

NSC2500: Assignment 1 (Essay)

Topic: Written Essay

Due: Friday 23rd August 2024 at 11:59pm AEST

Submission: via the assignment portal on StudyDesk

Marks: Total of 100

Total weighting: 30% of the final mark

Purpose of assignment:

- Improve knowledge of homeostasis and how disruption may lead to a specific disease/disorder
- Understand and articulate how drug therapies address a particular pathophysiology
- Identify drug mode of action, indications, contraindications, potential interactions, adverse effects and therapeutic outcomes
- Learn how to integrate knowledge and present ideas logically and concisely
- Develop written communication skills
- Develop and improve critical thinking skills
- Specifically address Course learning outcomes 1 – 5

Task overview and topic selection:

For this assessment, you will produce an essay that describes the pathophysiology of a specific disease or condition, as well as present the pharmacology that is used to address this. You will need to focus on the normal physiology, chosen disease/disorder plus pharmacology that you have selected using the StudyDesk Topic Selection activity.

This topic selection activity will open at 9:00am on Friday 12th July 2024 and will close at 11:59pm on Friday 2nd August 2024 AEST.

After this date, any student who has not chosen a topic will be randomly assigned to one. Students affected will be notified of their topic via an email to their UniSQ email address.

Please note that each topic is also capped to ensure an equal spread of students throughout the topics. The topic selection works on a first-come first-served basis. ***So, if there is one particular topic that you are interested in, please ensure that you enter your selection as early as possible so that you don't miss out!***

You will then research your specific disease/disorder and the indicated pharmacology. From this you are to write an essay that describes the affected system (the normal physiology), what has gone wrong to cause the disease (the pathophysiology), and then how the related pharmacology is used to address this. Your essay is to be targeted towards an educated audience (for example, your peers in the Course). Ensure that you use the marking criteria that are included later in this document to make certain that you are addressing all the required details and information.

Structure and components of the assignment:

Students will work individually to prepare an original essay on their chosen topic. The essay must be no longer than 1500 words (*with a $\pm 10\%$ leeway – you may submit a report that is more than 10% under the word limit, but this may be too brief and you will not be addressing the requirements and hence reflected in fewer marks*).

In addition to the text and general information, figures and illustrations can be very important tools to convey complex information to your audience. You are welcome – and encouraged – to utilise appropriate figures to support your text. Just remember that your text must refer to your figures/illustrations, and any figures or illustrations must also be appropriately referenced (figure title, figure legend, figure reference, and inclusion of the figure in the main body text).

- *Please note: Figure legends are not counted towards the word limit.*

Inclusion of tables in the essay are discouraged, however any included tables will be counted towards the 1500-word limit.

What to include in your essay: Your essay should include (but is not limited to):

- An **abstract** that succinctly summarises the essay's content.
 - 250 words maximum (*with a -10% leeway, but not above 250*) that **does not count** towards the 1500-word limit of the essay itself.
 - Your abstract should include: introduction, summary of the main points/discussion in your essay, including the normal physiology, pathophysiology, and pharmacology, and then finish with a short conclusion.
 - An abstract should be counted as a 'stand-alone' paragraph. This is a single paragraph that is clearly separated from the main body of the text. This could be via use of headings/sub-headings or page spacing.
 - *NOTE: references are not included in an abstract!*
- An introduction and brief overview of the **normal physiology** and homeostasis of the system that is relevant to your chosen topic (*Note that a **thesis statement** is **NOT** required*)
 - This should outline what the normal, "healthy" homeostasis is like. It should include the main anatomical structures involved and the key physiological mechanisms that regulate homeostasis.
- The **pathophysiology** and the mechanisms leading to the disease/disorder
 - This should clearly outline how homeostasis has shifted, including what caused the shift and what effects this had on the physiological function of the system.
- The **pharmacology** related to the treatment of the disease/disorder
 - This must also include at least **one specific drug/medication** (from your topic selection) example that addresses:
 - Drug naming (chemical, generic, and proprietary)
 - Mechanism of action (pharmacodynamics)
 - Pharmacokinetics
 - Route of administration
 - Indications, contraindications, precautions and side effects
 - You should also consider any other important aspects that may be relevant to your topic, for example:
 - Are there any important drug interactions (other medications, natural products, etc) that patients should be aware of?
 - Are there any lifestyle, exercise, therapy, or other physical considerations that are relevant? (for example, is the age of the patient a factor? BMI? Comorbidities? Polypharmacy? etc)

- The **relevance** of the disorder and pharmacology to **clinical practice** must also be clear
 - This may be in any relevant context, but ideally your field of study (nursing, sports exercise, etc)
 - *For example, consider how you would apply your knowledge of the topic to your field in a clinical setting. How would this improve how you operate? How will this affect the clinical outcomes? How will this knowledge help you provide patient centred care? Etc*
 - This section should clearly outline why the knowledge of this topic and the treatments utilised is important in the 'real world' setting.
- **Conclusions**

*Important note: A key element of this assessment is the **pharmacology**. Alternate therapies, or different types of pharmacology, may be relevant for the disease/disorder that you are presenting, **but if you do not present the pharmacology that is part of your specific topic you will not be addressing this part of the criteria and will lose marks.***

Writing the abstract:

You will need to write and submit a short (250-word max) summary with your essay. This should succinctly summarise the essay's content. It should follow the format of: introduction, summary of the main points/discussion (including the normal physiology, pathophysiology, and pharmacology) and finish with a short conclusion.

You will have the opportunity to engage with the Studiosity team via the UniSQ library to get some early feedback on this element of your assessment. Please refer to the information on the related StudyDesk page. While this is not mandatory, the feedback that you can obtain from this process will be of particular help as you structure your main essay. Taking advantage of this will help you achieve the best possible mark for this assessment. With this component of your assessment, please just note that references and in-text citations do not need to be included. Your references will be included with your full essay.

Finding information

You may draw your information from a variety of resources, but you should focus on current, up-to-date, research and the current state-of-knowledge. A good guide is to select **a minimum of five recent primary peer-reviewed journal publications** on your topic and cover these in your essay.

- Primary peer-reviewed journal publications, which are otherwise known as original research articles, are those which present original research findings by the author. Primary research articles rely on sources/data generated by the author to support the outlined findings and address the hypothesis or research question.
- Review journal articles are a summary and analysis of existing published research. These are articles in which the author summarised research findings generated by other publications to provide an overview of current knowledge.
- The key difference between the two article types lies in the sources of information. Primary research articles contribute new knowledge and findings to the field, while the review articles provide a summary and interpretation of existing published knowledge.

All your information sources should be referenced appropriately, and you should avoid resources that may be unreliable or out-of-date (websites, news outlets, and similar, should be avoided).

- Students may use limited number of reputable non peer-reviewed information, such as government reports, however this should not exceed more than 10% of the student's reference list.
- Minimum of five primary peer-reviewed articles must be included in addition to any other resources.

Your references and in-text citations should be included within your essay, but not within the abstract. All references and in-text citations should be in Harvard AGPS format. References and in-text citations do **NOT** contribute to your word limit.

- To assist with your reference list, please refer to the UniSQ library guide: <https://www.usq.edu.au/library/referencing/harvard-agps-referencing-guide>

Textbooks can be a good resource for some established information and concepts, and these can be very useful during your initial investigations. However, you should then source the key information for your essay from evidence-based and peer-reviewed sources. Textbooks may be referenced in addition to these, but you should ensure that you are using journal publications as much as possible.

- *You should aim for a minimum of 5 primary journal articles for your essay*
- *These are the type of publications that are required to address the references criteria (ie, not textbooks!)*

Begin your search for scientific articles at the USQ Library website, specifically the [PubMed database](#) and/or Web of Science. Links to these resources can be found through the [UniSQ library website](#).

Academic Integrity:

Artificial intelligence is not to be used in this assessment item beyond basic editing features (spelling and grammar) in Microsoft Word, Apple Pages or Grammarly and similar tools. No automation of written text allowed. Failure to adhere to this requirement will result in referral to the Academic Integrity Unit (AIU) for investigation. **This includes the use of AI text generation tools (such as ChatGPT) is strictly not allowed. Use of such tools will be flagged and this will incur penalties.**

Please remember, UniSQ holds Academic Integrity (<https://policy.usq.edu.au/documents/14727PL>) as a core principle and any breaches (Academic Misconduct) can result in a range of penalties (<https://policy.usq.edu.au/documents/14732PL>).

If you need help with maintaining academic integrity in your work please consult UniSQ Library Support (<https://www.usq.edu.au/library/study-support/start-toolkit>).

Formatting Guidelines:

- Font size 12pt (using a clear font, such as Arial, Calibri or Times New Roman)
- 1.5 line spacing
- Standard/normal margins (2.54cm)
- The abstract and the main essay are to be submitted in **ONE** file
- The submitted file must both be in **word** format **ONLY**
 - Name your file in the format: <SURNAME>_ID#.pdf, eg:
 - IVANOVSKY_U61234567.docx

Important format details to double-check and remember!

- The submitted essay file **MUST** be in word format **ONLY**
- The submitted file **MUST** include the abstract as well as the main essay. The abstract should precede the main text and be identifiable.
- The abstract **MUST** be no longer than 250 words
- The essay itself **MUST** be no longer than 1500 words in length ($\pm 10\%$ leeway)
- The essay **MUST** include a full reference list
- In text-citations and references **MUST** be in Harvard AGPS format **ONLY**

Submitting Your Essay:

- 1) You will submit your file using the assignment submission portal on StudyDesk
 - **Also remember that you are required to have read the 'Assessment Submission and Extension' document on StudyDesk, and you must also have completed the Academic Integrity Module, before you will be able to submit your assignment**
- 2) Any application for extensions must be made **PRIOR** to the due date and **MUST** be accompanied by supporting documentation.
 - Additional information on how to request an extension can be found [here](#).

Ensure that you note the following:

- Late submissions without prior authorisation will incur late penalties as per UniSQ policy (<http://policy.usq.edu.au/documents/14749PL>).
 - ***This is a 5% reduction of the maximum possible marks for each calendar day, or part day, that the assessment is late.***
 - ***A submission over 10 days late will be allocated an automatic grade of zero (0%).***
- For more information on assessment submission, extension, and late penalties in NSC2500 please refer to the 'Assessment Submission and Extension' page on StudyDesk.

Selection of topics:

The topic selection activity will open on StudyDesk under the 'Assessment' tab/Essay from 9:00am AEST on Friday 12th July . This will remain open until Friday 2nd August at 11:59pm AEST.

You MUST have selected your topic before the activity closes. Any student who has not chosen a topic once the activity closes will be randomly assigned to one (students will be notified of their designated topic via an email to their UniSQ student email address).

Please note that each topic is also capped and students will be able to select each topic on a first- come first-served basis. ***So, if there is one particular topic that you are interested in, please ensure that you enter your selection as early as possible so that you don't miss out!***

When you are selecting your topic, make sure that you note the specific details. For example, if you choose a topic of "Diabetes mellitus (type 2) and sulfonylureas", but you then prepare your essay on type 1 diabetes, or base it on insulin therapy, **you will lose marks or receive a zero mark for the related criteria.**

IMPORTANT:

- ***You MUST complete your assignment on the topic you have chosen, or the one that was assigned to you.***
- ***If you complete your assignment on a different topic without approval, you will receive a zero mark for the assessment.***

Marking Criteria	Marks (total 100)
<p>Abstract</p> <ul style="list-style-type: none"> • Succinctly presents the important information covered in the essay • Includes a short introduction, summary of the main points/discussion (ie, the normal physiology, pathophysiology, and pharmacology) and also a short conclusion • Is in the required format (word) and within the word-limit (250 words, with a -10% leeway) • Spelling and grammar are correct throughout 	10 marks
<p>Essay: Normal physiology</p> <ul style="list-style-type: none"> • A brief and accurate overview of the normal physiology relevant to the topic/disease/disorder is provided • This includes the key anatomical structures involved and main physiological mechanisms which are involved in maintaining homeostasis 	12 marks
<p>Essay: Pathophysiology</p> <ul style="list-style-type: none"> • The pathophysiology of the disease/disorder presented is comprehensive, relevant to the specific disease/disorder, and correct • Mechanisms responsible for the disease/disorder are explored in detail 	16 marks
<p>Essay: Pharmacology</p> <ul style="list-style-type: none"> • The related pharmacology to treat the disease/disorder is clearly described • Relevant drug examples (at least one) are noted, including the: <ul style="list-style-type: none"> ○ Drug class and naming ○ Mechanism of action (pharmacodynamics) and pharmacokinetics ○ Routes of administration ○ Indications, contraindications, precautions and side effects 	20 marks
<p>Essay: Relevance to practice</p> <ul style="list-style-type: none"> • The relevance of the disease/disorder and the pharmacology to clinical practice is clearly apparent <ul style="list-style-type: none"> ○ <i>May be in any relevant context (eg. nursing and newly diagnosed oncology patients, sports exercise and patients with chronic respiratory disease, etc)</i> 	12 marks
<p>Essay: literacy and format</p> <ul style="list-style-type: none"> • Is in the required format (word) and within the word-limit (1500 words with $\pm 10\%$ leeway) • The essay is well written and clear; spelling and grammar is correct throughout • Imagery and figures are well used to support the text, and are clear and appropriate 	10 marks
<p>Essay: References</p> <ul style="list-style-type: none"> • References are well used to support the information provided • A minimum of five (5) <u>primary</u> peer-reviewed articles were included • In-text citations are well used to support key information and figures • References are recent, appropriate, and correctly formatted (Harvard AGPS) • Non peer-reviewed resources did not exceed 10% of the reference list 	10 marks
<p>Essay: overall content</p> <ul style="list-style-type: none"> • The topic is clearly introduced and there is a logical progression of ideas • The essay demonstrates a thorough and complete understanding of the topic, particularly the pathophysiology and pharmacology • The essay text is informative and would be understood by an educated audience <p>Includes and considers recent developments, new research & advances in knowledge</p>	12 marks