Course unit description:

Computing for Business

Degree/s: Degree in Tourism

1. Subject data

Name	Computing for Business
Subject area	Computing
Module	Quantitative and Computer Methods for Tourism Business
Code	520101004
Degree programme	Degree in Tourism
Curriculum	2018
Centre	Faculty of Business Economics
Type	Compulsory

Length of subject	Termly	**Term**	1	**Course**	1st.
Language	English				

ECTS	6	**Hours / ECTS**	25	**Total workload (hours)**	150

2. Lecturer data

Lecturer in charge	Juan Francisco Sánchez García
Department	Quantitative and Computer Methods
Knowledge area	Quantitative Methods for Business
Office location	Third floor, office 321
Telephone	968 325623
Fax	968 325745
email	jf.sanchez@upct.es
URL / WEB	http://metodos.upct.es/jfsanchez
Office hours	Published on "Aula Virtual" and on bulletin board
Location	Office 321

Qualification/Degree	Degree in Economics and Business
Academic rank at UPCT	Associate Professor (Profesor Contratado Doctor)
Year of admission in UPCT	1996
Number of five-year periods (*quinquenios*) if applicable	4
Research lines (if applicable)	Computing, programming, simulation, game theory
Number of six-year periods (*sexenios*) if applicable	0
Professional experience (if applicable)	Tax advisor for 11 years
Other topics of interest	

3.   Subject description

3.1. General description

The aim of this course is to provide the student the knowledge of information systems, and its components like hardware, software, networks, database, web commerce, and the use of tools like database managers and spreadsheets as a tool for decision support systems.

3.2. How the subject contributes to a professional career

This course allows learning how to use computer tools for decision making in the business, according to the professional profile of the Degree in Tourism.

3.3. Relationship with other subjects in the programme

3.4. Incompatibilities defined in the programme

None.

3.5. Recommendations to do the subject

It is desirable that the student knows web browsing, spreadsheets, mathematics and statistics software, and knowledge about business analysis and planning.

3.6. Special provisions

As set forth in article 6 of the *Reglamento de las Pruebas de Evaluación de los Títulos Oficiales de Grado de la UPCT* the corresponding vice-rector may establish special adaptations in methodology and the development of lessons for students who suffer from a disability or some limitation, in order to enable them continued studies.

The student who, because of their circumstances, may require special measures of this kind should inform the teacher at the beginning of the semester.

Likewise, foreign students who may have difficulty with the language should notify the teacher.

4. Competences and learning outcomes

4.1. Basic curricular competences related to the subject

CB3 - Que los estudiantes tengan la capacidad de reunir e interpretar datos relevantes (normalmente dentro de su área de estudio) para emitir juicios que incluyan una reflexión sobre temas relevantes de índole social, científica o ética

4.2. General curricular competences related to the subject

CG4 - Analizar, valorar y resumir la información en los distintos ámbitos del sector turístico, aplicando para ello los métodos estadísticos y las tecnologías de la información y las comunicaciones.

4.3. Specific curricular competences related to the subject

CE9 - Utilizar y analizar las tecnologías de la información y las comunicaciones (TIC) en los distintos ámbitos del sector turístico.

4.4. Transversal curricular competences related to the subject

CT4 - Utilizar con solvencia los recursos de información (Use information resources successfully)

4.5. Subject learning outcomes

At the end of the course the student should be able to:
1. Use information resources properly
2. Identify basic knowledge related to computing
3. Identify the different types and possibilities of e-commerce in business
4. Identify different computer reservation systems (CRS)
5. Use office software properly
6. Identify problems, analyse and solve them properly by using spreadsheets and database managers

5. Contents

5.1. Curricular contents related to the subject

Introduction to information systems in business, including hardware, software, networks, telecommunications, databases and their different tools. Analysis of Internet tools in tourism, especially e-commerce and computer reservation systems. Tools and models for decision making, using database managers and spreadsheets.

5.2. Theory syllabus (teaching modules and units)

PARTE PRIMERA: EL SISTEMA INFORMÁTICO

1. Sistemas de información en la empresa
2. Hardware
3. Software
4. Redes y telecomunicaciones
5. Bases de datos
6. Comercio electrónico
7. Software de gestión de reservas
8. Planificación, adquisición y control

PARTE SEGUNDA: HERRAMIENTAS OFIMÁTICAS DE GESTIÓN

9. Gestión de base de datos
10. Hoja de cálculo

5.3. Practice syllabus (name and description of every practical)

- Microsoft Access
  1. Tables creation
  2. Filters
  3. Selection queries
  4. Action queries
  5. Forms
  6. Reports

- Microsoft Excel
  1. Commissions (references and formats)
  2. Sales prevision I
  3. Taxes (Lookups and tables)
  4. Commissions II (database functions, frequency, RANK, filters)
  5. Subsidiaries (references, links, subtotals)
  6. Break-even (goal seek, charts)
  7. Loan (data validation, manual calculation, formula auditing, conditional formatting)
  8. Equations system (matrix calculations, named ranges)
  9. Sales (pivot tables, pivot charts)
  10. Investment analysis (scenario manager, random numbers)
  11. Rents (tables, protection, printing)
  12. Sales prevision II (statistical analysis, TREND, GROWTH)

Risk prevention

Promoting the continuous improvement of working and study conditions of the entire university community is one the basic principles and goals of the Universidad Politécnica de Cartagena.

Such commitment to prevention and the responsibilities arising from it concern all realms of the university: governing bodies, management team, teaching and research staff, administrative and service staff and students.

The UPCT Service of Occupational Hazards (*Servicio de Prevención de Riesgos Laborales de la UPCT*) has published a "Risk Prevention Manual for new students" (*Manual de acogida al estudiante en materia de prevención de riesgos*), which may be downloaded from the e-learning platform ("Aula Virtual"), with instructions and recommendations on how to act properly, from the point of view of prevention (safety, ergonomics, etc.), when developing any type of activity at the University. You will also find recommendations on how to proceed in an emergency or if an incident occurs.

Particularly when carrying out training practices in laboratories, workshops or field work, you must follow all your teacher's instructions, because he/she is the person responsible for your safety and health during practice performance. Feel free to ask any questions you may have and do not put your safety or that of your classmates at risk.

5.4. Theory syllabus in english (teaching modules and units)

MODULE I: INFORMATION SYSTEMS

1. Business information systems
2. Hardware
3. Software
4. Business networks and telecommunications
5. Databases
6. Web-enabled commerce
7. Computer reservation systems
8. Planning, acquisition and controls

MODULE II: COMPUTER APPLICATIONS

9. Database management
10. Spreadsheets

5.5. Detailed description of learning goals for every teaching module

1. Information systems
   - Knowledge of basic computer science topics
   - Knowledge of the advantages of using computer business
   - Ability to analyse and select best information system for a business
2. Computer applications
   - Ability to use database managers and spreadsheets
   - Ability to identify, analyse and model problems with spreadsheets.

6. Teaching method

6.1. Teaching method			
Teaching activity	**Teaching techniques**	**Student workload**	**Hours**
Theory classes	Expository class using the method of the lesson and the case method. Resolution of questions raised by the students.	In-class: Taking notes. Asking questions.	24
		Self-study: Study of the subject	
Practical classes and problems	Practical class in computers classroom, where a problem is proposed giving time for its resolution. Resolution of questions raised by the students.	In-class: Active participation. Problem solving. Asking questions	36
		Self-study: Practice using the software by solving practical cases	
Student self-work	Resolution of questions raised by the students.	In-class:	
		Self-study: Study of the subject.	75
Evaluation	Written and computer evaluation (official exam).	In-class: Attendance at formal review	5
		Self-study:	
Tutorials	Answering any questions about theory, and solving problems.	In-class: Asking of questions during the tutorial hours	5
		Self-study: Asking questions by e-mail	5
		In-class:	
		Self-study:	
		In-class:	
		Self-study:	
		In-class:	
		Self-study:	
		In-class:	
		Self-study:	
			150

6.2. Learning outcomes (4.5) / teaching activities (6.1)

Teaching activities (6.1)	Learning outcomes (4.5)									
	1	2	3	4	5	6	7	8	9	10
Theory classes	X	X	X	X						
Practical classes and problems					X	X				
Student self-work	X	X	X	X	X	X				

7. Assessment method

7.1 Assessment method

| Assessment activity | Type | | Assessment methods and criteria | Percentage (%) | Assessed learning outcomes (4.5) |
	Summative	Formative			
Written or oral exams	X		Individual written exam to evaluate theoretical topics and practical questions in the computers classroom.	Between 50% and 90%	1, 2, 3, 4, 5, 6
Practical exercises	X		Individual or group exercises, or projects, related to the practical part of the course.	Between 10% and 50%	1, 2, 3, 4, 5, 6
The written theoretical exam will consist of short answer questions (concepts, definitions, etc.) or multiple choice questions.					

As set forth in article 5.4 of the *Reglamento de las pruebas de evaluación de los títulos oficiales de grado y de máster con atribuciones profesionales (UPCT)*, students in the special circumstances listed in the article 5.4 are entitled to a comprehensive assessment test, upon justified request which must be granted by the Department. This does not exempt them from carrying out compulsory tasks included in the teacher's guide of the subject (official syllabus).

7.2. Control and monitoring methods (optional)

8. Bibliography and resources

8.1. Basic bibliography

Module I
- SOUSA, K.J.; OZ, E. (2015): "Management Information Systems, Seventh Edition", Cengage Learning, USA.
- STAIR, R.; REYNOLDS, G.; CHESNEY, T (2015): "Principles of Business Information Systems", Cengage Learning EMEA, UK.

Module II
- MACDONALD, Matthew (2013): "Access 2013: The Missing Manual", O'Reilly Media, USA.
- MACDONALD, Matthew (2013): "Excel 2013: The Missing Manual", O'Reilly Media, USA.

8.2. Supplementary bibliography

Module II
- BERNAL GARCÍA, J.J.; SÁNCHEZ GARCÍA, J.F.; MARTÍNEZ MARÍA DOLORES, S.M. (2008): "20 herramientas para la toma de decisiones", Especial Directivos, Madrid.
- ESTRATEGIA FINANCIERA (Revista), Editorial CISS - Especial Directivos, Madrid.

8.3. On-line resources and others

- http://aulavirtual.upct.es
- http://office.microsoft.com/en-us/access/
- http://office.microsoft.com/en-us/excel/
- http://office.microsoft.com/en-us/training/microsoft-excel-training-curriculum-guide-FX102828216.aspx
- http://www.youtube.com/jfsanchezgarcia
- http://www.youtube.com/soledadmmartinez