

### Postgraduate Course Book

# **Department: Chemistry**

**College:** Education College

**University:** Salahaddin University

Subject: Research Methodology

Course Book Level: M.Sc.; First semester

Lecturer's name: Dr. Dler Kurda

Academic Year: 2023/2024

## **Course Book**

1. Course name	Research Methodology
2. Lecturer in charge	Dr. Dler Kurda
3. Department/ College	Chemistry
4. Contact	e-mail: <u>dler.kurda@su.edu.krd</u>
5. Time (in hours) per	Theory: 2hrs
week	
6. Office hours	Saturday 11 am – 1 pm
7. Course code	
8. Teacher's academic	
profile	Full Name: Dler Dlshad Kurda Rawanduze
	Date of Birth: 15/3/1976
	I became one of the academic staff at the University of Salahaddin about 23 years ago and graduated from the Faculty of Science Department of Chemistry in the 1996-1997 academic year. Then I was appointed as a University Teaching assistant in 1999 and was accepted in the 2001 M.Sc studies, and got a master's degree in 2003 in the specialty of Industrial organic chemistry
	In 2009-2010 I accepted a Ph.D. and got a Ph.D. in polymer specialization in 2014
	On 4/9/2023, I was promoted from Lecturer to assistant professor in Induintostrial Organic Chemistry - Polymer Synthesis
	In 2020-2023 Head of Chemistry Department
	From the 2023 till now the Director of the Higher Education and Scientific Affairs unit
	Participated in many scientific seminars, Symposium, and cultural and sports gatherings
9. Keywords	Research methodology, Data Gathering, Types of research, References , EndNote, Mendeley.

This course is designed to:

- Focus on the major issues and principles of academic research.
- Offer an overview of research theories.
- Introduce different research methodologies and methods.
- Explain the main components of a research proposal.

#### 11. Course objective:

• To give an overview of the research methodology and explain the technique of defining a research problem

- To explain the functions of the literature review in research.
- To explain carrying out a literature search, its review, developing theoretical and conceptual frameworks

and writing a review.

- To explain various research designs and their characteristics.
- To explain the details of sampling designs, and also different methods of data collections.
- To explain the art of interpretation and the art of writing research reports.

• To explain various forms of the intellectual property, its relevance and business impact in the changing global business environment.

• To discuss leading International Instruments concerning Intellectual Property Rights.

#### 12. Student's obligation

The student attendance in class two hours a week + Seminar+ preparation of the home works using computer

### 13. Forms of teaching

Different forms of teaching will be used to reach the objectives of the course: Seminar, Direct questions, Quizzes, Discussion and conclusions. Power point presentations

#### 14. Assessment scheme

Weekly quizzes during the course (5pts). Participation in class and activities (5pts) midterm (20pts)+ review article(15)+ Seminar(5) & Final 50%.

#### 15. Student learning outcome:

Recognize the concept of academic research and its major principles.

- Outline the philosophical differences in research theories.
- Describe various research methodologies and methods.
- Develop a research problem, research aim, related questions and a literature review.
- Write an academic research proposal for undergraduate level.

#### 16. Course Reading List and References:

Boyle JS. Styles of ethnography. In: JM Morse, editor. Critical issues in qualitative research methods.. Thousand Oaks, CA: Sage, 1994:159–85.

Coughlan M., Cronin P. and Ryan F. (2007). Step-by-step guide to critiquing research. Part 1: quantitative research. British journal of Nursing 16 (11).

Creswell, JW. (1998). Qualitative Inquiry and Research Design Choosing Among Five Traditions. Thousand Oaks, CA: Sage Publications.

Crotty, M. (1998). The Foundations of social research: Meaning and perspective in the research process. London: Sage.

Denzin, NK. (1978). Sociological Methods. New York: McGraw-Hill.

Hanson WE, JW Creswell, VL Plano Clark, KS Petska and JD Creswell. Mixed Methods Research Designs in Counseling Psychology. Journal of Counseling Psychology, 2005, Vol. 52, No. 2, 224–

17. Topics Program	T a strang? a
	Lecture's Name
Week 1: Research Methodology Definition	
Week 2: Data collection and data gathering	
Week 3: Types of Research	
Week 4: Research questions & proposal sections	
Week 5: Research ethics	
Week 6: Literature review	
Week 7: Product-Oriented research	
Week 8: Reporting research	
Week 9: Better Design of Research	
Week 10: Indexed Journals	
Week 11: Academic Writing of References	
Week 12: Scopus and Impact Factors	
Week 13:Fake Journals	
Week 14: Fragmentations	
18. Grading procedure	
Seminar+ Reports+ Quizes+ Midterm exam+ Final	

19. Examinations:			
Q1/ Write briefly about Research project design? 20pts A research design is a strategy for answering your research question using empirical data. Creating a research design means making decisions about:			
Your overall research objectives and approach			
Whether you'll rely on primary research or secondary research			
Your sampling methods or criteria for selecting subjects			
Your data collection methods			
The procedures you'll follow to collect data			
Your data analysis methods			
A well-planned research design helps ensure that your methods match your research objectives and that you use the right kind of analysis for your data.			
You might have to write up a research design as a standalone assignment, or it might be part of a larger research proposal or other project. In either case, you should carefully consider which methods are most appropriate and feasible for answering your question.			
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<ul> <li>20. Extra notes:</li> <li>The student must follow attendance policy that given by the university.</li> <li>The student is responsible to read all announcements that are regularly posted by the instructor.</li> <li>Any student having difficulty understanding this handout should contact the instructor for clarifications.</li> <li>For all enquiries, students should contact the instructor.</li> </ul>			
21. Peer review *			

\* Must have permission of the Scientific and Higher Education Committee