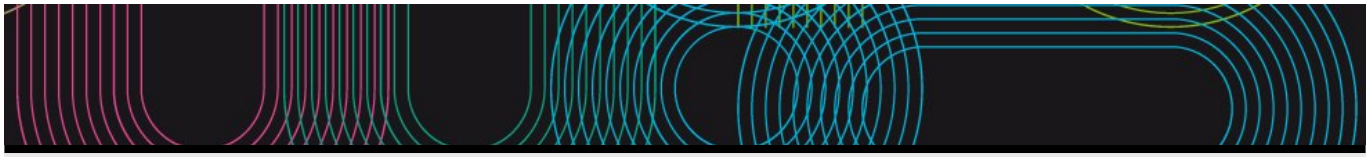

IDENTIFYING DATA				
Methodology for the preparation, presentation and management of technical projects				
Subject	Methodology for the preparation, presentation and management of technical projects			
Code	V12G320V01905			
Study programme	Grado en Ingeniería Eléctrica			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Optional	4th	2nd
Teaching language	Spanish Galician English			
Department				
Coordinator	Alonso Rodríguez, José Antonio Cerqueiro Pequeño, Jorge			
Lecturers	Alonso Rodríguez, José Antonio Cerqueiro Pequeño, Jorge González Cespón, José Luis			
E-mail	jcerquei@uvigo.es jaalonso@uvigo.es			
Web	http://moovi.uvigo.gal/			
General description	The aim of this course is to prepare the students to handle the methods, techniques and tools that are needed for the elaboration and management of technical documents in the industrial field of Engineering. It will also be sought to develop skills in the handling of information and communication technologies related to the professional field of the student's degree. Furthermore, the student skills to communicate properly the knowledge, procedures and results in the Industrial Engineering field will be strenghtened. An essentially practical approach will be used, based in the solution of specific application exercises -with guidance of the subject's lecturer- that will require to apply the theoretical contents of the course.			

Skills	
Code	
B3	CG3 Knowledge in basic and technological subjects that will enable students to learn new methods and theories, and provide them the versatility to adapt to new situations.
C18	CE18 Knowledge and skills to organize and manage projects. Know the organizational structure and functions of a project office.
D2	CT2 Problems resolution.
D3	CT3 Oral and written proficiency.
D5	CT5 Information Management.
D6	CT6 Application of computer science in the field of study.
D7	CT7 Ability to organize and plan.
D8	CT8 Decision making.
D9	CT9 Apply knowledge.
D10	CT10 Self learning and work.
D11	CT11 Ability to understand the meaning and application of the gender perspective in the different fields of knowledge and in professional practice with the aim of achieving a more just and equal society.
D13	CT13 Ability to communicate orally and in writing in the Galician language.
D14	CT14 Creativity.
D15	CT15 Objectification, identification and organization.
D17	CT17 Working as a team.

D18	CT18 Working in an international context.
D20	CT20 Ability to communicate with people not expert in the field.

Learning outcomes

Expected results from this subject	Training and Learning Results		
I handle of methods, technical and tools of organisation and management of distinct technical documents of the projects of engineering.	B3	C18	D2 D7 D8 D9 D10 D14 D15 D17
Skill in the handle of systems of information and of the communications in industrial field.			D5 D6 D9 D11 D17
Skills to communicate properly the knowledges, procedures, results, skills of the field of the Industrial Engineering.			D3 D13 D17 D18 D20

Contents

Topic	
1. Types of usual documents in the distinct fields of the professional engineering activities.	1.1. Technical documents: Characteristics and components. 1.2. Types of technical documents according to their contents. 1.3. Types of technical documents according to their recipients and objectives.
2. Methodology for writing and presenting technical documentation: assessments, valuations, expert reports, studies, reports, dossiers and other similar technical works.	2.1. General aspects in elaborating and presenting technical documentation. 2.2. Elaboration of technical reports. 2.3. Elaboration of technical studies. 2.4. Elaboration of assessments, expert reports and valuations. 2.5. Elaboration of dossiers and other technical works. 2.6. Technical work in concurrent and/or collaborative engineering environments.
3. Techniques for research, analysis, evaluation and selection of technological information.	3.1. Typology of technological information. 3.2. Sources of technological information. 3.3. Information and communications systems. 3.4. Techniques for information research. 3.5. Methods for analyzing information. 3.6. Evaluation and selection of information.
4. Laws and regulations about documentation.	4.1. Applicable laws to technical documentation according to its specific field. 4.2. Other applicable regulations.
5. Processing of technical documentation.	5.1. Processing at Government Offices of technical documentation. 5.2. Legitimization and responsabilities in the processing of documentation before Government's Offices. 5.3. Processing of documentation: Concepts, procedures and specifics.
6. Presentation and verbal defence of technical documents.	6.1. Regulations in the elaboration of technical presentations. 6.2. Preparation for the verbal defence of technical documents. 6.3. Techniques and specific tools for the performance of public presentations.

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	29.5	44.25	73.75
Laboratory practical	29.5	44.25	73.75
Laboratory practice	1.3	0	1.3
Problem and/or exercise solving	1.2	0	1.2

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Lecturing	Presentation by the lecturer of the contents of the topic to be studied, the theoretical bases and/or guidelines of a specific work, exercise or project to be developed by the student.
Laboratory practical	Activities that require applying theoretical knowledge to specific situations in order to acquire basic and procedural skills related to the topic that is being studied. These activities will be developed in special spaces with specific equipment (laboratories, computer rooms, etc.).

Personalized assistance

Methodologies	Description
Laboratory practical	Activities oriented to the application of knowledge to specific situations, and to acquire basic and procedimental skills related to the field of study. Rooms equiped with specific materials and resources will be used for these classes. An appropriate follow-up will be performed on student's work to verify that the best practices shown in theory classes are applied, and that the procedimental recommendations provided by the lecturer are followed. For all the teaching modalities considered in the Contingency Plan, the tutorial sessions can be carried out using IT tools (email, video-call, FAITIC forums, etc.) according to the modality of prior concertation of the virtual place, date and time.

Assessment

	Description	Qualification	Training and Learning Results		
Laboratory practical	Interdisciplinary exercises and problems -as close to real cases as possible- will be solved in groups of students, with lecturer orientation and enforcing active participation by the students.	55	B3	C18	D2 D3 D5 D7 D8 D9 D10 D13 D14 D15 D17 D18 D20
Laboratory practice	Making of practical tests and exercises related to the subject's contents, in the scope of the personalised attention to students.	20	B3	C18	D2 D3 D5 D7 D8 D9 D10 D13 D14 D15 D17 D18 D20
Problem and/or exercise solving	Groups of short answer questions related to the subject's contents, to check that the students have understood and assimilated the theoretical and practical contents.	25	B3	C18	D2 D3 D7 D8 D9 D11 D14 D15

Other comments on the Evaluation

Assessment of student's work - individually and/or in groups, either face-to-face or non-presential - will be carried out by the lecturer by weighting appropriatelly the different marks obtained in the activities that were proposed along this course.

Students may opt to follow this course either in the 'Continuous Evaluation' or in the 'Non-Continuous Evaluation' modalities. In both cases the grading of the course will be made according to a numerical system, using values from 0,0 to 10,0 pointsaccording to the current laws that are applicable (R.D. 1125/2003 of 5th September, BOE Nr. 224 of18th September). A minimum overall mark of 5,0 is required to pass this course.

For theFirst Announcement or Edition.

a) 'Continuous Evaluation' modality:

The final mark for the course will be calculated by combining the individual marks awarded in the assessment of the works proposed and elaborated in the practical classes (60% weight) along the term, with the mark awarded for the final test performed in the date stated by the School's Ruling (40% weight).

These marks will asess the behaviour and the implication of the student both in class and in the realisation of the different programmed activities, plus the fulfillment of the deadlines for submitting the works that were proposed, and/or the presentation and defence of those works, etc.

Students not reaching the minimum value of 3,5 points out of 10 that are required for every section,they will either need to perform also the assessment in the SecondAnnouncement date, or to elaborate additional works or practical exercises to achievethe learning goals that were established for the concerned sections.

b) 'Non-ContinuousEvaluation' modality:

There is a two weeks time term after the starting date of the course for the concerned students to justify with documents that it is not possible for them to follow the regular process of continuous evaluation.

In order to pass this course, students renouncing to continuous evaluation will be obligued to perform a final test covering thewhole contents of the course, both theoretical and practical, including short questions, reasoning questions, problem solving and development of practical cases. The mark awarded to the student assessment will be the final mark for the course.

A minimum mark of 5,0 points out of 10,0 possible will be required to pass the course.

For theSecond Announcement or Edition.

Students who did not pass the course in the First Announcement,but that could have passed some specific parts of the theory or practical blocks,will be allowed to be assessed only regarding the failed parts, keeping the marks formerly awarded for the parts already passed, and applying the same assessment criteria to them.

Students wishing to improve their qualification, or students that failed the course on the First Announcement, will need to assist to the Second Announcement, where they will be assessed about the whole contents ofthe course, both theoretical and practical, including short questions, reasoning questions, problem solving and development of practical cases. Students are required to reach a minimum mark of 5,0 points out of 10,0possible to pass the course.

Ethical commitment:

It is expected an adequate ethical behaviour of the student. In case of detecting unethical behaviour (copying, plagiarism, unauthorized use of electronic devices, etc.) shall be deemed that the student does not meet the requirements for passing the subject. In this case, the overall rating in the current academic year will be Fail (0.0).

The use of any electronic device for theassessment tests is not allowed unless explicitly authorized. The fact ofintroducing unauthorized electronic device in the examination room will beconsidered reason for not passing the subject in the current academic year andwill hold overall rating (0.0).

Sources of information

Basic Bibliography

Aguado, David, **HABILIDADES PARA EL TRABAJO EN EQUIPO: PROGRAMA DE ENTRENAMIENTO**, 1ª, Ediciones Universidad Autónoma de Madrid, 2008

Álvarez Marañón, Gonzalo, **EL ARTE DE PRESENTAR: CÓMO PLANIFICAR, ESTRUCTURAR, DISEÑAR Y EXPONER PRESENTACIONES**, 1ª, Gestión 2000, 2012

Lannon, John M. and Gurak, Laura J., **TECHNICAL COMMUNICATION**, 13th, Pearson, 2013

Pringle, Alan S. and O'Keefe, Sarah S., **TECHNICAL WRITING 101: A REAL-WORLD GUIDE TO PLANNING AND WRITING TECHNICAL CONTENT**, 1st, Scriptorium Publishing Services, 2009

Complementary Bibliography

BIBLIOGRAFÍA BÁSICA:, **----------**, ----------,

Blair, Lorrie, **WRITING A GRADUATE THESIS OR DISSERTATION**, 1st, Sense Publishers, 2016

Brown, Fortunato, **TEXTOS INFORMATIVOS BREVES Y CLAROS: MANUAL DE REDACCIÓN DE DOCUMENTOS**, 1ª, Octaedro, 2003

Budinski, Kenneth G., **ENGINEER'S GUIDE TO TECHNICAL WRITING**, 1st, ASM International, 2001

Pease, Allan, **ESCRIBIR BIEN ES FÁCIL: GUÍA PARA LA BUENA REDACCIÓN DE LA CORRESPONDENCIA**, 1ª, Amat, 2007

BIBLIOGRAFÍA COMPLEMENTARIA:, **----------**, ----------,

Balzola, Martín, **PREPARACIÓN DE PROYECTOS E INFORMES TÉCNICOS**, 2ª, Balzola, 1996

Boeglin Naumovic, Martha, **LEER Y REDACTAR EN LA UNIVERSIDAD: DEL CAOS DE LAS IDEAS AL TEXTO ESTRUCTURADO**, 1ª, MAD, 2007

Calavera, J., **MANUAL PARA LA REDACCIÓN DE INFORMES TÉCNICOS EN CONSTRUCCIÓN: INFORMES, DICTÁMENES, ARBITRAJES**, 2ª, Intemac, 2009

Córcoles Cubero, Ana Isabel, **CÓMO REALIZAR BUENOS INFORMES: SORPRENDA CON INFORMES CLAROS, DIRECTOS Y CONCISOS**, 1ª, Fundacion Confemetal, 2007

García Carbonell, Roberto, **PRESENTACIONES EFECTIVAS EN PÚBLICO: IDEAS, PROYECTOS, INFORMES, PLANES, OBJETIVOS, PONENCIAS, COMUNICACIONES**, 1ª, Edaf, 2006

Himstreet, William C., **GUÍA PRÁCTICA PARA LA REDACCIÓN DE CARTAS E INFORMES EN LA EMPRESA**, 1ª, Deusto, 2000

Sánchez Pérez, José, **FUNDAMENTOS DE TRABAJO EN EQUIPO PARA EQUIPOS DE TRABAJO**, 1ª, McGraw-Hill, 2006

Williams, Robin, **THE NON-DESIGNER'S PRESENTATION BOOK**, 1st, Peachpit Press, 2009

Recommendations

Subjects that it is recommended to have taken before

Graphic expression: Fundamentals of engineering graphics/V12G320V01101
Technical Office/V12G320V01704

Other comments

Previously to the realisation of the final assesments, students should check in the FAITIC platform to know whether it is necessary for them to carry any particular documentation, materials, etc. into the exam room to perform the tests.

It is necessary that the student registered in this course, either has passed all courses of the former years, or is registered in the courses he's not passed yet.