

Course Title:	Internship 2
<b>Course Code:</b>	CSE660/2
Program:	Master Degree In Computer Engineering
Department:	Computer Engineering
Course coordinator:	Department Head
Institution:	Private Higher School of Engineers of Gafsa (ESIP)

#### A. Course identification

1. Credit hours:	5 ()
2. Course type	
a. College	Department Others
<b>b.</b> Fundament	al Transversal Optional
3. Level/year at whi	ich this course is offered: 6/3
4. Pre-requisites for	this course (if any): Scientific Backgrounds, Programming, Design Tools,
writing skill	

#### 1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Self- study	Total workload
1	Traditional classroom			
2	Blended			
3	E-learning		55	130
4	Distance learning			
5	Other ()	75		

### 2. Contact Hours (based on academic semester)

2. Contact Hours (based on academic semester)			
No	Activity	<b>Contact Hours</b>	
1	Lecture <b>Privee de Gais</b>	<b>a</b> -	
2	Laboratory/Studio	-	
3	Tutorial	-	
4	<b>Others</b> (Project management, project definition in collaboration with industrial supervisor(s), regular supervision, coding, simulation, implementation and validation)	130	
	Total	130	



#### **B.** Course Objectives and Learning Outcomes

#### **Course Description**

This second internship, intended for second-year computer engineering students, aims to deepen the technical and professional skills acquired during the first-year introductory internship. Over 1 to 2 months, students work more independently on complex projects, using specialized tools and technologies relevant to their field. This internship enables students to enhance their project management skills, develop advanced technical solutions, and actively contribute to the company's operations.

#### **Course Main Objectives**

- ✓ Integrate into the company's culture and advanced work methods by participating actively in organizational practices, observing decision-making processes, and adapting to project planning and team dynamics.
- ✓ Apply advanced theoretical concepts and specialized skills to real-world projects, taking on greater responsibility in solving technical challenges, troubleshooting issues, and implementing solutions using field-specific tools and technologies.
- ✓ Strengthen technical proficiency in areas of expertise such as software engineering, systems architecture, network administration, cybersecurity, data analysis, or artificial intelligence by handling complex tasks and independently managing project components.
- ✓ Develop advanced communication, teamwork, and project management skills by effectively sharing technical information in reports and presentations, collaborating with interdisciplinary teams, and independently managing priorities and workload.
- Assess personal performance regularly and engage in reflective practice by identifying areas for improvement, learning from challenges, seeking feedback, and implementing constructive changes.
- ✓ Document professional experience comprehensively in a structured internship report, highlighting tasks completed, skills acquired, and the problem-solving strategies employed throughout the internship.

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1.	Course Learning Outcomes	
CLOs		Aligned PLOs
	Knowledge and understanding	
1.1	✓ Allows students to gain an advanced understanding of computer engineering practices in a professional environment, applying their	PLO.K1
	knowledge to solve real-world challenges.	

#### 1. Course Learning Outcomes



CLOs		Aligned PLOs
1.2	✓ Promotes the development of expertise in a specialized area, such as artificial intelligence, cybersecurity, or networks, addressing industry-specific challenges.	PLO.K3
	Skills	
2.1	✓ Encourages students to apply critical thinking and problem-solving skills to analyze real-life situations and select appropriate tools and technologies.	PLO.S1
2.4	✓ Develops skills in analyzing and evaluating the performance of hardware and software systems, with awareness of real-life technical challenges.	PLO.S5
2.5	✓ Trains students to design and document software solutions and structure their reports professionally, considering project objectives and encountered constraints.	PLO.S7

#### C. Course Content

No	List of Topics	Contact Hours (weeks)
1	<ul> <li>Orientation and Introduction</li> <li>Company Overview: Introduction to the organization's mission, values, and structure.</li> <li>Introduction to Tools and Technologies: Familiarization with software tools, equipment, or technologies used by the company.</li> </ul>	1
2 <b>E</b> _4ct	<ul> <li>Development of Technical and Soft Skills</li> <li>Application of Technical Skills: Participation in more technically demanding projects or tasks related to the student's specialization.</li> <li>Collaboration and Communication: Attending team meetings, communicating progress, and addressing encountered obstacles.</li> <li>Internship Conclusion and Report Writing :</li> <li>Final Evaluation with Supervisor: Assessment of skills acquired, feedback on performance, and identification of areas for improvement.</li> <li>Internship Report Writing: Preparing a detailed report including a description of tasks completed, skills developed, challenges encountered, and solutions applied.</li> <li>Presentation and Feedback: Presenting the internship experience to the team or academic supervisor, followed by a O&amp;A session to</li> </ul>	2-4 Final Week
Total	assess learning outcomes.	Between 4-8 weeks

#### **D.** Teaching and Assessment



#### 1. Alignment of Course Learning Outcomes with Teaching Strategies and **Assessment Methods**

Code	Course Learning Outcomes	Teaching	Assessment
1.0		Strategies	Niethods
1.0	Knowledge and understanding	Γ	
PLO.K1	<ul> <li>Allows students to gain an advanced understanding of computer engineering practices in a professional environment, applying their knowledge to solve real- world challenges.</li> </ul>	<ul> <li>Supervision</li> <li>Workshops and Seminars</li> <li>Independent</li> </ul>	<ul> <li>Project Report</li> <li>Oral Defense</li> <li>and Presentation</li> <li>Practical</li> </ul>
PLO.K3	✓ Promotes the development of expertise in a specialized area, such as artificial intelligence, cybersecurity, or networks, addressing industry-specific challenges.	Study and Practical Work - projects	Demonstration
2.0	Skills		
PLO.S1	✓ Encourages students to apply critical thinking and problem-solving skills to analyze real-life situations and select appropriate tools and technologies.	- Supervision	<ul> <li>Project Report</li> <li>Oral Defense and Presentation</li> </ul>
PLO.S5	✓ Develops skills in analyzing and evaluating the performance of hardware and software systems, with awareness of real-life technical challenges.	<ul> <li>Workshops and Seminars</li> <li>Independent Study and Practical Work</li> <li>projects</li> </ul>	<ul> <li>Practical Demonstration</li> <li>Assignments</li> </ul>
PLO.S7	✓ Trains students to design and document software solutions and structure their reports professionally, considering project objectives and encountered constraints.	1.21	
2.	Assessment Tasks for Students		

	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	-	00 %
2	Practical Demonstration	-	00%
3	Oral Defense and Presentation	October every year	40%
4	Project Report	September every year	60%

#### E. Student Academic Counselling and Support



Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

1- Office hours

2- Blackboard interface

#### F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	<ol> <li>Documentation and tutorials specific to the chosen technology.</li> <li>Research articles and academic literature relevant to the project topic.</li> <li>Internal resources from the company (if applicable) and project management software/tools</li> </ol>	
Essential References Materials	PC Data projector	
Electronic Materials	Lecture material in PPT Any Related material including the YouTube videos relating to engineering measurement Blackboard	
Other Learning Materials	NA	

#### 2. Facilities Required

Item	Resources
	Classroom board
Accommodation	Computer lab with the necessary software
	Internet access
Technology Resources	Data projector

#### G. Course Quality Evaluation

<b>Evaluation Areas/Issues</b>	Evaluators	<b>Evaluation Methods</b>
Effectiveness of teaching and assessment.	Students, Faculty, Program Leaders, Peer Reviewer	Direct/Indirect
Extent of achievement of course learning outcomes.	Faculty, Program Leaders, Peer Reviewer	Direct, Indirect
Quality of Learning resources	Faculty, Program Leaders, Peer Reviewer	Direct, Indirect
Teaching and learning quality and effectiveness.	Students, Faculty Program Leaders, Peer Reviewer	Direct, Indirect

#### H. Specification Approval Data

Council / Committee	Computer Engineering Council
Date	11/10/2023



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