Introduction to Research Methodology

Introductory Lecture:

Research Methodology Syllabus

Dr. Mehdia AJANA

Introduction to the Course

- **Subject**: Introduction to Research Methodology
- **Lecturer**: Dr. Mehdia AJANA
  - E-mail: mehdia.ajana@gmail.com
  - Any course related query sent by email should have "**RM**" in the subject line.
- **The course takes place on:**
  - Every **Monday** from **5:00 to 6:30 PM**
- This module will be taught in **English** and any related work, exam and materials will be communicated in **Academic English**

Course Assessment

Grading	Percent
Attendance & Participation & in-class Quizzes	10
Final Project & Oral Presentation	40
Final Exam	50
Total	100

Plagiarism/Cheating Policy

- **What is Plagiarism**?: "using another person's ideas or creative work without giving credit to that person".
  - Copying and Pasting from the Internet without citing source
  - Copying an assignment from a friend and turning it in as your own
- **Zero Tolerance**
  - Zero points in assignment/ quiz/ project/ exam
  - Reported to the administration

Course Desciption

- This course introduces the module of **Research Methodology** for classes dealing with it for the first time.
- It also discusses **definitions**, **designs**, **strategies**, and **data collection methods and tools** relating to research in general
- The basic aim of this course is to **theoretically introduce students to methods of research** and then make them able to practically conduct it


What about the course contents ?

Learning Outcomes

- This course aims to guide students towards achieving competence and proficiency in the theory of and practice to research
- In more **specific practical aims**, the present course aims at:
  - Enable students **understand what research is**.
  - Raise **awareness of the crucial value of scientific method**
  - Introduce the **concept at the heart of every research project** –the **research problem-** and to discuss what a researchable problem is
  - **Evaluate literature**, form a variety of sources, pertinent to the research objectives.

Learning Outcomes

- **Identify** and **justify** the **basic components of the research framework**, relevant to the tackled research problem
- Explain and justify **how researchers will collect research data**
- Discuss how to **cite sources**
- Finally, warn the **common mistakes in the field of research methodology**

Why Study Research Methodology?

- Students should **understand a general definition of research design**
- Students should be familiar with **ethical issues in educational research**, including those issues that arise in using **quantitative** and **qualitative** research
- Students should know the **primary characteristics of quantitative research and qualitative research.**
- Students should be able to **identify a research problem stated in a study.**

Why Study Research Methodology?

- Students should be **familiar with conducting a literature review** for a scholarly educational study
- Students should be able to **design a good quantitative purpose statement** and **good quantitative research questions** and **hypotheses**

Course Contents

- ***THEME 1: Research Methodology: A review of the Fundamentals***
  1. Meaning of Research
  2. Definitions of Research
  3. Objectives of Research
  4. Motivation in Research
  5. General Characteristics of Research
  6. Criteria of Good Research
  7. Types of Research

Course Contents

- ***THEME 2: The Research Problem***
  1. What is a Research Problem
  2. Selecting the Problem
  3. Sources of the Problem
  4. Defining a Problem
  5. Statement of a Problem
  6. Delimiting a Problem
  7. Evaluation of a Problem

Course Contents

- ***THEME 3: The Review of Literature***
  1. Meaning of Literature Review
  2. Need of Review of Literature
  3. Objectives of Review of Literature
  4. Sources of Literature
  5. The Functions of Literature
  6. How to Conduct the Review of Literature
  7. Some Hints for the Review of Literature
  8. Precautions in Library Use
  9. Reporting the Review of Literature

Course Contents

- **THEME 4: *The Research Hypotheses***
  1. Meaning of Hypothesis
  2. Definitions of Hypothesis
  3. Nature of Hypothesis
  4. Functions of Hypothesis
  5. Importance of Hypothesis
  6. Kinds of Hypothesis
  7. Characteristics of a Good Hypothesis
  8. Variables in a Hypothesis
  9. Formulating a Hypothesis
  10. Testing the Hypothesis

Course Contents

- **THEME 5: *The Research Approach***
  1. The Qualitative Approach
  2. The Quantitative Approach
  3. The Mixed-Methods Approach
  4. Criteria for Selecting a Research Approach

Course Contents

- **THEME 6: *Data Collection Methods***
  1. Questionnaires
  2. Interviews
  3. Focus Groups
  4. Observation

Course Contents

- **THEME 7: *Sampling***
  1. Meaning and Definition of Sampling
  2. Functions of Population and Sampling
  3. Methods of Sampling
  4. Characteristics of a Good Sample
  5. Size of a Sample
  6. The Sample Cycle

Course Contents

- **THEME 8:** ***Research Project Scientific Writing***
  - What is the **field** that you want to make research on?
  - What's the **global idea**?
  - What is your **problematic**?
  - What are your **motivations**?
  - What are your **research questions** and **hypotheses**?
  - On which **sample** your going to test your hypotheses?
  - What are the **tools** and **instruments** you are going to employ? why and how?
  - What are the **procedures of research**?
  - Which **conclusions** do you expect?

Course Contents

- **THEME 8: *Research Project Scientific Writing***
- Overview of the structure of a scientific article
- Introduction – Why was the study undertaken? What was the research question, the tested hypothesis or the purpose of the research?
- Methods – When, where, and how was the study done? What materials were used or who was included in the study groups (patients, etc.)?
- Results – What answer was found to the research question; what did the study find?
- Discussion – What might the answer imply and why does it matter? How does it fit in with what other researchers have found? What are the perspectives for future research?

Course Contents

- **THEME 8: *Research Project Scientific Writing***
- Overview of the structure of a scientific article
  - **Abstract**
  - **Introduction** – Why was the study undertaken? What was the research question, the tested hypothesis or the purpose of the research?
  - **Methods** – When, where, and how was the study done? What materials were used or who was included in the study groups (patients, etc.)?
  - **Results** – What answer was found to the research question; what did the study find?
  - **Discussion** – What might the answer imply and why does it matter? How does it fit in with what other researchers have found? What are the perspectives for future research?
  - **Conclusions**
  - **Acknowledgements**
  - **References**
  - **Appendices** (if any)