

SEMESTER 3



Course Title:	Processor design methodology
Course Code:	CSE311
Program:	Master Degree In Computer Engineering
Department:	Computer Engineering
Course coordinator:	Dr. Ali MANSOURI
Institution:	Private Higher School of Engineers of Gafsa (ESIP)



A. Course Identification

1.	Credit hours: 3 (1.5-1.5-0)		
2. 0	Course type		
a.	College Department Others		
b.	Fundamental Transversal Optional		
3.	3. Level/year at which this course is offered: 2/3		
4. Pre-requisites for this course (if any): CSE122, CSE242, CSE211			
5.	5. Co-requisites for this course (if any): None		

1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	Blended	45	100
3	E-learning		
4	Distance learning		
5	Other		

2. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	30
2	Laboratory/Studio	-
3	Tutorial	15
4	Others (specify)	-
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

Explain the organization of a microcomputer, and the impact of its components on performance. Explain the different designs and how the microprocessor executes its programs in interaction with the other components of the system, and particularly the RAM

Develop the skills required for assembly programming

2. <u>Course Main Objective</u>

- Know the components of a microprocessor system
- Identify the interface (relationship) between lower level software (machine language) and hardware.
- Understand the problem of the architecture of the instruction set.
- Define two large instruction set families.
- Study of the architecture and the different processor designs



3. Course Learning Outcomes

	Aligned PLOs	
1	Knowledge and Understanding	
1.1	State and relate basics, principles, and theories related to microprocessor system	K.1
1.2	Understand the workings of microprocessor systems.	K.2
1.3	List and explore processor issues constraints to judge and reach the optimum produces.	K.3
2	Skills	
2.1	Use knowledge, principles and operating concepts of processor-based systems to produce solutions and designs that meet specific computer- related needs.	S.2
3	Values	
3.1	Mange the design problems and ethics related to microprocessor-based systems	V.3

C. Course Content

No	List of Topics	Contact Hours
1	Organization and design of computers	8
2	the architecture of the instruction set	10
3	Computer arithmetic	3
4	MidTerm-1	2
5	Mono_cycle design	5
6	Design of a Multi-Cycle Processor	5
7	Pipeline concept	10
8	MidTerm-2	2
	Total	45

D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
K .1	State and relate basics, principles, and theories related to microprocessor system	Jaisa	A
K.2	Understand the workings of microprocessor systems.	Lecturing	Assignments, Quizzes, Exome
K.3	List and explore processor issues constraints to judge and reach the optimum produces.		Exams,
2.0	Skills		
S.2	Use knowledge, principles and operating concepts of processor-based systems to produce solutions and designs that meet specific computer-related needs.	Lecturing	Assignments, Quizzes, Exams,



Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
3.0	Values		
V.3	Mange the design problems and ethics related to microprocessor-based systems	 Lectures Class discussions Assignments projects 	Assignments, Report, Quizzes, Exams

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	Weekly	5%
2	Quizzes, Homework assignments	Random	5%
3	First mid Term	7	25%
4	Final Exam	16	65%

E. Student Academic Counseling and Support

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

- Office hours
- Blackboard interface
- Academic advisor
- Bibliotic

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	 Alexis Nasr, « http://pageperso.lif.univ- mrs.fr/~alexis.nasr/Ens/Compilation/mips.pdf » [archive]. Cours d'architecture de Peter Niebert : <u>http://www.cmi.univ- mrs.fr/~niebert/archi2012.ph</u> Introduction au MIPS : http://logos.cs.uic.edu/366/notes/mips%20quick%20tutorial.htm
Essential References Materials	
Electronic Materials	 Lecture material in PPT Any Related material including the YouTube videos relating to Processor design methodology Blackboard
Other Learning Materials	NA



2. Facilities Required

Item	Resources	
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) Teaching class room with board and internet access. Computer Lab.	
Technology Resources (AV, data show, Smart Board, software, etc.)	Power point data show	
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Traditional Machine shop, Metrology Lab.	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators Evaluation Met	
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	21/06/2021	



Course Title:	Software Engineering I
Course Code:	CSE312
Program:	Master Degree In Computer Engineering
Department:	Computer Engineering
Course coordinator:	Dr. Rim AFDHAL
Institution:	Private Higher School of Engineers of Gafsa (ESIP)



A. Course Identification

1. (Credit hours: 3 (1.5-0-1.5)		
2. (Course type		
a.	College Department Others		
b.	Fundamental Transversal Optional		
3.]	3. Level/year at which this course is offered: 2/3		
4. Pre-requisites for this course (if any):			
5. (5. Co-requisites for this course (if any): Programming Workshop I		

1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	Blended	45	100
3	E-learning		
4	Distance learning		
5	Other		

2. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	22.5
2	Laboratory/Studio	22.5
3	Tutorial	-
4	Others (specify)	-
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course will allow students to have a good knowledge of software engineering and its challenges as well as it will introduce different methods and techniques to ensure the development and maintenance of safe and quality software systems for each phase of the software life cycle.

2. <u>Course Main Objective</u>

- Define the software engineering and understand its challenges.
- Describe the qualities of software and the basic principles.
- Explain the software life cycle.
- Describe and compare some classic and newer development processes.
- Introduce software development methods.
- Mange the design problems and ethics related to software engineering.
- Explore software engineering issues to judge and reach the optimum solutions



1. Course Learning Outcomes

	CLOs	
1	Knowledge and Understanding	
1.1	Demonstrate basics of software engineering.	K.1
1.2	Explore software engineering issues to judge and reach the optimum solutions	K.3
2	Skills	
2.1	Master the concept of software life cycle, and compare some classic and newer development processes.	S.2
3	Values	
3.1	Mange the design problems and ethics related to software engineering.	V.3

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to the software engineering: Definitions, Actors, History (Software crisis,),	4
2	Principles: modularity, abstraction, generics	3
3	Software development process and process models: Terminology	3
4	Phase-based process models	3
5	Agile Models	4
6	Needs engineering: Definitions and issues	3
7 Methods and process of requirements engineering		3
8	Analysis stage: models and techniques	3
9 Requirement's specification stage: models and techniques		3
10	Software system specification	3
11	Design stage: Issues, Activities: overall architecture, design of subsystems, interfaces, data structures, algorithms,	4
12	Design methods: functional, object-oriented	3
13	Specification formalisms	3
14	Quality assurance and control	3
Total		45

D. Teaching and Assessment EUTE C Ingénieurs

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
K .1	Demonstrate basics of software engineering.	T (Assignments,
K.3	Explore software engineering issues to judge and reach the optimum solutions	Lecturing	Quizzes, Exams,
2.0	Skills		



Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
S.2	Master the concept of software life cycle, and compare some classic and newer development processes.	Lecturing	Assignments, Quizzes, Exams,
3.0	Values		
V.3	Mange the design problems related to software engineering.	 Lectures Class discussions Assignments projects 	Assignments, Report, Quizzes, Exams

2. Assessment Tasks for Students

#	Assessment task	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	Weekly	15%
2	Quizzes, Homework assignments	Random	5%
3	First mid Term	9	30%
4	Final Exam	16	50%

E. Student Academic Counselling and Support

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

- Office hours
- Blackboard interface
- Academic advisor
- Bibliotic

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	 https://www.eyrolles.com/Informatique/Theme/95/modelis ation-et-genie-logiciel/ 	
Essential References Materials	- https://hal.archives-ouvertes.fr/cel-01988734/document	
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
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) teaching class room with board and internet access. Computer Lab.
Technology Resources (AV, data show, Smart Board, software, etc.)	Power point data show
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Traditional Machine shop, Metrology Lab.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods	
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	01/02/2022	



Course Title:	Algorithm design and analysis
Course Code:	CSE321
Program:	Master Degree In Computer Engineering
Department:	Computer Engineering
Course coordinator:	Dr. Ibrahim ISSAOUI
Institution:	Private Higher School of Engineers of Gafsa (ESIP)



A. Course Identification

1.	Credit hours: 3 (1-0-2)		
2. (Course type		
a.	College Department Others		
b.	Fundamental Transversal Optional		
3.	3. Level/year at which this course is offered: 2/3		
4. Pre-requisites for this course (if any): CSE131, CSE132			
5.	5. Co-requisites for this course (if any):		

1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	Blended	45	100
3	E-learning		
4	Distance learning		
5	Other		

2. Contact Hours (based on academic semester)

No	Activity Contact Hours	
1	Lecture	15
2	Laboratory/Studio	25
3	Tutorial	05
4	Others (specify)	-
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

Recall the analysis of algorithms: asymptotic notations, types of analysis (worst case, average case), recurrence equations and solution techniques. Strategies for designing sequential algorithms (divide and conquer, dynamic programming, greedy algorithms) deterministic algorithms for exploring combinatorial spaces (backtracking, with separation and progressive evaluation). Various topics: Parallel algorithms, probabilistic algorithms (Monte-Carlo method, Markov chains), heuristics and approximation algorithms

for difficult problems.

2. <u>Course Main Objective</u>

- Know the basic notions of the architecture of an algorithm and the different data structures
- Understand the notions of time and space to execute an algorithm
- Understand the need to have an efficient and fast algorithm
- Solve class p and Np-Hard problems
- Use these techniques to optimize future resolutions in any domain



3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding	
1 1	Know the basic notions of the architecture of an algorithm and the	K.1
1.1	different data structures	
2	Skills	
2.1	Understand the notions of time and space to execute an algorithm	S.1
3	Values	
3.1	Use these techniques to optimize future resolutions in any domain.	V.1

C. Course Content

No	List of Topics	Contact Hours
1	Course presentation, problems and algorithms	3
2	Complexity of algorithms	9
3	Mathematical reminders and general theorem	8
4 Sorting algorithms and Divide and conquer		6
5	MidTerm-1	2
6 Dynamic programming and Gluttonous algorithms		6
7 Algorithms on graphs and NP-completeness		9
8	MidTerm-2	2
Total		

D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
K.1	Know the basic notions of the architecture of an algorithm and the different data structures	Lecturing	Assignments, Quizzes, Exams,
2.0	Skills		
S.1	Understand the notions of time and space to execute an algorithm	Lecturing	Assignments, Quizzes, Exams,
3.0	Values	·	
V.1	Use these techniques to optimize future resolutions in any domain.	 Lectures Class discussions Assignments projects 	Assignments, Report, Quizzes, Exams



2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	Weekly	15%
2	Quizzes, Homework assignments	Random	5%
3	First mid Term	7	15%
4	Second mid Term	13	15%
5	Final Exam	16	50%

E. Student Academic Counselling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice: Office hours Deally and interfere

- Blackboard interface
- Academic advisor
- Bibliotic

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	- Denis Lapoire., Initiation à l'algorithmiquel, 2006.	
Essential References	Slim Mesfar, Algorithmique et complexité, 2012.Gilles Schaeffer, Conception et analyse d'algorithmes, 2010.	
Materials	- Nicolas Delestre et Michel Mainguenaud, Les algorithmes de tri,	
Electronic Materials	 Any Related material including the YouTube videos relating to 	
	- Blackboard	
Other Learning Materials	périeure d'Ingénieur	

2. Facilities Required

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Item	Resources	
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) Teaching class room with board and internet access. Computer Lab.	
Technology Resources (AV, data show, Smart Board, software, etc.)	Power point data show	



Item	Resources
Other Resources	
(Specify, e.g. if specific laboratory	Traditional Machina shop, Matrology Lab
equipment is required, list requirements	Traditional Machine shop, Metrology Lab.
or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
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	2/10/2021



Course Title:	Database concept	
Course Code:	CSE322	
Program:	Master Degree In Computer Engineering	
Department:	Computer Engineering	
Course coordinator:	Dr. Fadhel SAAD	
Institution:	Private Higher School of Engineers of Gafsa (ESIP)	



A. Course Identification

1.	Credit hours: 3 (1-0-2)	
2. (Course type	
a.	College Department Others	
b.	Fundamental Transversal Optional	
3.	Level/year at which this course is offered: 2/3	
4. 3	4. Pre-requisites for this course (if any): CSE111, CSE131	
5.	5. Co-requisites for this course (if any):	

1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	Blended	45	100
3	E-learning		
4	Distance learning		
5	Other		

2. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	15
2	Laboratory/Studio	30
3	Tutorial	-
4	Others (specify)	-
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

The Database module is aimed at second-year computer engineering students. In this module, we will present the theoretical aspects of databases. The following topics are studied: relational model, data definition language and SQL data manipulation, standardization, conceptual modeling, database architectures. The module is structured in 6 chapters. The first chapter presents some definitions and generalities, the second chapter describes the structuring and modeling of data. The relational model and normalization are detailed respectively in chapters 3 and 4. Finally, chapters 5 and 6 present the SQL language.

2. <u>Course Main Objective</u>

- At the end of this course, the student should master the concepts relating to relational databases allowing their creation and manipulation.
- Understand all the concepts underlying databases.
- Deepen the concepts of modeling, design and implementation of databases.
- Design a database by respecting the rules and standards of data models.
- Convert a conceptual diagram into a coherent logical (relational) diagram.
- Apply relational algebra operations to query a base.



3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding	
1.1	Understand all the concepts underlying databases.	K.1
2	Skills	
2.2	Design a database by respecting the rules and standards of data models. Deepen the concepts of modeling, design and implementation of databases	S.2
3	Values	
3.1	Effectively persuade, present, communicate, oversee and lead topics in databases and other related disciplines	V.4

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Database	3
2	Data design and structuring	9
3	Relational Model	8
4	MidTerm-1	2
5	Normalization of a relational schema	6
6	SQL Language: Data Definition Language	6
7	SQL Language: Data manipulation language	9
8	MidTerm-2	2
	Total	45

D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		-
K.2	Understand all the concepts underlying databases.	Lecturing	Assignments, Quizzes, Exams,
2.0	Skills		
S.2	Deepen the concepts of modeling, design and implementation of databases		IIIGUI
S.2	Design a database by respecting the rules and standards of data models.	Lecturing	Assignments,
S.3	Convert a conceptual diagram into a coherent logical (relational) diagram.		Quizzes, Exams,
S.4	Apply relational algebra operations to query a base.		
3.0	Values		-
V.1	The student must master the concepts relating to relational databases allowing their creation and manipulation.	 Lectures Class discussions Assignments projects 	Assignments, Report, Quizzes, Exams



2. Assessment Tasks for Students

#	Assessment task	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	Weekly	15%
2	Quizzes, Homework assignments	Random	5%
3	First mid Term	7	15%
4	Second mid Term	13	15%
5	Final Exam	16	50%

E. Student Academic Counseling and Support

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

- Office hours
- -Blackboard interface
- Academic advisor -
- **Bibliotic** -

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	- Gardarin G., Bases de Données - objet/relationnel, Eyrolles, 1999.		
	- Gardarin G., Maîtriser les Bases de Données: modèles et langages,		
	Eyrolles, 1998.		
Essential References	- Carrez C., Des Structures aux Bases de Données, Masson, 1990.		
Materials	- Miranda S.M. & Busta J.M., L'Art des Bases de Données, Eyrolles,		
	1990		
	- Allen G. T., SQL pur les nuls, First, 2010.		
	- Lecture material in PPT		
Electronic Materials	- Any Related material including the YouTube videos relating to		
Electronic Materials	engineering measurement		
	- Blackboard		
Other Learning	ΝΑ		
Materials	- INA		
HCOLE NI	inérieure d'Ingénieure		
2. Facilities Required			

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) teaching class room with board and internet access. Computer Lab.
Technology Resources (AV, data show, Smart Board, software, etc.)	Power point data show
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Traditional Machine shop, Metrology Lab.



G. Course Quality Evaluation

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

H. Specification Approval Data

Council / Committee	Computer Engineering Council
Date	2/10/2021



Course Title:	Operating systems and concurrent programming	
Course Code:	: CSE331	
Program:	Master Degree In Computer Engineering	
Department:	Computer Engineering	
Course coordinator:	Dr. Ibrahim ISSAOUI	
Institution:	Private Higher School of Engineers of Gafsa (ESIP)	



A. Course Identification

1.	Credit hours: 3 (1-0-2)	
2. (Course type	
a.	College Department Others	
b.	Fundamental Transversal Optional	
3. Level/year at which this course is offered: 2/3		
4. Pre-requisites for this course (if any): CSE131, CSE241		
5. Co-requisites for this course (if any):		

1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	Blended	45	100
3	E-learning		
4	Distance learning		
5	Other		

2. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	15
2	Laboratory/Studio	30
3	Tutorial	-
4	Others (specify)	-
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

Introduce the basic mechanisms used by systems to manage processes and resources. Introduce the notions of Processes, Threads and Resources.

- Present the techniques of process management.
- Introduce techniques for managing computer resources.
- Teach students the techniques of securing systems and the techniques of data protection techniques.

2. <u>Course Main Objective</u>

- Familiarity with machine architectures, basic software, and 1st year algorithms Practice of UNIX and C Understand.
- Understand the role of the executive in the execution of a program, and the notion of thread and their communication.
- Understand the problem of concurrent access to shared data.
- Understand the termination of a concurrent program.
- These techniques are useful to implement in distributed algorithms.



3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding	
1.1	Demonstrate common OS commands	K.1
1.2	Familiarity with machine architectures, basic software, and 1st year algorithms Practice of UNIX and C Understand.	K.2
2	Skills	
2.1	Understand the role of the executive in the execution of a program, and the notion of thread and their communication. Understand the problem of concurrent access to shared data.	S.1
3	Values	
3.1	These techniques are useful to implement in distributed algorithms.	V.1

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to the system and concurrent programming	3
2	Basic Operating System Mechanisms	9
3	Processes and Threads and Physical and logical resources	8
4	MidTerm-1	2
5	Process management	7
6	Resource management (Processor, Central Memory, Disk) and Virtual memory	8
7	Concurrent programming	6
8	MidTerm-2	2
	Total	45

D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
K.2	Familiarity with machine architectures, basic software, and 1st year algorithms Practice of UNIX and C Understand.	Lecturing	Assignments, Quizzes, Exams,
2.0	Skills		
S.2	Understand the role of the executive in the execution of a program, and the notion of thread and their communication.	Jaisa	Assignments,
S.2	Understand the problem of concurrent access to shared data.	Lecturing	Exams,
S.3	Understand the termination of a concurrent program.		
3.0	Values		
V.4	These techniques are useful to implement in distributed algorithms.	LecturesClass discussions	Assignments, Report,



Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
		 Assignments projects 	Quizzes, Exams

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	Weekly	15%
2	Quizzes, Homework assignments	Random	5%
3	First mid Term	7	15%
4	Second mid Term	13	15%
5	Final Exam	16	50%

E. Student Academic Counselling and Support

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

- Office hours
- Blackboard interface
- Academic advisor
- Bibliotic

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	- Guy Mazaré, Système d'exploitation et programmation concurrente, 2006.
Essential References Materials	 Thierry Vaira, Programmation système : multiprogrammation (2° partie) Programmation concurrente, 2005. Colette Johnen, Programmation Concurrente en Java, 2007.
Ecole S 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
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) teaching class room with board and internet access. Computer Lab.
Technology Resources (AV, data show, Smart Board, software, etc.)	Power point data show
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Traditional Machine shop, Metrology Lab.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods	
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	08/10/2021



Course Title:	Object-oriented analysis and design	
Course Code:	CSE332	
Program:	Master Degree In Computer Engineering	
Department:	Computer Engineering	
Course coordinator:	Dr. Ibrahim ISSAOUI	
Institution:	Private Higher School of Engineers of Gafsa (ESIP)	



A. Course Identification

1.	Credit hours: 3 (1-0-2)			
2. (Course type			
a.	College Department Others			
b.	Fundamental Transversal Optional			
3.	3. Level/year at which this course is offered: 2/3			
4. Pre-requisites for this course (if any): CSE232, CSE222				
5.	5. Co-requisites for this course (if any):			

1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	Blended	45	100
3	E-learning		
4	Distance learning		
5	Other		

2. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	15
2	Laboratory/Studio	30
3	Tutorial	-
4	Others (specify)	-
	Total	45

B. Course Objectives and Learning Outcomes

1. <u>Course Description</u>

This course will allow students to assimilate and master the basic concepts of the object-oriented approach and to design information systems based on the UML modelling language and Unified Processes. Students will also be able to benefit from the contribution of this approach to object programming.

2. Course Main Objective

- Have an idea about project management and databases.
- Acquire the basics of the object approach with UML.
- Know the modeling techniques and diagrams most commonly used in software development.
- Know how to design any information system.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	1 Knowledge and Understanding	
1.1	Know and Have an idea about project management and databases.	K.2
1.2	Explore and Introduce Graph-Based Modeling of Computer Systems	K.3

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CLOs		Aligned PLOs
2	Skills	
2.1	Understand the modeling techniques and diagrams most commonly used in software development. Understand Acquire the basics of the object approach with UML	S.2
3	Values	
3.1	Justify the standards and codes in practice of Oriented analysis and design	V.3
3.2	Use these techniques to design any information system.	V.4

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to UML	3
2	Use case diagram	9
3	Sequence diagram and Collaboration diagram	8
4	State-transition diagram and Activity diagram	6
5	MidTerm-1	2
6	Class diagram and Object diagram	6
7	Component diagram and Deployment diagram	9
8	MidTerm-2	2
Total		

D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods	
1.0	Knowledge and Understanding			
K.2	Know and Have an idea about project management and databases.	Lecturing	Assignments,	
K.3	Know and Have an idea about project management and databases.		Exams,	
2.0	Skills			
S.2	Understand Acquire the basics of the object approach with UML Understand the modelling techniques and diagrams most commonly used in software development.	Lecturing Lecturing	Assignments, Quizzes, Exams,	
3.0	Values			
V.3	Justify the standards and codes in practice of Oriented analysis and design	- Lectures	Assignments, Report,	
V.4	Use these techniques to design any information system.	- Assignments - projects	Quizzes, Exams	



2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	Weekly	15%
2	Quizzes, Homework assignments	Random	5%
3	First mid Term	7	15%
4	Second mid Term	13	15%
5	Final Exam	16	50%

E. Student Academic Counselling and Support

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

- Office hours
- Blackboard interface
- Academic advisor
- Bibliotic

F. Learning Resources and Facilities

1. Learning Resources			
Required Textbooks	 Pascal Roques, UML par la pratique: Études de cas et exercices corrigés, Eyrolles, 2002. 		
Essential References Materials	 A. Abdellatif, Ingénierie des méthodes et des processus, 2011. P.Muller, Modélisation objet avec UML, Ed. Eyrolles – 2005. Ivar Jacobson, Grady Booch, James Rumbaugh , Le processus unifié de développement logiciel, Eyrolles – 2004 		
Electronic Materials	 Lecture material in PPT Any Related material including the YouTube videos relating to engineering measurement Blackboard 		
Other Learning Materials	ip _{NA} rieure d'Ingénieur		

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) teaching class room with board and internet access. Computer Lab.
Technology Resources (AV, data show, Smart Board, software, etc.)	Power point data show



Item	Resources
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Traditional Machine shop, Metrology Lab.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
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	05/10/2021



Course Title:	Local networks
Course Code:	CSE341
Program:	Master Degree In Computer Engineering
Department:	Computer Engineering
Course coordinator:	Dr. Wajdi SAADAOUI
Institution:	Private Higher School of Engineers of Gafsa (ESIP)



A. Course Identification

1. Credit hours: 3 (1-0-2)	
2. Course type	
a. College Department Others	
b. Fundamental Transversal Optional	
3. Level/year at which this course is offered: 2/3	
4. Pre-requisites for this course (if any): ME232-2, ME435-3, ME	436-3
5. Co-requisites for this course (if any):	

1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	Blended	67.5	100
3	E-learning		
4	Distance learning		
5	Other		

2. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	22.5
3	Tutorial	-
4	Others (specify)	-
	Total	67.5

B. Course Objectives and Learning Outcomes

1. Course Description

In large companies, computers in the workplace need to be connected to a single unit to get work done. Whether it's a company or some other shared hub, computers need to be able to share resources to accomplish goals. Building these networks requires skill, so understanding computer networks is key for getting these connections built. Network addresses must be set and approved. Network connections need to be sure. Building these types of networks requires a lot of thought, but with the right knowledge, you can provide your geographic area and beyond with safe, reliable networked devices. Whether it's the local area network for your company or the wired network in your home, you'll need some knowledge to get it started. These computing devices need a shared operating system, some form of network security, and internet protocols to keep sensitive information safe. When you add in other office equipment such as connected printers and others, it can be quite an undertaking to get everything connected.



2. <u>CourseMain Objective</u>

- This course address Local Area Networks (LANs), network definition using the OSI model, wired and wireless networks, Internet Protocol (IP), TCP/IP in the command line, networking services, wide area networks (WANs), and much more
- Understanding Local Area Networks: Learn about local area networks (LANs) including network devices, data transfer, and types of LANs. Explore network topologies and access methods. Compare peer-to-peer and client/server network models.
- Defining Networks with the OSI Model. Get to know the OSI model, and explore switches. Review the layers in the OSI and TCP/IP models, plus review different types of switches.
- Understanding Wired and Wireless Networks including an overview of twisted-pair and fiber optic cables, and an overview of wireless devices and wireless networking standards.
- Understanding Internet Protocol: Review IPv4 and IPv6. Review IPv4 address categories, default gateways, DNS servers, and subnetting.
- Implementing TCP/IP in the Command Line: Basic and advanced TCP/IP commands.
- Networking Services: Look at topics related to understanding common networking services and different name resolution techniques.
- Understanding Wide Area Networks. Explore routers and WANs. See how routers function, including how data can be routed statically or dynamically, and learn how WANs are connected.

3. Course Learning Outcomes

	Aligned PLOs	
1	Knowledge and Understanding	
1.1	Demonstrate an understanding of LAN technologies and their impact on the Information Technology industry.	K.1
2	Skills	
2.1	Apply principles of networks to identify, formulate, and solve complex Local networks problems	S.1
3	Values	
3.1	A local area network (LAN) is a collection of devices connected together in one physical location, such as a building, office, or home. A LAN can be small or large, ranging from a home network with one user to an enterprise network with thousands of users and devices	v.1 nieurs
3.2	The advantages of a LAN are the same as those for any group of devices networked together. The devices can use a single Internet connection, share files with one another, print to shared printers, and be accessed and even controlled by one another.	V.4



C. Course Content

No	List of Topics	Contact Hours
1	Introduction	3
2	Protocol and normalization	4
3	Transmission techniques	4
4	Data link	4
5	Introduction to LAN	4
6	Networks Layers	4
7	Check transmission errors	6
8	IP Addresses	6
9	Routing	6
10	exercises	4
	Total	45

D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
K.1	Demonstrate an understanding of LAN technologies and their impact on the Information Technology industry.	Lecturing	Assignments, Quizzes, Exams,
2.0	Skills		
S.2	Apply principles of networks to identify, formulate, and solve complex Local networks problems	Lecturing	Assignments, Quizzes, Exams, Assignments, Report, Quizzes, Exams,
3.0	Values		
Ec v.1	A local area network (LAN) is a collection of devices connected together in one physical location, such as a building, office, or home. A LAN can be small or large, ranging from a home network with one user to an enterprise network with thousands of users and devices	- Lectures - Class	Assignments, Report, Quizzes, Exams
V.4	The advantages of a LAN are the same as those for any group of devices networked together. The devices can use a single Internet connection, share files with one another, print to shared printers, and be accessed and even controlled by one another.	- Assignments - projects	Assignments, Report, Quizzes, Exams



2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	Weekly	15%
2	Quizzes, Homework assignments	Random	5%
3	First mid Term	7	15%
4	Second mid Term	13	15%
5	Final Exam	16	50%

E. Student Academic Counseling and Support

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

- Office hours
- Blackboard interface
- Academic advisor
- Bibliotic

F. Learning Resources and Facilities

1. Learning Resources

Dearstand Teachersha	- Local Area Networks: An Introduction to the Technology		
Required Textbooks	- Local Area Network Handbook, Sixth Edition		
Essential References	- LAN Networks and Cabling Systems, 5th Edition		
Materials	- Computer Networking for LANS to WANS		
	- Lecture material in PPT		
	- PC		
	- Switch		
Electronic Materials	- Router		
	- Any Related material including the YouTube videos relating to		
	LAN		
Foolo Si	- Blackboard		
Other Learning Materials	- NA		

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) teaching class room with board and internet access. Computer Lab.
Technology Resources	
(AV, data show, Smart Board,	Power point data show
software, etc.)	



Item	Resources
Other Resources	
(Specify, e.g. if specific laboratory	DC Switch Software
equipment is required, list	rC, Switch. Software
requirements or attach a list)	

G. Course Quality Evaluation

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

H. Specification Approval Data

Council / Committee	Computer Engineering Council
Date	15/10/2021



Course Title:	Statistical principles and methods
Course Code:	CSE342
Program:	Master Degree In Computer Engineering
Department:	Computer Engineering
Course coordinator:	Dr. Okba BASDOURI
Institution:	Private Higher School of Engineers of Gafsa (ESIP)



A. Course Identification

1.	Credit hours: 3 (1-0-2)		
2. 0	Course type		
a.	College Department Others		
b.	Fundamental Transversal Optional		
3.	Level/year at which this course is offered: 2/3		
4. 3	Pre-requisites for this course (if any):		
5.	5. Co-requisites for this course (if any):		

1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	Blended	45	100
3	E-learning		
4	Distance learning		
5	Other		

2. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	30
2	Laboratory/Studio	-
3	Tutorial	15
4	Others (specify)	-
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

The specific objective of the course is to transmit certain knowledge of statistical methods so that the student can:

- Appreciate the role of statistics in the development of scientific knowledge, in administration as in any other field.
- Carry out, if necessary, simple statistical analyzes.
- Recognize the situations which require the application of statistical methods.
- Dialogue with specialists and be able to read the results of a statistical study.



2. Course Main Objective

- Descriptive statistics
- Elements of probability theory
- Parameter estimation (notion of sampling distribution and confidence interval, estimation by confidence interval for a proportion and for an average, determination of the sample size)
- Linear regression (simple linear regression: least squares line, tests on the coefficients, reconciliation coefficient)
- Multiple regression (confusion of effects, tests on the coefficients, partial correlation, inclusion and rejection of variables)
- Time series analysis
- Index numbers

3. Course Learning Outcomes

	Aligned PLOs	
1	Knowledge and Understanding	
1.1	State and relate basics, principles, and theories related to statistical analyzes.	K.1
1.2	Aware with basics, principles, and theories related to Statistical principles and methods	K.2
1.3	the application of statistical methods.	K.3
2	Skills	
2.1	Perform simple statistical analyzes	S.1
2.2	Be able to read the results of a study statistical	S.2
2.3	recognize the situations which require the application of statistical methods	S.3
3	Values	
3.1	Mange the difficult problems by applying the statistical methods Appreciate the role of statistics in the development of scientific knowledge	V.4

C. Course Content

No	List of Topics	Contact Hours
KCOle	- Definition and fields of application of statistics	leur
Introduction	- The statistical approach	5
Introduction	- Objectives and lesson plan	
	- Terminology	
	- Graphic representations	
2	- Discrete variables	
Descriptive	- Continuous variables	8
statistics	- Statistical indicators	
	- Indicators of localization or central tendency	
	- Dispersion or variability indicators	
	- Introduction	
3	- Estimation methods	10
Point estimate	- Definition of an estimator	10
	- The method of moments	



	 The maximum likelihood method Quality of an estimator Unbias and Minimum Variance Estimator (ESBVM) Quantity of information, efficiency of an estimator Properties of EMMs and EMVs 	
4 Confidence intervals	 Problem and definition Confidence intervals for the parameters of the normal distribution Confidence interval for a proportion 	5
5 Tests d'hypotheses	 Introduction: the decision problem Formalization of the parametric test problem on a sample Tests on the mean of a normal distribution Link between hypothesis tests and confidence intervals Procedure for constructing a hypothesis test Tests on the variance of a normal distribution Tests on a proportion Comparison test of two samples 	
6 Linear regression	 Introduction The simple linear regression model Estimation by least squares method The simple linear Gaussian model 	5
	Total	33

D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
K.1 K.2	Statistical analyses.		Assignments
K.3	The application of statistical methods.	Lecturing	Quizzes, Exams,
2.0	Skills		
S.1 S.2	 Perform simple statistical analyses Be able to read the results of a study statistical 	Lecturing	Assignments, Quizzes, Exams,
S.3	Recognize the situations which require the application of statistical methods	e Gaisa	Assignments, Quizzes, Exams,
3.0	Values		
V.4	Mange the difficult problems by applying the statistical methods	- Lectures	Assignments, Quizzes, Exams
V.4	Appreciate the role of statistics in the development of scientific knowledge	- Assignments	Assignments, Quizzes, Exams

2. Assessment Tasks for Students



#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	Weekly	15%
2	Quizzes, Homework assignments	Random	5%
3	First mid Term	9	30%
4	Final Exam	16	50%

E. Student Academic Counseling and Support

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

- Office hours
- Blackboard interface
- Academic advisor
- Bibliotic

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	 [1] Bernard Grais : Méthodes statistiques [2] alain-jacques : valleron probabilitées et statistiques
Essential References Materials	
Electronic Materials	
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms) Teaching class room with board
Technology Resources	lt ut Ualsa
(AV, data show, Smart Board,	
software, etc.)	
Other Resources	
(Specify, e.g. if specific laboratory	
equipment is required, list	
requirements or attach a list)	

G. Course Quality Evaluation



Evaluation Areas/Issues	Evaluators	Evaluation Methods
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	25/09/2021





Course Title:	English III TIPS FOR TOEIC
Course Code:	LAC351
Program:	Master Degree In Computer Engineering
Department:	Computer Engineering
Course coordinator:	Mrs. Rim RADDADI
Institution:	Private Higher School of Engineers of Gafsa (ESIP)



A. Course Identification

1.	Credit hours: 1.5 (1.5-0-0)		
2. 0	Course type		
a.	College Department Others		
b.	Fundamental Transversal Optional		
3.	Level/year at which this course is offered: 2/3		
4. Pre-requisites for this course (if any): LAC151			
5.	5. Co-requisites for this course (if any):		

1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	Blended	22.5	100
3	E-learning	-	-
4	Distance learning		-
5	Other	-	_

2. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	-
2	Laboratory/Studio	-
3	Tutorial	22.5
4	Others (specify)	-
	Total	22.5

B. Course Objectives and Learning Outcomes

1. Course Description

This course would familiarize leaners with the most widespread English proficiency exam that tests their business English skills.

Topics of this course are: office basics, socializing, dinning out, meetings, and travel. These topics are meticulously selected among the most used themes in the TOEIC test.

This course would give the learner an insight of the TOEIC test and give them tips that would help them manage the time of the exam.

Grammatical points and vocabulary are taught in context.

This course is student centred and incorporates the 21st century skills in the ELT (English Language Teaching) classrooms, hence, creativity, collaboration, critical thinking, and communication are crucial components of the learning process.

2. <u>Course Main Objective</u>

- Understanding and identifying different office layout and office equipment.
- Be able to use the English language to talk about machine problems.
- be well prepared for future jobs meetings.
- Learn some business ethiquettes for future professional life.



3. Course Learning Outcomes

	CLOs		
1	Knowledge and Understanding		
1.1	Knowledge of computer components and computer system	K.1	
2	Skills		
2.2	To be able to deal with a business situation.	S.2	
3	Values		
3.1	Lead an effective written or oral business conversation.	V.4	

C. Course Content

No	No List of Topics	
1	Introducing the course	1.5
2	Unit one: Office Basics	4.5
3	Unit Two: Socializing	4.5
4	Unit Three: Dining out	4.5
5	Unit Four: meetings	4.5
6	Unit Five: Business Trip	3
Total		

D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
K.1	Identifying computer components and different computer system	-Pair or groupe work. - Activities - Games.	Assignments. Peer to peer evaluation. Graphic organiser
2.0	Skills		
S.2	To be able to deal with a business situation.	e d ^{TBL} In	Assignment Peer to peer evaluation.
3.0	Values		
V.4	Lead an effective written or oral business conversation.	e G _{BL} fsa	Role plays Assignments, Report, Quizzes, Exams



2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	Weekly	15%
2	Quizzes, Homework assignments	Random	5%
3			15%
4	Final Exam	16	50%

E. Student Academic Counseling and Support

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

- Office hours
- Blackboard interface
- Academic advisor
- Bibliotic

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	TOEIC Speaking and Writing sample test https://www.ets.org/s/toeic/pdf/speaking-writing-sample-tests.pdf		
Essential References Materials	MacKenzie Ian. English for Business Studies. Cambridge University Press.1997. Mascull Bill. Business Vocabulary in Use. Cambridge University Press.2002.		
Electronic Materials	You tube videoTalkenglish.com		
Other Learning Materials	- NA		

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) teaching class room with board and internet access. Computer Lab.
Technology Resources (AV, data show, Smart Board, software, etc.)	Power point data show
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	



G. Course Quality Evaluation

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

H. Specification Approval Data

Council / Committee	Computer Engineering Council
Date	21/09/2021



Course Title:	French III
Course Code:	LAC352
Program:	Master Degree In Computer Engineering
Department:	Computer Engineering
Course coordinator:	Mrs. Rim RADDADI
Institution:	Private Higher School of Engineers of Gafsa (ESIP)



A. Course Identification

1.	Credit hours: 1.5 (1.5-0-0)		
2. 0	Course type		
a.	College Department Others		
b.	Fundamental Transversal Optional		
3.	Level/year at which this course is offered: 2/3		
4. Pre-requisites for this course (if any): LAC351			
5.	5. Co-requisites for this course (if any):		

1. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	Blended	22,5	100
3	E-learning		
4	Distance learning		
5	Other		

2. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	10
2	Laboratory/Studio	12,5
3	Tutorial	-
4	Others (specify)	-
	Total	22,5

B. Course Objectives and Learning Outcomes

1. Course Description

This "Communication" course gives a clear vision of the French language of the professional type with its different articulations according to the situations of the communication itself. The student should be able to:

- Acquire knowledge of organizational communication.
- Express themselves correctly in terms of written language and in the context of professional documents (letters, minutes of meetings, notes, press reviews, etc.)
- To present oneself in an internship or job interview on the basis of a good application file and a real psycholinguistic preparation.
- To obtain the necessary skills to really enter professional life.



2. <u>Course Main Objective</u>

- Acquire knowledge of organizational communication.
- To express oneself orally before an audience or a small group, in terms of expression as such, gestures, attitudes and mastery of the material assigned to it.
- Express oneself correctly in terms of written language and in the context of professional documents (letters, minutes of meetings, notes, files, press reviews, etc.), which presupposes an adequate command of the French language itself and of certain computer tools.

3. Course Learning Outcomes

	Aligned PLOs	
1	Knowledge and Understanding	
1.1	Knowledge of organizational communication Fundamental concepts of communication: awareness of the complex process of communication, identification of the means of communication, the functions of speech, the obstacles to communication.	K.1
2	Skills	
2.2	Expressing oneself correctly in terms of written language and in the context of professional documents (letters, minutes of meetings, notes, files, press reviews, etc.), which presupposes an adequate command of the French language itself and of certain computer tools. Professional writing: writing an agenda, a memo, a summons, letters, reports, minutes, etc.	S.2
3	Values	
3.1	Acquire the necessary skills to enter professional life.Conducting a meeting: preparation, moderation, participation, evaluation of a meeting, conflict management, decision making.	V.4

C. Course Content

No	List of Topics	Contact Hours
1	Presentation of the course and level test through a discussion topic.	2
2	Fundamental concepts of communication (Process, means, functions and obstacles)	e 2,5 r
3	Techniques of modern professional communication (supporting text)	3
4	Professional writing (report, minutes, note, summary, cover letter, CV)	3
5	How to write a cover letter and a professional CV	2,5
6	Speaking (oral presentations) and conducting meetings (preparation, evaluation and conflict management)	3,5
7	Audio-visual session: videos to watch and comment on (Job interview, how to write a good CV, a covering letter, producing a professional e-mail)	3,5
8	Pre-examination debriefing	1
9	Main review	1,5
Total		



D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
K.1 K.1	Knowledge of organisational communication Fundamental concepts of communication: awareness of the complex process of communication, identification of the means of communication, the functions of speech, the obstacles to communication.	Lecturing, speaking & writing	Assignments, Quizzes, Exams,
2.0	Skills		
S.2	Expressing oneself correctly in terms of written language and in the context of professional documents (letters, minutes of meetings, notes, files, press reviews, etc.), which presupposes an adequate command of the French language itself and of certain computer tools.	Lecturing Tutorials Courses project	Assignments, Quizzes, Exams,
S.2	Professional writing: writing an agenda, a memo, a summons, letters, reports, minutes, etc.	Assignments, Report, Quizze Exams,	
3.0	Values		
V.4	Acquire the necessary skills to enter professional life.	- Lectures - Class discussions	Assignments, Report, Quizzes, Exams
V.4	Conducting a meeting: preparation, moderation, participation, evaluation of a meeting, conflict management, decision making.	- Assignments - projects	Assignments, Report, Quizzes, Exams

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Practical Work (written or oral)	Weekly	15%
2	Quizzes, Report & assignments	Random	5%
3	First mid Term	7	15%
4	Second mid Term		15%
5	Final Exam	16	50%

E. Student Academic Counseling and Support

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

- Office hours
- Blackboard interface
- Academic advisor
- Bibliotic



F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	 Jérôme Koechlin, "La communication professionnelle: les clés pour réussir" ("Professional communication: the keys to success"), Paris : Edition PPUR 2015(1ère edition). Michel Danilo, Lincoln, Jean-Luc Penfornis, "Le français de la communication professionnelle" ("French for professional communication"), Allemagne : Edition Cle International (collection Le français de) 1993. 	
Essential References Materials	 Electronic references: https://www.podbean.com/podcast-detail/hvdrf-37d03/Learn-French-with-French-PodcastsFran%C3%A7ais-avec-Pierre https://www.printbasprix.com/blog/quest-ce-que-communication-professionnelle/ https://www.reussirmavie.net/Comment-preparer-son-entretien-d-embauche_a118.html 	
 Electronic Materials Lecture material in Word & PDF Any Related material including the YouTube videos relatin Communication French. 		
Other Learning Materials	- NA	

2. Facilities Required

Item	Resources	
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) teaching class room with board and internet access. Computer Lab.	
Technology Resources (AV, data show, Smart Board, software, etc.)	Power point data show	
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Traditional Machine shop, Metrology Lab.	

G. Course Quality Evaluation

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



nts, Faculty Program	Direct, Indirect
	ts, Faculty Program s, Peer Reviewer

H. Specification Approval Data

Council / Committee	Computer Engineering Council
Date	16/10/2021

