



# Course Specification

— (Postgraduate)

**Course Title:** Research Project (2)

**Course Code:** 501826-3

**Program:** Master in Artificial Intelligence

**Department:** Computer Science

**College:** College of Computers and Information Technology

**Institution:** Taif University

**Version:** V2

**Last Revision Date:** 5 May 2024

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جامعة الطائف  
TAIF UNIVERSITY



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## A. General information about the course:

### 1. Course Identification:

1. Credit hours: ( 3 )

#### 2. Course type

A.  University  College  Department  Track

B.  Required  Elective

3. Level/year at which this course is offered: ( Level 4 – Year 2)

#### 4. Course general Description:

This course provides students with the opportunity to apply the knowledge acquired during their studies. The students extend their academic experiments of leadership into areas of personal interest and demonstrate their ability to accomplish the project. The students demonstrate their ability to design, implement and evaluate information. During the second semester, the software and/or hardware implementation takes place followed by the testing and verification phases. Finally, the students should submit a comprehensive report about their achievements to the CS department.

#### 5. Pre-requirements for this course (if any):

This item is subject to the regulations governing postgraduate studies in Saudi universities and its executive rules at Taif University.

#### 6. Co-requirements for this course (if any):

None.

#### 7. Course Main Objective(s):

The main objective of this course is to enable advanced graduate students in AI and related fields to apply concepts and tools of the field to physically design, implement and evaluate real-world projects.

### 2. Teaching Mode: (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	E-learning	-	-
3	Hybrid <ul style="list-style-type: none"> <li>Traditional classroom</li> <li>E-learning</li> </ul>	45	100%
4	Distance learning	-	-

### 3. Contact Hours: (based on the academic semester)

No	Activity	Contact Hours
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1.	<b>Lectures/Seminars</b>	-
2.	<b>Laboratory/Studio</b>	-
3.	<b>Field</b>	-
4.	<b>Tutorial</b>	-
5.	<b>Others (specify): supervisor meetings</b>	<b>45</b>
<b>Total</b>		<b>45</b>

## B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods:

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
<b>1.0</b>	<b>Knowledge and understanding</b>			
-	-	-	-	-
<b>2.0</b>	<b>Skills</b>			
2.1	Implement a software code based on the project requirements and methodology design specification.	<b>S2</b>	Discovery Discussion Brainstorming Self-Learning E-Learning	Proposal Thesis report Presentation Seminars
2.2	Test the implementation of the design specification (model/algorithm) to identify defects and to evaluate its performance.	<b>S2</b>	Discovery Discussion Brainstorming Self-Learning E-Learning	Proposal Project report Presentation Seminars
2.3	Demonstrate the ability to develop a significant model/algorithm and/or software system, providing alternative solutions that fulfill specific design criteria.	<b>S2</b>	Discussion Project Self-Learning	Proposal Project report
2.5	Communicate their professional accomplishments to solve an artificial intelligence problem and evaluate the solution.	<b>S3</b>	Discussion Project	Proposal Project report Presentation Seminars
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1	Incorporate professional, legal, and ethical standards in scientific research to contribute effectively to the field.	<b>V1</b>	Project Self-Learning	Proposal Project report



Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
3.2	Recognize the need for lifelong learning due to ongoing technological advancements.	V1	Project Self-Learning	Thesis report Presentation Seminars
3.3	Evaluate, criticize, and defend the work accomplished in the project in writing, visually and orally.	V2	Discussion Project	Project defense Presentation Seminars

### C. Course Content:

No	List of Topics	Contact Hours
1.	Start-up meeting	3
2.	Continue Implementation Work	33
3.	Project Poster	3
4.	Project Final Report	3
5.	Project Presentation / Demo	3
<b>Total</b>		<b>45</b>

### D. Students Assessment Activities:

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Final Report	14th week	30 % (18% supervisor + 12% examiners)
2.	Presentation/Demo	16th week	40% (18% supervisor + 22% examiners)
3.	Overall Work	16th week	20%
4.	Poster	14th week	10% (4% supervisor + 6% examiners)

\*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

### E. Learning Resources and Facilities:

#### 1. References and Learning Resources:

<b>Essential References</b>	Literature Review from Scientific Databases.
<b>Supportive References</b>	-
<b>Electronic Materials</b>	-
<b>Other Learning Materials</b>	-

#### 2. Educational and Research Facilities and Equipment Required:



Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	<ul style="list-style-type: none"> <li>A meeting room with a personal computer, a data show.</li> </ul>
<b>Technology equipment</b> (Projector, smart board, software)	<ul style="list-style-type: none"> <li>Lab materials and required software.</li> <li>Video projector / data show</li> <li>White board.</li> </ul>
<b>Other equipment</b> (Depending on the nature of the specialty)	-

#### F. Assessment of Course Quality:

Assessment Areas/Issues	Assessor	Assessment Methods
<b>Effectiveness of teaching</b>	<ul style="list-style-type: none"> <li>Students</li> <li>Coordinator</li> </ul>	<b>Indirect</b> (Course exit survey) <b>Indirect</b> (Feedback from Course Coordinator)
<b>Effectiveness of students assessment</b>	<ul style="list-style-type: none"> <li>Faculty member</li> <li>Coordinator</li> </ul>	<b>Indirect</b> (Feedback from Faculty member) <b>Indirect</b> (Feedback from Course Coordinator)
<b>Quality of learning resources</b>	<ul style="list-style-type: none"> <li>Students</li> <li>Faculty member</li> <li>Coordinator</li> <li>Council</li> <li>Curriculum Committees</li> </ul>	<b>Indirect</b> (Course exit survey) <b>Indirect</b> (Feedback from Faculty member) <b>Indirect</b> (Feedback from Course Coordinator) <b>Indirect</b> (Feedback from council) <b>Indirect</b> (Feedback from Graduate Committees)
<b>The extent to which CLOs have been achieved</b>	<ul style="list-style-type: none"> <li>Students</li> <li>Faculty member</li> <li>Coordinator</li> <li>Curriculum Committees</li> </ul>	<b>Indirect</b> (Course exit survey) <b>Indirect</b> (Feedback from Faculty member/ Course Coordinator/ Graduate Committee)
<b>Other</b>	-	-

**Assessor** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

#### G. Specification Approval Data:

<b>COUNCIL /COMMITTEE</b>	<b>GRADUATE PROGRAMS COMMITTEE – CS DEPT.</b>
<b>REFERENCE NO.</b>	<b>V2</b>
<b>DATE</b>	<b>5/5/2024</b>