

TASK 4

COURSE INFORMATION

CODE	: ECW501
COURSE	: RESEARCH METHODOLOGY
LEVEL	: Bachelor of Engineering with Honours
CREDIT UNIT	: 3.0
CONTACT HOURS	: Lecture : 3.0 hrs/week
PART	: 06

COURSE OUTCOMES

At the end of the course the students should be able to :-

1. Identify and formulate research problems
2. Conduct literature search and write literature review
3. Choose appropriate research method for a given problem
4. Apply concepts in data collection, data analysis and data presentation
5. Prepare a brief research proposal.

COURSE DESCRIPTION

This course introduces the students to the principles and techniques of scientific research. The focus is on developing skills of preparing a research proposal.

SYLLABUS CONTENT

No.	Topic	Laboratory Hours
1.0	Philosophy of research	3 hours
2.0	Introduction to research	6 hours
3.0	Research process / Problem identification	6 hours
4.0	Literature review	6 hours
5.0	Research Design	6 hours
6.0	Principles of data management	6 hours
7.0	Report writing	3 hours
8.0	Presentation Skill	6 hours
		42 hours

TEACHING METHODOLOGY

- a) Lectures given to cover basic principles and examples for each topic
- b) Activities by students in conducting search for research problem
- c) Activities by students in search for literature
- d) Presentation skills

ASSESSMENT

a. Test

Test 1 : Research Philosophy; Research Process & Problem Identification. : 10 %

Test 2 : Literature Review & Research design. : 10 %

Final Exam: : 30 %

b. Assignments involving written report and , oral presentation on any of the topics in the syllabus content : 30 %

Research proposal (to be assessed on both written and oral presentation) : 20 %

Total : 100 %

RECOMMENDED TEXT

- Nil

REFERENCES

1. Rudestam, Kjell Erik and Rae R. Newton (2001). Surviving Your Dissertation : A Comprehensive Guide to Content and Process, Thousand Oaks, Ca : Sage Publication, (ISBN : 0761919619)
2. Yin, R. K.(2003), Case Study Research: Design and method (Applied Social Research Methods Series, volume 5), Thousand Oaks, Ca : Sage Publication, Chapters 1 and 4.

COURSE OUTCOMES – PROGRAM OUTCOMES MATRIX

COURSE CODE	ECW501	CENTRE OF STUDY	WATER RESOURCES AND ENVIRONMENTAL SYSTEMS
COURSE NAME	RESEARCH METHODOLOGY	UPDATED BY	SAT
CREDIT HOURS	3.0	DATE	13 JULY 2007

COURSE OUTCOMES	PROGRAM OUTCOMES											TEACHING METHODOLOGY	ASSESSMENT	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11			
a. Identify and formulate research problems														
b. Conduct literature search and write literature review														
c. Choose appropriate research method for a given problem														
d. Apply concepts in data collection, data analysis and data presentation														
e. Prepare a brief research proposal.														

RATING ON OBJECTIVE IN RELATION TO PROGRAM OUTCOMES : (1) VERY SLIGHTLY (2) MODERATELY (3) SUBSTANTIVELY