SUBJECT DESCRIPTION FORM

Subject title: Research and Consultancy Techniques for Construction and Real Estate

Subject code: BRE501

Credit value: 3

Responsible staff and department: Prof. Stephen Mak (BRE)

Pre-requisite (Subject title and code no, if any) : Nil

Recommended background knowledge:
Students are expected to possess knowledge of the construction and real estate industries such as would be acquired through study on a degree in a built-environment discipline. Students should be presently working as professionals in these sectors, or in an allied Government department.

Mutual exclusions:
This subject is mutually exclusive with others dealing with research methods, such as Research and Consultancy Techniques for Construction and Real Estate (BRE585) and Research Methods (MM501).

Learning approach:
- Lectures, seminars and role-play based workshops
- Independent study
  - Self study material
  - Assignments

Assessment:
Continuous assessment 100%

There will be no end-of subject examination. Students shall be assessed on three individual assignments, i.e. Assignment 1 (30%), Assignment 2 (30%) and Assignment 3 (40%).

Objectives:
Property and construction industry problems need to be explored and defined before they can be solved. This involves a range of techniques which may be used by a researcher or consultant to contribute towards the solution of a real-world problem faced by management.

The subject aims to meet the need for construction personnel who can contribute to the identification of business and project problems, to select appropriate techniques for their solution and to present or communicate their findings in a variety of ways.

The subject is designed to be of specific interest to those working on research or development projects.
Keyword syllabus:

Problem definition techniques:
Structured and unstructured problems; soft and hard systems definition; concept formulation and mapping.

Consultancy:
Techniques; managing consultants; case studies.

Research methods:
Types of research problems and appropriate methodologies; literature search techniques using bibliographic databases; evaluation, analysis and synthesis of literature for review of past research findings; data collection for qualitative and quantitative analysis; statistical analysis and significance/validity tests; validity and reliability issues in research design; peer review and refereeing in the research process.

Communication and presentation techniques:
Preparation of research proposals; preparation of consultancy proposals; progress reports; planning of thesis and dissertation writing; planning and execution of a research paper for conference presentation; computer graphics aids in lecture and seminar presentations; expert witness presentations in the Hong Kong legal system; professional obligations and liabilities in expert witness situations.

Case studies:
Preparation of a research/project proposal; review of work in the project topic area; expert evidence and preparation of reports on construction/property problems; presentations for winning consultancy contracts.

Indicative reading list and references:

Checkland P.B., (1981), Systems Thinking, Systems Practice, Chichester : John Wiley


Kane E., (1987), Doing Your Own Research, Marion Boyars Publishers Ltd.


Sorenson S., (1996), How to Write Research Papers, Arco Macmillan