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Информация о владельце:  
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Должность: Ректор  
Дата подписания: 30.04.2026 16:14:31  
Уникальный программный ключ:  
ca953a0120d891083f939673078ef1a989dae18a

**Federal State Autonomous Educational Institution for Higher Education  
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA  
RUDN University**

**Higher School of Management**

educational division (faculty/institute/academy) as higher education programme developer

## COURSE SYLLABUS

**Accounting in Engineering Management**

course title

**Recommended by the Didactic Council for the Education Field of:**

**38.04.02 Management**

field of studies / speciality code and title

**The course instruction is implemented within the professional education programme of higher education:**

**Engineering Management**

higher education programme profile/specialisation title

## 1. COURSE GOAL(s)

### Possible wording

The goal of mastering the *Accounting in Engineering Management* discipline is to systematize the acquired professional expertise and apply it to performing the accounting service of an organization at a high professional level.

While studying the *Accounting in Engineering Management* course it is necessary to solve the following problems:

- define and understand the importance of accountancy as a subsystem of accounting for business and society as a whole,
- determine factors affecting the organization of accounting, and assess factors affecting the formation of accounting policy and the organization of paperwork,
- select the method and type of accounting operations,
- determine the appropriate organizational structure of the accounting service.

## 2. REQUIREMENTS FOR LEARNING OUTCOMES

The mastering of the *Accounting in Engineering Management* discipline envisages building the following competencies (parts of competencies) in students:

*Table 2.1. The list of competencies acquired by students in the course of the discipline (outcomes of the discipline)*

Competence Code	Competence Descriptor	Competence Formation Indicators (within this discipline)
<b>GC-1</b>	Ability to perform critical analysis of problematic situations based on the systemic approach and to develop a plan of action	GC-1.1 Analyzes the task and singles out its basic components GC-1.2 Defines and prioritizes the information needed to solve the task GC-1.3 Searches the information to solve the task by various types of queries GC-1.4 Offers solutions to the problem, analyzes the possible consequences of their use GC-1.5 Analyzes the ways of solving problems of worldview, moral and personal nature based on the use of fundamental philosophical ideas and categories in their historical development and socio-cultural context
<b>GPC-2.</b>	Capability to apply modern techniques and methods of data collection, advanced methods of their processing and analysis, including the use of smart information and analytical systems, in order to solve management and research tasks.	GPC-2.1 Masters modern techniques and methods of data collection, search, processing, analysis and evaluation of information for management problems solving GPC-2.2 Analyzes and simulates management processes in order to optimize the organization's activities GPC-2.3 Uses modern digital systems and methods in solving management and research problems solving
<b>GPC-4.</b>	Capability to manage project and process activities in an organization using modern management practices, as well as leadership and communication skills, to identify and evaluate	GPC-4.1 Applies modern methods, technologies and tools for managing project and process activities in the company GPC-4.2 Applies modern management practices, leadership and communication skills in process and project works

	new market opportunities, develop strategies to create and develop innovative activities and corresponding business models of organizations.	GPC-4.3 Identifies and evaluates new market opportunities for the development of the company innovative activities GPC-4.4 Drafts company development strategies and corresponding business models based on the modern business positioning methods
<b>PC-1</b>	Capability to manage the efficiency of an investment project	PC-1.1 Defines the operations and their sequence to implement the investment project. PC-1.2 Evaluates operational, estimates human resources and determines the participants in the investment project PC-1.3 Plans the implementation stages of the investment project, ensures the quality and quality control of the investment project implementation PC-1.4 Can work in specialized computer programs for the preparation and implementation of an investment project PC-1.5 Can search the necessary information for the preparation and implementation of an investment project PC-1.6 Can identify and assess the degree (level) of an investment project risks and develop measures to manage them

### 3.COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The *Accounting in Engineering Management* discipline is a part of the elective block.

Within the higher education program students also take other disciplines and/or internships that contribute to the achievement of the expected learning outcomes as results of mastering the *Accounting in Engineering Management* discipline.

*Table 3.1. The list of the higher education program components that contribute to the achievement of the expected learning outcomes as the disciplines results.*

Competence Code	Competence Descriptor	Previous Disciplines/Modules, Practices*	Subsequent Disciplines/Modules, Practices*
GC-1	Ability to perform critical analysis of problematic situations based on the systemic approach and to develop a plan of action	Managerial Economics	Master's Degree R&D Pre-graduation Practice Preparing for defense and defense of the degree thesis
GPC-2.	Capability to apply modern techniques and methods of data collection, advanced	Managerial Economics	Master's Degree R&D Pre-graduation Practice Preparing for defense and defense of the degree thesis

	methods of their processing and analysis, including the use of smart information and analytical systems, in order to solve management and research tasks.		
GPC-4.	Capability to manage project and process activities in an organization using modern management practices, as well as leadership and communication skills, to identify and evaluate new market opportunities, develop strategies to create and develop innovative activities and corresponding business models of organizations.	Managerial Economics	Master's Degree R&D Pre-graduation Practice Preparing for defense and defense of the degree thesis
PC-1	Capability to manage the efficiency of an investment project	Managerial Economics	Master's Degree R&D Pre-graduation Practice Preparing for defense and defense of the degree thesis

#### 4. SCOPE OF DISCIPLINE AND TYPES OF SCHOLASTIC WORK

The total workload of the discipline is 3 credits.

Table 4.1. Types of educational work according to the periods of mastering the higher education program for FULL-TIME students

Type of Educational Work	TOTAL, academic hours.	Semester(s)			
		1	2	3	4
<i>Contact Work, academic hours.</i>	18		18		
Lectures (LC)					
Laboratory Work (LR)					
Practical/seminar classes (PC)	18		18		
<i>Autonomous Work of students, academic hours.</i>	81		81		
<i>Control (exam /graded credit), academic hours.</i>	9		9		
<b>Total Workload of the Discipline</b>	academic hours	<b>108</b>		<b>108</b>	
	credits	<b>3</b>		<b>3</b>	

#### 5. COURSE CONTENTS

##### 5.1. Content of the Section of the Discipline

No	Name of the Discipline Section	Content of the Section	Type of Educational Work
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1.	<b>Principles of Organizing Accounting</b>	<i>The concept and essence of the organizing accounting in an economic entity. Regulation of accounting. Conceptual foundations of accounting. The facts of an organization's economic activity as an object of accounting. Classification of economic activity facts.</i>	Lecture, self study
2.	<b>The Place and Legal Status of the Accounting Service in the Management System</b>	<i>Functions of the accounting service of an economic entity. Organizational structure of accounting. Accounting Statute and its development. Rights and duties of the chief accountant. The preparation and documentation of job descriptions of accounting employees. Types of control by the accounting department. Control functions of the accounting service.</i>	Lecture, self study
3.	<b>Fundamentals of Accounting</b>	<i>The organization of accounting and the organization of the accounting process in an operating economic entity. Legal entities: concept and types. Characteristics of legal entities. Inventory. Documenting the facts of economic life. Primary accounting documents. Organizational and administrative documents. Documents on the personnel of an enterprise (collective agreement of the enterprise, employment contracts, workbooks). Organizing of paperwork. Accounting registers and their role in organizing accounting. Systematization of accounting information. Correction of erroneous entries in documents and registers. Storage of documentation. Forensic accounting audit. Features of organizing accounting in the context of computerization.</i>	Lecture, self study
4.	<b>Professional Activity of a Modern Accountant.</b>	<i>Professional ethics of accountants. Professional judgment of an accountant. The concept of audit activity. Types of audit goals and objectives. Regulatory and legal regulation of auditing activities in Russia. The difference between an audit and a documentary audit. The concept of state audit. The subject and objectives of the state audit. The constitutional model of state audit in Russia and the problems of its actual implementation.</i>	Lecture, self study

## 6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 6.1. Classroom equipment and technology support requirements

Classroom Type	Equipment of the Classroom	Specialized Educational/Laboratory Equipment, Software and Materials for the Discipline (if necessary)
Lecture	A lecture hall for lecture-type classes, equipped with a set of specialised furniture; board (screen) and technical means of multimedia presentations.	no
Lab work	A classroom for laboratory work, individual consultations, current and mid-term assessment; equipped with a set of specialised furniture and machinery.	no
Seminar	A classroom for conducting seminars, group and individual consultations, current and mid-term assessment; equipped with a set of specialised furniture and technical means for multimedia presentations.	no
Computer Lab	A classroom for conducting classes, group and individual consultations, current and mid-term assessment, equipped with personal computers (in the amount of ___ pcs), a board (screen) and technical means of multimedia presentations.	no
Self-studies	A classroom for independent work of students (can be used for seminars and consultations), equipped with a set of specialised furniture and computers with access to the electronic information and educational environment.	419

\* - the room for autonomous work of students **MUST BE** indicated!

Electronic educational materials used in the teaching process, multimedia presentations, a bank of test tasks, etc. are provided on the Web-local portal.

The following equipment is used for conducting classes:

- classroom whiteboard – 1 pc.;
- multimedia projector – 1 pc.;
- screen – 1 pc.;
- personal computers (laptops, tablets) for practical training.

Description of the classrooms where classes are held

No	Actual address of classrooms and facilities	List of main equipment
1.	Miklukho-Maklay st., 6, room 419	multimedia projector, screen, classroom whiteboard

## 7. RESOURCES RECOMMENDED FOR COURSE STUDY

### a) Main Readings:

1. Ageeva, O. A. Buhgaltersky uchet i analiz v 2 chasah [Accounting and analysis in 2 hours]. Part 2. Ekonomichesky analiz [Economic analysis]: textbook for universities / O. A. Ageeva, L. S. Shakhmatova. — Moscow : Yurayt Publishing House, 2021. - 240 p. — (Higher education). — ISBN 978-5-534-04061-6. — Text : electronic // EBS Yurayt [website]. — URL: <https://urait.ru/bcode/471337>

2. Zakharov, I. V. Buhgaltersky uchet i analiz [Accounting and analysis]: textbook for secondary vocational education / I. V. Zakharov, I. M. Dmitrieva, O. N. Tarasova ; edited by I. M. Dmitrieva. — 2nd ed., ispr. and add. — Moscow : Yurayt Publishing House, 2023. — 416 p. — (Professional education). — ISBN 978-5-534-15822-9. — Text : electronic // Educational platform Yurayt [website]. — URL: <https://urait.ru/bcode/509826>

**b) Additional Readings:**

1. Dmitrieva, I. M. Buhgaltersky uchet i analiz [Accounting and analysis] : textbook for universities / I. V. Zakharov, O. N. Tarasova ; edited by I. M. Dmitrieva. — Moscow : Yurayt Publishing House, 2021. - 358 p. — (Higher education). — ISBN 978-5-534-03353-3. — Text: electronic // EBS Yurayt [website]. — URL: <https://urait.ru/bcode/468674>

2. Shadrina, G. V. Buhgaltersky uchet i analiz [Accounting and analysis]: textbook and workshop for universities / G. V. Shadrina, L. I. Egorova. — Moscow : Yurayt Publishing House, 2021. — 429 p. — (Higher education). — ISBN 978-5-534-03787-6. — Text: electronic // EBS Yurayt [website]. — URL: <https://urait.ru/bcode/468846>

BiblioRossika An electronic library for students, professors and researchers. <http://www.bibliorossica.com/individuals.html?ln=ru>

## 8. ASSESSMENT TOOLKIT AND GRADING SYSTEM\* FOR EVALUATION OF STUDENTS' COMPETENCES LEVEL UPON COURSE COMPLETION

The assessment materials and the grading system\* to evaluate the graduate's level of competences (part of competences) formation as the results of the **Accounting in Engineering Management** discipline are specified in the Appendix to course syllabus.

\* - The assessment materials and the grading system are formed on the basis of the requirements of the relevant local regulation of RUDN University.

95-100	Excellent A
86-94	Excellent B
69-85	Good C
61-68	Satisfactory D
51-60	Satisfactory E
31-50	Conditionally unsatisfactory FX
0-30	Unsatisfactory F

### DEVELOPERS:

Associate Professor of the  
Applied Economics Department

Position, educational department

Signature

A.A. Ostrovskaya

Name, surname

### HEAD OF EDUCATIONAL DEPARTMENT:

Deputy Head of the Applied

Economics Department

Name of the educational department

Signature

A.A. Ostrovskaya

Name, surname

### HEAD OF HIGHER EDUCATION PROGRAMME:

Head of the Applied Economics Department

position, department

A.A. Ostrovskaya

name and surname



**Methodological guidelines for students on mastering the discipline (module)**

The implementation of the course provides interactive lectures, practical classes (colloquiums) using multimedia equipment, preparation of autonomous creative projects and their subsequent presentations, testing, group discussions on the subject of the course, modern knowledge control technologies.

While studying the discipline, the student must attend a course of lectures, participate in the number of colloquiums provided by the course syllabus, study autonomously some topics of the course and confirm their knowledge during control activities.

The student's work in lectures consists in clarifying the basics of the discipline, briefly taking notes of the material, and clarifying issues that cause difficulties. The lecture notes are the basic educational material along with the textbooks recommended in the main list of readings.

The teaching of the main part of the lecture material involves usage of multimedia tools that facilitate the comprehension and consolidation of the material. Presentations are available for download from the RUDN website and can be freely used by students for educational purposes.

The student must master all the topics provided for by the educational and thematic plan of the discipline. Individual topics and training issues must be mastered autonomously. The student studies the recommended literature, briefly outlines the material, and clarifies the most difficult questions that require clarification during consultations. The same should be done with sections of the course that were skipped due to various circumstances.

For an in-depth study of the issue, the student should study the literature from the additional readings list and specialized websites. It is also recommended that students communicate in professional community forums.

Students study educational, scientific literature and periodicals on an autonomous basis. They have the opportunity to discuss what they have read with the teachers of the discipline during scheduled consultations, with other students at colloquiums, as well as at lectures, asking the professor questions.

The control of autonomous work is carried out by the professor in charge. Depending on the teaching methodology, the following forms of continuous assessment can be used: a short oral or written survey before the start of classes, tests, control papers, written homework, essays, etc.

**The toolkit for the midterm assessment of students in the discipline (module)** (developed and issued in accordance with the requirements of the "Regulations for the Formation of Assessment Toolkit (FOS)", approved by the Rector's order No. 420 dated 05.05.2016).

The code of the controlled competence or its part	Controlled Discipline Section	Controlled Discipline Topic	Assessment Toolkit (forms of control of mastering the professional program)										Scores Topics	Section Scores	
			Classroom Work					Autonomous Work							
			Survey	Test	Colloquium	Control Paper	Discussion	Essay	Homework	Report	Creative Project	Course Paper / project	Exam/Test		
GC-1, GPC-2, GPC-4, PC-1	Subject 1	<i>Subject 1. Principles of Organizing Accounting</i>		2			2			10					14

GC-1, GPC-2, GPC-4, PC-1	Subject 2	<i>Subject 2. The Place and Legal Status of the Accounting Service in the Management System</i>		4			2		5							11
GC-1, GPC-2, GPC-4, PC-1	Subject 3	<i>Subject 3. Fundamentals of Accounting</i>		2			4		5							9
GC-1, GPC-2, GPC-4, PC-1	Subject 4	<i>Subject 4. Professional Activity of a Modern Accountant.</i>	5	4			2		5							16
GC-1, GPC-2,		Milestone Certification (Control Paper)				20										20

GPC-4, PC-1															
GC-1, GPC-2, GPC-4, PC-1		Exam											30		30
		TOTAL	25	10		20	10		15	10			30		100

**Self-examination and certification tests**

**(1 option)**

**Job description:**

- a) a document defining the functions, rights, duties and responsibilities of employees;
- b) a document defining the order of education, structure, functions and organization of work;
- c) a document defining the functions, structure, rights and responsibilities of employees;
- d) a) b) c).

**2. The structure of the accounting service depends on the conditions of the organization and the production technology of the enterprise:**

- a) yes;
- b) no.

**3. The validity period of the Accounting Statute:**

- a) one year;
- b) two years;
- c) five years;
- d) not limited.

**4. There are the following types of accounting service organization:**

- a) linear, hierarchical, combined;
- b) linear, vertical, combined;
- c) linear-staff, vertical, combined;
- d) combined, functional, vertical.

**5. The head of a medium business entity may keep accounting records personally:**

- a) yes;
- b) no.

**6. The system of regulation of accounting in the Russian Federation consists of:**

- a) two levels;
- b) three levels;
- c) four levels;
- d) five levels.

**7. Commercial organizations include:**

- a) production cooperatives;
- b) consumer cooperatives;
- c) public organizations;
- d) limited liability companies;
- e) state unitary enterprises;
- f) municipal unitary enterprises;
- g) joint-stock companies;
- h) Cossack societies.

**8. When reducing the authorized capital in order to bring it in line with the size of net assets, the account is used:**

- a) 99 "Profit and loss";
- b) 84 "Retained surplus" (losses);
- c) 98 "Deferred income".

**9. The constituent documents of a limited liability company are:**

- a) the statute;
- b) company incorporation contract;
- c) the statute and the company incorporation contract.

**10. In accordance with Russian Accounting Regulation 8/2010, contingencies do not include the following court proceedings that are pending at the reporting date:**

- a) yes;
- b) no.

**11. The levels of management in the executive personnel are the following:**

- a) top, intermediate, operational;
- b) top, intermediate;
- c) medium, operational;
- d) top, medium, tactical.

**12. The founding document of the production cooperative:**

- a) the statute;
- b) the foundation agreement.

**13. The selected scheme of the accounting service organization of an economic entity should not be fixed in the organizational document:**

- a) yes;
- b) no.

**14. Accountancy is a subsystem of accounting, which includes:**

- a) technique and technology of information collection and processing; methodology of data accounting;  
rational and economical organization of the work of the accounting service;
- b) the technique and technology of collecting and processing information; rational organization accounting information processing procedures; rational and economical organization the work of the accounting service.

**15. The chief accountant of the enterprise reports to:**

- a) the owner of the enterprise;
- b) the head of the enterprise.
- c) a) b).

**16. In case of disagreement between the head of the enterprise and the chief accountant on the implementation of certain facts of economic life, the documents on them:**

- a) may be accepted for work under the written approval of the board of directors;
- b) can be accepted for work under a written order of the head of the enterprise;
- c) may be accepted for work under the written approval of the founders.
- d) a) b) c).

**17. In accordance with Law No. 402 –FZ in LLC, the official entrusted with accounting must have a higher education:**

- a) no;
- b) yes

**18. The chief accountant or other official of the enterprise cannot, under the permission of the authorities conducting the seizure of documents, make copies of them:**

- a) yes;

b) no.

**19. A production cooperative may not include:**

- a) less than 5 people;
- b) less than 10 people;
- a) less than 15 people;
- b) less than 20 people;

**20. The management decision-making process includes the following stages:**

- a) clear definition of the problem, information gathering;
- b) clear definition of the problem, drafting of several options to solve the issue;
- c) clear definition of the issue, collection and analysis of information, drafting of several options solve the issue.
- d) gathering and analysis of information, drafting of several options solve the issue.

This Program has been developed in line with the requirements of the RUDN University Educational Standards.