



ΔΙΑΤΜΗΜΑΤΙΚΟ ΠΡΟΓΡΑΜΜΑ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΩΝ ΣΤΗ ΔΙΕΘΝΗ ΝΑΥΤΙΛΙΑ,  
ΧΡΗΜΑΤΟΟΙΚΟΝΟΜΙΚΗ & ΔΙΟΙΚΗΣΗ

MASTER OF SCIENCE (MSc) IN INTERNATIONAL SHIPPING, FINANCE &  
MANAGEMENT

**Assignment in Management Accounting**

This assignment consists of two independent parts. In the first part, you have to write an essay on a research topic explored in the academic literature. In the second part, you have to solve a revision exercise that covers practical accounting issues. Additional details on the above two requirements are provided in separate sections following.

**Part A: Assignment Essay (50%)**

In the first part of your assignment, you have to write an essay on one of the topics provided in Table 1. All topics have been examined extensively in academic research, and entail important implications for accounting practice. Consequently, you have to choose one of them (the one that stimulates you more) and prepare a thorough discussion. To this end, you should study the relevant literature meticulously, and obtain a clear picture of the alternative (and, frequently, opposing) arguments. Discussion of the extant empirical evidence is also essential. Your goal is to write an essay that will reflect your understanding of the matters covered in each topic. A scoring rubric is presented in Table 2. This serves as a useful guidance on the expected attributes of your essay. Finally, keep in mind that this is a team work. Your team has to exercise a concerted effort in order to elicit the best results of this venture.

**Table 1: List of essay topics**

1 <sup>st</sup> Topic	Asymmetric Cost Behavior
2 <sup>nd</sup> Topic	Activity Based Costing and Management
3 <sup>rd</sup> Topic	Budgets and Management Control
4 <sup>th</sup> Topic	Performance Measurement: Frameworks and Systems
5 <sup>th</sup> Topic	Target Costing
6 <sup>th</sup> Topic	Product Life Costing

**Table 2: Scoring Rubric**

Criteria	Description
Organization	The essay is well organized and coherent. Points and reasoning are presented with clarity and instances are aptly justified. Unity culminates in the conclusions section. An indicative structure is the following: Introduction, Literature Review (theoretical concepts and empirical evidence), Discussion and Conclusions.
Content	The topic is presented clearly. Appropriate definitions are provided. Underlying arguments and potential dissenting theories or empirical evidence are discussed thoroughly. The overall content indicates synthesis of ideas and original thought. Points are well-developed and critically discussed.
Writing Style	The writing style is formal. Sentences are free of punctuation and grammatical errors.
References	References are presented appropriately in the text, following the Harvard System. A reference management software, such as Mendeley or Endnote, is

highly recommended. A full reference list shall be provided at the end of the essay.

Format The font used is Times New Roman or Calibri. The text is single-spaced. A consistent format regarding margins and indentation is necessary.

Maximum Length <6000 words.

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**Part B: Assignment Exercise (50%)**

In this part of your assignment you face a number of exercises on the most important topics covered during the lectures. Again, team work is essential but make sure that each member of the team feels confident about all part of the solution. Accounting requires a complete knowledge of all technical concepts and, therefore, the participation of each team member in all aspects of the solution is pivotal.

**1. Computing direct-cost rates, consulting firm.**

Zimmerman GmbH is an international consulting firm. Its annual budget includes the following for each category of professional labour:

Category	Average salary	Average fringe benefits	Billable time for clients (hours)	Vacation and sick leave (hours)	Professional development (hours)	Unbilled time due to lack of demand
Director	€140 000	€60 000	1 600	160	240	0
Partner	105 000	45 000	1 600	160	240	0
Associate	60 000	20 000	1 600	160	240	0
Assistant	38 000	12 000	1 600	160	240	0

**Required:**

- 1 Calculate the budgeted direct-cost rate for professional labour (salary and fringe benefits) per hour for (a) directors, (b) partners, (c) associates, and (d) assistants. Use budgeted billable time for clients as the denominator in these computations.
- 2 Repeat requirement 1. Use the sum of budgeted billable time, vacation and sick leave time and professional development time as the denominator in these calculations.
- 3 Why are the rates different between requirements 1 and 2? How might these differences affect job costing by Zimmermann GmbH?

**2. Job costing, accounting for manufacturing overhead, budgeted rates.**

Giannacopoulos SA uses a job-costing system at its Korinthos plant. The plant has a Machining Department and an Assembly Department. Its job-costing system has two direct-cost categories (direct materials and direct manufacturing labour) and two manufacturing overhead cost pools (the Machining Department, allocated using actual machine-hours, and the Assembly Department, allocated using actual labour cost). The 2011 budget for the plant is as follows:

	Machining Department	Assembly Department
Manufacturing overhead	€1 800 000	€3 600 000
Direct manufacturing labour cost	€1 400 000	€2 000 000
Direct manufacturing labour-hours	€100 000	€200 000
Machine-hours	50 000	200 000

**Required:**

- 1 Present an overview diagram of Giannacopoulos’s job-costing system. What is the budgeted overhead rate that should be used in the Machining Department? In the Assembly Department?
- 2 During the month of February, the cost record for Job 494 shows the following:

	Machining Department	Assembly Department
Direct material used	€45 000	€70 000
Direct manufacturing labour cost	€14 000	€15 000
Direct manufacturing labour-hours	1 000	1 500
Machine-hours	2 000	1 000

What is the total manufacturing overhead allocated to Job 494?

**3** Balances at the end of 2011 are as follows:

	Machining Department	Assembly Department
Manufacturing overhead incurred	€2 100 000	€3 700 000
Direct manufacturing labour cost	-	€2 200 000
Machine-hours	55 000	-

Calculate the under- or overallocated manufacturing overhead for each department.

### **3. Overview of general-ledger relationships.**

Budenmayer BV is a small machine shop that uses highly skilled labour and a job-costing system (using normal costing). The total debits and credits in certain accounts just before year-end are as follows:

	30 December 2011	
	Total debits	Total credits
Materials Control	€100 000	€70 000
Work-in-Progress Control	320 000	305 000
Manufacturing Department Overhead Control	85 000	-
Finished Goods Control	325 000	300 000
Cost of Goods Sold	300 000	-
Manufacturing Overhead Allocated	-	90 000

All materials purchased are for direct materials. Note that 'total debits' in the stock accounts would include beginning stock balances, if any.

The preceding accounts do not include the following:

- The manufacturing labour costs recapitulation for the 31 December working day: direct manufacturing labour, €5000 and indirect manufacturing labour, €1000.
- Miscellaneous manufacturing overhead incurred on 30 December and 31 December €1000

*Additional information:*

Manufacturing overhead has been allocated as a percentage of direct manufacturing labour costs through 30 December.

Direct materials purchased during 2011 were €85 000.

There were no returns to supplies.

Direct manufacturing labour costs during 2011 totalled €150 000, not including the 31 December working day described previously.

### **Required:**

- Calculate the stock (31 December 2011) of Materials Control, Work-in-Progress Control and Finished Goods Control. Show T-accounts.
- Prepare all adjusting and closing journal entries for the preceding accounts. Assume that all under- or overallocated manufacturing overhead is closed directly to Cost of Goods Sold.
- Calculate the ending stock (31 December 2011), after adjustments and closing, of Materials Control, Work-in-Progress Control and Finished Goods Control.

#### 4. Activity-based job-costing system

Henriksen AS manufactures and sells packaging machines. It recently used an activity-based approach to refine the job-costing system at its Vejle plant. The resulting job-costing system has one direct-cost category (direct materials) and four indirect manufacturing cost pools. These four indirect-cost pools and their allocation bases were chosen by a team of product designers, manufacturing personnel and marketing personnel.

Indirect manufacturing cost pool	Cost-allocation base	Budgeted cost-allocation rate
1. Materials handling	Component parts	DKr 8 per part
2. Machining	Machine-hours	DKr 68 per hour
3. Assembly	Assembly-line-hours	DKr 75 per hour
4. Inspection	Inspection-hours	DKr 104 per hour

Langeland recently purchased 50 can-packaging machines from Henriksen AS. Each machine has direct materials costs of DKr 3000, requires 50 component parts, 12 machine-hours, 15 assembly-hours and 4 inspection-hours. Henriksen's prior costing system had one direct-cost category (direct materials) and one indirect-cost category (manufacturing overhead, allocated using assembly-hours).

#### Required:

- 1 Present overview diagrams of the prior job-costing system and the refined activity-based job-costing system.
- 2 Calculate the unit manufacturing costs (using ABC) of each machine and the total manufacturing cost of the Langeland job.
- 3 The activity-based job-costing system of Henriksen has only one manufacturing direct-cost category: direct materials. A competitor of the Henriksen Company has two direct-cost categories at its manufacturing plant: direct materials and direct manufacturing labour. Why might Henriksen not have a direct manufacturing labour costs category in its job-costing system? Where are the manufacturing labour costs included in the Henriksen costing system?
- 4 What information might members of the team that refined the prior costing system find useful in the activity-based job-costing system?

#### 5. Cost of goods sold budget, fill in the missing numbers

Embutidos Vallina SA has two direct-cost categories: direct materials and direct manufacturing labour. Its single indirect-cost category (manufacturing overhead) is allocated on the basis of machine-hours. Numbers taken from the monthly budgets for June 2011 and November 2011 are as follows:

	June 2011	November 2011
Direct materials used	€?	€847 000
Opening finished goods stock	87 000	?
Closing finished goods stock	?	94 000
Direct manufacturing labour	481 000	389 000
Manufacturing overhead	772 000	?
Cost of goods manufactured	2 215 000	1 878 000
Cost of goods sold	2 189 000	?
Cost of goods available for sale	?	1 949 000

#### Required:

Fill in the missing numbers