

## Research Methodology (CUE31056)

### 1. Information on the Programme

<b>1.1. Higher Education Institution</b>	Cihan University Sulaymaniyah
<b>1.2. College</b>	Science
<b>1.3. Department</b>	Computer Science
<b>1.4. Field of Study</b>	Research Methodology
<b>1.5. Cycle of Study<sup>1</sup></b>	1
<b>1.6. Specialization/ Study Programme</b>	Computer Science
<b>1.7. Form of Education</b>	Full Time

### 2. Information on the Discipline

<b>2.1. Discipline Name</b>	Research Methodology							
<b>2.2. Code</b>								
<b>2.3. Language:</b>	English							
<b>2.4. (Theory) Lecturer</b>	Assistant Lecturer Sherko Hamalaw Murad  <b>E-mail:</b> <a href="mailto:sherko.murad@sulicihan.edu.krd">sherko.murad@sulicihan.edu.krd</a>  <b>Tel:</b> (+964)-07702452429							
<b>2.5. Practical/Seminar/ Laboratory/ Project Lecturer</b>	Assistant Lecturer Sherko Hamalaw Murad  <b>e-mail:</b> <a href="mailto:sherko.murad@sulicihan.edu.krd">sherko.murad@sulicihan.edu.krd</a>  <b>Tel:</b> (+964)-07702452429							
<b>2.6. Year of Study</b>	Third	<b>2.7 Semester</b>	Five	<b>2.8. Assessment Type<sup>2</sup></b>	Written exam	<b>2.9. Discipline Status</b>	<b>Content<sup>3</sup></b>	CD
							<b>Mandatory<sup>4</sup></b>	MD

### 3. Total estimated time (Teaching Hours per Semester)

<b>Total Contact Hours:</b>	<b>52</b>										
<b>Total Self Study Hours:</b>	<b>110</b>										
<b>Total No. Hours:</b>	<b>162</b>										
<b>ECTS:</b>	<b>06</b>										
<b>No. of Weeks</b>	<b>Contact Hours</b>					<b>Self-Study</b>					
	Theoretical	Practical	Lab.	Project	Visit	Quiz	Reading	Assignment	Report	Midterm Exam.	Final Exam.
1 <sup>st</sup> Week (Registration)	-	-	-	-	-	-	-	-	-	-	-
2 <sup>nd</sup> Week	2	2					2				
3 <sup>rd</sup> Week	2	2				2	2	6			
4 <sup>th</sup> Week	2	2				2	2				
5 <sup>th</sup> Week	2	2				2	2		8		
6 <sup>th</sup> Week	2	2					2				
7 <sup>th</sup> Week	2	2					2				
8 <sup>th</sup> Week	2	2					2				
9 <sup>th</sup> Week	2	2				2	2	8			
10 <sup>th</sup> Week	2	2				2	2				
11 <sup>th</sup> Week	2	2					2				
12 <sup>th</sup> Week	2	2				2	2		8		
13 <sup>th</sup> Week	2	2				2	2				
14 <sup>th</sup> Week	2	2					2				
15 <sup>th</sup> Week (Final Exam.)											
16 <sup>th</sup> Week (Final Exam.)											
<b>TOTAL</b>	<b>26</b>	<b>26</b>				<b>14</b>	<b>26</b>	<b>14</b>	<b>16</b>	<b>20</b>	<b>20</b>

#### 4. Prerequisites (if applicable)

<b>4.1 Curriculum-Related</b>	Research Methodology
<b>4.2 Skills-Related</b>	This course will enhance the students' knowledge on research and how to do their graduation project. The students will be taught with the various possible techniques to understand the modern ways of thesis writing.

#### 5. Conditions (if applicable)

<b>5.1. For the Theoretical</b>	<ol style="list-style-type: none"> <li>1. Read and comprehend the textbook material.</li> <li>2. Attend all the classes and take notes on class discussions.</li> <li>3. Actively participate in class discussions and activities.</li> <li>4. Submit all the assignments and the project on time.</li> <li>5. Pass tests and quizzes.</li> </ol>
<b>5.2. For the Practical</b>	All students are normally required to attend the lectures; take part in lectures through applying the exercises on the computer or as quizzes, and to implement assignments

#### 6. Cumulated Specific Competences

Professional Competencies	<p>research methodology refers to the knowledge, skills, and attitudes required to effectively conduct research in a systematic and ethical manner. These competencies ensure that researchers are well-equipped to design, execute, and communicate research projects across various disciplines. Key professional competencies in research methodology include:</p> <ol style="list-style-type: none"> <li>1. Understanding Research Design</li> <li>2. Data Collection Techniques</li> <li>3. Data Analyses</li> <li>4. Result Discussion</li> </ol>
Transversal competences	<p>Transversal competences in research methodology are skills that are transferable across various fields of research and contribute to overall research effectiveness. These competencies are not limited to a specific discipline but are essential for any researcher working in diverse areas. Here are some key transversal competences in research methodology:</p> <ul style="list-style-type: none"> <li>• Critical Thinking and Analytical Skills</li> <li>• Ethical Awareness and Integrity</li> <li>• Collaboration and Teamwork</li> <li>• Adaptability and Flexibility</li> </ul>

#### 7. Discipline Objectives (Based on the cumulated specific Competences)

<b>7.1. General Objective</b>	To let the student to be capable of doing his 4 <sup>th</sup> year project To let the student to be able to carry on his research
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<b>7.2. Specific Objectives</b>	Formulating a Clear Research Question, conducting a Comprehensive Literature Review, Selecting an Appropriate Research Design, developing a Data Collection Plan, Ensuring Ethical Conduct in Research,
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## 8. Content

Week	<b>8.1. Theoretical-Number of Hours</b>	Teaching methods	Observation
1	Registration		
2	Research, Objectives	lecture	<b>1 lecture = 1 hours</b>
3	Motivation, Writing literature	lecture	<b>1 lecture = 1 hours</b>
4	Graduation project,	lecture	<b>1 lecture = 1 hours</b>
5	Graduation project. Count	Lecture	<b>1 lecture = 1 hours</b>
6	Project presentation, Hypothesis	Lecture	<b>1 lecture = 1 hours</b>
7	Result, Result Analysis	Lecture	<b>1 lecture = 1 hours</b>
8	Plan of Research, Qualitative research	Lecture	<b>1 lecture = 1 hours</b>
9	Applied research	Lecture, Quiz	<b>1 lecture = 1 hours</b>
10	Experimental research	Lecture	<b>1 lecture = 1 hours</b>
11	Plan of research	lecture	<b>1 lecture = 1 hours</b>
12	Qualitative research	lecture	<b>1 lecture = 1 hours</b>
13	Central tendency	lecture	<b>1 lecture = 1 hours</b>
14	Final examination	lecture	<b>1 lecture = 1 hours</b>

week	8.2. Practical Works–Number of Hours	Observation
1	Registration	
2	Lecture	<b>1 lecture = 2 hours</b>
3	Lecture	<b>1 lecture = 2 hours</b>
4	Lecture	<b>1 lecture = 2 hours</b>
5	Lecture, assignment	<b>1 lecture = 2 hours</b>
6	Lecture	<b>1 lecture = 2 hours</b>
7	<b>MIDTERM EXAM 1</b>	<b>2 hours</b>
8	Lecture	<b>1 lecture = 2 hours</b>
9	Lecture	<b>1 lecture = 2 hours</b>
10	Lecture	<b>1 lecture = 2 hours</b>
11	<b>MIDTERM EXAM 2</b>	<b>2 hours</b>
12	Lecture	<b>1 lecture = 2 hours</b>
13	Lecture	<b>1 lecture = 2 hours</b>
14	Lecture	<b>1 lecture = 2 hours</b>

*Compulsory bibliography: Key references:*

**1. Fundamentals of Computer Programming with C# by Svetlin Nakov.**

**2. C# Yellow Book by Rob Miles.**

*Optional Bibliography:*

***C# Programming for the Absolute Beginner" by Andy Harris***

## 9. Assessment

Type of Activity	9.1. Assessment Criteria <sup>2</sup>	9.2. Assessment Type	9.3. Percentage of the final Grade
<b>9.4. Theoretical</b>	Mid-term (30%)	Exam	<b>%30</b>
<b>9.5. Practical/ Seminar/Laboratory</b>	Final-Exam (60%)	Exam	<b>%60</b>
<b>9.6. Activity during Semester</b>	Quizzes (2%) Assignment (2%) Attendance (2%) Report (4%)	Exam	<b>%10</b>

**Minimum performance Standards: basic knowledge of hardware and software with basics of java language.**

<b>Theoretical Lecturer</b>	<b>Assistant Lecturer Scherko hamalaw Murad</b>
<b>Practice Lecturer</b>	<b>Assistant Lecturer Scherko Hamalaw Murad</b>

**Approved by the Curriculum development Committee:**

1	Asst Prof Dr. Lway Faisal Abdulrazak
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3	
<b>Head of the Department/ Dean</b>	Asst Prof Dr. Lway Faisal Abdulrazak