

Construction Studies '11/12

Project Report Guidelines



Note:

These guidelines relate to a research/model type project. They are not intended for furniture type projects.

SEC Official Marking Scheme:

<i>Marking Scheme</i>		Maximum Marks	Marks Awarded
A	Planning of Project		
	<ul style="list-style-type: none"> • Ability to design an appropriate plan of procedure • Evidence of research • Preparation of working drawings/use of models as graphic aids 		
	Subtotal	30	
B	Report Writing		
	<ul style="list-style-type: none"> • Design folio detailing planning, execution and evaluation of project • Critical appraisal of project for quality, function and finish • Conclusions from practical experience of project work 		
	Subtotal	30	
C	Manipulative Skills		
	<ul style="list-style-type: none"> • Skills in preparation and finishing of materials • Safe use of tools and machines - Hand /Power/CNC • Skills in assembly of materials 		
	Subtotal	30	
D	Presentation of Project		
	<ul style="list-style-type: none"> • Task completed to acceptable standard • Appropriate use of materials • Satisfactory knowledge of construction technology 		
	Subtotal	30	
E	Experiments <ul style="list-style-type: none"> • Evidence of ability to plan and carry out three experiments <i>Experiments should be related to the project work or selected from the suggested experiments outlined in the syllabus for Construction Studies.</i>	Experiment 1	
		Experiment 2	
		Experiment 3	
		Subtotal	30
TOTAL:		150	

Very important!

Remember, the real house is the subject of this project – it is not about the model. The model is there to support the research you have completed. Therefore, your overall project should, through the portfolio and the model, provide the reader with a very clear picture of how the actual house was constructed. This is explained using:

- *written notes,*
- *architectural drawings,*
- *sketches,*
- *photographs,*
- *a model.*

The reader should get a very clear sense that you have learned a lot about this house by exploring it in detail and presenting your findings in the portfolio and model.

Your report should be structured as follows:

- **front cover (see-through plastic with cover page underneath),**
 - **the front cover should have these details:**
 - **the title of the project (house name),**
 - **a picture or sketch or photo,**
 - **your name,**
 - **your exam number.**
- **acknowledgement - thank your parents for putting up with you,**
- **table of contents,**
- **chapter one,**
- **chapter two... and so on to chapter eight,**
- **back cover (card).**

Your report should have 8 chapters, as follows.

Chapter One

Introduction

This chapter has three sections:

1. What your project is...
 - i) Describe your project in simple terms... mention the type of house, it's general location (i.e. rural/ urban) and the scale of the model.

2. Why you chose it...
 - i) Does the project have a personal significance for you?
 - ii) Is it a building you enjoy being in?

3. A note on the background of the building...
 - i) History of the building... how it has been used over the years,
 - ii) Significance of the building to the locality/community,
 - iii) Architectural style, materials used,
 - iv) Describe the main elements of the building, adaptations/extensions made...

Don't go into the structural details (e.g. cavity walls, traditional cut roof, etc.) - that comes later.

Chapter Two

Planning

This chapter is about how you planned your project. This means how you planned to use your time on each stage of the project... we call this the 'plan of procedure'. It includes;

1. A list of each stage (see the poster in the practical classroom),
 - i) research
 - ii) drawing plans
 - iii) marking out
 - iv) making parts
 - v) assembly
 - vi) finishing

2. A spreadsheet
 - i) the time goes across the top of the spread sheet - each week should have three boxes - each box represents one hour of work,
 - ii) the above list of stages should be broken down into smaller steps - these go along the left side of the spreadsheet,
 - i) show clearly how many hours are to be spent on each stage.

Chapter Three

Research & Investigation

This chapter has three sections:

1. Choosing a house and gathering information:
 - i) Include all material recorded/collected during research phase (e.g. original planning application, original architect's drawings, records of invoices etc.),
 - ii) Describe your site visit,
 - iii) Include photos of the building, sketches,
 - iv) Transcribe the notes taken during interviews with the owner/ architect/ builder,
 - v) Refer to any articles from magazines or books read as part of research Quote the source in this format: author surname, initial, year of publication, title, city of publication, publisher,) Hickey, T. (2006) Construction Studies Today, Dublin, Gill & Macmillan.

2. Preparation of working drawings - you must prepare your own drawings (these are similar to drawing the house onto the card, only these drawings include the details that you left out on the card (i.e. so essentially you are redrawing the original architect's drawings). Draw them to a suitable scale (e.g. 1:100 / 1:50) like your model.
 - i) Front elevation,
 - ii) Rear elevation,
 - iii) End elevations,
 - iv) Floor plans (view from above)

3. Use of models/practice pieces - in this section you describe any practice pieces that you made to help you make the model
 - i) Include photos/sketches of any practice work as part of your research
 - i) Did you practice a wall finish, for example?
 - ii) Did you make a practice model of the windows of your model?
 - ii) Include photos/sketches of any experimental work as part of your research
 - iii) Explain what you gained by making these practice elements

Chapter Four

This chapter is about how the actual real house was built. This section should include a detailed explanation of the construction techniques used in the original house. This should include written explanations and sketches of each key element of the building structure.

This chapter has seven sections, including:

- i) Foundations – sketch and explain why this type of foundation was used (describe the type of soil in the area),
- ii) External walls – sketch and describe the type of wall and amount of insulation used,
- iii) Roof - sketch and describe the structure type and materials used (incl. fascia/soffits),
- iv) Floors - sketch and describe the type and materials used,
- v) Windows – sketch and describe the type and materials used and any changes made over the years (and why),
- vi) Doors - sketch and describe the type and materials used and any changes made over the years (and why),
- vii) Any other element you think is interesting (e.g sunspaces/ porches).

Also, this section should explain any major changes made to the house since it was first built – for example, extensions built on.

Finally, this section should explain any differences between the original house and your model – parts that were built differently/ parts you have left out etc. (and why)

In summary, this section should include:

- **short written paragraphs,**
- **lots of sketches** and,
- **good quality photos** - there should be photos of the house for every part being discussed.

Chapter Five

This chapter is about how the model was made. Describe in detail how each of the major components of your project was made, including;

1. the structure of your model – how the size was worked out, how the walls were cut out (what tools were used),
2. the windows and doors,
3. how the project was put together (adhesives used – why they were used),
4. explain how the project was finished
5. paint, textures etc. used
 - a. how this was applied (step by step)
 - b. why this finish was chosen
 - c. cleaning up procedures
6. safety precautions taken when working with tools, glue, etc..

The execution of the project should be explained mainly **through the use of neat colourful freehand sketches** accompanied by the minimum of writing. (NO EXAMINER WANTS TO READ THROUGH PAGES OF WAFFLE ON HOW TO MAKE SOMETHING HE/SHE ALREADY KNOWS WELL HOW TO MAKE – DEMONSTRATE YOUR KNOWLEDGE GRAPHICALLY – I.E. WITH SKETCHES!) Go into detail on the interesting and challenging parts of your model (e.g. stone walls, conservatories).

Chapter Six

This chapter is about how you think the project worked out. In other words, this chapter is where you evaluate your own work. This is the most important chapter.

It is important that you try to judge your performance on this project fairly – don't be too hard on yourself and don't be afraid to accentuate the positive – remember, however, that no project is perfect – select a few specific areas where you could have done better and explain how, and what you'd do differently next time round.

This chapter has three sections, including:

1. Evaluate your planning and use of time
 - i) Was the plan you made realistic?
 - ii) What took longer than anticipated?
 - iii) Why? – don't blame it all on your teacher!
2. Evaluate how well your project works (function)
 - i) Ask yourself, is it a realistic and useful representation of the original building?
 - ii) Would it be useful from a design point of view?
 - iii) What could be better? How could you have made it so?
3. Evaluate your project's appearance
 - i) Appropriate type of finish – did you choose the best type of finish for the material you used?
 - ii) Is the scale good? Not too big/small? Does the size of the model provide enough detail?
 - iii) Is the proportion true? Did you put a toy car on the driveway that's way out of scale?
 - iv) Does the model reflect the buildings feel? Are the textures right? Does brickwork look like brickwork?
 - v) Are the colours accurate? Is the model well painted? Are the edges cut cleanly? Is there adhesive visible?
 - vi) Is the model solid and sturdy? Will it fall apart if the examiner picks it up?

Chapter Seven

This chapter is about what you learned from doing the project.

There are five sections, as follows:

1. Skills:
 - i) What new skills did you learn during the course of the project? Machinery, tools, equipment, safety precautions.
 - ii) What can you do now that you couldn't do before?
 - iii) What have you learned about 'project management'? (time management, negotiating for the use of equipment, getting help when you need it, having the materials to hand when they are needed, staying productive during class, motivating yourself to keep working).
2. Knowledge:
 - i) What new knowledge did you acquire? Probably more than you realize – think about it.
 - ii) What do you know now that you didn't know before?
3. Yourself:
 - i) What have you learned about yourself?
 - ii) Do you work well independently or are you better when someone is pushing you?
 - iii) Do you enjoy work on your own or are you better as part of a team?
 - iv) Are you an organized person?
 - v) When a block of granite is dropped in your path do you see it as a barrier or a stepping stone?
4. What problems/difficulties did you encounter? How did you overcome them?
5. Evaluate your evaluation – how honestly and fairly and willingly did you assess your own performance? Could you have done better?

Chapter Eight

This chapter is where you write up three experiments that you have conducted. You must write up **three** separate experiments that are relevant to your project in some way.

The format is just the same as it is for science:

1. Title
2. Aim
3. Equipment
 1. Drawing of experiment in progress
4. Method
5. Result
6. Conclusion

List of possible experiments:

- Rising damp – dpc
- Capillarity – throatings/anti-capillary grooves
- Slump test (concrete)
- Silt test (sand)
- Bulking of sand test
- Moisture content of aggregates test
- Insulation – heat loss
- Colour – heat loss
- Expansion of matter (liquid/gases) with heat
- Bonding of brickwork
- Working with card: cutting, bending, sticking, painting etc...

Final Note:

Remember, these are only guidelines; you can add to them as you see fit. Your report can be handwritten (neatly!) or typed. Sketches should be made freehand, in pencil only, and colour used where appropriate. Photos that are printed on photo paper can be stuck into a handwritten report with Pritt Stick - if you are typing the report, copy and paste the photos into the report and then print it.