

## [GBN201] HOSPITAL ENGINEERING

### GENERAL INFORMATION

<b>Studies</b>	DEGREE IN BIOMEDICAL ENGINEERING	<b>Subject ?</b>
<b>Semester</b>	2	<b>Mention / Field of specialisation</b>
<b>Character</b>	COMPULSORY	
<b>Plan</b>	2022	<b>Language</b> CASTELLANO
<b>Credits</b>	4,5	<b>Total hours</b> 70.5 class hours + 42 non-class hours = <b>112.5 total hours</b>
<b>Modality</b>	Face-to-face	
<b>Hours/week</b>	3.92	

### PROFESSORS

AZPI-MIRANDA SAROBE, IÑIGO  
BEITIALARRANGOTIA OLABIDE, MAIDER

### REQUIRED PREVIOUS KNOWLEDGE

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

### LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GBR307 - To manage hospital facilities taking into account aspects such as security, communications, efficiency, etc., and identifying the methods and tools to use for continuous improvement	x			3,78
G-RTR1 - To develop interdisciplinary projects specific to their specialty and of gradual complexity, - becoming aware of respect for human rights and fundamental rights, and analyzing and assessing the impact of the proposed solutions on the SDGs - to acquire and/or apply basic, advanced and/or avant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies with a high degree of autonomy	x			0,4
G-RTR2 - To express information, ideas and the arguments that support them in an orderly, clear and coherent manner, orally and in writing, based on quality information, self-made or obtained from different sources, using inclusive and non-discriminatory language	x			0,32
<b>Total:</b> 4,5				

KC: Knowledge or Content / SK: Skills / AB: Abilities

### SECONDARY LEARNING RESULTS

**RGB390** [!] Definir y gestionar los objetivos y la planificación de un proyecto que le permita adquirir y/o reforzar los conocimientos de tecnologías específicas de su especialidad,- que en ocasiones llegan a la vanguardia del conocimiento- y definir una estrate

#### LEARNING ACTIVITIES

Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams

**CH**      **NCH**      **TH**

2,5 h.      1,5 h.      4 h.

#### EVALUATION SYSTEM

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

**W**

100%

#### MAKE-UP MECHANISMS

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems  
Observation (technical capacity, attitude and participation)

**CH** - Class hours: 2,5 h.

**NCH** - Non-class hours: 1,5 h.

**TH** - Total hours: 4 h.

**RGB391** [!] Coordinar el equipo de trabajo, estimulando la cohesión y buen clima para lograr la integración de todas las personas y su contribución para alcanzar un rendimiento apropiado, tanto a nivel individual como grupal, para el desarrollo del proyecto en

#### LEARNING ACTIVITIES

Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams

**CH**      **NCH**      **TH**

2 h.      1 h.      3 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Self-assessment	25%	Observation (technical capacity, attitude and participation)
Co-assessment	25%	
Observation (technical capacity, attitude and participation)	50%	

**CH - Class hours:** 2 h.  
**NCH - Non-class hours:** 1 h.  
**TH - Total hours:** 3 h.

**RGB392** [!] Identificar y argumentar de forma precisa los ODS en los que incide el proyecto realizado, aportando posibles acciones para la mejora.

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	2 h.	1 h.	3 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems  Observation (technical capacity, attitude and participation)	

**CH - Class hours:** 2 h.  
**NCH - Non-class hours:** 1 h.  
**TH - Total hours:** 3 h.

**RGB393** [!] Elabora la memoria del proyecto, aportando argumentos elaborados y haciendo un uso correcto, inclusivo y no discriminatorio del lenguaje.

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	2,5 h.	1,5 h.	4 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems  Observation (technical capacity, attitude and participation)	

**CH - Class hours:** 2,5 h.  
**NCH - Non-class hours:** 1,5 h.  
**TH - Total hours:** 4 h.

**RGB394** [!] Realiza una presentación oral del proyecto, justificando las soluciones propuestas con argumentos elaborados y precisos, y haciendo un uso correcto, inclusivo y no discriminatorio del lenguaje.

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	2,5 h.	1,5 h.	4 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	100%	Observation (technical capacity, attitude and participation)
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**CH - Class hours:** 2,5 h.  
**NCH - Non-class hours:** 1,5 h.  
**TH - Total hours:** 4 h.

### **RGB317 [!] Conoce y comprende las infraestructuras sanitarias, así como los servicios y unidades del hospital**

#### **LEARNING ACTIVITIES**

	<b>W</b>	<b>CH</b>	<b>NCH</b>	<b>TH</b>
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning		15 h.	10 h.	25 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects		20 h.	11,25 h.	31,25 h.

#### **EVALUATION SYSTEM**

	<b>W</b>	<b>MAKE-UP MECHANISMS</b>
Individual written and/or oral tests or individual coding/programming tests	100%	Individual written and/or oral tests or individual coding/programming tests

**CH - Class hours:** 35 h.  
**NCH - Non-class hours:** 21,25 h.  
**TH - Total hours:** 56,25 h.

### **RGB318 [!] Conoce y comprende diferentes los aspectos característicos de la instalaciones hospitalarias, como por ejemplo, comunicaciones, gestión de residuos, sostenibilidad, ...**

#### **LEARNING ACTIVITIES**

	<b>W</b>	<b>CH</b>	<b>NCH</b>	<b>TH</b>
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams		15 h.	14,25 h.	29,25 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects		9 h.		9 h.

#### **EVALUATION SYSTEM**

	<b>W</b>	<b>MAKE-UP MECHANISMS</b>
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	40%	Individual written and/or oral tests or individual coding/programming tests
Individual written and/or oral tests or individual coding/programming tests	60%	

**CH - Class hours:** 24 h.  
**NCH - Non-class hours:** 14,25 h.  
**TH - Total hours:** 38,25 h.

## CONTENTS

1. Health in the world
2. Health policies and Health system Organization
  - 2.1 National Health System
  - 2.2 Basque Health System - Osakidetza
3. Hospital facilities

4. Hospital management and cost

5. Economic evaluation

### LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes	Altas atendidas en los Hospitales Generales del SNS, Año 2005 (Datos avance). Instituto de Información Sanitaria. Ministerio de Sanidad y Consumo. 1 de febrero de 2007. Disponible en: <a href="http://www.msc.es/estadEstudios/estadisticas/docs/resumenAltas2005.pdf">http://www.msc.es/estadEstudios/estadisticas/docs/resumenAltas2005.pdf</a>
Technical articles	Asenjo, M.A. «Intereses de los colectivos». En: Asenjo, M.A. Las claves de la Gestión Hospitalaria. Barcelona: Ediciones Gestión; 2000; 2002. 28-31.
Presentations by external Lecturers	Bonfill, X. Asistencia Basada en la Evidencia. Madrid: Ed. Sanidad y Ediciones (SANED); 2000
Topic related web quires	De Pablo González, R., Simó Miñana, J., Domínguez Velázquez, J. y Gérvias Camacho, J. «La relación gestor-clínico: una perspectiva de médicos asistenciales». Atención Primaria 2004; 33(8): 462-70
Class presentations	Denver GEA. An Epidemiological Model for Health Analysis. Soc Ind Res 1976; vo.2, pág 465
Moodle Platform	Dixon et al. «Facing the challenges of health care financing in the CEE/NIS», Draft Paper-US AID Conference, Wash. DC July, 2002.
	Elola, J. Health Care Reforms in Western European Countries: The relevance of Health Care Organization. IJ health services 1996.
	Enthoven, A.C. «Efecctive management of competition in FEHBP». Health Affairs 1989; otoño: 35-50
	SNS, Referencias demográficas y económicas. Infraestructura, equipamiento, personal y utilización de servicios. Recursos económicos y gasto. Satisfacción con el sistema sanitario. Situación de salud y estilos de vida. Ministerio de Sanidad y Consumo. Disponible en <a href="http://www.msc.es/estadEstudios/estadisticas/docs/FOLLETO-BAJA.PDF">http://www.msc.es/estadEstudios/estadisticas/docs/FOLLETO-BAJA.PDF</a>
	Lalonde, M. A new perspective on the health of the Canadians. Otawa: OCMNHW, 1974.
	León, S., Barnuevo, R., De la Infanta, L., Hermida, M., Riesgo, C., Valle, P., Olivares, O. y Sánchez Núñez-Arenas, V. «El gobierno de la sanidad, descentralización sanitaria y estructura organizativa». Informe Técnico Ministerio Sanidad y Consumo.
	Ley 16/2003, de 28 de mayo, de Cohesión y Calidad del Sistema Nacional de Salud: BOE 128. 29 de mayo de 2003: 20567-88.
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	López-Casasnovas, G. «Referentes Prácticos de la reforma sanitaria y el nuevo papel de los profesionales» En: López-Casasnovas, G., García, A. y Pellisé, L. El Control de gasto sanitario. Participación de profesionales y usuarios. Barcelona: Springer-Verlag Ibérica; 2001.
	Morell L. Organizaciones sanitarias, En: Cabo J, director. Gestión sanitaria integral: pública y privada. Madrid: Ediciones CEF; 2010
	Moreu, F. «El gerente ha muerto. ¡Viva el gerente!». Gestión y Evaluación de Costes Sanitarios 2002; 3 (monográfico 3):131-6.
	OECD Health Statistics 2013, <a href="http://dx.doi.org/10.1787/health-data-en">http://dx.doi.org/10.1787/health-data-en</a> ; World Bank for non-OECD countries
	Ortún, V. Gestión Clínica y Sanitaria. De la práctica diaria a la academia, ida y vuelta. Barcelona: Masson; 2003.
	Pascual Mostaza, C. «¿Hacia la desaparición del modelo gerencial?». Gestión y Evaluación de Costes Sanitarios 2002; 3 (monográfico 3):173-7.
	Peiró, S. y Bernal-Delgado, E. «¿A qué incentivos responde la utilización hospitalaria en el Sistema Nacional de Salud?», Gac. Sanit. 2006; 20 (supl 1):110-6.
	PriceWaterhouse Coopers. Health Research Institute. HEALTHCAST 2010. Sanidad y medicina en un mundo global. Disponible en: <a href="http://www.pwc.com/extweb/pwcpublications.nsf/docid/AD058ADEF6FEC03">http://www.pwc.com/extweb/pwcpublications.nsf/docid/AD058ADEF6FEC03</a>

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