**Course Title**: **Research Methods**

**Credit Hours**: 3

**Prerequisites**: **Probability and Statistics**

**Course Outline**:

Research:

introduction to the nature of research, and types of Research;

Research questions, and the nature of evidence: deciding what type of

question to ask, and how to handle the various types of answer; Mud pits and

how to avoid them: things that go wrong; Isms: necessary assumptions,

dubious assumptions, and being caught in crossfire; Searching the literature:

why, where, what for and how; Research in society agendas, context and the

like: things we take for granted, and things that can cause you trouble;

Research design: Types of design: which to use and how to use them;

Surveys and sampling; Field experiments: doing research in the world.

Controlled experiments: changing things systematically and seeing what

happens; Summary and technical terms; Generic advice; Arranging a study:

subjects, equipment, procedures, things to remember, things to beware;

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Handling subjects; Recording; Data collection; Data collection methods: the

methods, and choosing and using the appropriate method; Reports: getting

respondents to talk about how things happen; Observation: watching what

happens; Card sorts: getting respondents to categorise things; Laddering:

unpacking the respondents’ concepts systematically; Repertory grids: a

systematic representation for respondents’ knowledge interviews: asking

people questions; Face-to-face interactions with respondents: the nuts and

bolts of asking questions; Questionnaires: when to use, when not to use,

which questions to ask, what format to use; Data analysis; Content analysis:

what is said in a text, how it is said, and how often it’s said; Discourse

analysis: who says what, about what, to whom, in what format.

Knowledge representation: formats, structures and concepts for making

sense of knowledge; Statistics: describing things with numbers, and

assessing the odds; Descriptive statistics: giving a systematic description of

the numbers you’ve found; Measurement theory: types of measurement and

their implications; Inferential statistics: what are the odds against your

findings being due to random chance? Conclusion: the end game; Writing up:

demonstrating your excellence efficiently, and practical points to remember;

References and referencing: using and citing the right texts to demonstrate

your excellence; what next; thinking forward about what you really want your

life to be?

**Reference Materials**:

1. *A Gentle Guide to Research*, Gordon Rugg & Marian Petre, Open

University Press McGraw-Hill Education, 2007

2. *Practical Research Methods,* CATHERINE DAWSON, How To Books Ltd,

3 Newtec Place, 2002.