

Industrial Training and Research Coordination Centre

Faculty of Science - University of Ruhuna Matara 81000 Sri Lanka

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Guidelines for undergraduates registered for FSC32P2 - 2012.

1. Project Proposal

A student who expects to register for this course unit should submit a draft proposal to the ITRC through supervisor(s). The supervisor(s) should sign and forward the attached letter (Annex 1) to the ITRC through the Head of the relevant academic department.

2. Carrying out research and completion.

Completion of the project:

You should make sure that you complete your project well within the allowed time duration (i.e. before the end of the Second Semester of the Level III of the B.Sc General Degree programme). The completion of your project essentially means your submission of the final report to your supervisor.

Submission:

The <u>deadline for submission</u> of your report shall be the <u>last date of the Semester II</u> <u>examinations</u> of Faculty of Science of the relevant academic year.

Assessment/ Examination:

Assessment of a project is done by one of the approved assessment methods by the faculty. Usually it will be based on evaluation of the project report and an oral presentation made in front of a panel of examiners appointed by the faculty.

Once you submit your report the supervisor shall inform you about the date for the examination. You also make sure that you provide your contact details to your supervisor and/or to the ITRC for all communication.

The supervisor shall inform you about the method of evaluation but usually this will be an oral examination with a presentation of your result during which the panel of examiners will pose a few questions to you.

The examination is abide by the usual examination regulations of Faculty of Science.

More than one student in the group:

More than one student may be involved in carrying-out research, but each individual student must submit a separate report which should be significantly different from the reports submitted by the other member(s) of the same group. Plagiarisms shall result deduction of marks. You are also expected in the examination to clearly differentiate the work you have carried out from the others in your group.

Supervisors and Coordinators:

Where there are no supervisor(s) appointed from the Faculty of Science, the ITRC with the approval of the Science Faculty Board shall assign coordinator(s) for such projects. The main objective of coordination is to assure the students carry-out the research within appropriate scope for those projects to be considered as science-based. For example, if a student investigates a problem in social science (say investigating factors affecting school children's performance on learning in English medium from Grade 5 onwards, the conclusions arrive at such an investigation should be justified/ supported via scientific methodology as much as possible. For instance the use of statistical techniques in these should be well explained.)

Carrying out research:

You should always follow the instructions and advice of your supervisor/ coordinator in carrying out your research work.

Annex 1: Project Proposal

Faculty of Science, University of Ruhuna. FSC32P2: Undergraduate Research Project

| Details of Students: |
|--|
| Name 1: |
| Index Number1: |
| Contact Address: |
| |
| Telephone: |
| Email: |
| Name 2: |
| |
| Index Number1: |
| Contact Address: |
| |
| Telephone: |
| Email: |
| |
| Summary of the project: (less than 200 words) (Please attach a separate sheet if required) |
| Title: |

Estimate of cost of Consumables/ Chemicals/ Travel (and other - please specify):

| Consumables | |
|-------------|--|
| Chemicals | |
| Travel | |
| Other | |
| Total | |

...... (Student Name/ Index No.).

I/We hereby request to register for the course unit FSC32P2 for the academic year at Faculty of Science, University of Ruhuna. By signing below I declare that the information given above by me/us are correct and accurate to the best of my/our knowledge and that I agree to abide by the rules and regulations imposed by the Faculty of Science, University of Ruhuna as applicable in registration , following and examinations relevant to a course unit

| Student 1: Name: | Signature: |
|------------------|------------|
| | |

Student 1: Name: Signature:

Consent of Supervisor(s) for supervision:

I /we undersigned give our consent to supervise the above project.

The expenses for consumables/ chemicals/ travel (other - please specify) (strike-off as applicable) shall be covered / not covered (strike-off as applicable) by the grant (please mention the grant details)

of

| Name | Office Address | Consent (please sign) | Contact (Email/ Phone) |
|------|----------------|-----------------------|---------------------------|
| | | | |
| | | | |
| | | | |

Recommendation of the relevant department (s):

| Department 1: |
|--|
| Hereby, the Department of recommends the above project be carried out at this department under the supervision of |
| |
| The expenses for consumables/ chemicals/ travel (other - please specify) (strike-off as applicable) shall be covered / not covered (strike-off as applicable) by the Department: |
| Date: |
| Signature |
| Official Stamp |
| Department 2: |
| Hereby, the Department of recommends the above project be carried out at this department under the supervision of |
| |
| The expenses for consumables/ chemicals/ travel (other - please specify) (strike-off as applicable) shall be covered / not covered (strike-off as applicable) by the Department: |
| Date: |
| |
| Official Stamp |
| Department 3: |
| Hereby, the Department of recommends the above project be carried out at this department under the supervision of |
| |
| The expenses for consumables/ chemicals/ travel (other - please specify) (strike-off as applicable) shall be covered / not covered (strike-off as applicable) by the Department: |
| Date: |
| Signature |
| |

Official Stamp

Annex 2. Format and the contents of the project report:

Title: 14 pt, Times Roman or Computer Modern Font.

Body Text: 11 pt Times Roman or Computer Modern Font, single column

Margins: 1" margin all four sides

Spacing: 1.21 (or single space)

Paper: A4

Cover Page: (should be of the following form)



Cover Page

Structure of the Report:

1. Introduction/ Background / Specification of the problem:

Should carry clear explanation of the problem to be investigated; its applicability in various

contexts (e.g development, scientific, economic, aesthetic etc.). The benefits of this study.

Present understanding/ knowledge of the problem. This may contain references to papers/. books/ patents/ products/ methods as applicable.

2. Method of Solution:

Identification of factors, data, equipment, techniques, underlying theory (e.g. theoretical models, statistical methods to be used, computational/ mathematical/ chemical / biological methods or tools to be used). Proposing method of solution/ blueprint of machinery/ equipment should be presented.

Those who undertake investigations on non-science based problems which also involves collection and analysis of data should clearly explain the statistical techniques to be employed therein. For example following could be taken as a guideline:

- Hypothesis to be tested.
- data Collection techniques: Should clearly explain which methodology has been used.
- Summarization of data using simple methods (e.g. tabulation, graphical etc) should be given as appropriate in the application.
- Identification of key variables. Removal of correlations between the variables.
- Statistical tests to be used. There should be a clear justification with a good explanation as to why a particular test has been adopted. Moreover, a theoretical explanation on how the

chosen test work may be presented.

3. Analysis of data, obtaining solution under various conditions

• Use of Statistical / Biological/ Mathematical computer packages is highly encouraged.

4. Results/Interpretation / explanation of results.

- Graphs for fitted model equations
- Graphs that explain the solutions
- Behaviour of solutions under various conditions
- Functionality of equipment under various conditions.

5. Conclusions and Discussion.

- What your results indicated and hence what can you conclude ?
- Shortcomings and Further development
- Other comments.

6. References/ Bibliography.

Should give a sufficient list of references.

E.g.:

[1] A. Bovier and D. Deridda, Effect of the weight of school bag on students performances in mathematics, Jn. of School Bags and Mathematics, 1715-1745 (1951)

[2] School Bags - How They Work, http://www.wikipedia.org/schoolbags.html

END.