

**DEPARTMENT OF ENVIRONMENTAL SCIENCE  
PATKAI CHRISTIAN COLLEGE (AUTONOMOUS)  
CHUMOUKEDIMA-SEITHEKEMA  
DIMAPUR NAGALAND**

**Rules and regulations of Dissertation submission for PG**

In pursuance of REG-1, the final year students of the Department are required to offer Course(s) No. ESC 648- Research and ESC 646- Seminar, in 4<sup>th</sup> semester and complete the same within prescribe time limit. The course ESC 648 is a feeder course to ESC 646 course. A Department Research Committee (DRC) constituting the Head, Dean of Science and the Course- in- Charge is constituted for this purpose.

The rules and regulations followed for undertaking the project are briefly highlighted below:

***Project proposal:***

Students will plan and carry out a study/ survey project on an environmental issue of his/her interest and approved for the purpose under the guidance of an Advisor. The DRC reviews the topics and assigns the appropriate advisor based on the student's area of interest. The students are required to give a synopsis presentation before the DRC and project advisors where a brief introduction to the topic, objectives, literature review, methods and materials are clearly stated. Based on the presentation, the proposals are approved for commencement with suggestions for improvement (if any).

***Research and dissertation write up:***

The students will write a Master's degree thesis on his/her approved topic of research and submit four (4) copies of the same to the concerned advisor for evaluation. The introduction, objectives, literature review, methods and materials, results and discussions, summary and conclusion, and references will be the chapters of the thesis. The student on finalization of his/her research may submit the dissertation in advance or by the end of the semester.

***Seminar:***

Students will present up-to-date literature review, methodology used and results and discussion of the data of findings obtained from the research, experiment, or survey under the guidance of his/her Advisor.

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General outlines to cite references while writing report/research paper/ thesis:  
Specific outlines as per the journal:

**A. Format for preparation of dissertation:**

**1. Typing instructions:**

The impression on the typed copies should be black in color. Single spacing should be used for typing the general text. The general text shall be typed in the Font style 'Times New Roman' and Font size 12. Line spacing of 1.5 cm.

**2. Page dimensions and margin:**

Standard A4 size paper may be used for preparing the copies. The final copies of the project report (at the time of submission) should have the following page margins:

Top edge: 2.5 to 3.0 cm

Bottom edge: 2.5 cm

Left side: 3.5 cm

Right side: 2.5 cm

The project report should be prepared on good quality white paper. Tables and figures should conform to the margin specifications. Large size figures should be photographically or otherwise reduced to the appropriate size before insertion.

**A. At the end of sentence:** Where ----- indicates a sentence.

1. \_\_\_\_\_ (Larsen, 1967).
2. \_\_\_\_\_ (Williams and Walker, 1969).
3. \_\_\_\_\_ (Mahapatra and Patrik, 1969; Mckee, 1970).
4. \_\_\_\_\_ (Amer *et al.*, 1955).
5. \_\_\_\_\_ (Chauhan *et al.*, 1981; Hedley *et al.*, 1982).

**B. Start or middle of the sentence:**

1. Koing (1962) observed \_\_\_\_\_
2. Halstead and Mclercher (1975) also showed \_\_\_\_\_
3. Amer *et al.* (1955) concluded \_\_\_\_\_
4. This was confirmed by Fried *et al.* (1957) who showed \_\_\_\_\_

**C. References:**

1. Alexander, M. 1961. Introduction to soil microbiology. John Wiley and Sons, New York.
2. Anderson, D.T. 1961. Surface trash conservation with tillage machines. *Can. J. Soil Sci.* 41: 99-114.
3. Babuick, L.A. and E.A. Paul. 1970.....
4. Cole, C.V., S.R. Olson and L.O. Scott. 1953.....
5. Martin, J.K. 1964a. Soil Organic Phosphorus. I.....
6. Martin, J.K. 1964b. Soil Organic Phosphorus. II. The nature of soil organic phosphorus. *New Zealand J. Agr. Res.* 7:736-749.
7. Cosgrove, D.J. 1967. Metabolism of organic phosphorus in soils. In *Soil Biochemistry*, Vol. 1 (A.D. McLaren and G.H. Peterson, eds.), pp. 216-220, Marcell and Dekker, New York.
8. Paul, A. and B. Paul. 2000.....

In Mineral cycling of Southern Ecosystems (F.G. Howell, J.B. Gent and M.H. Smith, eds.), ERDA symposium series (Conf. 740153), pp. 642-657. Publishers name and address, if any.

9. USEPA (U.S. Environmental Protection Agency) (2006). Soil Contamination. <http://www.epa.gov/superfund/students/wastside/soilspil.htm>. Cited 14 March 2008.

**D. Use of correct word, spelling, year and unit of measurement:**

surface soil

subsoil

topsoil

9.0 t/ha

Fig. 11.2

10 to 20 cm

no-till

10%

1989-90 (same century)

1889-1902 (different century, both years complete).

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Dated:

**NOTICE**

The research proposal of course No. ESC 648 may be prepared by the students in consultation with their Faculty Advisor as per two pages of proforma attached herewith. The proforma may be modified if required for a meaningful presentation of the research proposal.

Encl: as above

Dr. Viheno Iralu  
Incharge, DRC

CC

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**RESEARCH PROGRAMME DETAILS  
(COURSE NO. 648)**

**1. NAME OF THE STUDENT:**

**<name of student> (ROLL NO. \_\_\_\_)**

**2. TITLE:**

**<title of project>**

**3. ADVISOR:**

**<name of advisor>**

## **4. INTRODUCTION**

## **5. TECHNICAL PROGRAMME AND METHODOLOGY**

### **5.1. Location of experimental site**

The present investigation will be carried out at the department of Environmental Science, Patkai Christian College (Autonomous), Chumukedima-Seithekema, Dimapur- 797103, Nagaland, India in the month of August, 2016. The College is located at 25<sup>o</sup> 48 43 N latitude and 93<sup>o</sup> 48 14 E longitude of 211 m above mean sea level.

### **5.2. Collection of soil/plants/water/solid waste/sewage effluent/sludge/wastewater etc. samples (*as applicable*)**

### **5.3. Characteristics of collected samples (e.g. Soil characteristics)**

Table 1 Physico-chemical characteristics of \_\_\_\_\_ (e.g. surface soil)

### **5.4. Methodology**

#### **5.4.1. Design and layout of the experiment.**

#### **5.4.2. Treatments**

The treatment combination is presented in table 2

#### **5.4.3. Incubation**

#### **5.4.4. Methods of measurement of constituents/ characteristics/ numbers etc.**

#### **5.5. Observation**

#### **5.6. Computations**

## **6.0 IMPORTANCE OF RESEARCH**

## **REFERENCES**