

Teaching plan

Cost Accounting I

Degrees: International Business Economics (IBE)
Administración y Dirección de Empresas (ADE)

Code: 21136

Code: 20686

Course: third or fourth

Term: First

Number of ECTS credits: 5

Hours of student dedication: 125

Language: English

1. Presentation of the subject

Cost Accounting I is a compulsory subject on the Bachelor's Degree in Business Sciences.

The basic objective of the subject is to understand the procedures used by companies to calculate the cost of the products and services they offer in order to make the right decisions.

Cost accounting is of strategic importance in an increasingly competitive environment.

The subject has been adapted to the European credits system, as laid down in the European Higher Education Area. With this in mind, a set of skills students need to acquire in order to pass the subject have been drawn up.

Classroom hours have been reduced to create more time for active learning on the part of the student. This means students are involved on an ongoing basis in the subject as it develops by means of continuous assessment and personal study of the works listed in the bibliography. More importance has been given to team work and communications ability, both oral and written; since these are two key skills in the career development of Business Sciences graduates.

2. Competences to be attained

The knowledge that students must acquire in Cost Accounting I, outlined in terms of general and specific competences, are set out below.

General competences*
<ol style="list-style-type: none">1. To understand and interpret academic texts in an appropriate and reasoned manner.2. To be able to justify positions with consistent arguments, as well as to defend them publically.3. To be able to use the English language in all work-related environments (read, write and speak in a formal manner).4. To have consolidated habits of self-discipline, self-commitment and rigor in the conduct of academic work, its organization and its proper timing.5. To have a proactive attitude in exploring often ignored matters, a fundamental skill in all educational processes and long-run professional life.6. To be able to apply acquired knowledge flexibly and creatively to new contexts and situations.7. To show a sufficient level of knowledge required for professional performance.8. To know the different contexts in which one may work: economic, industry, market, firm, and department.9. To use the appropriate information for devising proposals and problem solving.
* These competences correspond to the general competences G1, G2, G4, G9,

G10, G11, G13, G14 and G16 (IBE) or G17 (ADE) from the "*Memoria para la solicitud de verificación de títulos oficiales*".

Note: General competencies G16 for IBE and G17 for ADE are identical. We thus present them jointly for the sake of brevity.

Specific competences
<ol style="list-style-type: none">1. To develop the skills needed to calculate the product cost following different costing systems.2. To develop the skills needed to identify budget deviations and their causes.

3. Contents

The content of the subject can be found in the basic and recommended bibliography for each topic. The recommended bibliography will allow the student to deepen the knowledge of the area but it is not indispensable to achieve the objectives of each topic.

The subject is divided into eight topics each of them has its own objectives with the aim to achieve the general objectives of the subject.

Topic 1: Introduction. Cost Classifications.

Objectives:

After studying this topic, you should be able to

- ❑ differentiate between financial accounting, management accounting and cost accounting.
- ❑ describe the objectives of management accounting and cost accounting.
- ❑ distinguish between the concepts of expense, cost, payment and investment.
- ❑ list the main types of cost: classification by nature, fixed and variable costs, direct and indirect costs, product and period costs, opportunity costs, classification by functional areas and other classifications.

Program:

Financial accounting - Management accounting - Cost accounting. Differences between expense, cost, payment and investment. Classifications of costs: by nature, by function, direct and indirect costs, product and period costs, variable and fixed costs, opportunity costs, historic and current/standard/replacement costs, other types of costs.

Basic references:

- Drury 2012, Chapters 1 and 2
- Amat and Soldevila 2002, Chapter 1.¹

¹ See Section 5 for the complete references.

Topic 2: Costing Methods I: Partial Costing.

Objectives:

After studying this topic, you should be able to

- ❑ calculate the costs using one of the partial costing approaches: direct costing, variable costing, evolved direct costing and evolved variable costing.
- ❑ understand the differences between companies producing only one product and companies producing several products.
- ❑ calculate the profit and loss using a partial costing method.
- ❑ distinguish between job costing and process costing.
- ❑ prepare a job cost card.
- ❑ know how to treat direct and indirect costs in a job costing system.
- ❑ calculate the results (profits or losses) generated by unfinished contracts.

Program:

Costing methods. Direct costing. Other partial costing methods: Evolved direct costing, Variable costing, and evolved variable costing. Job costing system: Job cost card. Treatment of costs in a job costing system: direct costs, indirect manufacturing costs, assignment of other indirect costs. Calculation of the results (profits or losses) generated by unfinished contracts.

Basic references:

- Drury 2012, Chapters 3 and 4 (excerpts)
- Amat and Soldevila 2002, Chapters 2 and 3.

Topic 3: Breakeven Point and Cost-Volume-Profit Analysis.

Objectives:

After studying this topic, you should be able to

- ❑ define the breakeven point.
- ❑ calculate and interpret the breakeven point.
- ❑ explain essential features of cost-volume-profit analysis and describe its underlying assumptions.
- ❑ apply cost-volume-profit analysis.

Program:

The breakeven point. Sensitivity Analysis. Cost-volume-profit Analysis. Multiproduct companies.

Basic references:

- Drury 2012, Chapter 8
- Amat and Soldevila 2002, Chapter 2.

Topic 4: Costing Methods II: Full costing.

Objectives:

After studying this topic, you should be able to

- ❑ differentiate between partial costing systems and full costing systems.
- ❑ account for overhead expenditure.
- ❑ assign indirect costs (overheads) to operating (production) and support (service) departments.
- ❑ identify how to charge indirect costs (overheads) to products: indirect-cost rate (overhead rate).
- ❑ explain how to treat under- or overallocated indirect costs and how they affect the profit or loss.
- ❑ account for scrap, waste and by-products.
- ❑ describe how to treat work in progress (WIP) in accounting.

Program:

Partial costing and full costing. Process costing. Full costing by departments: Divide the company into departments. Operating and support departments. Allocation of indirect costs to operating and support departments. Assignment of costs allocated to support departments to operating departments. Support departments with reciprocal services, indirect-cost rate and equivalent units, cost per unit of product. Problems of cost calculation: sub-activity costs (underallocated indirect costs), over-activity benefits (overallocated indirect costs), valuation of scrap, waste and by-products. Valuation of work in progress.

Basic references:

- Drury 2012, Chapters 3 to 5, and 7 (excerpts)
- Amat and Soldevila 2002, Chapter 4.

Topic 5: Costing Methods III: Activity Based Costing (ABC).

Objectives:

After studying this topic, you should be able to

- ❑ be aware of the changes happening in the business context and the impact of those changes on the cost and management accounting systems.
- ❑ describe the conceptual framework of activity based costing (ABC).
- ❑ identify the activities and cost drivers.
- ❑ explain the differences, advantages and disadvantages of ABC in relation to traditional costing systems.

Program:

Changes in the business context and their impact on the accounting systems. Description of the ABC model. Activities: concept, main activities, support activities. Cost drivers. Advantages and disadvantages of ABC.

Basic references:

- Drury 2012, Chapter 11 [follow-up on Chapters 3 to 5, and 7]
- Amat and Soldevila 2002, Chapter 5.

Topic 6: Budgeting and Standard Costing.

Objectives:

After studying this topic, you should be able to

- ❑ describe the objectives of the budgeting process and budgeting control.
- ❑ explain the relationship between the budgeting process and business planning.
- ❑ describe the contents of different types of budgets.
- ❑ explain the differences between static and flexible budgets.
- ❑ list the basic elements of budgets based on activities (ABB).
- ❑ explain the differences between incremental and zero-based budgeting.

Program:

Business planning, budgeting control and standard costing. Controllable and non-controllable costs. Steps in preparing a budget. Criteria to formulate budgets: static and flexible budgets, budgets based on activities (ABB), incremental and zero-based budgeting.

Basic references:

- Drury 2012, Chapter 15
- Amat and Soldevila 2002, Chapter 6.

Topic 7: Standard Costing and Variance Analysis.

Objectives:

After studying this topic, you should be able to

- ❑ understand variance analysis as an important tool for business management.
- ❑ calculate the main types of variances.
- ❑ choose the most appropriate model of variance analysis according to the company's costing method.
- ❑ analyze variances with the objective to identify suitable corrective actions.

Program:

Main types of variances: direct cost variances, indirect cost variances, sales variances. Variance analysis models according to the costing method used. Calculate margins and results including variances. Report on variances.

Basic references:

- Drury 2012, Chapters 17 and 18
- Amat and Soldevila 2002, Chapter 7.

Topic 8: Cost Accounting and the Decision-Making Process.
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Objectives:

After studying this topic, you should be able to

- ❑ apply cost accounting concepts and techniques in the decision-making process. Make decisions such as pricing, special order pricing, make-or-buy and elimination of a part of the company or replacement of equipment.
- ❑ understand the relevance of different types of costs in the decision-making process such as relevant costs, sunk costs or controllable costs.
- ❑ explain the basic features of the theory of constraints and apply this theory in the decision-making process.

Program:

Relevant costs. Make decisions with cost accounting data: pricing, make-or-buy (outsourcing), eliminating a part of the company, equipment replacement. Theory of constraints. Limitations of the data in the decision-making process.

Basic references:

- Drury 2012, Chapter 9
- Amat and Soldevila 2002, Chapter 8.

4. Assessment

The assessment system that has been devised is focused in a way that allows both lecturer and student to have points of reference for how the learning is progressing and for how this process is advancing throughout the term.

4.1. General assessment criteria

Weighting:

1. Continuous assessment: 40% of the final mark
 - 1.1. Practicals: 10%
 - 1.2. Midterm exam: 30%
2. Final assessment: 60% of the final mark

1. Continuous assessment (40%):

The continuous assessment for the subject is carried out by means of:

- 1.1. Practicals:** preparation and submission of the practical work set (10%).
- 1.2. Midterm exam:** this exam will include theoretical concepts and exercises from topics 1 to 4 (30%).

1.1. Practicals (10%)

Objective

The objective of preparing practicals is to contextualise and apply the procedures and concepts taught to numerical case studies.

Groups

Practicals need to be carried out in groups of three to five students.

Number of practicals

Practicals have a weight of 10% towards the final mark.

Submission

The exercises are to be solved at home and submitted at the beginning or the seminar. Correct solutions and answers to doubts will be provided during the session.

1.2. Midterm exam (30%):

Objective

The objective of the midterm exam is to evaluate the progress achieved during the first half of the course. In this way the student will receive a clear feedback on the areas that need to be improved.

Assessment

The midterm exam has a weight of 30% towards the final mark. The doubts regarding to the contents of the midterm will be addressed during seminars.

2. Final assessment (60%):*Objective*

Application of the procedures and methods learnt during the term to specific case studies by students on an individual basis.

Characteristics

Students will sit a written exam on their own covering both theoretical and practical aspects. A pass mark is needed in the exam (at least five out of ten) to pass the subject.

4.2. Exam retake policy and summary of assessment criteria

The continuous assessment cannot be retaken or made up for. This is valid for both the 10% corresponding to the practicals and the midterm exam (30%).

The final exam (60%) can be retaken, in case of having failed. Which of these days the make-up will be, as well as the times at which it will take place, will be announced during the course.

The following table summarizes the assessment criteria and the possibilities of making up for a fail mark:

Continuous assessment (40%)		Final examination (60%)
Practicals (10%)	Midterm exam (30%)	
Yes	Yes	The weighting of the continuous assessment with the exam mark is carried out provided the student passes the final assessment (at least five out of ten)
No retake or make-up possibilities		In case of failing, retake possibility in February

In the extraordinary situation of being part of an officially recognized UPF exchange programme, the student may be assessed using different evaluation mechanisms.

5. Bibliography and teaching resources

5.1. Bibliography

ACCID (2010): *Noves tendències en control i reducció de costos*, Monografia de la *Revista de Comptabilitat i Direcció*, Barcelona.

Amat, O.; Soldevila, P. (2002): *Contabilidad y Gestión de Costos*, Ediciones Gestión 2000, SA, Barcelona.

Amat, O. i Soldevila, P. (2010): *Comptabilitat i gestió de costos*, ACCID, Barcelona.

Drury, C. (2012): *Management and Cost Accounting*, 8th edition, Cengage Learning, Hampshire.

Horngren, C.T.; Foster, G.; Datar, S.M. (2011): *Cost Accounting: A Managerial Emphasis*, 14th edition, Prentice Hall, New Jersey.

Lucey, T. (2007): *Costing*, Thomson Learning, Londres.

Rosanas, J. M. (1994): *Contabilidad de costes para la toma de decisiones*. Desclee de Brouwer, Bilbao.

5.2. Teaching resources

- Blocks of exercises.
- Transparencies.
- Notes.

6. Teaching methodology

This subject uses a variety of sessions and work methods so students can acquire the knowledge outlined in the programme. The sessions are divided into two main groups: classroom sessions and consultation and study sessions.

CLASSROOM SESSIONS

Plenary sessions: 90-minute sessions for the whole group. Most of the input in plenary sessions comes from the lecturer, who presents the key concepts in cost accounting and explains the correct procedures to follow in order to solve problems.

Seminar sessions: these last 90-minutes. The objective of seminar sessions is to consolidate students' knowledge and to put it into practice by means of their active participation.

- a. The first part of the seminars is dedicated to presenting the correct solution to the exercise or case study previously assigned to the session. This is done

jointly with answering any doubts that may have appeared during the students' individual work or from the plenary sessions.

- b. During the second part of the session, in case of having sufficient time, the students will solve an exercise chosen *ad hoc* by the seminar professor.

CONSULTATION AND STUDY SESSIONS

Consultation tutorials: students need to contact the designated lecturer by email or check the Aula Global for tutorial times.

Individual work: this comprises personal study time to assimilate the concepts and procedures covered during lectures. The aim of individual work is to prepare for practical work and to study for the midterm and final exams.

Group work: time spent working in groups to prepare practicals.

7. Activities planning

	PLENARY SESSIONS	SEMINARS	TIME OUTSIDE THE CLASSROOM (APPROX.)
Week 1	Topic 1. Introduction. Cost Classifications		- Individual work: 2 hours
Week 2	Topic 2. Costing Methods I: Partial Costing		- Individual work: 2 hours
Week 3	Topic 3. Breakeven Point and Cost-Volume-Profit Analysis		- Individual work: 2 hours - Preparation for the first practical: 2 hours
Week 4	Topic 3. Breakeven Point and Cost-Volume-Profit Analysis Topic 4. Costing Methods II: Full costing	Partial Costing and Cost-Volume-Profit Analysis - Correction of the first practical	- Individual work: 2 hours - Preparation for the second practical: 2 hours
Week 5	Topic 4. Costing Methods II: Full costing	Cost-Volume-Profit Analysis and Full costing - Correction of the second practical	- Individual work: 2 hours - Preparation for the third practical: 2 hours - Midterm preparation: 2 hours
Week 6	Midterm exam Topic 5. Costing Methods III: Activity Based Costing (ABC)	Full Costing and ABC - Correction of the third practical	- Individual work: 2 hours - Preparation for the fourth practical: 2 hours

	PLENARY SESSIONS	SEMINARS	TIME OUTSIDE THE CLASSROOM (APPROX.)
Week 7	Topic 5. Costing Methods III: Activity Based Costing (ABC).	ABC, Budgeting and Standard Costing - Correction of the fourth practical	- Individual work: 2 hours - Preparation for the fifth practical: 2 hours
Week 8	Topic 6. Budgeting and Standard Costing	Budgeting, Standard Costing and Variance analysis - Correction of the fifth practical	- Individual work: 2 hours - Preparation for the sixth practical: 2 hours
Week 9	Topic 7. Standard Costing and Variance Analysis.	Cost Accounting and the Decision-Making Process - Correction of the sixth practical	- Individual work: 2 hours
Week 10	Topic 8. Cost Accounting and the Decision-Making Process		- Individual work: 6-8 hours