

ENGLISH FRIENDLY COURSES (EFC) 2024-2025 CAMPUS OF GIPUZKOA





<https://www.ehu.es/es/web/ekonomia-enpresa-fakultatea/incoming-students>

Contact: empresa-ss.internacional@ehu.eus

In addition to the general offer of courses taught in English, some Centers offer for incoming students English Friendly Courses (EFC): subjects taught in Spanish or Basque, in which the syllabus summary; lecturer tutoring, examinations and/or papers are available in English.

English Friendly Courses taught in SPANISH:

FACULTY OF ECONOMICS AND BUSINESS. GIPUZKOA DEPARTMENT (251)

COURSE	SEMESTER ¹	CREDITS	SCHEDULE ²	LINK TO SYLLABUS
Bachelor's Degree in Business Management & Administration				
25824 Matemáticas I	1st	6	M/A	
26431 Sociología de la empresa II: cambio organizativo e innovación	1st	5	M	
26433 Sistemas y Políticas de Innovación	1st	5	M	
25829 Matemáticas II	2nd	6	M/A	
25838 Estructura Económica	2nd	6	M/A	
25847 Consolidación de Estados Contables	2nd	6	M	
25848 Dirección estratégica: Crecimiento y desarrollo empresarial	2nd	6	M	
26419 Sistema Financiero Internacional	2nd	5	M	

¹ SEMESTER: Annual: September 2024 to May 2025

1st: September 2024 to January 2025

2nd : January 2025 to May 2025

² SCHEDULE: Morning (M)/ Afternoon (A): begins at 13.30.

English Friendly Courses taught in BASQUE:

FACULTY OF ECONOMICS AND BUSINESS. GIPUZKOA DEPARTMENT (251)					
	COURSE	SEMESTER ³	CREDITS	SCHEDULE ⁴	LINK TO SYLLABUS
Bachelor's Degree in Business Management & Administration					
25824	Matematika I	1st	6	M / A	→
25829	Matematika II	2nd	6	M / A	→
25849	Finantza Zuzendaritza: Inbertsioak	1st	6	M	

³ SEMESTER: Annual: September 2024 to May 2025

1st: September 2024 to January 2025

2nd : January 2025 to May 2025

⁴ SCHEDULE: Morning (M)/ Afternoon (A): begins at 13.30.



COURSE GUIDE 2024/25

Faculty 251 - Faculty of Economics and Business. Gipuzkoa Department

Cycle .

Degree GADEMP20 - Bachelor's Degree in Business Management & Administration

Year First year

COURSE

25824 - Mathematics I

Credits, ECTS: 6

COURSE DESCRIPTION

Taking into account the different modes for students to access the Degree in Business Administration and Management, and since in this degree, mathematics have a basic and instrumental function, the first goal of the course is to unify the knowledge that the students have acquired in their previous education. The second goal of the course is to offer students basic tools of differential calculus and linear algebra, in order to ensure that they master the fundamentals and can use them in other subjects.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

SPECIFIC COMPETENCES

- * An ability to manage basic concepts and techniques of differential calculus and linear algebra.
- * An ability to justify the procedures and the formulation of logical arguments properly using deductive reasoning.
- * An ability to formalise quantifiable phenomena related to economic and business science through mathematical models.

TRANSVERSAL COMPETENCES

- * Develop learning skills to acquire a high degree of autonomy in order to undertake studies later, as well as to improve their own self-training in a context of continuous changes and innovations.
- * Know how to search, identify, analyse and synthesize information from various sources, with critical capacity to assess the situation and foreseeable evolution of a company, make reasoned judgments and take decisions.
- * Capacity for written and oral communication.
- * Ability to work in a team, with responsibility and respect, initiative and leadership.

KEYWORDS

Calculus: Single-variable real functions. Differential calculus. Integral calculus.

Linear algebra: Matrices and determinants. Vector space. Linear Equation Systems. Matrix diagonalization.

LEARNING OUTCOMES

- * Application of basic concepts and techniques of differential calculus and linear algebra to practical assumptions related to economic and business science.
- * Being able to employ deductive reasoning to justify procedures and formulate logical arguments.
- * Mathematical formalisation of quantifiable economic phenomena in practical cases.

Theoretical and Practical Contents

Part I: SINGLE-VARIABLE CALCULUS

Unit 1. SINGLE-VARIABLE FUNCTIONS

- 1.1 Concept of function. Definition domain. Graphic representation.
- 1.2 Reverse function.
- 1.3 Most frequent functions.
- 1.4 Conical.
- 1.5 Piecewise-defined functions. Absolute value function.
- 1.6 Composite function.
- 1.7 Definition domain calculation.

Unit 2. LIMITS, CONTINUITY AND DERIVATIVES

- 2.1 Limit of functions. Lateral limits.
- 2.2 Limit properties. Indeterminations.
- 2.3 Bounded function.
- 2.4 Continuity of a function.
- 2.5 Derivative function. Geometric meaning.
- 2.6 Derivative of the composite function (chain rule).
- 2.7 General derivative rule. Differentiation rules.
- 2.8 Derivative of the inverse function.
- 2.9 Successive derivatives.
- 2.10 Lateral derivatives. Differentiability of a function.
- 2.11 Continuity and differentiability
- 2.12 Implicit functions. Differentiation of the implicit function.



2.13 Application of differentiation in economics. Elasticity.

Unit 3. APPLICATIONS OF CONTINUITY AND DIFFERENTIABILITY

3.1 Properties of continuous functions.

3.2 Properties of continuous and differentiable functions.

3.3 Resolving indeterminate forms: L'Hôpital's Rule.

3.4 The differential of a function.

3.5 Polynomial Approximation of Functions: Taylor's formula. Differential and linear approximation.

Unit 4. INTEGRATION

4.1 Primitive of a function. Indefinite integral.

4.2 Immediate integration.

4.3 Integration by parts.

4.4 Integration by change of variable.

4.5 Applications of the indefinite integral.

4.6 Definite integral. Geometric interpretation.

4.7 Mean Value theorem. Average value of a function in a range.

4.8 Fundamental theorem of calculus. Integral function.

4.9 Barrow Rule.

4.10 Application of the definite integral to the areas.

4.11 Improper Integral.

Part II: LINEAR ALGEBRA

Unit 5.- MATRICES AND VECTORS. VECTORIAL SPACE

5.1 Matrices. Operations with matrices.

5.2 Types of matrices.

5.3 Vectors. Operations with vectors. Linear combination of vectors.

5.4 Vector space.

5.5 Euclidean vector space.

Unit 6.- DETERMINANTS AND INVERSE MATRICES

6.1 Determinant of a square matrix.

6.2 Calculation of determinants of order 2 and 3: Sarrus rule.

6.3 Calculation of determinants of order higher than 3: Method of the attachments.

6.4 Properties of the determinants.

6.5 Creating zeros in a determinant.

6.6 Reverse matrix. Invertible and singular matrices.

6.7 Properties of the inverse matrix.

6.8 Calculation of the inverse matrix.

Topic 7.- THEORY OF RANK AND SYSTEMS OF LINEAR EQUATIONS

7.1 Linear independence of vectors.

7.2 Rank of a matrix. Properties

7.3 Calculation of the range.

7.4 Systems of linear equations. Matrix and vector expression.

7.5 Compatible and incompatible systems: Rouché-Frobenius theorem.

7.6 Homogeneous systems.

7.7 Non-matrix systems resolution methods.

7.8 Matrix methods for solving linear systems.

7.9 Systems of linear equations with economic significance.

Unit 8.- DIAGONALIZATION OF MATRICES

8.1 Definition.

8.2 Eigenvalues and eigenvectors of a square matrix: Diagonalizable matrix condition.

8.3 Applications of diagonalization

TEACHING METHODS

Lectures (75%); practical classes (25%).

Practical classes are resolution of exercises workshops.

In the event that the health situation does not allow face-to-face teaching, it will be taught remotely using the tools that



the University makes available to us. In this case, the corresponding adaptation of this teaching guide would be published in egea.

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	45		9		6				
Horas de Actividad No Presencial del Alumno/a	67,5		13,5		9				

Legend: M: Lecture-based S: Seminar GA: Applied classroom-based groups
 GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups
 TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation methods

- Continuous evaluation
- End-of-course evaluation

Evaluation tools and percentages of final mark

- Written test, open questions 75%
- Individual assignments 25%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

GUIDANCE ON CONTINUOUS EVALUATION

Final written test: up to 7.5 points of the mark.

Individual evaluation of the resolution of exercises workshops: up to 2.5 points of the mark.

WAIVER

Students may waive continuous evaluation during the first 10 weeks of the term. This waiver must be submitted in writing to the course teaching staff.

The students that waive continuous evaluation will get their total mark by means of the final written test.

In the event that the health situation does not allow conducting the tests in person, another alternative procedure will be activated. In this case, the corresponding adaptation of this teaching guide would be published in egea.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The same criteria as in the ordinary evaluation.

However, those students who have been subject to continuous evaluation may waive it and choose to get their total mark by means of a final written test.

MANDATORY MATERIALS

Available in the virtual learning classroom and at the reprographic service of the Faculty.

BIBLIOGRAPHY

Basic bibliography

- * SYDSAETER, K. HAMMOND, P. y CARVAJAL, A. (2012): "Matemáticas para el Análisis Económico". Editorial Pearson. Madrid (2ª edición).
- * JACQUES, I. (2018): "Mathematics for economics and Business". Editorial Pearson. Harlow UK, 2018 (9th edition).

Detailed bibliography

- * CABALLERO, R. y otros (1993): "Matemáticas aplicadas a la Economía y a la Empresa. 380 ejercicios resueltos y comentados". Editorial Pirámide. Madrid.
- * HOFFMAN, L. y BRADLEY, G. (2004): "Cálculo aplicado para Administración, Economía y Ciencias Sociales". Editorial McGraw-Hill. Bogotá (8ª edición).
- * STEWART, J. (2006): "Cálculo (conceptos y contextos)". Editorial Thomson. México D.F. (5ª edición).



Journals

Web sites of interest

<https://www.wolframalpha.com/>

http://reshmat.ru/linear_programming_online.html

OBSERVATIONS



COURSE GUIDE 2024/25

Faculty 251 - Faculty of Economics and Business. Gipuzkoa Department

Cycle .

Degree GADEMP20 - Bachelor's Degree in Business Management & Administration

Year .

COURSE

26431 - Sociology of Economic Organizations: Organizational Change and Innovation

Credits, ECTS: 5

COURSE DESCRIPTION

This subject belongs to the subsidiary subject 'Innovation and persons';.

The main objective is that students understand the social nature of the company.

A second objective is that students understand innovation in the company context: different innovation processes and innovation results, and the relationship between innovation and its social environment.

A third objective is familiarising students with the human resources management skills that are useful in relation to innovation and change processes in the company.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

The following learning outcomes are expected from students:

- 1.- Students understand the company as a social institution and as a complex organization.
- 2.- Students understand the main dimensions of the current socio-economic context and the challenges and opportunities that it offers to the company.
- 3.- Students get to know company structure and dynamics, particularly in relation to change and innovation.
- 4.- Students should be able to apply this knowledge in order to analyze real cases of change and innovation in the company.
- 5.- Students identify and propose decisions and ways of acting in order to facilitate innovation and change in the company.

Theoretical and Practical Contents

TOPIC I: The Company as an Open Socio-Economic System

- a) The socio-economic context of the company
- b) The company as a complex organization

TOPIC II: Innovation Models and Innovation Sectors: Change of Paradigm in Innovation Studies

- a) The traditional and dominant paradigm: the STI model
- b) Pluralistic models of innovation: The open innovation model
- c) Modalities of innovation
- d) Innovative companies: typology
- e) Effects of innovation

TOPIC III: Social-Structural Resources and Conditioning for Organizational Change and Innovation

- a) Territorial basis of the company
- b) Economies of scale and agglomeration economies
- c) The new global geography of innovation

TOPIC IV: Organizational Change and Innovation Management

- a) Human resources and human capital management
- b) Knowledge and innovation management
- c) Innovation culture in the company
- d) Possibilities and limits of organizational change and innovation

TEACHING METHODS

In the class sessions, the lecturer will first present the theoretical bases of the different topics.

Practical work will be then carried out based on the analysis of information such as texts, readings, statistical data, and media content.

Debates and presentations will also take place in class time.

In addition, students will carry out practical tasks in teams of 4 persons and will analyze practical cases related to the different topics. They will be presented and debated in class time.



TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	35	2,5	7,5		5				
Horas de Actividad No Presencial del Alumno/a	52,5	3,75	11,25		7,5				

Legend: M: Lecture-based S: Seminar GA: Applied classroom-based groups
 GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups
 TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation methods

- Continuous evaluation
- End-of-course evaluation

Evaluation tools and percentages of final mark

- Written test, open questions 50%
- Teamwork assignments (problem solving, Project design) 40%
- Oral presentation of assigned tasks, Reading 10%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Evaluation will be of a continuous nature and will be based on the following items:

- A written exam on the theoretical content of the course (50% of the final mark).
- Practical tasks and practical cases worked on throughout the course by the teams: written reports (40% of the final mark), debates and presentations (10%).

In order to access this evaluation system, students will have to attend at least 80% of the class sessions.

They will have to pass both the written exam and the practical part.

According of the University of the Basque Country regulations for undergraduate studies, students can opt out of the continuous evaluation system. In this case they will have the opportunity to be evaluated on the basis of a final exam. This exam will consist of both theoretical and practical questions and exercises, enabling them to obtain 100% of the mark.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

In the extraordinary evaluation modality, students will be evaluated on the basis of a final exam. This exam will consist of both theoretical and practical questions and exercises, enabling them to obtain 100% of the mark.

MANDATORY MATERIALS

The detailed schedule of the course and the core texts and materials will be available on the university website (eGela).

BIBLIOGRAPHY

Basic bibliography

- CASTELLS, M. (1997).- The information Age: Economy, Society and Culture. Volume I: The Rise of the Network Society. Cambridge, Massachusetts: Blackwell Publishers Inc.
- CHESBROUGH, H. W. (2003).- Open Innovation: The new imperative for creating and profiting from technology. Boston: Harvard Business School Press
- FLORIDA, R. (2002). The Rise of the Creative Class: And How it's transforming work, leisure, community and everyday life. New York: Perseus Book Group
- VON HIPPEL, E. (2005).- Democratizing Innovation. Massachusetts: MIT Press.

Detailed bibliography

- BAKSHSHI, H.; HARGREAVES, I.; MATEOS-GARCÍA, J. (2013).- A Manifesto for the Creative Economy. London: NESTA.
- BENKO, G.; LIPIETZ, A. (coords.) (1992): Les régions qui gagnent, districts et réseaux : les nouveaux paradigmes de la géographie économique. Paris : PUF, «collection économie et liberté ».
- BONTJE, M.; MUSTERD, S.; KOVÁCS, Z. y MURIE, A. (2011): "Pathways toward european creative-knowledge city-regions", Urban Geography, 31 (1): 80-104.
- FLORIDA, R. (2008).- Who's Your City?: How the Creative Economy Is Making Where You Live the Most Important Decision of Your Life. New York: Basic Books, Penguin Random House.
- HILPERT, U. (2003): Regionalisation of Globalized Innovation: Locations for Advanced Industrial Development and Disparities in Participation. London: Routledge.
- LESTER, R. K.; PIORE, M. J. (2004).- Innovation: The Missing Dimension. Massachusetts: Harvard University Press.
- MAC CALLUM, D.; MOULARET, F.; HILLIER, J. (2009).- Social Innovation and Territorial Development. London:



Ashgate.

SAEXENIAN, A. L. (1994).- Regional Advantage: Culture and Competition in Silicon Valley and Route 128. Cambridge. Massachusetts: Harvard University Press.

YOUNG FOUNDATION (2007).- Social Innovation: What Is It, Why It Matters, How It Can Be Accelerated. London: Basingstoke Press.

VON HIPPEL, E. (1995).- The Sources of Innovation. Oxford: Oxford University Press.

Journals

Arbor. Ciencia, pensamiento, cultura (CSIC)

Cuadernos de gestión (Instituto de Economía Aplicada a la Empresa de la Universidad del País Vasco)

Ekonomiaz. Revista vasca de economía. (Gobierno Vasco)

Web sites of interest

ADEGI. Asociación de Empresarios de Gipuzkoa: www.adegi.es

COTEC. Fundación Cotec para la Innovación: <http://cotec.es/>

INNOBASQUE. Agencia Vasca de la Innovación: www.innobasque.com

NESTA: <http://www.nesta.org.uk/>

The Young Foundation: <https://youngfoundation.org/>

OBSERVATIONS

This subject is included in "English Friendly Course" initiative.

It means that foreign students may follow the main contents of the subject and communicate with the teacher in English.

The teacher will provide the course program, core bibliography and complementary materials in English. Tutoring, practical tasks and written exam could be also done in this language.

The detailed schedule of the course and the core texts and materials will be available at university website (eGela).



COURSE GUIDE 2024/25

Faculty 251 - Faculty of Economics and Business. Gipuzkoa Department

Cycle .

Degree GADEMP20 - Bachelor's Degree in Business Management & Administration

Year First year

COURSE

25829 - Mathematics II

Credits, ECTS: 6

COURSE DESCRIPTION

Within the curriculum of the Degree in Business Administration, two mathematics subjects are included: Mathematics I and Mathematics II; both in the first year. The knowledge about univariate calculus acquired in Mathematics I will be basic for the subject Mathematics II, in which the multivariate calculus is studied; these will be fundamental for the analysis and understanding of economic models. The optimization of functions of one and n-variables, with or without constraints, is a very important tool for making decisions in a wide range of economical situations; therefore, we will study some mathematical procedures in order to solve optimization problems. However, we must not forget that the objective of this subject is to provide the students with the quantitative instruments to be able to raise and analyze rigorously economic problems. For that reason, we suggest exercises related to specific economic contexts, from which the students must be able to identify the main components to formulate the corresponding mathematical model to solve it. In addition, we will incorporate the use of the computer to solve problems.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

SPECIFIC COMPETENCES

- * An ability to manage basic concepts and techniques of multivariate calculus.
- * An ability to justify the procedures and the formulation of logical arguments properly using deductive reasoning.
- * An ability to formalise quantifiable phenomena related to economic and business science through mathematical models.

TRANSVERSAL COMPETENCES

- * Develop learning skills to acquire a high degree of autonomy in order to undertake studies later, as well as to improve their own self-training in a context of continuous changes and innovations.
- * Know how to search, identify, analyse and synthesize information from various sources, with critical capacity to assess the situation and foreseeable evolution of a company, make reasoned judgments and take decisions.
- * Capacity for written and oral communication.
- * Ability to work with responsibility and respect, initiative and leadership.

KEYWORDS

Calculus for functions of n-variables; Unconstrained and constrained optimization of functions of n-variables; Linear programming; Multiple integral

Theoretical and Practical Contents

Unit 1.- Functions of n-variables

- 1.1 Notions of topology.
- 1.2 Functions of multiple variables
- 1.3 Graphic representation. level curves
- 1.4 Limit of a function.
- 1.5 Operations with limits.
- 1.6 Continuity of functions of multi-variable functions.
- 1.7 Important continuous functions.

Unit 2.- The Derivative for functions of n-variables

- 2.1 Partial differentiation. Geometrical interpretation
- 2.2 Gradient vector.
- 2.3 Second order partial derivatives. Hessian matrix.
- 2.4 Linear approximation. Plane tangent to a surface
- 2.5 Taylor series expansion.
- 2.6 Derivative of a compound function. Chain rule.
- 2.7 Implicit functions. Derivative.
- 2.8 Homogeneous function. Properties.

Unit 3.- Optimization of functions of one variable

- 3.1 Previous definitions. Types of optima
- 3.2 Necessary conditions for unconstrained local optimum.
- 3.3 Second order conditions.
- 3.4 Optimization over an interval
- 3.5 Concave and convex functions. Points of inflection.



Unit 4.- Optimization of functions of n-variables
 4.1 General approach to an optimization problem.
 4.2 Types of optima. Theorem of extreme values.
 4.3 Unconditional optimization. Necessary condition of local optimum.
 4.4 Sufficient condition of local optimum.
 4.5 Concave and convex functions. Sufficient condition of global optimum.
 4.6 An application: the method of least squares.
 Appendix: Quadratic forms.

Unit 5.- Constrained optimization
 5.1 General approach and graphic resolution.
 5.2 Direct method of resolution by elimination of variables.
 5.3 Method of Lagrange multipliers: first-order condition.
 5.4 Sufficient condition of local optimum.
 5.5 Economic interpretation of the Lagrange multiplier.

Unit 6.- Linear programming
 6.1 Geometric representation of small-dimensional problems.
 6.2 Introduction to the theory of duality.
 6.3 Theorems of duality.
 6.4 Economic interpretation of dual variables.
 6.5 Solving linear programs using the SOLVER complement of the Excel spreadsheet.

Unit 7.- Multiple integral
 7.1 General approach.
 7.2 Double integral over a rectangular region.
 7.3 Applications of double integrals

TEACHING METHODS

Lectures (75%); practical classes (25%).
 Practical classes are individual resolution workshops.

- In the event that the health situation, due to the Covid-19, does not allow face-to-face teaching, the teaching would be taught at a distance, using the tools that the University makes available to us.

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	45		9		6				
Horas de Actividad No Presencial del Alumno/a	67,5		13,5		9				

Legend: M: Lecture-based S: Seminar GA: Applied classroom-based groups
 GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups
 TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation methods

- Continuous evaluation
- End-of-course evaluation

Evaluation tools and percentages of final mark

- Written test, open questions 75%
- Teamwork assignments (problem solving, Project design) 25%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

GUIDANCE ON CONTINUOUS EVALUATION
 Final written test: up to 7.5 points of the mark.
 Individual evaluation of practical classes (problem solving, project design, Individual work): up to 2.5 points of the mark.



WAIVER

Students may waive continuous assessment up to 4 weeks before the end of classes

This waiver must be submitted in writing to the course teaching staff.

The students that waive continuous evaluation will get their total mark by means of the final written test.

In the event that the health situation does not allow the final test to be carried out in person, the procedure specified in the eGela student guide for such situations would be activated.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The same criteria as in the ordinary evaluation.

However, those students who have been subject to continuous evaluation may waive it and choose to get their total mark by means of a final written test.

MANDATORY MATERIALS

Both in the reprography service of the Faculty of Economics and Business (Gipuzkoa section) and in the virtual platform of the UPV/EHU (eGela), students will have at their disposal the material to be able to follow the lectures, as well as as the collection of exercises proposed for each topic.

BIBLIOGRAPHY

Basic bibliography

- Barrios, Javier; Carrillo, Marianela; Gil, María Candelaria; González, Concepción; Pertano, Celina (2022): Análisis de funciones en economía y empresa. Un enfoque interdisciplinar. 2ª edición. Ediciones Díaz de Santos.
- Sydsaeter, K. Hammond, P. y Carvajal, A. (2012): Matemáticas para el Análisis Económico. Editorial Pearson. Madrid 2012 (2ª edición).
- Sydsaeter, Knut; Hammond, Peter; Strom, Arne; Carvajal, Andrés (2021): Essential Mathematics for Economic Analysis. Pearson Education Limited, 6ª edición. Harlow, Reino Unido.

Detailed bibliography

- Barbolla, R., Cerdá, E. y Sanz, P. (2006): Optimización (Cuestiones, ejercicios y aplicaciones a la economía). Editorial Prentice Hall. Madrid.
- Caballero, R. et al (2000): Matemáticas aplicadas a la Economía y a la Empresa. 380 ejercicios resueltos y comentados. Editorial Pirámide. Madrid.
- Calvo, M. et al. (2003): Problemas resueltos de Matemáticas Aplicadas a la Economía y a la Empresa. Editorial AC. Madrid.
- Hoffman, L. y Bradley, G. (2004): Cálculo aplicado para Administración, Economía y Ciencias Sociales. Editorial McGraw-Hill. Bogotá (8ª edición).
- Larson, R. y Edwards, B.H. (2010): Cálculo 1 (de una variable). Editorial McGraw Hill. México.
- Larson, R. y Edwards, B.H. (2010): Cálculo 2 (de varias variables). Editorial McGraw Hill. México.
- Stewart, J. (2006): Cálculo (conceptos y contextos). Editorial Thomson. México D.F. (5ª edición).

Journals

Web sites of interest



<https://www.wolframalpha.com>
http://reshmat.ru/linear_programming_online.html

OBSERVATIONS



COURSE GUIDE 2024/25

Faculty 251 - Faculty of Economics and Business. Gipuzkoa Department

Cycle .

Degree GADEMP20 - Bachelor's Degree in Business Management & Administration

Year Third year

COURSE

25847 - Consolidated Financial Statements

Credits, ECTS: 6

COURSE DESCRIPTION

The subject has two main objectives. On one hand, work on and understand the concept of Group of Companies and the relations between companies that are developed internally. On the other, learn the accounting obligations generated by the existence of a Group of companies, and the different accounting methods required to comply with these obligations.

DESCRIPTORS:

Analysis of the group of companies and the concept and its definition. Consolidation methods Annual consolidated accounts. SDGs. Social and environmental information

CONTENT:

- 1º) Combinations of businesses: the group of companies.
- 2º) Consolidation methods: full consolidation and proportional consolidation.
- 3º) Procedures for participation.
- 4º) Consolidated annual accounts
- 5ª) Adaptation of the knowledge of business practices to the SDGs of the United Nations.
- 6º) Social and environmental information of the company.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

Cross-cutting skills to be worked on in the subject:

1. The ability to make reasoned opinions, supported by the data obtained
2. The ability to think analytically and reflect critically
3. The ability to acquire the knowledge acquired to work in any field related to business administration and management.

Theoretical and Practical Contents

TOPIC 1: CONSOLIDATED FINANCIAL INFORMATION: METHODS OF CONSOLIDATION AND THE EQUITY METHOD.

1. INTRODUCTION: COMBINATION AND RESTRUCTURING OF BUSINESSES.
2. OBJECT OF CONSOLIDATION AND APPLICABLE THEORIES
3. METHODS OF CONSOLIDATION AND THE EQUITY METHOD
4. PROCESS OF PREPARING CONSOLIDATED INFORMATION

TOPIC 2: ADJUSTMENTS AND ELIMINATION IN THE FULL CONSOLIDATION METHOD (1). ELIMINATION NET ASSETS INVESTMENT.

1. INTRODUCTION
2. ELIMINATION OF NET ASSET INVESTMENT IN THE FIRST CONSOLIDATION
3. ELIMINATION OF NET ASSET INVESTMENT IN CONSOLIDATIONS AFTER THE FIRST
4. OTHER ELIMINATION OF NET ASSET INVESTMENT

TOPIC 3. ADJUSTMENTS AND ELIMINATION IN THE FULL CONSOLIDATION METHOD (2). INTERNAL OPERATIONS AND OTHERS.

1. GENERAL PRINCIPLES ON ELIMINATIONS FOR INTERNAL OPERATIONS AND OTHERS
2. ELIMINATION OF RECIPROCAL ITEMS
3. ELIMINATION OF RESULTS FROM OPERATIONS BETWEEN GROUP COMPANIES

TOPIC 4. ADJUSTMENTS AND ELIMINATION IN THE FULL CONSOLIDATION METHOD (3). ELIMINATION OF NET ASSET INVESTMENT THROUGH VARIATIONS IN PARTICIPATION IN THE SUBSIDIARY COMPANY. INDIRECT PARTICIPATIONS. RECIPROCAL PARTICIPATIONS.

1. INTRODUCTION
3. VARIATIONS IN PARTICIPATION IN THE SUBSIDIARY COMPANY
4. ELIMINATION OF NET ASSET INVESTMENT IN INDIRECT PARTICIPATIONS

TOPIC 5. CONSOLIDATED ANNUAL ACCOUNTS

1. INTRODUCTION
2. CONSOLIDATED BALANCE SHEET
3. CONSOLIDATED PROFIT & LOSS ACCOUNT
4. STATEMENT OF CHANGES IN CONSOLIDATED NET ASSETS



5. STATEMENT OF CONSOLIDATED CASH FLOWS
6. CONSOLIDATED REPORT.

TOPIC 6. COMPULSORY NON-FINANCIAL INFORMATION IN THE ANNUAL ACCOUNTS

- 7.1. The United Nations Sustainable Development Goals (SDGs)
- 7.2. Non-financial business information: social and environmental information
- 7.1. Statement of non-financial information in the consolidated annual accounts
- 7.3. Other non-compulsory statements: GRI

TEACHING METHODS

Lectures: Explanation and analysis of basic concepts and tools and techniques that the student should know to achieve the objectives proposed.
Classroom practical work: Presentation and solving of problems and assumptions to establish the concepts worked on in the lectures.

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	45		9		6				
Horas de Actividad No Presencial del Alumno/a	67,5		13,5		9				

Legend: M: Lecture-based S: Seminar GA: Applied classroom-based groups
GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups
TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation methods

- End-of-course evaluation

Evaluation tools and percentages of final mark

- Written test, open questions 100%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Written exam, accounting for 70% of the final grade.
Mid-course exams, accounting for 20% plus group work, representing 10% of the final grade. The written exam must be passed -3.5/7- to proceed with the sum of the grade obtained in the practical work. Passing the mid-course exams does not mean non-attendance if not presenting oneself for the final written exam.

Final exam: 100% of the grade. The student will have the opportunity to take the exam without having followed continuous assessment, so he/she may opt for 100% of the grade in the final exam.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

In the non-traditional call, the final test is worth 100% of the grade for the subject.
All students have the opportunity to opt out of the non-traditional call, for which it will be sufficient not to attend the final test.

MANDATORY MATERIALS

Materials provided by the teacher through egela.

BIBLIOGRAPHY

Basic bibliography

COM. Guidelines on Non-Financial Reporting: Supplement on Reporting Climate-Related Information; European Commission: Brussels, Belgium, 2019.

European Commission. Summary Report of the Public Consultation on the Review of the Non-Financial Reporting Directive; European Commission: Brussels, Belgium, 2020.

ESMA (16 June 2014). Review on the application of accounting requirements for business combinations in IFRS financial statements. URL: <https://www.esma.europa.eu/document/review-application-accounting-requirements-business-combinations-in-ifsr-financial>.

European Commission. Non-Financial Reporting. Available online: https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/non-financial-reporting_en



McClanahan, T.R.; Rankin, P. Geography of conservation spending, biodiversity, and culture. *Conserv. Biol.* 2016, 30, 1089-1101

Staszkievicz, P.; Werner, A. (2021). Reporting and Disclosure of Investments in Sustainable Development. *Sustainability*, 13, 908. <https://doi.org/10.3390/su13020908>.

UNITED NATIONS (2015). The Sustainable Development Goals. Department of Economic and Social Affairs. <https://sdgs.un.org>.

Detailed bibliography

- Ipiñazar, I. & Alvarez, I. (2018). Urteko kontuen baterakuntza: teoriaren oinarrietatik aplikazio praktikora, UPV/EHUko ikasmaterialeen sare-argitalpenak. URL: <https://ikasmaterialak.ehu.eus/ekonomia-enpresa/urteko-kontuen-baterakuntza>.
- Kontabilitate Plan Orokorra, Euskal Herriko Unibertsitateko Argitalpen Zerbitzua, 2010. (1514/2007 Errege Dekretua, 2007ko azaroaren 16koa, Kontabilitate Plan orkorra onesten duena).
- Real Decreto 1159/2010, de 17 de septiembre, por el que se aprueban las normas para la formulación de cuentas anuales consolidadas y se modifica el Plan General de Contabilidad aprobado por Real Decreto 1514/2007, de 16 de noviembre y el Plan General de Contabilidad de pequeñas y medianas empresas aprobado por Real Decreto 1515/2007, de 16 de noviembre
- Normas para la formulación de las cuentas anuales consolidadas. ICAC web orrian eskuragarri: <https://www.icac.gob.es/contabilidad/normativas/nacionales>
- ALVAREZ MELCÓN, S y CORONA ROMERO, E.: Cuentas anuales consolidadas, Editorial Pirámide, 2011.
- SERRA SALVADOR, V. y OTROS: "Consolidación contable de grupos empresariales". Pirámide. Madrid (2011).
- Plan General de Contabilidad, aprobado por Real Decreto 1514/2007, de 16 de noviembre.
- Ley 11/2018, de 28 de diciembre, por la que se modifica el Código de Comercio, el texto refundido de la Ley de Sociedades de Capital aprobado por el Real Decreto Legislativo 1/2010, de 2 de julio, y la Ley 22/2015, de 20 de julio, de Auditoría de Cuentas, en materia de información no financiera y diversidad. URL: <https://www.icac.gob.es/contabilidad/normativas/nacionales#portada>.
- Normas para la Formulación de las Cuentas Anuales Consolidadas -NFCAC-: Texto refundido NFCAC 2021, NFCAC 2016-modificaciones RD 602-2016 ICAC web orrian eskuragarri: <https://www.icac.gob.es/contabilidad/normativas/nacionales>.

Journals

Partida Doble (www.partidadoble.es)
Revista de Contabilidad
Revista de Contabilidad y Tributación
Revista Española de Financiación y Contabilidad (REFC)
Técnica contable

Web sites of interest

www.aeca.es
www.icac.es
www.iasb.org

OBSERVATIONS

Current regulations for the 2024-2025 academic year: AGREEMENT of March 7, 2019, of the Governing Council of the University of the Basque Country / Euskal Herriko Unibertsitatea, by which the Regulatory Regulations for Student Evaluation are approved (BOPV of March 29 March 2019).

We will all regularly check e-gela and the UPV-EHU email, deleting messages already read to avoid saturation.