Business Applications of Big Data

Academic Year: (2019 / 2020)   **Review date: 12/06/2019 15:03:12**

Department assigned to the subject:

Coordinating teacher: GOMEZ BERBIS, JUAN MIGUEL

Type: Electives ECTS Credits : 3.0

Year : 1 Semester : 2

OBJECTIVES

Basic competences

CB7 Students know how to apply their acquired knowledge and problem-solving skills in new or unfamiliar settings within broader (or multidisciplinary) contexts related to their field of study.
CB8 Students are able to integrate knowledge and to face the complexity of making judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
CB9 Students know how to communicate their conclusions and the knowledge and ultimate reasons behind them to specialised and non-specialised audiences in a clear and unambiguous way.
CB10 Students have the learning skills that will enable them to continue studying in a way that will be largely self-directed or autonomous.

General competences
CG1 Ability to maintain continuous education after his/her graduation, enabling him/her to cope with new technologies.
CG2 Ability to apply the knowledge of skills and research methods related to engineering.
CG3 Ability to apply the knowledge of research skills and methods related to Life Sciences.
CG4 Ability to contribute to the widening of the frontiers of knowledge through an original research, part of which merits publication referenced at an international level.
CG5 Ability to perform a critical analysis and an evaluation and synthesis of new and complex ideas.
CG6 Ability to communicate with the academic and scientific community and with society in general about their fields of knowledge in the modes and languages commonly used in their international scientific community.
CG7   Ability to diagnose potentially complex real problems by integrating and applying knowledge of different subjects
CG8   Acquire the ability to direct the search and learning of any new situation autonomously.
CG9   Ability to work in changing areas and anticipate new situations.
CG10 Acquire the ability to act ethically and socially responsible in the exercise of the profession

Specific competences

CE6 To know in depth the International Auditing Standards and to apply the requirements established in said standards for the elaboration and execution of the global audit plan.
CE7 Ability to apply advanced techniques to assess the risks of material misstatement in the financial statements and respond to those risks
CE9   Ability to apply advanced techniques to determine the value of a company based on its accounting information, systematic risk and atypical projects, as well as to perform a correct and detailed financial planning in different and uncertain scenarios.
CE10 Ability to understand the concept of risk and its different types to be able to manage it, and relate it to the different corporate structures (financial and non-financial).
CE11   Ability to use advanced techniques to manage each of the risks that affect a company.
CE15   Ability to implement measures that guarantee the independence of the auditor through the development of values and ethical commitment.

CE18 Capacidad para comprender la importancia de la estadística en la contabilidad, la auditoria y los mercados financieros para sus diferentes aplicaciones avanzadas en análisis de datos, estimación de intervalos de confianza y/o contraste de hipótesis
CE19   Acquire the skills to understand the economic and social effects of changes in accounting regulations, and the process of setting accounting standards, the different actors involved, and their ability to influence regulatory bodies.

DESCRIPTION OF CONTENTS: PROGRAMME

SUBJECT: Business Applications of Big Data

Introduction
Big Data and Disruption
Deep Learning, AI and Big Data
eBusiness /Market Trends
Performance Metrics and KPIs for Big Data Evaluation
Auditing KPIs through Big Data
Performance Functions
Capabilities Evaluation
Big Data for Corporations, Conglomerates: Accounting
ERPs
CRM
SCM
Big Data Business Applications
Fintech
Internet of Things (IoT)
Web 4.0
Blockchain Technologies
Blockchain Data
Distributed Ledgers Data
Crypto Technologies

LEARNING ACTIVITIES AND METHODOLOGY

AF3   Theoretical practical classes
AF4   Laboratory practices
AF5   Tutorials
AF6   Team work
AF7   Student individual work
AF8   Partial and final exams

Activity code	total hours number	presencial hours number	% Student Presence
AF3	105	105	100%
AF5	70	18	25%
AF6	135	0	0%
AF7	125	0	0%
AF8	15	15	100%
SUBJECT TOTAL	450	138	31%

ASSESSMENT SYSTEM

% end-of-term-examination/test: 70

% of continuous assessment (assigments, laboratory, practicals…):   40

SE1   Participation in class
SE2   Individual or team works made during the course
SE3   Final exam

Evaluation systems	Minimum weighting (%)	Maximum Weighting (%)
SE1	5%	20%
SE2	20%	45%
SE3	40%	70%

% end-of-term-examination/test:	70
% of continuous assessment (assigments, laboratory, practicals…):	40

BASIC BIBLIOGRAPHY

- Ambiga Dhiraj, Michele Chambers, Michael Minelli Big Data, Big Analytics: Emerging Business Intelligence and Analytic Trends for Today's Businesses, John Wiley & Sons, 2013

- Himanshu Shah, Nitin Sawant Big Data Application Architecture Q&A: A Problem - Solution Approach, Apress, 2013