

[GIE206] SAFETY

GENERAL INFORMATION

Studies	DEGREE IN COMPUTER ENGINEERING		Subject	OPERATING SYSTEMS, DISTRIBUTED SYSTEMS AND NETWORKS	
Semester	2	Course	3	Mention / Field of specialisation	
Character	COMPULSORY		Modality	Adapted Face-to-face	
Plan	2017	Hours/week	3.75	Language	EUSKARA
Credits	4,5	Total hours	67.5 class hours + 45 non-class hours = 112.5 total hours		

PROFESSORS

DOK-GANDIAGA IRIONDO, XABIER

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
(No specific previous subjects required)	(No previous knowledge required)

SKILLS

VERIFICA SKILLS

SPECIFIC

GIE401 - To integrate Communications and Information Technology solutions and business processes that meet the informational needs of the organisations, allowing them to efficiently achieve their goals, thereby granting them a competitive advantage.

GIE402 - To determine the requirements of an organisation's communication and information systems according to security aspects and compliance with the legislation and regulations in force.

GENERAL

GIGC03 - To be able to design, develop, evaluate and ensure the accessibility, ergonomics, usability and security of computer services, applications and systems and the information they manage.

GIGC07 - To have the knowledge, understanding and ability to apply the laws pertaining to Computer Technology Engineering and manage specifications, standards and regulations of mandatory compliance.

GIGC11 - To be able to analyse and assess the social and environmental impact of technical solutions, understanding the ethical and professional responsibility of the Computer Engineering Technician.

BASIC

G_CB2 - To be able to apply knowledge to occupational or professional tasks; have the necessary skills to pose and defend arguments, and to solve problems within their field of study

G_CB4 - To be able to communicate information, ideas, problems and solutions to both expert and lay audiences

G_CB5 - To have developed learning abilities required to embark on subsequent studies with a high level of autonomy.

LEARNING RESULTS

RG301 Assumes responsibilities in the work team, organizing and planning the tasks to be developed, facing the contingencies and encouraging the participation of its members.

LEARNING ACTIVITIES

	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc.	2 h.	2 h.	4 h.
Relating to projects/POPBLs carried out individually or in teams			

EVALUATION SYSTEM

Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence

Comments: Continuous assessment.

W

100%

MAKE-UP MECHANISMS

(No mechanisms)

CH - Class hours: 2 h.

NCH - Non-class hours: 2 h.

TH - Total hours: 4 h.

RG302 Analyze the intervening variables in the problem and propose actions for a stable situation.

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams	2 h.	1 h.	3 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence Comments: Continuous assessment.	100%	(No mechanisms)	
CH - Class hours: 2 h.			
NCH - Non-class hours: 1 h.			
TH - Total hours: 3 h.			

RG194 [!] *Análisis de los impactos de los ODS en el proyecto realizado*

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams	2 h.	1 h.	3 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence Comments: Continuous assessment.	100%	(No mechanisms)	
CH - Class hours: 2 h.			
NCH - Non-class hours: 1 h.			
TH - Total hours: 3 h.			

RG304 Define the problem, develop the solution and present the conclusions in a efficient manner, arguing and justifying each one of them in writing.

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams	3 h.	1 h.	4 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence Comments: Continuous assessment. It may be asked to redo the document.	100%	(No mechanisms)	
CH - Class hours: 3 h.			
NCH - Non-class hours: 1 h.			
TH - Total hours: 4 h.			

RG305 Define the problem, develop the solution and present the conclusions in a efficient manner, arguing and justifying each one of them in spoken form.

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams	3 h.	1 h.	4 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence Comments: Continuous assessment.	100%	(No mechanisms)
CH - Class hours: 3 h.		
NCH - Non-class hours: 1 h.		
TH - Total hours: 4 h.		

RG1313 [!] *Aplicar criterios de seguridad en el análisis, diseño, desarrollo, validación y certificación de aplicaciones*

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams	3 h.	2 h.	5 h.
Individual study and work, tests and evaluations and check points	,5 h.		,5 h.
Personal study and flexible development of concepts and subjects using active dynamics to promote more meaningful learning	7 h.	6 h.	13 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	30%	Written, coding/programming and individual oral tests for the evaluation of technical skills in the field Comments: Students with less than 5 in the Control point must retake the exam. Control point value will be 25% and retake 100%. Project: There will not be any retake of the individual defense.
Written, coding/programming and individual oral tests for the evaluation of technical skills in the field Comments: Minimum grade: 5	70%	
CH - Class hours: 10,5 h.		
NCH - Non-class hours: 8 h.		
TH - Total hours: 18,5 h.		

RG1314 [!] *Gestionar los procesos relacionados con la Gestión de la Seguridad*

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams	3 h.	2 h.	5 h.
Individual study and work, tests and evaluations and check points	,5 h.		,5 h.
Personal study and flexible development of concepts and subjects using active dynamics to promote more meaningful learning	5 h.	4,5 h.	9,5 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	30%	Written, coding/programming and individual oral tests for the evaluation of technical skills in the field Comments: Students with less than 5 in the Control point must retake the exam. Control point value will be 25% and retake 75%. Project: There will not be any retake of the individual defense.
Written, coding/programming and individual oral tests for the evaluation of technical skills in the field Comments: Minimum grade: 5	70%	
CH - Class hours: 8,5 h.		
NCH - Non-class hours: 6,5 h.		
TH - Total hours: 15 h.		

RG1315 [!] *Reconocer las principales amenazas informáticas y vulnerabilidades a nivel de infraestructuras, redes e Internet*

LEARNING ACTIVITIES		CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc.		2 h.	1 h.	3 h.
Relating to projects/POPBLs carried out individually or in teams				
Individual study and work, tests and evaluations and check points		,5 h.		,5 h.
Personal study and flexible development of concepts and subjects using active dynamics to promote more meaningful learning		6 h.	5,5 h.	11,5 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	30%	Written, coding/programming and individual oral tests for the evaluation of technical skills in the field
Written, coding/programming and individual oral tests for the evaluation of technical skills in the field	70%	Comments: Students with less than 5 in the Control point must retake the exam. Control point value will be 25% and retake 75%. Project: There will not be any retake of the individual defense.
Comments: Minimum grade: 5		

CH - Class hours: 8,5 h.
NCH - Non-class hours: 6,5 h.
TH - Total hours: 15 h.

RG1316 [!] *Utilizar las tecnologías de autenticación, autorización y control de acceso de sistemas y redes y aplicar los diferentes protocolos y aplicaciones de seguridad en los que se basan las tecnologías de autenticación, autorización y control de acceso*

LEARNING ACTIVITIES		CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc.		7 h.	5 h.	12 h.
Relating to projects/POPBLs carried out individually or in teams				
Individual study and work, tests and evaluations and check points		,5 h.		,5 h.
Personal study and flexible development of concepts and subjects using active dynamics to promote more meaningful learning		20,5 h.	13 h.	33,5 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	30%	Written, coding/programming and individual oral tests for the evaluation of technical skills in the field
Written, coding/programming and individual oral tests for the evaluation of technical skills in the field	70%	Comments: Students with less than 5 in the Control point must retake the exam. Control point value will be 25% and retake 75%. Project: There will not be any retake of the individual defense.
Comments: Minimum grade: 5		

CH - Class hours: 28 h.
NCH - Non-class hours: 18 h.
TH - Total hours: 46 h.

CONTENTS

1. Introduction to Computer Security
2. Cryptographic tools
3. User authentication.
4. Access Control.
5. Intrusion Detection
6. Firewalls
7. Software security.
8. Security Audits
9. Physical Security.
10. Security Management and Legal Aspects.

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Moodle Platform Subject notes Video projections	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_in k.pl?grupo=INFORMATICA32&ejecuta=5&

