UNIVERSIDADE DA CORUÑA

Teaching Guide				
Identifying Data				2015/16
Subject (*)	Análise de Estructuras e Materiais Avanzados		Code	632508002
Study programme	Mestrado Universitario en Investigación en Enxeñaría Civil (2013)			
Descriptors				
Cycle	Period	Year	Type	Credits
Official Master's Degree	Yearly	First	Optativa	6
Language	SpanishGalicianEnglish			
Teaching method	Face-to-face			
Prerequisites				
Department	Enerxía e Propulsión MariñaTecnoloxía da Construción			
Coordinador	Romera Rodriguez, Luis EstebanGalan Díaz, Juan José	E-mail	l.romera@udc.esjuan.jose.galan@udc.es	
Lecturers	Diaz Garcia, Jacobo Manuel Fontan Perez, Arturo Norberto Galan Díaz, Juan José Romera Rodriguez, Luis Esteban Toledano Prados, Mar	E-mail	jacobo.diaz@udc.es arturo.fontan@udc.es juan.jose.galan@udc.es l.romera@udc.es mar.toledano@udc.es	
Web	campusvirtual.udc.es/moodle/			
General description				

Study programme competences	
Code	Study programme competences

Learning outcomes			
Learning outcomes	Study programme competences		

Contents	
Topic	Sub-topic
Análisis de Fatiga	Resistencia y Límite de Fatiga

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Guest lecture / keynote speech		20	20	40
Problem solving		20	20	40
ICT practicals		30	20	50
Laboratory practice		2	4	6
Workbook		0	12	12
Personalized attention		2	0	2

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

Methodologies	
Methodologies	**Description**
Guest lecture / keynote speech	
Problem solving	
ICT practicals	
Laboratory practice	Prácticas de ensayos de fatiga en el laboratorio de Ciencia Materiales
Workbook	

Personalized attention	
Methodologies	**Description**
ICT practicals Laboratory practice	Se le ayudará al alumno en las dudas que surgan durante la realización de las prácticas

Assessment			
Methodologies	**Competencies**	**Description**	**Qualification**
Problem solving			25
Guest lecture / keynote speech			25
ICT practicals			25
Laboratory practice			25

Assessment comments

Sources of information	
Basic	- Reddy, J. N. (2004). Mechanics of laminated composite plates and shells. CRC Press - Gürdal, Z., Haftka, R. T. and Hajela, P. (1999). Design and optimization of laminated composite materials. John Wiley & Sons - Barbero, E. J. (2011). Introduction to composite materials design. CRC Press - Kassapoglou, K. (2010). Design and analysis of composite structures. Wiley - Mallick, P. K. (2008). Fiber-reinforced composites. CRC Press - Choi, S-K, Grandhi, R.V. and Canfield, R.A (2007). Reliability-based Structural Design,. Springer Verlag - Haldar, A. and Mahadevan, S. (2000). Probability, reliability, and statistical methods in. John Wiley & Sons - Dowling, N. (2008). Mechanical behavior of materials. Pearson - Courtney, T. (2000). Mechanical behavior of materials. McGraw Hill - Toledano, M. y Monsalve, A. (2008). Ciencia e Ingeniería de materiales. Andavira - Bannantine, J. (1990). Fundamentals of Metal Fatigue Analysis. Prentice Hall - Jurado, J.A., Hernandez S., Nieto F. & Mosquera A. (2011). Bridge Aeroelasticity. WIT Press - Belegundu, A. D., Chandrupatla, T. R. (1999). Optimization Concepts and Applications in Engineering. Prentice Hall
Complementary	

Recommendations
Subjects that it is recommended to have taken before
Subjects that are recommended to be taken simultaneously

Optimización e Análise de Estruturas/632508001
Subjects that continue the syllabus
Other comments

(*)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.