Financial university under the Government of the Russian Federation

Department of Accounting, analysis and audit

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Advanced Management Accounting

SYLLABUS

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1. Name of a subject

Advanced management accounting.

2. Mapping of learning outcomes (list of competences), with the relevant indicators described and subject learning outcomes indicated

The section lists the graduates' coded competencies that are to be developed during the learning process, indicators that show their development (generalized descriptions of specific actions performed by the graduate that clarify and reveal the competence content), learning outcomes (knowledge, skills) with indicators of competence development (in the form of a table).

Table 1

Competence code	Competence	Competence development indicators[1]	Learning outcomes (skills[2], and knowledge) and indicators that show competence development
Supplementary competence code (SCC) SCC-2	Ability to use applied and mathematical methods of financial analysis, for evaluation of the profitability and efficiency of financial and economic activities of organizations of various organizational and legal forms, including financial and credit institutions, public authorities and local authorities	1. Develops mathematical models for managing the financial consulting process in an organization (division).	Knowledge of: linear programming techniques Skills of: forecasting cash flows, financial results, and financial position in the organization (division)
		2. Develops and controls the risk management process.	Knowledge of: types of risks and criteria for their assessment, methods used to reduce uncertainty Skills of: application of risk assessment and risk management techniques in practice

[1] To be filled in when the updated Financial University educational standards and federal state educational standards of higher education "3++" are implemented.

[2] Skills are described when the Financial University educational standards of the 1st generation and federal state educational standards of higher education "3+" are implemented.

		3. Defines the context of the financial risk management process and uses the criteria in their assessment.	Knowledge of: criteria for financial risks assessment Skills of: organization of the financial risk management process
Professional competence code (PCC) PCC-2	Ability to set research tasks, develop innovative projects, select methods, information technologies, software for their implementation, create methodological and regulatory documents	1. Performs research and application tasks.	Knowledge of: options for management accounting system organizing Skills of: implementing and developing management accounting as part of the enterprise information system
		2. Selects forms, methods, and tools for implementing research and application tasks.	Knowledge of: forms, methods and tools for implementing research and applied tasks Skills of: usage of the forms, methods and tools for the implementation of research and application tasks into practice
		3. Demonstrates knowledge of modern information technologies.	Knowledge of: modern information technologies used in management accounting Skills of: application of the most effective and the least expensive information technologies in specific economic situations
		4. Selects and uses the necessary applied software	Knowledge of: principles of selection and adaptation of

		depending on the tasks to be solved. 5. Develops methodological and regulatory documents based on the results of the research.	applied software in management accounting Skills of: usage of the necessary software depending on the tasks to be solved Knowledge of: methods for developing methodological and regulatory documents based on the results of research Skills of: developing documents based on the results of research
PCC-4	Ability to develop methods and evaluate the effectiveness of economic projects taking into account risk factors in conditions of uncertainty	1. Forms and applies methods for evaluating the effectiveness of economic projects in conditions of uncertainty. 2. Demonstrates the skills of formulating conclusions based on the conducted research for making management decisions about the implementation of economic projects in the form of methodologies and	Knowledge of: modern methods of evaluating the effectiveness of economic projects in conditions of uncertainty Skills of: evaluation of the effectiveness of economic projects in conditions of uncertainty Knowledge of: features of information support for management decisions at the operational, tactical and strategic levels of management Skills of: making management decisions about the implementation of economic projects based on the information provided by the information system of the entity

		analytical materials.	

3. Place of the subject in the curriculum

The course "Advanced management accounting" refers to the disciplines of choice of the master's program "International Finance (in English)" in the direction of training 38.04.01 "Economics", is studied to deepen the professional orientation of knowledge in the field of management accounting.

The course "Advanced management accounting" is preceded in such disciplines as "Development Economics", "Professional business ethics".

The practical application of the knowledge obtained during the development of the course "Advanced management accounting" is designed to ensure the professional competence of a specialist in the field of economic activity of a commercial organization, in terms of building and functioning of the management accounting system, preparing information for making management decisions. The course "Advanced management accounting" creates a basis for studying the courses "Integrated reporting: principles of preparation based on management accounting information", "International audit".

4. Workload in credits and academic hours, with class work (lectures and seminars) and self-study indicated

The data are presented in the form of a table.

Table 2

Type of work	Total (in credits and hours)	Module 2 (in hours)
Overall workload	**3/108**	**108**
Class work	**30**	**30**
Lectures	8	8
Seminars, practicals	22	22
Self study	**78**	**78**
Formative assessment	***Control work***	***Control work***
Summative assessment	***Credit***	***Credit***

5. Subject content (with the thematic components indicated).

Topic 1. Management accounting and its role in managing an organization in current conditions

The concept and meaning of management accounting. Main stages of development of management accounting. Management accounting as part of the enterprise information system. Changing the role of management accounting specialists in the modern business environment: rapid response to external factors, including anti-crisis solutions, ethical problems, and "short-termism".

Management accounting and external business environment. Similarities and differences in cost, management, and financial accounting. Controlling. The essence and functions of management accounting. Components of management accounting. The differences between strategic, tactical, and operational planning.

Organization of management accounting for responsibility centers.

Automation of management accounting.

Topic 2. Cost accounting principles

Classification of costs for decision-making, forecasting, planning, accounting, control, regulation, motivation, analysis.

Accounting for material costs: inventory valuation methods (FIFO, average cost, unit cost), economic order quantity model (EOQ), just-in-time.

Accounting for labor costs: individual and collective methods of remuneration and promotion; accounting for efficiency and effectiveness; accounting for labour turnover and analysis of its causes.

Accounting for overheads: reasonable choice of overhead absorption bases; calculation of overhead absorption rates; over- and under-absorption of overheads; cost reapportment of service cost centers, including a repeated distribution method.

Topic 3. Cost accounting methods

Job costing and batch costing methods. Process costing method and equivalent units under FIFO and average cost methods. Cost accounting in service industries.

Marginal and absorption costing. Activity based costing.

Topic 4. Methods of management accounting for decision-making

Analysis of cost behavior and distribution of total costs to fixed and variable parts using minimax. CVP analysis: calculation of contribution, break-even point, margin of safety, sales volume to achieve budgeted profits. Limitations of CVP analysis.

Relevant costs and revenues and their application in decision-making.

Decision-making with limiting factors. Application of linear programming techniques. Calculation of the dual (shadow) prices.

Qualitative factors that influence decision-making process.

Pricing decisions: factors that affect pricing, elasticity of demand and pricing strategies.

Management decisions about production or purchase and other short-term decisions.

Target-costing. Life cycle costing. Through accounting.

Management decision-making in conditions of risk and uncertainty: methods used to reduce uncertainty (focus groups, market research); expected values; sensitivity analysis; application of maximax, maximin, minimax methods; usage of the decision tree.

Topic 5. Methods of management accounting for planning and control

Budgeting. Types of budgets and the procedures for their preparation. Budgeting system: muster budget, financial and operational budgets (sales, production, purchases, material and labor costs, overhead costs, administrative and commercial expenses budgets). Fixed and flexible budgets. Zero and incremental budgets. Periodic and continuous budgets.

Application of time series techniques, simple average growth model, and expert assessments.

Behavioral aspects of budgeting.

Standard-cost and variation analysis.

Balanced Scorecard. Procedures for drawing up strategic maps. Relationship between the organization's strategy and a balanced scorecard.

Transfer pricing.

Making investment decisions.

6. List of teaching and methodological materials needed for the students self-study

6.1. List of questions for student self-study and types of out-of-class activities

The section lists types of out-of-class activities that correspond to items in the subject content description.

There is a list of questions the students should answer while working independently.

Table 3

Itemized subject content	**Questions the students should answer within the self-study process**	**Types of out-of-class activities**
Topic 1. Management accounting and its role in managing an organization in current conditions	Similarities and differences in cost, management, and financial accounting. Main stages of development of management accounting. Management accounting and external business environment. Controlling. The essence and functions of management	Work with educational literature, reference-informational bases and other Internet resources.

	accounting. Components of management accounting. Enterprise resource planning systems (ERP systems). Business performance management systems (BPM systems)	
Topic 2. Cost accounting principles	Cost classifications in management accounting for decision-making processes, forecasting, planning, accounting, control, regulation, motivation, analysis.	Work with educational literature, normative acts, reference-informational bases and other Internet resources. Self-study of cases, solving practical problems. Test preparation.
Topic 3. Cost accounting methods	Cost accounting in service industries. Marginal and absorption costing.	Work with educational literature, normative acts, reference-informational bases and other Internet resources. Self-study of cases, solving practical problems. Test preparation.
Topic 4. Methods of management accounting for decision-making	Analysis of cost behavior using minimax method. CVP analysis: calculation of contribution, break-even point, margin of safety, sales volume to achieve budgeted profits. Limitations of CVP analysis	Work with educational literature, normative acts, reference-informational bases and other Internet resources. Self-study of cases, solving practical problems. Test preparation.
Topic 5. Methods of management accounting for planning and control	Transfer pricing. Making investment decisions.	Work with educational literature, normative acts, reference-informational bases and other Internet resources. Self-study of

		cases, solving practical problems. Test preparation.

6.2. List of questions/assignments/topics for students' preparation to formative assessment

Templates of questions the students need to answer when preparing for a control work

Solar Systems Co (S Co) makes two types of solar panels at its manufacturing plant: large panels for commercial customers and small panels for domestic customers. All panels are produced using the same materials, machinery and a skilled labour force. Production takes place for five days per week, from 7 am until 8 pm (13 hours), 50 weeks of the year. Each panel has to be cut, moulded and then assembled using a cutting machine (Machine C), a moulding machine (Machine M) and an assembly machine (Machine A).

As part of a government scheme to increase renewable energy sources, S Co has guaranteed not to increase the price of small or large panels for the next three years. It has also agreed to supply a minimum of 1,000 small panels each year to domestic customers for this three-year period.

Due to poor productivity levels, late orders and declining profits over recent years, the finance director has suggested the introduction of throughput accounting within the organisation, together with a 'Just in Time' system of production.

Material costs and selling prices for each type of panel are shown below.

	Large panels	Small panels
	$	$
Selling price per unit	12,600	3,800
Material costs per unit	4,300	1,160

Total factory costs, which include the cost of labour and all factory overheads, are $12 million each year at the plant.

Out of the 13 hours available for production each day, workers take a one hour lunch break. For the remaining 12 hours, Machine C is utilised 85% of the time and Machines M and A are utilised 90% of the time. The unproductive time arises either as a result of routine maintenance or because of staff absenteeism, as each machine needs to be manned by skilled workers in order for the machine to run. The skilled workers are currently only trained to work on one type of machine each. Maintenance work is carried out by external contractors who provide a round the clock service (that is, they are available 24 hours a day, seven days a week), should it be required.

The following information is available for Machine M, which has been identified as the bottleneck resource:

	Large panels	Small panels
	Hours per unit	Hours per unit
Machine M	1.4	0.6

There is currently plenty of spare capacity on Machines C and A. Maximum annual demand for large panels and small panels is 1,800 units and 1,700 units respectively.

Required:

(a) Calculate the throughput accounting ratio for large panels and for small panels and explain what they indicate to S Co about production of large and small panels.

(b) Assume that your calculations in part (a) have shown that large panels have a higher throughput accounting ratio than small panels.

Required:

Using throughput accounting, prepare calculations to determine the optimum production mix and maximum profit of S Co for the next year.

(c) Suggest and discuss THREE ways in which S Co could try to increase its production capacity and hence increase throughput in the next year without making any additional investment in machinery.

Templates of questions the students need to answer when preparing for a credit

Theoretical questions

1. Application of throughput accounting to a multi-product decision-making problem.

2. Describe the dysfunctional nature of some variances in the modern environment of JIT and TQM.

3. Describe the process of back-flush accounting and contrast with traditional process accounting.

4. Discuss the reservations with the learning curve.

5. Explain and apply the principle of controllability in the performance management system.

6. Explain different price strategies, including: i) All forms of cost-plus, ii) Skimming, iii) Penetration, iv) Complementary product, v) Product-line, vi) Volume discounting, vii) Discrimination, viii) Relevant cost.

7. Explain how budget systems can deal with uncertainty in the environment.

8. Explain how transfer prices can distort the performance assessment of divisions and decisions made.

9. Explain the implications of back-flush accounting on performance management and the control of a manufacturing process.

10. Explain the implications of lifecycle costing on pricing, performance management and decision-making.

11. Explain the implications of using target costing on pricing, cost control and performance management.

12. Explain the issues surrounding make vs. buy and outsourcing decisions.

13. Explain the need to allow for external considerations in performance management, including stakeholders, market conditions and allowance for competitors.

14. Explain the price elasticity of demand.

15. Explain the use of simulation, expected values and sensitivity.

16. Explain the use of standard costs.

17. Identify appropriate cost drivers under ABC.

18. Derive a target cost in manufacturing and service industries.

19. Explain the meaning and calculation of Return on Investment (ROI) and Residual Income (RI), and discuss their shortcomings.

20. Discuss the difficulties of target setting in qualitative areas.

Practice-oriented cases

Task 1

A manufacturing company which produces a range of products has developed a budget for the life-cycle of a new product, P. The information in the following table relates exclusively to product P:

	Lifetime total	Per unit
Design costs	$800,000	
Direct manufacturing costs		$20
Depreciation costs	$500,000	
Decommissioning costs	$20,000	
Machine hours		4
Production and sales units	300,000	

The company's total fixed production overheads are budgeted to be $72 million each year and total machine hours are budgeted to be 96 million hours. The company absorbs overheads on a machine hour basis.

What is the budgeted life-cycle cost per unit for product P?

A $24·40

B $25·73

C $27·40

D $22·73

Task 2

At the end of 20X1, an investment centre has net assets of $1m and annual operating profits of $190,000. However, the bookkeeper forgot to account for the following:

A machine with a net book value of $40,000 was sold at the start of the year for $50,000 and replaced with a machine costing $250,000. Both the purchase and sale are cash transactions. No depreciation is charged in the year of purchase or disposal. The investment centre calculates return on investment (ROI) based on closing net assets.

Assuming no other changes to profit or net assets, what is the return on investment (ROI) for the year?

A 18·8%

B 19·8%

C 15·1%

D 15·9%

Task 3.

Which of the following statements describes target costing?

A It calculates the expected cost of a product and then adds a margin to it to arrive at the target selling price

B It allocates overhead costs to products by collecting the costs into pools and sharing them out according to each

product's usage of the cost driving activity

C It identifies the market price of a product and then subtracts a desired profit margin to arrive at the target cost

D It identifies different markets for a product and then sells that same product at different prices in each market

Task 4

The following statements have been made about transaction processing systems and executive information systems:

(i) A transaction processing system collects and records the transactions of an organisation

(ii) An executive information system is a way of integrating the data from all operations within the organisation into a single system

Which of the above statements is/are true?

A (i) only

B (ii) only

C Both (i) and (ii)

D Neither (i) nor (ii)

Task 5

Caf Co budgeted to sell 10,000 units of a new product in the period at a budgeted selling price of $5 per unit. Actual sales volumes in the period were as budgeted but the actual sales price achieved was only $4 per unit. This was because a competitor launched a similar product at the same time. Caf Co had been unaware that this was going to happen when it

prepared its budget and, had it known this, it would have revised its expected selling price to $3·80 per unit, which was the price of the competitor's product.

What is the sales price planning variance?

A $12,000 A

B $12,000 F

C $2,000 F

D $2,000 A

Task 6

The Organic Bread Company (OBC) makes a range of breads for sale direct to the public. The production process begins with workers weighing out ingredients on electronic scales and then placing them in a machine for mixing. A worker then manually removes the mix from the machine and shapes it into loaves by hand, after which the bread is then placed into the oven for baking.

All baked loaves are then inspected by OBC's quality inspector before they are packaged up and made ready for sale. Any loaves which fail the inspection are donated to a local food bank.

The standard cost card for OBC's 'Mixed Bloomer', one of its most popular loaves, is as follows:

		$
White flour	450 grams at $1·80 per kg	0·81
Wholegrain flour	150 grams at $2·20 per kg	0·33
Yeast	10 grams at $20 per kg	0·20
	____	____
Total	610 grams	1·34

Budgeted production of Mixed Bloomers was 1,000 units for the quarter, although actual production was only 950 units. The total actual quantities used and their actual costs were:

	Kg	$ per kg
White flour	408·5	1·90
Wholegrain flour	152·0	2·10
Yeast	10·0	20·00
Total	570·5	

Required:

(a) Calculate the total material mix variance and the total material yield variance for OBC for the last quarter.

(b) Using the information in the question, suggest THREE possible reasons why an adverse material yield variance could arise at OBC.

7. Mandatory and optional reading list

Mandatory reading list

1. Vahrushina M. A. Strategic management accounting. + App: Tests [Electronic resource]: a textbook / M. A. Vahrushina - Moscow: KnoRus, 2019. - 183 p. - Master's Degree. - Mode of access: https://www.book.ru/book/931890

2. Management accounting and analysis. With examples from Russian and foreign practice [Electronic resource]: textbook / V. I. Petrova [et al.]. - Moscow: INFRA-M Research and publishing center, 2018. - 303 p. – (Higher education: Master's degree). - Mode of access: http://znanium.com/catalog/product/914132

Optional reading list

3. Basova A.V. Management accounting [Electronic resource]: textbook/A.V. Basova, A. S. Nechaev. - Moscow: Infra-M Research and publishing center, 2018-324 p. – (Higher education: Master's degree). - Mode of access: http://znanium.com/catalog/product/924682

4. Drury K. Management and production accounting: textbook / K. Drury; translated from English.[V. N. Egorova]. - Moscow: UNITY-DANA, 2010. - 1423 p. - the Same [Electronic resource]. - 2012. - Mode of access: http://biblioclub.ru/index.php?page=book_red&id=117546

5. Kerimov V. E. Management accounting [Electronic resource]: textbook for bachelors / V. E. Kerimov. - 10th ed., am. - Moscow: publishing and trading Corporation "Dashkov and K", 2017. – 400 p. - Mode of access: http://znanium.com/catalog/product/430347

6. Kondrakov N. P. Accounting (financial and managerial) [Electronic resource]: textbook/N. P. Kondrakov. - 5th ed., pererab. and additional - Moscow: LLC "Infra-M Research and publishing center", 2018. - 584 p. – (Higher education: Bachelor's Degree). - Mode of access: http://znanium.com/catalog/product/966174

7. Managerial accounting: collection of practical tasks: textbook/ group of authors; ed. M. A. Vahrushina, N. V. Malinovskaya. - 2nd ed., am. and add. – Moscow: KNORUS, 2019. - 128 p. – (bachelor's degree). - The same [Electronic resource]. – Mode of access: https://www.book.ru

E-resourses

1. www.academic.oup.com/journals
2. www.accaglobal.com
3. www.biblioclub.ru/
4. www.book.ru
5. www.cimaglobal.com/
6. www.elib.fa.ru/
7. www.elibrary.ru

8. www.emeraldgrouppublishing.com/products/collections
9. www.ifrs.org
10. www.imanet.org
11. www.sciencedirect.com
12. www.znanium.com

8. List of IT resources, incl. the list of software, information and reference systems (as appropriate).

8. 1. Software:

1. Windows, Microsoft Office software;
2. ESET Endpoint Security antivirus software; etc.

8.2. Databases and information and reference systems

1. Garant information and reference system;
2. Consultant Plus legal information system;
3. Bloomberg Terminal

8.3. Certified software/hardware used for information protection

No certified software/hardware is used.