Teaching Guide				
Identifying Data				2015/16
Subject (*)	Seguridade e prevención		Code	670G01031
Study programme	Grao en Arquitectura Técnica			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	1st four-month period	Fourth	Obligatoria	6
Language	SpanishGalician			
Teaching method	Face-to-face			
Prerequisites				
Department	Construcións ArquitectónicasTecnoloxía e Ciencia da Representación Gráfica			
Coordinador	Iglesias Maceiras, Álvaro José	E-mail	alvaro.iglesias@udc.es	
Lecturers	Iglesias Maceiras, Álvaro José	E-mail	alvaro.iglesias@udc.es	
Web				
General description	Management of the prevention of risks and of security in works of Construction of buildings, as well as in processes of manufacture of materials and constructive systems, evaluating the risks and scheduling the preventive action. Editorial of Projects, Studies And Plans of Security and labour Health. Coordination of Security and Health in the Construction. Editorial of Projects of security in utilisation of buildings, as well as Plans of Emergency and Evacuation.			

Study programme competences	
Code	Study programme competences
A15	Redactar proxectos técnicos no ámbito da edificación.
A16	Coñecer e aplicar as técnicas de avaliación e prevención de riscos, deseño de estudos e planes, así como dos procesos de coordinación da seguridade e saúde laboral na edificación.
A23	Implementar os planes de seguridade e o seu control en obra.
A25	Deseñar e redactar estudos e planes de evacuación e seguridade dos edificios.
B22	Sensibilidade cara a temas de seguridade laboral, accesibilidade, sustentabilidade e medioambiente.
C6	Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse.

Learning outcomes			
Learning outcomes	Study programme competences		
Draft technical projects in the field of the construction of buildings.	A15		
Know and apply the technicians of evaluation and prevention of risks, design of studies and plans, as well as of the processes of coordination of the security and labour health in the construction of buildings.	A16		
Implement the plans of security and his control in works of construction.	A23		
Design and draft studies and plans of evacuation and security of the buildings.	A25		
Sensitivity to subjects of labour security, accessibility, sustainability and environment.		B22	
Value críticamente the knowledge, the technology and the available information to resolve the problems with which have to confront.			C6

Contents	
Topic	Sub-topic
1ª PART:	EXPOSITIVE Content.
Subject I: FOUNDATIONS OF THE TECHNICIANS OF IMPROVEMENT OF THE LABOUR CONDITIONS	Lessons: 01. THE WORK And THE HEALTH. THE PREVENTION OF LABOUR RISKS. 02. FORECAST, PREVENTION And PROTECTION OF THE DERIVATIVE DAMAGES OF THE WORK. 03. LABOUR ACCIDENTS.

Subject II: SECURITY IN THE WORK	Lessons: 04. CONCEPT And DEFINITION OF SECURITY: TECHNICIANS And INSPECTIONS. PREVENTIVE MEASURES OF ELIMINATION And REDUCTION OF RISKS. 05. ACCIDENTS OF WORK. INVESTIGATION, ANALYSIS And GENERAL EVALUATION OF THE RISK OF ACCIDENT. 06. THE SIGNALING IN SECURITY. 07. ORGANISATION And PLANNING OF INDUSTRIAL ACTIVITIES OF CONSTRUCTION. 08. COLLECTIVE PROTECTIONS And TEAMS OF INDIVIDUAL PROTECTION. 09. TEAMS OF WORK, INSTALLATIONS, MANUAL TOOLS And MACHINES-TOOL. 10. MACHINES: SECURITY IN THE DESIGN. 11. MACHINES: RISKS IN OPERATION, STORAGE And TRANSPORT. 12. PLACES And SPACES OF WORK. 13. GENERAL RISKS UNDER CONSTRUCTION. FALLS OF HEIGHT. . 14. SPECIFIC RISKS OF CONSTRUCTION: DEMOLISH And MOVEMENT OF EARTHS, STRUCTURES And FINISHINGS. MINIMUM DISPOSALS OF SECURITY And HEALTH OF THE GENERAL COLLECTIVE AGREEMENT OF THE SECTOR OF THE CONSTRUCTION. 15. ELECTRICAL RISKS. 16. CHEMICAL PRODUCTS And TOXIC WASTE. 17. BOILERS, INSTALLATIONS OF AIR COMPRESSED And SPACES CONFINED. 18. THE FIRE And THE FIRES. SECURITY AGAINST FIRES IN BUILDINGS And WORKS.
Subject III INDUSTRIAL HYGIENE	Lessons: 19. THE INDUSTRIAL HYGIENE. CONCEPTS And AIMS. 20. CHEMICAL AGENTS. LABOUR TOXICOLOGY And EVALUATION OF THE EXHIBITION. 21. SPECIFIC LEGAL RULE WITH REGARD TO WORKS WITH ASBESTOS.. 22. PHYSICAL AGENTS. CHARACTERISTICS, EFFECTS, EVALUATION And CONTROL. 23. HYGIENIC RISKS. ELECTRICAL WELDING And ACETYLENE AND OXYGEN WELDING. 24. BIOLOGICAL AGENTS. EFFECTS, EVALUATION And CONTROL.
Subject IV ERGONOMICS And PSYCHOLOGY AND SOCIOLOGY APPLIED. MEDICINE OF THE WORK	Lessons: 25. ERGONOMICS And PSYCHOLOGY AND SOCIOLOGY APPLIEDAPPLIED. ENVIRONMENTAL CONDITIONS. 26. PHYSICAL And MENTAL LOAD OF WORK. 27. MEDICINE OF THE WORK. PATHOLOGIES OF LABOUR ORIGIN And SURVEILLANCE OF THE HEALTH.
2ª PART:	INTERACTIVE Content.
Subject V JURIDICAL FIELD OF THE PREVENTION	Lessons: 28. NOTIONS OF RIGHT OF THE WORK. BASIC LEGISLATION OF LABOUR RELATIONS. 29. NOTIONS ON THE SPANISH SYSTEM OF THE SOCIAL SECURITY. 30. RULE ON PREVENTION OF LABOUR RISKS. BUSINESS OBLIGATIONS. 31. ORGANS OF REPRESENTATION And PARTICIPATION IN PREVENTIVE MATTER. 32.ORGANISATION OF THE PREVENTION IN SPAIN.

Subject VI MANAGEMENT OF THE PREVENTION	Lessons: 33. GENERAL APPEARANCES ON ADMINISTRATION And BUSINESS MANAGEMENT. BASIC PRINCIPLES. ORGANISATIONAL MODEL. 34. ANALYSIS, IDENTIFICATION And EVALUATION OF RISKS. 35. PLANNING OF THE PREVENTION. 36. ORGANISATION OF THE PREVENTION. 37. APPLICATION OF THE MANAGEMENT IN A SPECIAL SECTOR: THE CONSTRUCTION.

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Case study	A16 B22 C6	1	2	3
Collaborative learning	A15 A23 A25	30	30	60
Oral presentation	A15 A23 A25	3	6	9
Objective test	A15 A16 A23 A25 B22 C6	2	6	8
Guest lecture / keynote speech	A16 B22 C6	23	46	69
Personalized attention		1	0	1
(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.				

Methodologies	
Methodologies	Description
Case study	Methodology where the subject confronts in front of the description of a specific situation that arouses a problem that has to be comprised, valued and resolved by a group of people, through a process of discussion. The student situa in front of a concrete problem (case), that describes him a real situation of the professional life, and has to be able to analyse a series of facts, referents to a particular area of the knowledge or of the action, to arrive to a decision reasoned through a process of discussion in small groups of work.
Collaborative learning	Group of procedures of education-learning guided of face-to-face form and/or supported with technologies of the information and the communications, that base in the organisation of the class in small groups in what the alumnado works jointly in the resolution of tasks assigned by the profesorado to optimise his own learning and the one of the others members of the group.
Oral presentation	Presentation of oral form with brief explanation of the aims of the course, in relation with each one of the subjects and lessons that will treat in class.
Objective test	It treats of the final examination of the asignatura. It will propose a series of exercises, similar to the developed in class during the course. Also they will be able to propose short questions of índole theoretical to evaluate the understanding of the different concepts treated in the asignatura. It is an individual proof and by writing, that will be able to consist in the integration of open questions of development type fear (program of contents), so much of theory as of solution of problems and/or practical cases.
Guest lecture / keynote speech	The profesorado will realise the oral exhibition of each subject or lesson, complemented with the use of audiovisual means and the introduction of some questions headed to the students, with the purpose to transmit knowledges and facilitate the learning. In the lessons magistrales the professor will present the theoretical and practical contents of the asignatura, helping of illustrative examples with the end to motivate to the students and to help to the understanding and assimilation of the contents. The professor will support in dynamic presentations.

Personalized attention	
Methodologies	Description

Guest lecture / keynote speech Case study Collaborative learning Oral presentation Objective test	It treats of the time that the professor reserves to attend and resolve doubts to the alumnado in relation with the matter. Academic activity developed by the profesorado, individual or in small group, that has like purpose attend to the needs and queries of the alumnado related with the study and/or subjects linked with the matter, providing him orientation, support and motivation in the process of learning. This activity can develop of face-to-face form (directly in the classroom or in the moments that the professor has assigned to tutorías of dispatch) or of form no face-to-face (through email, of moodle or of the virtual campus). During the development of the practical classes (interactive) the professor will go resolving the doubts that the students pose in relation with the matt5ria and with the realisation of the problomas and/or practical cases that are developing . During the ,schedule of turorías will attend all those doubts that the alumnado, of personal form and individualizada, go consulting.

Assessment			
Methodologies	**Competencies**	**Description**	**Qualification**
Guest lecture / keynote speech	A16 B22 C6	The professor will realise the oral exhibition of each subject or lesson, complemented with the use of audiovisual means and the introduction of some questions headed to the students, with the purpose to transmit knowledges and facilitate the learning. The mere face-to-face assistance to the classes (basic duty of the student), that is to say, without a parcitipación proactiva in the same, will not suppose any note in the final qualification of the asignatura.	1
Case study	A16 B22 C6	Resolution of cases that describe a real situation of the professional life, contributing solutions reasoned through a process of discussion in small groups of work.	10
Collaborative learning	A15 A23 A25	Resolution of tasks assigned by the professor, for the study of concrete problems, with the end to optimise the learning of the matter presented in masterclasses.	10
Oral presentation	A15 A23 A25	Exhibition of oral form and participation proactiva, with brief explanation of the aims of the course, in relqación with each one of the subjects and lessons that treat in class.	9
Objective test	A15 A16 A23 A25 B22 C6	The note obtained by the works realised in the interactive classes, as well as the participation proactiva of the student to the asignatura, will be able to suppose 30% of the final note. The note obtained in the final examination (objective proof) will suppose 70% of the final qualification. The mere face-to-face assistance to the classes (basic duty of the student), that is to say, without a parcitipación proactiva in the same, will not suppose any note in the final qualification of the asignatura. THE FINAL QUALIFICATION OF THE ASIGNATURA will CALCULATE OF THE FOLLOWING WAY: - In the case that the note of the final examination (objective proof, that supposes 70%) was equal or elder that 4 (on 10) him añadira the note obtained in the interactive classes (30%), for the calculation of the total qualification of the asignatura (100%). - In the case that the student obtain a lower note that 4 (on 10) in the final examination (objective proof) the final qualification of the asignatura will be equal to this note obtained in the examination.	70

Others			

Assessment comments
The exposed norms will apply along all the course. They do not exist partial examinations. Each one of the methodologies of evaluation will be independent in cualto to qualification. So that the student can present to the objective proofs (official examinations of June and of Julio) has to have realised and presented the works of the interactive classes. Both objective proofs, the one of June and the one of Julio, will have the same value and the same requirements for his qualification, constituting the two opportunities to surpass the asignatura in the course

Sources of information	
Basic	- Gómez Etxebarría, Genaro (2010). MANUAL PARA LA FORMACIÓN EN PREVENCIÓN DE RIESGOS LABORALES. CURSO SUPERIOR. CISS Grupo Wolters Kluwer; Valencia - Martínez Cuevas, Alfredo J. (Coord.) (2003). MANUAL PRÁCTICO PARA LA ELABORACIÓN DE ESTUDIOS DE SEGURIDAD Y SALUD EN OBRAS DE CONSTRUCCIÓN. COAAT de Sevilla; Sevilla. - Espeso Santiago, José Avelino, y otros (2012). COORDINADORES DE SEGURIDAD Y SALUD EN EL SECTOR DE LA CONSTRUCCIÓN. Lex Nova; Valladolid.
Complementary	- Gómez Etxebarría, Genaro (2010). MANUAL PARA LA FORMACIÓN EN PREVENCIÓN DE RIESGOS LABORALES. ESPECIALIDAD EN SEGURIDAD EN EL TRABAJO. CISS Grupo Wolters Kluwer; Valencia - Rodríguez Gómez, Francisco de Asís (2008). MEMORIA Y PLIEGO DE CONDICIONES PARA CONFECCIONAR UN ESTUDIO DE SEGURIDAD Y SALUD. Fundación del Coaat de Alicante; Alicante. - Xunta de Galicia (1997). GUÍA DE AVALIACIÓN DE RISCOS LABORAIS. Xunta de Galicia, Santiago de Compostela. - Fundación Laboral de la Construcción (2011). COORDINADOR EN MATERIA DE SEGIRIDAD Y SALUD EN LAS OBRAS DE CONSTRUCCIÓN (Volúmenes I, II y III). FLC; Madrid. - Sanvicente Callejo, Evaristo (1996). PREVENCIÓN, PROTECCIÓN Y LUCHA CONTRA EL FUEGO. Paraninfo; Madrid - Azcuénaga Linaza, Luís Mª (2007). MANEJO DE CARGAS. RIESGOS Y MEDIDAS PREVENTIVAS. FC Editorial; Madrid - Gómez Etxebarría, Genaro (2009). 1000 SOLUCIONES EN PREVENCIÓN DE RIESGOS LABORALES. CISS Grupo Wolters Kluwer; Valencia. - Cassinoi Gómez de Cádiz, J. y de la Fuente Moreno, M.A. (2015). ANUARIO DE PREVENCIÓN DE RIESGOS LAB ORALES 2015. Thomson Reuters O primeiro día de clase farase unha PRESENTACIÓN DA MATERIA tratando os seguintes puntos: Introdución á materia de %ou201CSEGURIDAD E PREVENCIÓN%ou201D Presentación do profesorado e do coordinador da materia. Coñecementos previos necesarios. Formación de grupos. Horarios de clases e tutorías. Campus virtual (Moodle). Tutorías. Avaliación. Datas de exames. Estatísticas de calificacions en cursos anteriores. As Tutorías do Profesor: realizaranse no horário oficial aprobado e publicado respecto diso polo Centro.

Recommendations
Subjects that it is recommended to have taken before
Construción I/670G01009
Construción II/670G01011
Instalacións I/670G01014
Equipos. medios auxiliares e de seguridade/670G01026
Construción III/670G01017
Proxectos Técnicos I/670G01023
Instalacións II/670G01024
Proxectos Técnicos II/670G01027

Subjects that are recommended to be taken simultaneously
Organización. programación e control/670G01021 Construción IV/670G01022 Direción. Xefatura e Xestión de Obras/670G01028
Subjects that continue the syllabus
Proxecto Fin de Grao/670G01036
Other comments
Recommendations for the study of the matter: -it treats of a matter with an estructrura theoretical basic and a big quantity of legal rule, needing a big practical development that involves a continuous follow-up along all the academic course by part of the student. -It is indispensable the continuous query of the virtual platform Moodle, where will publish contents, practical, exercises, norms, examinations, etc. -previous Knowledges: the contents of the asignaturas indicated.

(*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.