



IDENTIFYING DATA

Externships: Internships I

Subject	Externships: Internships I			
Code	V05G301V01981			
Study programme	Grado en Ingeniería de Tecnologías de Telecomunicación			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Optional	4th	1st
Teaching language	Spanish			
Department				
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General description	(*)La Resistencia de Materiales aborda el análisis de las tensiones y deformaciones de sólidos deformables sometidos a acciones exteriores. Se trata, por lo tanto, del estudio de la mecánica de los sólidos deformables, determinando los valores que pueden tomar las acciones exteriores para que los fenómenos de deformación o incluso de rotura no se produzcan o las dimensiones que debe tener un determinado elemento resistente para que pueda soportar unas acciones exteriores dadas, sin que los esfuerzos internos originados ni las deformaciones sobrepasen los máximos admisibles. En esta asignatura, se abordarán los estados de deformación y tensional que se presentan en un prisma mecánico cuando sobre él actúa una sollicitación externa o una combinación de varias de estas sollicitaciones.			

Training and Learning Results

Code	
B4	CG4: The ability to solve problems with initiative, to make creative decisions and to communicate and transmit knowledge and skills, understanding the ethical and professional responsibility of the Technical Telecommunication Engineer activity.
B5	CG5: The knowledge to perform measurements, calculations, assessments, appraisals, technical evaluations, studies, reports, task scheduling and similar work to each specific telecommunication area.
B12	CG12 The development of discussion ability about technical subjects
B13	CG13 The ability to use software tools that support problem solving in engineering.
C21	CE21/ST1 The ability to construct, exploit and manage telecommunication networks, services, process and applications, considered as systems of receiving, transporting, representation, processing, storage, management and presentation of multimedia information from the point of view of transmission systems.
C22	CE22/ST2 The ability of applying the basic techniques of telecommunication networks, services and applications for mobile and fixed environments, personal, local or long distance, with different bandwidth, including telephony, radio broadcasting, TV and data, from the point of view of transmission systems.
C23	CE23/ST3 The ability to analyze the components and their specifications for guided and non-guided communications systems
C24	CE24/ST4 The ability to select circuits, subsystems and systems of radiofrequency, microwaves, broadcasting, radio link and radio determination.
C25	CE25/ST5 The ability to select transmission antennas, equipment and systems, propagation of guided and non-guided waves, with electromagnetic, radiofrequency and optical media, and their corresponding radio electric spectrum management and frequency designation.
C26	CE26/ST6 The ability to analyze, codify, process and transmit multimedia information using analogical and digital signal processing techniques.
C27	CE27/TEL1 The ability to construct, operate and manage telecommunication networks, services, processes and applications considered as systems to receive, transport, represent, process, store, manage and present multimedia information from the computer services point of view.

- C28 CE28/TEL2 The ability to apply the techniques that are basis of computer networks, services and applications, such as management, signaling and switching, routing and securing systems (cryptographic protocols, tunneling, firewalls, charging mechanisms, authentication and content protection) traffic engineering (graph theory, queuing theory and teletraffic) rating, reliability and quality of service in both fixed, mobile, personal, local or long distance environments with different bandwidths, including telephony and data.
- C29 CE29/TEL3 The ability to build, operate and manage computer services using planning, sizing and analytical tools
- C30 CE30/TEL4 The ability to describe, program, assess and optimize communication protocols and interfaces at different network architecture layers .
- C31 CE31/TEL5 The ability to follow the technological progress of transmission, switching and processing to improve computer networks and services.
- C32 CE32/TEL6 The ability to design networks and service architectures.
- C33 CE33/TEL7 The ability to program network and distributed applications and services.
- C34 CE34/SI1 The ability to construct, exploit and manage telecommunication services and applications, such as receiving, digital and analogical treatment, codification, transporting and representation, processing, storage, reproduction, management and presentation of audiovisual and multimedia information services.
- C35 CE35/SI2 The ability to analyze, specify, carry out and maintain systems, equipments, heads and installations of TV, audio and video for mobile and fixed environments.
- C36 CE36/SI3 The capacity to implement projects at places and installations for the production and recording of audio and video signals.
- C37 CE37/SI4 The ability to carry out acoustic engineering projects related to: acoustical isolation and conditioning of rooms, loudspeaker installations, specification, analysis and selection of electro acoustical transducers, measurement, analysis and control of radio vibration systems, environmental acoustics, submarine and acoustical systems.
- C38 CE38/SI5 The ability to create, modify, manage, broadcast and distribute multimedia contents taking into account the use and accessibility criteria to audiovisual, broadcasting and interactive services.
- C39 (CE39/SE1): The ability to construct, exploit and manage the receiving, transporting, representation, processing, storage, manage and presentation multimedia information from the electronic systems point of view.
- C40 (CE40/SE2): The ability to select electronic circuits and devices specialized in transmission, forwarding or routing, and terminals for fixed and mobile environments.
- C41 (CE41/SE3): The ability to make the specification, implementation, documenting and tuning of electronic systems and equipment (both instrumentation and control oriented), considering the corresponding technical aspects and the regulations.
- C42 (CE42/SE4): The ability to apply electronics as support technology in other fields and activities and not only in information and communication technologies.
- C43 (CE43/SE5): The ability to design analogical and digital electronics circuits of analogical to digital conversion and vice versa, of radiofrequency, of feeding and electrical energy conversion for computing and telecommunication engineering.
- C44 (CE44/SE6): The ability to understand and use feedback theory and electronic control systems.
- C45 (CE45/SE7): The ability to design interface, data capturing and storage devices, and terminals for services and telecommunication systems.
- C46 (CE46/SE8): The ability to specify and use electronic instrumentation and measurement systems.
- C47 (CE47/SE9): The ability to analyze and solve interference and electromagnetic compatibility problems .
- D2 CT2 Understanding Engineering within a framework of sustainable development.
- D5 CT5 Ability to communicate orally and in writing in the Galician language.

Expected results from this subject

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Training and Learning
Results

Experience in the exert of the profession of Technical Engineer of Telecommunication and of his more usual functions (according to the programme of the student) in some real surroundings of company.	B4	C21	D2
	B5	C22	D5
	B12	C23	
	B13	C24	
		C25	
		C26	
		C27	
		C28	
		C29	
		C30	
		C31	
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	C38		
	C39		
	C40		
	C41		
	C42		
	C43		
	C44		
	C45		
	C46		
	C47		

Contents

Topic	
General content	To define by the tutor in the company and the academic tutor
Integration in the company and in his surroundings of work	During his stay the student will be integrated into the organization of the company and must coordinate with the rest of members of the work team to he was assigned.
Development of his professional activity	The student will make the tasks entrusted, in accordance with his knowledges and competences.

Planning

	Class hours	Hours outside the classroom	Total hours
Practicum, External practices and clinical practices	145	5	150

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

Methodologies

	Description
Practicum, External practices and clinical practices	Stay in a company developing functions of a Telecommunications Technical Engineer so that they can put into practice the knowledge and skills acquired, to complete their academic training.

Personalized assistance

Methodologies	Description
Practicum, External practices and clinical practices	The student will have a tutor inside the company that will guide him and will supervise in the specific tasks that it will have to develop inside the same; and an academic tutor - professor of the E.E.T. of the University of Vigo- that will define together with the tutor of the company, the general frame of the activity of the student, checking that it adjusts to the profile studied by the student.

Assessment

Description	Qualification	Training and Learning Results

Practicum, External practices and clinical practices	The evaluation will realise in function of:	100	B4	C21	D2
	1) The memory of activities		B5	C22	
	2) The evaluation of the tutor in the company		B12	C23	
			B13	C24	
				C25	
				C26	
				C27	
				C28	
				C29	
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				C32	
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				C37	
				C38	
				C39	
				C40	
				C41	
				C42	
				C43	
				C45	
				C46	
				C47	

Other comments on the Evaluation

REPORT OF ACTIVITIES: The student must submit a report explaining the activities undertaken during practices, specifying its duration, departments of the company that were conducted, training received (courses, software, etc.), the level of integration within the company and personal relationships.

The report must also include a section of conclusions, containing a reflection on the adequacy of the lessons learned during the university studies to performance practice (negative and positive aspects significant related to the development of practices). It also assessed the inclusion of information on the professional and personal experience with the practices (personal assessment of learning achieved over practices or own contributions and suggestions on the structure and operation of the company visited).

The assessment of memory will be 60% of the final qualification.

COMPANY TUTOR EVALUATION: The company tutor will submit a report assessing aspects with the practices carried out by students: punctuality, attendance, responsibility, teamwork ability and integration in the enterprise, quality of work done, etc.

The assessment of the tutor in the company will be 40% of the final qualification.

Sources of information

Basic Bibliography

Complementary Bibliography

Recommendations

Other comments

It recommends have studied the three first courses of the degree.