain 1-2 spelling or grammar
	mistakes that do not detract from the reader's ability to understand.
Spelling and	2 Marks – The paper is written clearly but contain 3-5 spelling or grammar
Grammar	mistakes that do not detract from the reader's ability to understand.
	1 Mark – The paper contains >5 spelling or grammar mistakes that somewhat
	impact the reader's ability to understand.
	0 Marks – The paper is not written clearly for the reader to understand and
	contains multiple spelling and grammar mistakes.
	4 Marks – The paper contains no direct quotes and the material is effectively paraphrased/summarized in the writer's own words.
	3 Marks – The paper contains no direct quotes and the material is mostly
	effectively paraphrased/summarized in the writer's own words.
	2 Marks – The paper contains 1-2 direct quotes AND/OR the attempts to
Paraphrasing	paraphrase/summarize borrowed material in the writer's own words is not
Faraprirasing	effective.
	1 Mark – The paper contains >2 direct quotes and attempts to
	paraphrase/summarize borrowed material in the writer's own words is not
	effective.
	0 Marks – The paper contains many direct quotes and there is no attempt to
	paraphrase/ summarize borrowed material in the writer's own words.
References and Citations	
	2 Marks – The references list contains 6 or more references.
Reference	1.5 Marks – The references list contains 5 references.
Number	1 Mark – The references list contains 3-4 references.
	0.5 Marks – The references list contains 1-2 references.
	0 Marks – There is no references list.

	2 Marks – At least 3 references are from the primary literature and at least 3
Reference Quality	references were published in the last 5 years.
	1.5 Marks – At least 3 references are from the primary literature, but majority of
	references published more than 5 years.
	1 Mark – 2 references from the primary literature.
	0.5 Marks – 1 reference from the primary literature and/or most references
	published more than 5 years ago.
	0 Marks – No references to the primary literature and/or no references
	published within the last 5 years. Heavy reliance on un-refereed websites or
	other non-peer reviewed sources.
	2 Marks – References page follows the format of The Journal of Physiology with
	no errors.
	1.5 Marks – References page follows the format of The Journal of Physiology,
Reference	but contains 1-2 formatting errors on the whole page.
Formatting	1 Mark – References page follows the format of The Journal of Physiology, but
1 officiality	contains 3 or more formatting errors on the whole page.
	0.5 Marks – References page does not follow the format of The Journal of
	Physiology, some other format is used.
	0 Marks – There is no references list.
	2 Marks – All borrowed ideas/information are fully documented and cited.
	1.5 Marks – Most borrowed ideas/information are fully documented and cited.
Citation Use	1 Mark – Some borrowed ideas/information are fully documented and cited.
	0.5 Marks – Rarely are borrowed ideas/information fully documented and cited.
	0 Marks – There are no in-text citations.
Citation Formatting	2 Marks – All in-text citations are formatted properly as per the Journal of
	Physiology style. All citations are listed on the references page and all
	references appear as in-text citations.
	1.5 Marks – There are 1-2 formatting mistakes in the in-text citations. All
	citations are listed on the references page and all references appear as in-text
	citations.
	1 Mark – There are 3-5 formatting mistakes in the in-text citations AND/OR 1-2
	citations are missing from the references list OR 1-2 references are not cited.
	0.5 Marks – There are 6 or more formatting mistakes in the in-text citations
	AND/OR 3 or more citations are missing from the references list OR 3 or more
	references are not cited as in-text citations.
	0 Marks – There are no in-text citations.

Content	
Physiology content	 10 Marks – Topic is well developed and incorporates both cellular and organ/organ system level details in order to translate what is happening at a cellular level to cause/create effects at higher levels of organization. Writer demonstrates strong understanding of the ideas, and connects them to basic physiological principles learned in BIOL2410 or BIOL2420 through the use of detail and tone. 8 Marks – Topic is mostly well developed and incorporates both cellular and organ/organ system level details in order to translate what is happening at a cellular level to cause/create effects at higher levels of organization. Writer demonstrates good understanding of the ideas and connects them to basic physiological principles learned in BIOL2410 or BIOL2420 through the use of detail and tone. 6 Marks – Topic is adequately developed and but may be missing some clarifying details that would help to translate what is happening at a cellular level to affect function at higher levels of organization. Student demonstrates a little understanding of the ideas and connects them to basic physiological principles learned in BIOL2420 through the use of detail and tone. 4 Marks – Topic is poorly developed with few details that help to connect what is happening at the cellular level to observable changes in organ/organ system function. Writer shows a lack of understand. 2 Marks – Topic is not well developed, repetitive, and gives too broad of an overview the physiological process without supporting details. Writer shows a lack of understand.
Relevance of ideas and Conciseness	 2 Marks – All points are relevant and concise without unnecessary repetition. 1 Mark – Most points are relevant to the topic; little to no unnecessary repetition. 0 Marks – Main points are irrelevant to the topic and/or unnecessary repetition of points that hinders development of the topic.



Get Homework Help From Expert Tutor

Get Help