

BUSINESS INFORMATION AND ANALYSIS SYSTEMS

COURSE DETAILS

Code	36287
Degree	Degree in Business Management
Mention	Business Creation and Management
Character	Optional
Year	4th
ECTS	4.5

Professor

Name	Department	Tutorials
David Ortega	Business Administration	Tuesdays 15:00 to 17:00 (by appointment)

SUMMARY

Business information and analysis systems is a highly descriptive introductory course to the applications of the Information and Communication Technologies (ICTs) into business processes, and its exponentially growing importance in modern enterprises.

This is an introductory subject in the sense that the technical details of the technologies studied are not addressed. However, it will be a very broad spectrum course, which will cover the most important ICTs that have the greatest impact into business processes in modern enterprises. The scope is then comprehensive, ranging from ICTs theoretical foundations to their application methods and real examples of their applicability to business processes.

With a particularly practical approach and fully oriented to the applicability of ICTs to business processes in the enterprise, we will discuss real use cases, and will visit important companies that make use and have integrated cutting edge ICTs in their business processes; an opportunity to get to know first-hand the applicability of these technologies. We will also have practical lessons in which students will have the opportunity to play and interact with the most important software application packages for Business information management and analysis systems in modern enterprises.

PRIOR KNOWLEDGE

Relation to other subjects of the same degree:

Almost all the subjects of Business Management in the BBA for Entrepreneurs course are likely to be supported by some knowledge of Information Systems Management in general, and its particular applicability to Production and Operations Management, Digital Media, Financial Accounting and Cost Accounting in Enterprises. Some basic educational background of these matters will be helpful for tracking some practical cases, but are not prerequisites for the course.

Other requirements:

There are no further requirements for this course. Basic computer skills at user level are assumed.

COMPETENCES

BASIC COMPETENCES:

- GP.1 Ability to work in groups.
- GP.5 Manage time effectively.
- GS.1 Independent learning ability.
- GS.5 Work initiative and entrepreneurship.
- GS.6 Motivation for quality.
- GS.8 Ability to coordinate activities.
- GI.1 Capacity for analysis and synthesis.
- GI.2 Organizational planning skills.
- GI.4 Ability to use English in the professional field.
- GI.5 Ability to use ICT in the field of study.
- GI.6 Ability to analyze and seek information from different sources.
- GI.7 Ability to solve problems.
- GI.8 Ability to make decisions.

SPECIFIC COMPETENCES:

- EG.7 To know and properly use the various quantitative and qualitative methods appropriate to reason analytically, evaluate results and predict economic and financial figures.

- EA.5 Ability to make decisions in an environment of certainty and uncertainty.
- EA.6 Ability to apply analytical and mathematical methods for analysis of economic and business problems.
- EA.9 Relate the different elements that interact in decisions of individuals.
- EA.10 Ability to communicate in formal, graphical and symbolic languages.
- EA.16 Capacity to implement and introduce procedures for continuous improvement in all areas of the organization.
- EA.18 Ability to establish a system of indicators of business management.

LEARNING OUTCOMES

After completing the course, students will have learned to:

- Know the technological resources and utilization of productive systems.
- Be able to perform an adequate analysis and assessment of problems.
- Be able to apply different methods and analysis techniques using computer software, in order to determine the various scenarios through which decisions can be made.
- Understand the company as an assembly line, where each part is related to the immediately prior and immediately subsequent and the relation in which they affect each other as well as to the rest of the organization.
- Develop entrepreneurship skills, the habit of effort and entrepreneurially cope in a globalized environment.
- To raise awareness on the principle of measurement, data and information.
- Apply the information for making business decisions.
- Know the main information systems company.
- Know make a scorecard with key performance indicators.

COURSE CONTENTS

0. Overview and presentation

1. Introduction to Information Systems

- 1.1. Why Should I Study Information Systems?
- 1.2. Overview of Computer-based Information Systems
- 1.3. How Does IT Impact Organizations?
- 1.4. Importance of Information Systems to Society

2. Strategic Management of Information Systems

- 2.1. Business Processes
- 2.2. Business Process Reengineering, Business Process Improvement, and Business Process Management

- 2.3. Business Pressures, Organizational Responses, and Information Technology Support
- 2.4. Competitive Advantage and Strategic Information Systems
- 2.5. Aligning business processes with the IT.
- 3. Data and Knowledge Management.**
 - 3.1. Data Management
 - 3.2. Big Data
 - 3.3. The Database Approach
 - 3.4. Database Management Systems
 - 3.5. Data Warehouses and Data Marts
 - 3.6. Knowledge Management
- 4. ICT: Infrastructure and Datacentres**
 - 4.1. Introductions
 - 4.2. History
 - 4.3. Facility (environmental) systems
 - 4.4. Systems infrastructure: Computing, Storage and Networking
- 5. ICT: Hardware and Software**
 - 5.1. Hardware
 - 5.1.1. Introduction
 - 5.1.2. Computer Hierarchy
 - 5.1.3. Input and Output Technologies
 - 5.2. Software
 - 5.2.1. Introduction to Software
 - 5.2.2. System Software
 - 5.2.3. Application Software
- 6. Telecommunications and Networking**
 - 6.1. What is a Computer Network?
 - 6.2. Networks Fundamentals
 - 6.3. The Internet and the WWW
 - 6.4. Network Applications
 - 6.5. IP addressing fundamentals
- 7. Core Enterprise Information Systems**
 - 7.1. Transaction Processing Systems
 - 7.2. ERPs
 - 7.3. HRM
 - 7.4. CRM
 - 7.5. SCM
 - 7.6. MES
- 8. BI. Business Intelligence and Decision support systems (DSS)**
 - 8.1. Manager and Decision Making
 - 8.2. What is Business Intelligence?
 - 8.3. BI Applications for Data Analysis
 - 8.4. BI Applications for presenting results
 - 8.5. BI Universal Truths and Paradigms
 - 8.6. ERPs and BI real applications within the Enterprise.
- 9. Emerging and disruptive technologies**
 - 9.1. E-commerce and e-business
 - 9.2. Cloud Computing
 - 9.3. Mobile Communications. 5G.
 - 9.4. Cybersecurity.
 - 9.5. Green IT
 - 9.6. Artificial Intelligence
 - 9.7. Internet of Things
 - 9.8. Blockchain

WORKLOAD

ACTIVITIES	HOURS	ATTENDANCE REQUIRED
Lectures	22	Yes
Practical sessions	14	Yes
Group assignments preparation	4	No
Individual assignments preparation	4	No
Self-preparation and study for evaluation activities	40	No
Self-preparation and study for assignments and lectures	14	No
Self-preparation and study for practical sessions	14	No
	TOTAL	112

TEACHING METHODOLOGY

The following teaching methodology will be applied:

- Practical classroom lessons in which students will work on the resolution of cases, oral presentations, discussions, etc, individually and/or in groups.
- Classroom presentation by teachers of the essential theoretical contents, related case studies previously discussed, using the Masterclass with active participation of students.
- Student autonomous work based on the realization of exercises / projects individually or in group, with tutorial support.
- Visits to companies to experience hand expert business information and analysis systems in the real world.
- Hands-on Labs and workshops to experimentally work on the most relevant information systems environments.
- Student independent study and oral and/or written tests.

EVALUATION CRITERIA

The evaluation of students will take place through continuous assessment and synthesis tests, according to the following weighting criteria on the final qualification:

- Continuous assessment accounts for 40% of the final qualification.
- Synthesis tests accounts for 60% of the final qualification.

The maximum score a student can obtain in this course is 10, which corresponds to 100% of the final qualification.

The continuous assessment students' evaluation will consist of:

- Beforehand preparation and reading of opening cases individually to be discussed in class prior to start theoretical lessons.
- Delivery of responses (in written format) to closing cases. Students will have one week after each case is presented in class for each delivery.
- Workshop and Lab attendance and delivery of responses (in written format) to practical cases.
- Oral presentation in groups about the experiences learned during the company visit that is planned during the course (to be announced).

The synthesis test evaluation will consist of a unique test exam at the end of the semester (60%).

The Continuous assessment is face-to-face and not recoverable. This is due to the character of group works, oral presentations or works to be completed in a fixed term.

Synthesis tests will be recoverable at the end of the semester.

The maximum score a student can obtain in the course is 10. The minimum score to pass the course, in both the continuous assessment and synthesis tests evaluation, is 5.

The final qualification is obtained by weighting the average of the evidence synthesis with continuous assessment and must obtain a final grade of 5 (or more) to pass the subject. However, if the exam is failed, the final mark obtained after applying the prior weighting will be a maximum of 4.5. Thus, if the exam is less than 5 and after applying the weighting the final mark is greater than 4.5, it will remain at that 4.5. If, on the other hand, this grade is less than 4.5, the grade obtained will be maintained.

Class attendance is mandatory for an optimal follow-up of the subject, so the absence to more than 15% of the sessions will mean that the student is not qualified for the continuous assessment part. Consequently, the maximum grade that can be reached will be that obtained in the synthesis test, with the weight referred to 60%.

Students must comply with the rules of writing, spelling and grammar in the development of their work and their assessment tests, formal aspects that will be taken into account in the evaluation of them.

STUDENTS IN SECOND EXAMINATION SESSIONS **

Students who do not pass the subject in first and second call and who do not repeat course will have to re-register again. These students will have right for third and fourth call on the subject.

The evaluation will be as follows:

- Continuous assessment accounts for 20% of the final qualification. To pass this part, they will receive detailed instructions from Professor at the beginning of the course.
- Synthesis tests accounts for 80% of the final qualification.

These students have to communicate their situation to the Professor at the beginning of the course being their responsibility to notify to the Professor about this situation.

** Segunda matrícula de la asignatura

REFERENCES

Introduction to Information Systems, 5th Edition International Student Version

R. Kelly Rainer, Brad Prince, Casey G. Cegielski

ISBN: 978-1-118-80855-9, 2014.

Processes, Systems, and Information: An Introduction to MIS, Global Edition (2nd Edition)

David Kroenke, Earl McKinney

ISBN: 978-1292059419, 2014.

An Introduction to Information Systems: Organisations, Applications, Technology, and Design

David Whiteley

ISBN: 978-0230370500, 2013.