

# SENIOR MATHEMATICS ASSIGNMENTS

## SUBMISSION OF ASSIGNMENTS

Extensions need to be applied for to the head of Department of Mathematics, prior to the due date. If approved, you will be given written evidence of the extension. This evidence should be stapled to the front of your assignment.

Assignments should be presented on A4 paper, stapled in the top left hand corner only. The assignment should **not** be placed in a folder, plastic wallet or page protector.

There are no extra marks for completing your assignment on the computer, unless the task specifically requires you to use a computer. However, if you choose to word process your assignment, ensure that any mathematical notation is correctly presented and spaced. If you use a computer for your assignment, print it out 24 hours before the due date so that you have time to deal with any unexpected computer problems.

Drafts must be handed in on the check date. These will be kept by your teacher, so do not hand in your only copy. Failure to meet check date requirements may result in disciplinary action. Work submitted after the due date may not be graded, but drafts handed in on or before the due date will be marked. In the event that no work is handed in by the due date, the College may determine that the course requirements have not been met.

When you hand in your assignment, watch whilst your teacher marks it off in his/her book. This will avoid future debate about whether the assignment was received.

Do not destroy any drafts, research and/or computer files until after the marked assignment is returned to you. They will be useful in the event that your response is mislaid.

## TASKS INVOLVING MATHEMATICAL CALCULATIONS

### SUGGESTED FORMAT

#### Cover Sheet

The assignment task sheet and criteria handed out to you should be attached (in full) to the front of your assignment. Ensure that the statement in the task sheet about the authenticity of your work is signed.

#### Introduction

This section should provide some introduction to the calculations. It may include a statement of the known facts supplied to you in the question and/or a statement of what you are trying to achieve. Do **not** rewrite the question.

#### Solution

This section should provide your mathematical calculations, presented in a clear and logical manner, using appropriate notation and conventions. Ensure that all of the steps are fully justified.

#### Conclusion

As a minimum, this should be a sentence explaining your answer, rounded appropriately and including units. This is also the place to comment on your answer eg:

- any assumptions you have made to reach your answer;
- the strengths and limitations of your approach; and
- any other relevant issue.

#### Appendices

Append any working drafts, drawings, research that you feel are relevant to your response. For example, if you have obtained prices to use in your assignment, attach them as an Appendix.

### CHECKING YOUR SOLUTION

Check all of your calculations for accuracy. If you can, check your solution by substituting it back into the model, or by examining it for reasonableness.

Check that all parts of your solution are justified (as a guide, if you use a value that is not given in the original question, explain where it came from).

Reread the assignment instructions, the description of the task and any assessment criteria given to you. Check that your response covers all of these requirements.

## TASKS INVOLVING RESEARCH

### SUGGESTED FORMAT

#### Cover Sheet

The assignment task sheet and criteria handed out to you should be attached (in full) to the front of your assignment. Ensure that the statement in the task sheet about the authenticity of your work is signed.

#### Contents Page

If your response is more than 5 pages, include a table of contents with page numbers.

#### Introduction

This section provides you with the opportunity to set the scene for the task. In broad terms, what are you hoping to achieve/investigate (ie: what are your main aims)? The structure of this section could take the form of a brief general statement followed by a list of your major aims.

#### Main Text

Document your responses to the questions/tasks asked of you. Your response could take the form of written explanations, graphs, diagrams, tables and/or calculations. Present your response in such a way that it can easily be understood by another student. Organise this section around a series of sub-headings. Be mindful of any restrictions/constraints posed by the task. Some of these will be obvious and others not so obvious.

This is also the place to comment on your response eg:

- any assumptions you have made in preparing your response;
- the strengths and limitations of your approach; and
- any other relevant issue.

#### Conclusion

Present a summary of your major findings. These findings should be related to the stated aims in your introduction.

#### Appendices

Append any working drafts, drawings, research that you feel are relevant to your response. For example, if you have obtained prices to use in your assignment, attach them as an Appendix.

#### Resources/Bibliography

List the sources of material that you have used in preparing your response. This includes print and electronic media as well as verbal assistance.

### RESPONDING TO RESEARCH TASKS

The main steps in writing a response are:

- analysing the question
- gathering resources
- planning your response
- drafting your response
- writing the final version of your response.

#### Analysing the Question

Always analyse the topic to be presented and ensure that you understand what is required. Check any assessment criteria given to you. Confirm any points about which you are unsure in the meeting held soon after the assignment is distributed. Do not depend on the interpretations of your classmates.

Assignment tasks often use words like 'define', 'compare' and 'analyse'. Be able to define common terms and indicate what is expected in each case.

## **Gathering Resources**

Sources of information can be obtained from:

- library searches
- internet searches
- personal communications (eg: discussions with teachers, tutors, parents and fellow students)
- class notes
- bibliographies and lists of references in the books and articles which you have consulted
- text book(s).

With the exception of your own class notes, all of these resources should be listed in the resources/bibliography section.

Once you have gathered a few resources that you think are relevant,

- review the introductions, abstracts or summaries of the articles to confirm their relevance to the topic
- reject inappropriate and unrelated references to avoid wasting time in reading
- select a few general references to read carefully to obtain an overview of the available information
- use the general references and your newly found knowledge to track down more specific references, if required
- keep track of your sources of information; store any photocopies or papers and keep citations for textbooks and other materials.

## **Planning Your Response**

Once you feel that you have a good understanding of the topic area, plan your assignment. The best way to do this is to write an outline that includes main headings and subheadings. The outline should be structured so that the ideas and concepts will be presented in the most logical manner.

## **Drafting Your Response**

Once you have an outline, write first draft as rapidly and spontaneously as possible. Remember that a draft can be modified upon completion and is only a starting point.

Once you have written the first draft, including the references, and fixed up the detail you should run through the following checklist:

- does it answer the question or deal with the topic set?
- does it cover all the main aspects in sufficient depth?
- is the content accurate and relevant?
- is the material logically arranged?
- is each main point well supported by examples and/or argument?
- is there a clear distinction between your ideas and those you have brought in from other sources?
- do you acknowledge all sources and references?
- is the length of the response right for its purpose?
- is it written plainly and simply, without clumsy or obscure phrasing (a good test is to read it aloud)?
- are the grammar, punctuation and spelling acceptable?

Take a copy of this draft and hand it in at the check date.

## **Writing the Final Version of Your Response**

In preparing the final response, you should attend to the detail of the presentation. The content and length should already be finalised. The following checklist may be helpful:

- have you reread the assignment instructions, the description of the task and any assessment criteria given to you and checked that your response covers all of these requirements?
- are all tables, graphs, diagrams and calculations included?
- is the structure appropriate?
- has the format described above been followed?
- are all references in the list of references complete and correct?