Tutorial Letter 201/1/2018

Introduction to Applied Sciences
CSP1501

Semesters 1

Department of Life and Consumer Sciences

This tutorial letter contains important information about your module.
1 INTRODUCTION

Dear student

This Tutorial letter serves the purpose of providing you with useful Examination Guidelines to follow as you prepare for the upcoming examination. You are assured that the summative assessment (examination) you are preparing for, is not a deliberate attempt to fail you. It has been put in place for you to confirm your competence of the module and how well you have mastered the outcomes of the module. You are encouraged to prepare yourself for the upcoming assessment opportunity as this will be your key to successfully completing the module.

Please note that the following information is mere guidelines on examination preparation and therefore, it is as important that you should focus on all the information in the study guide (including the sections referred to in the textbook and the activities provided).

2 OUTCOMES OF THE MODULE

The following module outcomes for CSP1501 serve as a reminder of what you should achieve at the end of this module. You should consider these outcomes during your preparation for the summative assessment to determine if your preparation has been good enough to achieve the outcomes. If you aren’t able to achieve the outcomes you should revisit your module content and make sure that you address the shortcomings or areas that you have not studied. Make sure you are able to do the following:

- understand the properties of matter, atoms and molecules, chemical bonding, gases, oxidation and reduction, acids, bases and salts, as well as food systems
- measure matter, explain the principles of forces, electricity, diffusion, absorption, adsorption, osmosis, light, sound, heat and temperature
- describe human physiology in the context of human cells, body tissue, organs and systems, the skeletal, muscular, nervous, cardiovascular, respiratory, digestive and excretory systems and
- integrate the above-mentioned information in different fields of studies, such as nutrition, food processing and clothing and textiles.
3 FORMAT OF THE SUMMATIVE ASSESSMENT

The summative assessment that is scheduled for CSP1501 consists of a sit-down examination as indicated in TL101. You are reminded to consult myUnisa to determine when, what time and where you are writing the summative assessment to ensure that you give yourself enough time to prepare for the assessment. Do not rely on the mail notification of the date, time and venue of your summative assessment as this may not give you enough time to prepare. Continuously check myUnisa to ensure that you have the correct dates, times and venues as these may change.

4 ASSESSMENT INFORMATION

You require 50% to pass this module. To achieve 50% or higher, your year mark (which is a mark from all the assignments you completed) and the examination mark will be used to calculate a final module mark. Remember that the year mark will only make up 30% of the final module mark and the summative assessment mark achieved during the first examination session will make up 70% of the final module mark. Refer back to TL101 where you will find the weighting for each assignment that forms the final formative assessment mark. Your summative assessment mark makes up a larger proportion of your final mark which means you have to prepare yourself very well for the coming summative assessment, not to be disappointed. Remember you must achieve a 40% in the first summative assessment opportunity for the year mark to be taken into consideration for the final module mark. Meaning, if you achieve less than 40% in the examination, your final mark will only be the mark you obtained during the examination. You will only be given a supplementary examination if you achieved 40% or higher in the first summative assessment opportunity and have not pass the module when the year mark was factored into the final module mark composition. A final module mark below 50% means you have failed the module. A final module mark 75% or above is a distinction.

5 COMPILATION OF SUMMATIVE ASSESSMENT

Firstly, when you sit down for the exam, browse through your examination paper so that you know what is expected from you and to avoid repeating your answers.

Along with the examination question paper, you will receive an answer book in which you need to write out your answers. Please number correctly and start each question on a new page (thus answer question 1.1 – 1.6 for example and then start Question 2 on a new page).
- make sure that you are able to make use of the information provided by the periodic table in order to answer questions which ask of you to use the information provided by this table.
- ‘draw’ the Lewis structure of any of the **first 20 elements** in the periodic table of elements.
- ‘draw’ the symbolic representation of the electron structure of any of the **first 20 elements**.
- do calculations similar to those you had in your third assignment.
- draw a figure and label it as requested **for any of the figures in study units 12 to 20**.
- make sure that you understand and are able to discuss, define and explain various physiological concepts (study units 12 to 20)

**CSP1501 Exam Paper (May/June 2018)**

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<tr>
<th>Question 1</th>
<th>Questions related to:</th>
<th>40 marks</th>
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<td>• Atomic structures and the periodic table of elements</td>
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<td>• Chemical bonding</td>
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<td>• Acids, bases, and salts</td>
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<td>• Oxidation and reduction</td>
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<th>Question 2</th>
<th>Questions related to:</th>
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<td></td>
<td>• Measurement of matter</td>
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<td></td>
<td>• Diffusion, osmosis, absorption, and adsorption</td>
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<td></td>
<td>• Forces between particles</td>
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<td>• Heat and temperature</td>
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<th>Question 3</th>
<th>Questions related to:</th>
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<td></td>
<td>• The human cell</td>
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<td>• Body Tissues</td>
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<td>• Excretory system</td>
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<td>• Muscular system</td>
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<td>• Digestive system</td>
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<td>• Skeletal system</td>
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Total | 100 marks |
Please note that these questions will be similar to what you were exposed to in assignment 3.

Please find the following general tips for the examination:

- It is important to know the definitions by heart when preparing for the examination. You need to understand these terms in order to grasp the discussions in the module.

- Do not leave questions out. Many students just do not answer some questions.

- Remember to read the questions thoroughly and make sure that you answer is in accordance with what was asked from you.

- Please refer to page 9-12 in your Tutorial Letter 301 on the meaning of terms which are frequently used in question formulations. Please focus on the following terms in particular:
  - Differentiate, define, describe, determine, discuss, explain, state, list, and name

- The following list of action verbs is additional to those mentioned in your TUT301 so please make a note of the meaning of the following words which are also used in question formulations:
  - “Give your own opinion”: Convey the essence of other opinions correctly and then say what you think of the matter under discussion.
  - “Motivate or give reasons”: Here you are required to give reasons for certain statements that are made.
  - “Identify”: Give the essential characteristics or aspects of the matter.
  - “Criticise”: The strong and weak points should be highlighted after consideration of the facts and/or points of view.
  - “State”: Give the information without any discussion or criticism.
  - “Differentiate”: Here the details that differentiate one matter from another should be highlighted.

Remember to bring along your calculator, you will need it during the exam!
6 TIME ALLOCATION DURING SUMMATIVE ASSESSMENT

The question paper must be completed within 2 hours. You will not be given extra time to complete the paper. You are advised to allocate enough time to each section in order to complete all the questions in the question paper. If you want to successfully complete all three sections you should allow time to plan the answer and be able to write substantive motivations for your answers. You will lose a lot of marks if the answers are not well thought through and motivated.

7 GUIDELINES ON HOW TO PREPARE FOR THE SUMMATIVE ASSESSMENT

You are advised to study each unit by making summaries of the different sections discussed in each of the units. These summaries should be a good representation of all the facts presented in your own words. The summary should also contain keywords and key facts pertinent to the facts related to the section you are summarising. A summary is supposed to consolidate all the pertinent facts or aspects related to the part you are studying. You should be able to check whether your summary is accurate by appropriately explaining the process or content to someone else. You should spend more than 12 hours to study for the summative assessment. Here are a few suggestions on how to prepare for the upcoming exam:

- Work through your study material as suggested by your study plan in tutorial letter 101.
- Make use of diagrams, illustrations and simple steps to simplify a complex concept. Once you understand and remember these, additional facts can be added in order to structure a more comprehensive answer to a specific question.
- Anticipate and formulate possible exam questions which might emerge from the headings, diagrams and illustrations in the textbook and study guides.
- Along with formulating possible exam questions, it is important to focus your attention on an approximate time allocation per question. For example: for a question of 10 marks out of a total mark of 100 and with a 2 hour time allocation to complete the exam paper, you are supposed to allocate a maximum of 12 minutes to complete the specific question. Calculate the time allocation per question as follow: $\frac{\text{marks}}{\text{total marks}} \times \text{minutes} = \frac{10 \text{ marks}}{100 \text{ marks}} \times 120\text{min}$. 


• As part of the preparation for the exams, it might be useful to arrange the study units and/or concepts from most important/difficult to less important/difficult. Once this list is complete you can compare and discuss your lists online at the “Discussion Forum” on myUnisa with other students.
• It is important and valuable to find links between the various study units as this will help to understand the work in a more practical manner.

8 USE OF PREVIOUS EXAMINATION PAPERS

It is advisable that you use previous examination papers for CSP1501 to test yourself. Example questions such as those in previous examinations papers may not necessarily be asked in the examination. These questions only serve as a guide to determine if you have prepared well enough to successfully complete the summative assessment. Previous examination papers will also assist you in testing your competence in answering different types of questions. Remember that the type of questions may be applied to different aspects of the work you have studied and will not only be applied to the particular piece of work used in the example question.

To help you prepare for the examination, previous exam papers are posted on myUnisa. Visit myUnisa and go to the CSP1501 site. Click on ‘Official Study Material’ on the left-hand side. Look for ‘Examination Question Papers. Work through these examination papers. If you struggle with some questions, discuss it with each other on the Discussion Forum on myUnisa or email me. You could also interact with the e-tutors (Mr. Rolanda Sunaye, Mr. Edgar Matome, Mr. Vuledzani Emanuel, and Ms. Vimbai Chakwuizira) assigned to this module if you need some assistance while preparing for the exam.

9 GENERAL MISTAKES

The following notes are on the general mistakes that were made and some misconceptions that came through during the assessment of assignments and previous examinations. Please draw your attention to the following points:

• Mass numbers given in the periodic table: When you are asked to give the mass number of any given element it is very important not to round off the number. If you do, this is marked as incorrect. This is addressed in your Study guide on page 18-19.
• **Symbolic representation vs. diagram of electron configurations:** Please refer to pages 37-39 in your Study guide. Many students draw a “Diagram of the electron structure” when asked to draw the “Symbolic representation of the electron structure” of any given element. Therefore, when studying this section please note that for all the examples given in your study guide the diagram is illustrated on the left-hand side of the figure whereas the symbolic representation is illustrated on the right-hand side of the figure. The diagrams are merely added to illustrate and explain the concept further.

• **Concepts of Lewis structures:** Please familiarise yourself with pages 41-43 in your Study guide. To explain some of the examples to you, please refer to Figure 2.13: “Electron structure of the first ten elements” on page 34 in your Study Guide as Lewis Structures and electron configurations needs to be approached together in order to fully understand it.

  - The most important aspect of Lewis Structures is that **only the valence electrons are indicated by crosses or dots**, where valence electrons are the electrons in the outermost energy levels/ highest energy level.

    - Make sure you know the difference between valence electrons and valency (refer to page 34 and 39 in your Study guide in this regard).

  - The other aspect to remember is the fact that electrons will always attempt to enter an orbital of the lowest possible energy (closer to the nucleus)*.

  - So bearing this in mind while having a look at fig 3.7 you will see that for carbon only energy level 2 is applicable for the Lewis structure where the first orbital of this energy level (2s) is full (due to the abovementioned rule*) and then 2 separate/ alone electrons in the second subdivision of the energy level (2p) - where one electron per orbital occurs. Therefore, for the Lewis Structure you have to have a pair of dots/crosses at one end and two single dots/crosses on two other ends (thus exactly as illustrated on page 49 in the Study Guide) around the C symbol. The same applies for Boron – as there is one pair of electrons in the 2s orbital there should be a pair of dots at one end and as there is a single electron in the 2p orbital, there should be a single dot on another end around the B symbol (fig 3.9).

• **Measurement of matter:** When you are asked to calculate area, volume or circumference it is very important to show all calculations. This means that you cannot
just give the answer. You should provide the formula which you will be using (e.g. Area = length x breadth) and then replace the values accordingly. Also, when doing calculations, all the measurements must be in the same unit of measurement, for example: mm, cm or m as you cannot multiply cm with m, for example. The rule is to first convert all given measurements to the same unit of measurements or the unit you want to measure it in (give your answer in) and then to do the calculations. Please refer to study unit 7 again regarding these concepts.

- **The human cell**: Please note that chromosomes are located within the nucleus of the cell and are not situated in the cytosol along with the other cell organelles. Please refer to the prescribed textbook on pages 53-54 regarding this matter.

- **Know the difference between sucrose and sucrase**: Even though these two terms sound the same they are not as sucrose and sucrase are different chemical compounds. Sucrose is the chemical name for table sugar, which tastes sweet and provides the human body with energy. Whereas, sucrase is a digestive enzyme responsible for the breakdown of ingested sucrose in the gastrointestinal tract (http://www.livestrong.com/article/304440-sucrose-sucrase/).

- **Plagiarism**: Please note that it is not allowed to "copy and paste" an existing figure from any other source (this includes the internet, your textbook, other existing textbooks or your study guide) as this is seen as plagiarism. You can only use these sources to guide you as you have to do the drawings yourself.

- **What is a conclusion?** When writing a Literature review you should always have a conclusion of some sort. A conclusion is a summary of what has been said and gives the writer the opportunity to give his/her own (short) opinion on the topic.

- **English writing**: Please use proper English whenever you are writing academically. If you feel that you need assistance with English writing, please make use of the following service:
  - Refer to your TL301, section 8.3 on how to write scientifically
  - Face to face academic literacy services

Visit myUnisa and click on “learner support” on the left-hand side to see which services are offered in your region.
• Please read your questions carefully! Many of you do not read the questions thoroughly and therefore, do not answer the question satisfactorily. For example, if you are asked to explain a specific phenomenon, you cannot just give a one-word answer. You should be able to take the theoretical knowledge (for example a definition or a specific concept) and apply it to the specific situation or phenomenon by means of practical examples.

10 WHAT TO EXPECT DURING THE EXAMINATION

You are advised to consult the myStudies at Unisa brochure to ensure that you know the Examination Rules and procedures you should follow as well as the procedures to follow should you fall ill or unable to write the examination. Carefully consider the procedures to follow should you require a remark.

11 RELEASE OF EXAMINATION RESULTS

You might be anxious to receive your marks after completing the first summative assessment opportunity in May/June 2018. You are reminded that Unisa will officially release the examination marks during July 2018. Marks may be released earlier if the assessment and moderation process has been fully completed and signoff could be granted before the official Unisa release date. Marks may not be released telephonically or via any other method of communication without official signoff by the Executive Dean.

12 REMARK AND OTHER EXAMINATION RELATED PROCEDURES

As a responsible student, you are advised to consult page 66 – 75 of the myStudies @ Unisa 2018 brochure to ensure that you know everything about the Unisa Examination system and the opportunities for remark as well as the processes involved in any related examination opportunities.
13 CLOSING REMARKS

The examination guidelines for this module have been compiled to adequately assist you in preparing yourself for the coming summative assessment. You will successfully complete the assessment if you apply yourself and use the examination guidelines to assist in the preparation for the examination.

We wish you all the best with the examinations!

Kind regards

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