

## **GUIDELINES FOR YOUR PROJECT - Module 599**

#### 1 INTRODUCTION

Module 599 is not a standalone module – Every student aiming to achieve a full CTI certificate at Level 5 must select this module as of the six modules, all of which qualify for that level as specified. This module is the last module to be taken at level 5, after all of the other five modules have been satisfactorily completed.

These notes are to assist you, as a student, to choose, organise, write and present your project.

Students will choose the topic of their project. However, you may seek advice and guidance from your tutor, and from your work place mentor. Choose a subject relevant to your interests and strengths. Your tutor must approve the subject of the Project before your work commences. The Project will be presented in *bound form* of from [3000 - 5,000 words], excluding appendices and references to your tutor.

Commence work on the project as early as possible; it is never too early to start background reading on your technology and supporting chemistry. If you are already employed in the coatings industry, basing the project on your place of employment may be useful to your employers and to yourself. Your experience at work will enable you to focus on a suitable topic.

This project will demonstrate student's wider skills who can bring all the factors involved in coating manufacture. We require students to think through the whole process, taking account of all of the technical factors but applying the to the real world – the commercial world.

#### 2 AIMS OF THE PROJECT

The students written results should be presented as a formal project, in the style equivalent to what would be expected from a student of a final year at a technical college.

To involve extensive research of all the factors involved

To provide a reasoned argument for carrying out the work; it's possible advantages, including such factors as raw material and manufacturing costs.

Formulating and testing from scratch taking account of all of the complexities of coatings.



Where would such a product be sold? What products are already available in the field? Would the new product be competitive?

This project will not only take account of laboratory work and formulation, but to take account of bulking up the production, sales and marketing the product.

#### 3 <u>ASSESSMENT</u>

Your tutor and another invigilator will work independently of each other, to mark your assessment.

Marking will be as follows:

Assessment	Allocated % marks
Presentation	5 Marks
Style (phraseology, spelling etc)	10 Marks
Summary	10 Marks
Discussion of requirements	10 Marks
Explanation of Principles applied	
during preparation for the Project	15 Marks
Assessment of materials prepared	5 Marks
Description of Practical Work	20 Marks
Conclusions - Critical review of work completed	10 Marks
Suggestions for further work	10 Marks
Literature References	5 Marks

From past experience, strictly comparable standards of marking are obtained for projects differing widely in character and content. An overall mark of 50% or more is necessary for successful completion of the module, with students achieving at least 40% of the marks available in each element.

#### 4 SUBMISSION DATE

Must be within six months of commencement of the Module.

#### 5 <u>THE PROJECT</u>

The written report is considered to be equivalent to two written examination papers. Therefore, at least ten hours should be given to the work on the Project. This is time taken to prepare for all elements of the assessment scheme including the production of the report.

Your project could be:



- 1. Bright red gloss automotive finish
- 2. An internal coating for aluminium soft drink containers
- 3. A bright-yellow gloss finish for exterior woodwork
- 4. A clear low gloss coating for wooden coffee tables
- 5. A steel-grey maintenance paint for structural metal work in a chemical plant
- 6. A white gloss finish for metal garden furniture
- 7. A CD Coatings
- 8. A water-based automotive finish
- 9. Speciality coating at employer's discretion
- 10. Flame retardants
- 11. Wire enamels
- 12. An anti-fouling paint for yachts

The choice of topic should give you the opportunity to use your knowledge in the above areas, **so the obligation to study these subjects still remains.** 

It is suggested that the choice of title, and thus the subject matter of the project, be decided in your first week of study. This will give you time to submit your choice of title, along with an explanatory paragraph, to the tutor for approval.

The aim of your work is to produce an account of a technological process, which is worthy of a pass degree, demonstrating your technical knowledge, and your ability to plan, think critically and logically.

#### 6 WRITING and PRESENTATION

The presentation of the project is as important as the work itself. Sufficient time should be given to planning the structure of the project and the writing up. Correct English grammar, spelling and abbreviations should be used. If units are used, they should be expressed in the SI System.

The project should be typed on A4 size paper using double line spacing on one side of the paper. All pages within the chapters should be numbered consecutively. Diagrams and samples may be included; if many samples are to be submitted, it may be desirable to fasten them into a separate folder.

Occasionally a project may contain confidential information. In such cases, the BCF and your tutor will give a written guarantee that the material will remain confidential.

A typical plan for the project would be as follows:



Title Page Summary Acknowledgements and literature search Contents Sections Introduction, Subject of Work, Previous Work Background technology/chemistry, etc Current Work Relevant Practical Work Conclusions Discussion and recommendations

Note: The choice of topic could dictate the section headings

#### **Appendices/References**

The list of references should be numbered and presented at the end of the project script.



### Module 599 Project - Header sheet

When your project is complete, fill in the details below and staple this header sheet to the front of your written work (make sure you have a copy of your original work). Email it to you Tutor.

Name Student numb	Der
Date of completion	Date submitted
Tutor signature	
Comments:	
	-
For official use only:-	

Marks ...... Max. marks ...... Percentage ........ Result .....



# Project Formulation – Module 599

The overall objective of this module is to conduct an investigative exercise, involving a range of practical techniques, concerning a coating for a specific area for which coatings are required.

Study, practical work and report should take a minimum of 10 hours.

On completion the report will be submitted for marking - see below.

There are no SAQs or CMAs but obviously the practical work done in order to produce the report will be similar to a piece of practical work (PAX), and the report similar to an Assignment (ASG).

This is your opportunity to demonstrate that not only do you understand the major principles influencing the formulation of coatings for various purposes, but also that you can apply these principles to a specific problem in a practical manner. Further more, it is important that you can explain in a clear and unambiguous manner, the various planning and preparatory stages, as well as giving an account of the work itself.

On completion, send the report along with the attached header sheet to your Tutor who will mark it out of 100%.