

Course Syllabus

Name of course/module:

Business Intelligence

Year: 2019/2020

Code: 9885001210

Coordinating professor: Felipe Graeml Reis

Degree program: International Business

School: Social Sciences and Communication

Languages: English

The mission of Universidad Europea de Madrid is to offer its students a holistic education, helping them become leaders and professionals capable of responding effectively to the needs of today's global world, adding value within their career fields, and contributing to social advancement through their entrepreneurial spirit and ethical integrity. We also strive to create and transfer knowledge through applied research, thus making our own contribution to progress and putting ourselves at the forefront of intellectual, scientific, and technological development.



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1. Basic information on the course/module

ECTS	6
Credit type	University Core Requirement
Language	English
Delivery mode	Face-to-face
Trimester/Semester	2

2. Presentation of the course/module

In this course, students will develop their skills in sustaining arguments and solving problems within their field of study. They will learn how to gather data, interpret it and make judgments and considerations on relevant social, scientific or ethical issues. They will practice conveying information, together with ideas, problems, and solutions to a specialized or non-specialized audience, as well as learning to work in a disciplined and independent manner.

3. Competencies and learning outcomes

Core competencies:

- BS2: Students must apply their knowledge to their work and vocation in a professional way and must demonstrate their skills in sustaining arguments and solving problems within their field of study.
- BS3: Students must be able to gather data, usually within their field of study, interpret it and make judgments and considerations on relevant social, scientific or ethical issues.
- BS4: Students must be able to convey information, together with ideas, problems and solutions to a specialized or non-specialized audience.
- BS5: Students must have developed the necessary learning skills so as to undertake subsequent studies with autonomy.

Cross-curricular competencies:

- CS3: Capacity to adapt to new situations: Being able to assess and understand different situations, adapting our approach to a situation insofar as is necessary or appropriate.
- CS4: Analysis and synthesis skills: Being able to break down complex situations into their constituent parts, and also to assess other alternatives and approaches in order

to find the best solutions. Synthesis seeks to reduce complexity in order to facilitate understanding and/or problem solving.

- CS5: Capacity to apply knowledge: Being able to use knowledge acquired in academic contexts in situations that resemble as closely as possible the reality of the chosen future profession.
- CS8: Information management: The ability to find, select, analyze and integrate information from different sources.
- CS10: Initiative and entrepreneurial spirit: The ability to decisively undertake difficult or risky actions. The ability to anticipate problems, suggest improvements and persevere in carrying them through, with a preference for initiating activities and completing them.
- CS14: Innovation and creativity: The ability to propose and develop original ideas and value-added solutions to certain problems, and which could also be adapted and applied to different problems in other areas.
- CS16: Decision making: The ability to make a choice between two or more existing alternatives to effectively resolve different situations or problems.
- CS18: Use of information and communication technologies (ICT): The ability to use information and communication technologies effectively as a tool for finding, processing and storing information, as well as for developing communication skills.

Specific competencies:

- SS2: Capacity to define, design, explain and apply the international business process and the different phases that comprise it: planning, organization, management and control.
- SS 11: Ability to analyze and evaluate macroeconomic information in new competitive environments when making strategic business decisions.
- SS15: Ability to perform market analysis prior to making decisions on international expansion and business growth.
- SS24: Ability to recognize technology and innovation strategies, as well as technological analysis tools and technological capabilities of the company.
- SS27: Ability to use the tools and criteria for the selection of suppliers and supply countries for the company.

Learning outcomes:

- LO1: Understand computer tools that can be used for data mining and data analysis.
- LO2: Solve decision making problems related to data analysis of the company.

The table below shows the relation between the competencies developed during the course and the envisaged learning outcomes:

Competencies	Learning outcomes
BS.2, BS.4 & BS.5 CS.3, CS.5 & CS.18 SS24 & SS27	LO1
BS.3, BS.4 & BS.5 CS.3, CS.4, CS.5, CS.8, CS.10, CS.14 & CS.16 SS.2, SS11, SS15 & SS27	LO2

The following table shows how the different types of activities are distributed and how many hours are assigned to each type:

Type of educational activity	Number of hours
Lectures	40 h
Individual Work	30 h
Problem solving.	25 h
Group Participation Activities	20 h
Formative evaluation	10 h
Tutorials	10 h
Case studies	15 h
TOTAL	150 h

To develop the competencies and achieve the learning outcomes, you will have to complete the activities indicated in the table below:

Learning outcomes	Learning activity	Type of educational activity	Content
LO1	Activity 1	Lectures, Individual work	LU1
LO1	Activity 2	Lectures, Group Participation Activities	LU2
LO1	Activity 3	Lectures, Case Study	LU3
LO1, LO2	Activity 4	Lectures, Individual work	LU4
LO1, LO2	Activity 5	Lectures, Problem Solving	LU5
LO1, LO2	Activity 6	Lectures, Group Participation Activities	LU6
LO2	Activity 7	Lectures, Problem solving	LU7
LO2	Activity 8	Lectures, Tutorials, Group Participation Activities	LU8

When you access the course on the *Virtual Campus*, you'll find a description of the activities you have to complete, as well as the deadline and assessment procedure for each one.

4. Monitoring and assessment

The following table shows the assessable activities, their respective assessment criteria, and the weight each activity carries towards the final course grade.

Assessable activity	Assessment criteria	Weight (%)
<i>Activity 1</i>	<ul style="list-style-type: none"> • Introduction to Business Intelligence • Understand the Implications of Business Intelligence 	10%
<i>Activity 2</i>	<ul style="list-style-type: none"> • Understand information sources and data typification • Know how to use properly information sources 	10%
<i>Activity 3</i>	<ul style="list-style-type: none"> • Understand the main tools to organizational innovation 	10%
<i>Activity 4</i>	<ul style="list-style-type: none"> • Understand the implications of information systems and organizational change 	10%
<i>Activity 5</i>	<ul style="list-style-type: none"> • Develop relevant information systems 	10%
<i>Activity 6</i>	<ul style="list-style-type: none"> • Understand database design 	10%

Activity 7	<ul style="list-style-type: none"> • Understand project management • Develop corporate innovation 	15%
Activity 8	<ul style="list-style-type: none"> • Apply business Intelligence to strategic decision-making 	25%

When you access the course on the *Campus Virtual*, you'll find a description of the activities you have to complete, as well as the deadline and assessment procedure for each one.

4.1. First exam period

To pass the course in the first exam period you should....

- Obtain a final grade of 5 or more. However, in the objective test of knowledge, at least, a 5 must be obtained in order to take into account other activities.

4.2. Second exam period

To pass the course in the second exam period you should

- Obtain a final grade of 5 or more. However, in the objective test of knowledge, at least, 5 must be obtained in order to take into account other activities. Tasks and assignments already delivered and passed in the ordinary exam will be kept for later when calculating the final grade together with the works delivered in the extraordinary call (when required by the professor).

5. Bibliography

Here is the recommended bibliography:

- Laudon, K. and Laudon, J. (2014) Management Information Systems: Managing the Digital Firm. Ed. Prentice Hall - Pearson Higher Education
- Rainer, R. K. (2012) Introduction to Information Systems: Enabling and Transforming Business. Ed. John Wiley & Sons Inc.
- Siegel, E. (2013) Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie or Die. Ed. John Wiley & Sons Inc.

6. How to communicate with your professor

Whenever you have a question about the content or activities, don't forget to post it to your course forum so that your classmates can read it.

You might not be the only one with the same question!

If you have a question that you only want to ask your professor, you can send him/her a private message from the *Campus Virtual*. And if you need to discuss something in more detail, you can arrange an advisory session with your professor.

It's a good idea to check the course forum on a regular basis and read the messages posted by your classmates and professors, as this can be another way to learn.

7. Study recommendations

When you study at university, you need to plan and be consistent from the first week. It's very useful to exchange experiences and opinions with professors and other students, as this will help you develop core competencies such as flexibility, negotiating skills, teamwork, and, of course, critical thinking.

To help you, we recommend using a general method of study based on the following points:

- Study systematically and at a steady pace.
- Attend class and regularly check the course forum on the *Campus Virtual* so that you keep up to date with what's happening.
- Participate actively in the course by sharing your opinions, doubts and experiences relating to the topics covered and/or suggesting new topics of interest for discussion.
- Read the messages posted by your classmates and/or professors.

Active participation in physical and virtual classroom activities is of special interest and academic value. You can participate in many different ways: asking questions, giving your opinion, doing all the activities your professor suggests, taking part in collaborative activities, helping your classmates, etc. This way of working requires effort, but it will help you get better results as you develop your competencies.

Annexes with detailed information on the Campus Virtual

The annexes that are presented include the specific information of the course:

- Annex 1. Content of the subject.
- Annex 2. Description of activities.
- Annex 3. Schedule of content and weeks. Work plan.
- Annex 4. Team work rubric.

Annex 1. Contents of the subject

- Concepts of Business Intelligence. Data Warehouse, Data Mart. Measurement and analysis variables.
- Databases. Management, legal framework, enrichment and utilities.
- Tools for data mining and its treatment. Basic Analytical Operations of OLAP Systems.
- Legacy Systems. ERP's, CRM's, Others
- Key performance indicators (KPI's)
- Generation of knowledge for decision making. Analysis and interpretation.
- Design and implementation of Business Intelligence systems.

Annex 2. Description of activities

Learning outcomes	Learning activity	Type of educational activity	Content
LO1	Activity 1	Lectures, Individual work	LU1
LO1	Activity 2	Lectures, Group Participation Activities	LU2
LO1	Activity 3	Lectures, Case Study	LU3
LO1, LO2	Activity 4	Lectures, Individual work	LU4
LO1, LO2	Activity 5	Lectures, Problem Solving	LU5
LO1, LO2	Activity 6	Lectures, Group Participation Activities	LU6
LO2	Activity 7	Lectures, Problem solving	LU7
LO2	Activity 8	Lectures, Tutorials, Group Participation Activities	LU8

Anexe 3. Schedule of content and weeks. Work plan

Weeks	Theory	Activity	Exams
1	Welcome/Presentation		
2	Unit 1	Activity 1	
3	Unit 2		
4	Unit 2	Activity 2	
5	Unit 3		
6	Unit 3	Activity 3	
7	Unit 4		
8	Unit 4	Activity 4	
9	Unit 5		
10	Unit 5	Activity 5	
11	Unit 6		
12	Unit 6	Activity 6	
14	Unit 7		
15	Unit 7	Activity 7	
16	Unit 8	Activity 8	
17	All units	Team work project	
18	All units		Final exam

Annex 4. Team work rubric

	0 – 3,9 INSUFFICIENT	4 – 5,9 NEEDS IMPROVEMENT	6,0 – 7,9 GOOD	8,0 – 10 VERY GOOD
<p>CONTENT (50%)</p> <p><input type="checkbox"/> Preparation</p> <p><input type="checkbox"/> Information</p> <p><input type="checkbox"/> Comparative Data</p>	<ul style="list-style-type: none"> Poor preparation, Missing some main information, Data incomplete, No Comparisons. 	<ul style="list-style-type: none"> Some preparation, but lack of clarity, A lot of irrelevant information, Missing some main information, Limited comparative data. 	<ul style="list-style-type: none"> Good preparation and good overall summary, Contains all the main ideas, Contains comparative data for all main points. 	<ul style="list-style-type: none"> Very well prepared, info concise and clear, Develops all main ideas with additional information, Uses clear comparisons.
<p>OTHER FACTORS (30%)</p> <p><input type="checkbox"/> PowerPoint</p> <p><input type="checkbox"/> Coordination amongst group</p> <p><input type="checkbox"/> Timekeeping</p> <p><input type="checkbox"/> Presentation skills</p>	<ul style="list-style-type: none"> PowerPoint unattractive and unclear, Bad coordination among participants, Time management poor (too short or long), Lack of expression, eye contact, and poor posture. 	<ul style="list-style-type: none"> PowerPoint unimaginative and poorly developed, Some coordination among participants, Length ok, but time not used well, Showed limited expressiveness and eye contact, can improve posture. 	<ul style="list-style-type: none"> PowerPoint clear and well developed, Good coordination among participants, Time management good, and well used, Expressiveness and eye contact good, and good posture. 	<ul style="list-style-type: none"> PowerPoint interesting and creative, Rehearsed entrances and exits of participants, Excellent time management and used effectively, Strong expressiveness and eye-contact, and posture professional.



<p>DELIVERY (20%)</p> <ul style="list-style-type: none"><input type="checkbox"/> Structure<input type="checkbox"/> Information and Answers<input type="checkbox"/> Attention generated	<ul style="list-style-type: none">• Presentation poorly structured,• The presentation aroused no interest in listeners,• Unable to answer questions.	<ul style="list-style-type: none">• Structured presentation, but with flaws and little uniformity,• The attention generated was limited,• Some ability to answer questions.	<ul style="list-style-type: none">• Presentation well structured,• Kept the attention of listeners in general,• No problem answering questions.	<ul style="list-style-type: none">• Presentation very well structured and signposted,• Aroused interest and raised questions spontaneously,• Excellent response to questions.
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