Національний технічний університет України
«КИЇВСЬКИЙ ПОЛІТЕХНІЧНИЙ ІНСТИТУТ
імені ІГОРЯ СІКОРСЬКОГО»

*Department of Geoengineering*

# Resource management of a geotechnical enterprise

## Working program of the academic discipline (Syllabus)

| Details of the Disciplines | |
|---|---|
| **Level of higher education** | ***Second (master's)*** |
| **Branch of knowledge** | *18 Production and technologies* |
| **Specialty** | *184 Mining* |
| **Educational program** | *Geoengineering* |
| **Discipline status** | *Selective* |
| **Form of study** | *Full-time (day)/full-time (evening)/correspondence/distance/mixed* |
| **Year of study, semester** | *1 year of study, spring semester* |
| **Discipline scope** | *4 credits* |
| **Semester control / control measures** | *test / Modular control work* |
| **Lessons schedule** | *http://rozklad.kpi.ua/* |
| **Language of Lecture** | *Englich* |
| **Information about course leader / lehrer** | *Lecturer: prof. Department of Geoengineering, Doctor of Technical Sciences, Prof. Vovk Oksana Oleksiivna, oksanavovk76@gmail.com*<br>*Practical / Seminar: prof. Department of Geoengineering, Doctor of Technical Sciences, Prof. Vovk Oksana Oleksiivna, oksanavovk76@gmail.com* |
| **Course placement** | *Available on the Sikorsky platform. The access code is provided by the teacher at the first lesson.* |

### Program of the discipline

#### 1. *Description of the educational discipline, its purpose, subject of study and learning outcomes*

*The market conditions for the functioning of geotechnical enterprises require the achievement of the most effective use of enterprise resources, ensuring the stable development of economic activity, timely identification and resolution of problems arising in the process of enterprise management. Successful management of production, production, sales and financial activities of the enterprise should be based on the use of structured and reliable data on resource provision and management of the enterprise, its change and forecast dynamics of development. The resource management discipline of the geotechnical enterprise is aimed at solving these tasks.*

*The discipline will be interesting for students of the specialty 184 Mining.*

***The goal of the discipline*** *is to form a complex of theoretical knowledge and practical skills from the basics of system management of resources of a geotechnical enterprise at the stages of their formation, accumulation, functioning, reproduction and use; acquiring skills in managing certain types of enterprise resources and evaluating the effectiveness of this process.*

***The subject of the discipline*** *is the theoretical, methodical and applied aspects of evaluating and ensuring the efficiency and effectiveness of enterprise resource management.*

*Program learning outcomes.*

*– manage resource flows of the geotechnical enterprise,*

*- evaluate the cost of resources and risks associated with a decrease in the effectiveness of their use;*
*– analyze the consequences of decision-making regarding the management of resource flows of a geotechnical enterprise;*
*- application of modern digital technologies in socio-economic research, design, distribution and optimization of resource flows.*

## 2. Pre-requisites and post-requisites of the discipline (place in the structural and logical scheme of training according to the relevant educational program)

*Understanding of the essence of enterprise activity, general knowledge of economics and production organization*

## 3. Content of the academic discipline

***Topic 1**. Resources of a geotechnical enterprise: definition, classification and identification*
***Topic 2.** Resource transformations as the basis of effective management of a geotechnical enterprise*
***Topic 3.** The policy of managing material and labor resources of a geotechnical enterprise*
***Topic 4.** Financial resources of a geotechnical enterprise: management aspect*
***Topic 5.** Intellectual resources: description and systematization*
***Topic 6.** Evaluation of intellectual resources of a geotechnical enterprise*
***Topic 7.** Intellectual resources management system*
***Topic 8**. Strategic resources of a geotechnical enterprise: content, elements and their characteristics*
***Topic 9.** Knowledge as a strategic resource of a geotechnical enterprise*
***Topic 10**. Technology of managing strategic resources of a geotechnical enterprise*
***Topic 11.** Resource risk management*
***Topic 12.** Effectiveness of enterprise resource management*

## 4. Educational materials and resources

### Basic literature


*1. Manoranjan Mishra, Manoj Kumar Dash, Dinoj Kumar Upadhyay, Raj Kishor Kampa. Resource Efficiency, Sustainability, and Globalization. Apple Academic Press. New York. - 2022. 292 P. https://doi.org/10.1201/9781003130833.*

*2. Enterprise Resource Planning : Implementation and Management Accounting Change in a Transitional Country, A. Kholeif , M. Abdel , M. Sherer, Publisher Palgrave Macmillan, Basingstoke, United Kingdom, English. 2010,- 314 p.*

*3. Michael W. Pelphrey. Directing the ERP Implementation : A Best Practice Guide to Avoiding Program Failure Traps While Tuning System Performance. Resource Management. 2015. 380 p.*

*4. Enterprise Resource Planning, Alexis Leon, McGraw-Hill Education (India) Pte Limited, 2014 - 415 p.*

*5. Enterprise Resource Planning. Veena Bansal. Pearson Education India, 2012, 212 p.*

*6. Dr. Jill A O'Sullivan, Gene Caiola. Enterprise Resource Planning Concepts: Understanding the Power of ERP for Today's DMMSI, Associates; Businesses Second Edition . 2016. English. 370 p.*

*7. Enterprise Systems for Management. Luvai Motiwalla, Jeffrey Thompson. Pearson Education, 2011. - 384 p.*

*8. Karl E. Kurbel. Enterprise Resource Planning and Supply Chain Management. 2014. Springer Berlin, Heidelberg, 359 p. https://doi.org/10.1007/978-3-642-31573-2.*


### Additional literature


*9. Michael W. Pelphrey. Directing the ERP Implementation A Best Practice Guide to Avoiding Program Failure Traps While Tuning System Performance, Boca Raton , CRC Press. 2015. -380 p.*

*10. Concepts in Enterprise Resource Planning . Ellen Monk, Bret Wagner . Paperback – Geïllustreerd, 2012. Uitgever : COURSE TECHNOLOGY, Nl, Engels, 254 p.*

*Literature, the bibliography of which is provided with a link, can be found on the Internet.*
*Certain sections of the basic literature [1-6, 8] are mandatory for reading. Sections of the basic literature, which are mandatory for reading, as well as the connection of these resources with specific topics of the discipline are given below, in the methodology of mastering the academic discipline. All other literary sources are optional, it is recommended to familiarize yourself with them.*

## Educational content

### 5. Methods of mastering an educational discipline (educational component)

**Lecture classes**

| № | The name of the topic of the lecture and a list of main questions (references to the literature) |
|---|---|
| ***Lecture* 1** | ***Geotechnical enterprise resources: definition, classification and identification***<br>*Transformation of the essence and meaningful filling of resources in economic theory. Evolution and identification of the concept of "resources" in economic theory. Characteristics of the main factors of production in modern economic theory. The theory of qualitative heterogeneity of resources. Resource concept in strategic management. The place, role and novelty of the resource concept in the theory of strategic management.*<br>***Systematization of geotechnical enterprise resources.*** *The characteristics of the company's resources are based on the following classification features: by participation in the production process; by economic content; by role in the activity of the geotechnical enterprise; by the possibility of display; according to the specifics of value formation; by existence in time; according to the possibility of reproduction; by sources of formation, by the nature of organization and regulation.*<br>***Characteristics of resources as an object of management.*** *Interrelationship of the concepts "resource", "reserve", "stock". Revealing the logic of the ratio of resources and production factors. Signs of resources as an object of management.*<br>***Literature:*** *[1, 2, 4]* |
| ***Lecture* 2- 3** | ***Resource transformations as the basis of effective management of a geotechnical enterprise***<br>***System of scientific views on resource provision of geotechnical enterprise****. Dialectical unity of the material and ideal nature of the resource. Key differences of the specific resource of "knowledge" from traditional resources. Distinguishing the concepts of "resources" and "factors" of production. The role of the market in the distribution and redistribution of resources. Systematization of scientific views on resource provision of geotechnical enterprise. Stages of development of the resource concept. Resource asymmetries as the basis of the company's competitive advantages. Market, resource and synthetic approaches in the modern theory of resource provision.*<br>***Principles of resource provision of the activity of a geotechnical enterprise.*** *The principles of cost minimization and profit maximization as the basis of the classical theory of enterprise management. The relationship between the concepts of "resources" and "costs". Valuable, tangible and intangible form of resources. The principle of minimization as the basis of resource management in cost form, optimization in material form and maximization in non-material form. Three-level provision of rationalization of the geotechnical enterprise's need for resources.*<br>***Process management of resource provision of the activity of the geotechnical enterprise.*** *Process management and management by functions: relationship of scientific approaches. Identification and determination of the sequence / interaction of business processes.* |

| | |
|---|---|
| | *Business processes as directions of resource provision of enterprise activity. Interrelationship of the priority form of the resource (intangible, valuable, material) and the stage of the business cycle of the enterprise. The cycle of mutual transformation of resource forms and cyclical resource provision of the enterprise. Resource provision as a set of measures: search, preference, composition, rotation, modification and use of resources. Three-dimensional model of resource provision of the enterprise, characterized by the coordinate system: R (resources), Z (measures), P (processes).*<br>***The mechanism of resource transformations in the process of activity of a geotechnical enterprise****. Cyclical change of the priority form of the resource as the basis of the mechanism of using the results of previous activities as resources for the development of the enterprise. Mechanism of resource transformations. The indicator "resource suitability of the result" (RPR). Evaluation of resource availability of results at different stages of the business cycle.*<br>***Literature:*** *[1, 2, 7, 8]* |
| ***Lecture* 4-5** | ***The policy of managing material and labor resources of a geotechnical enterprise***<br>***Basic provisions of the theory of management of traditional enterprise resources****. Specific differences between traditional and strategic enterprise resources. Approaches to the classification of traditional resources as an object of management: material, labor, financial. The main principles of traditional resource management: structural and qualitative (optimization of reproduction and use, complexity and interconnectedness in use, target and strategic orientation).*<br>*Peculiarities of managing material resources of a geotechnical enterpri****se.*** *Tasks of managing the company's material resources: technological, resource, infrastructural, innovative, investment, logistical aspects. The specifics of material resource management at the strategic, tactical, and operational levels. Key aspects of the material resources management system based on controlling, logistics and business process reengineering.*<br>***Modern trends in the management of labor resources of a geotechnical enterprise.*** *Strategic aspects of labor resources management, their characteristics and content. Current management of labor resources: purpose, tasks, stages, functions and principles. Organization of professional development. Modern approaches to personnel motivation. Formation of a motivational profile. Methods of assessing the level of employees' competencies.*<br>***Literature:*** *[1, 2, 3, 8]* |
| ***Lecture* 6-7** | ***Financial resources of a geotechnical enterprise: management aspect***<br>***Financial resources as an object of management.*** *Functions of the management entity in the aspect of formation and use of financial resources of the geotechnical enterprise. The main tasks of the financial strategy. Stages and elements of the mechanism of managing financial resources of the enterprise. Purpose and content of financial planning.*<br>***Cash management models of a geotechnical enterprise.*** *The purpose and stages of the cash management process. Development of the concept and basic parameters of cash management. Target parameters of cash management. OJSC model (Baumol-Allais-Tobin) for cash balance planning needs. Content of cash balance management according to the Miller-Orr model and according to the Stone model. Typical quantitative guidelines for adjusting the balance of the company's monetary assets.*<br>***The policy of managing financial investments of a geotechnical enterprise.*** *The main tasks, principles and stages of financial investment management. Types of financial investment management. Formation of the company's financial investment portfolio, its types. Variability of capital placement in different types of financial instruments.* |

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|---|---|
| | ***Accounts receivable management practice.*** *Characteristics of the main stages of the receivables management system. Formation of credit policy of the enterprise, its types. Amounts and sources of financing receivables. Identification of requirements for potential buyers. Areas of diagnosis and grouping of buyers according to the level of creditworthiness. Ways of adjusting the amounts of receivables of the enterprise.*<br><br>***Accounts Payable Management Policy.*** *The main tasks of the payables management policy according to the degree of specification and time characteristics. Current asset financing models: ideal, aggressive, compromise, conservative. Determination of sources of repayment of short-term financial obligations of the enterprise.*<br><br>***Literature:*** *[1,2, 3, 4, 8]* |
| ***Lecture* 8** | ***Intellectual resources: characterization and systematization***<br><br>***Characteristics of intellectual resources and their relationship with related economic categories.*** *The essence of the categories "intangible assets", "intellectual property", "intellectual capital", "intellectual resources". Relationship and distinguishing features of categories and areas of their use. Characteristics of knowledge and information as the basis of intellectual products.*<br><br>***Systematization of intellectual resources of the geotechnical enterprise****. The main components of intellectual resources. The essence of the process of systematization of intellectual resources and their specific structure. Classification of elements of intellectual resources.*<br><br>***Identification of intellectual resources of a geotechnical enterprise.*** *Criteria for identification of intellectual resources. Characteristics and logic of building a tree of intellectual resources. Resource portfolio: main components at individual levels and their relationship. The logic of the process of transformation of intellectual resources.*<br><br>***Literature:*** *[1, 2, 3, 4, 8]* |
| ***Lecture* 9** | ***Evaluation of intellectual resources of a geotechnical enterprise***<br><br>***Goals and methods of evaluating intellectual resources of the enterprise****. Characterization of the main goals of the assessment of intellectual resources. Comparative characteristics of the methods of evaluating the intellectual capital of a geotechnical enterprise and the prerequisites for their practical use: direct measurement, capitalization, return on assets, the SC method, etc.*<br><br>***Practices of assessment of intellectual resources of a geotechnical enterprise.*** *Examples of intellectual capital evaluation systems (its structural elements) by real domestic and foreign companies.*<br><br>***Literature:*** *[1, 2, 3, 4, 5]* |
| ***Lecture* 10** | ***Management system of intellectual resources***<br><br>***Features and components of the functional subsystem of management of intellectual resources of a geotechnical enterprise.*** *Characteristics of intellectual resource management at the macro level. Levels, functions and stages of management of intellectual resources. Characteristics of the functional subsystem of intellectual resources and their evaluation.*<br><br>***Assessment of intellectual resources.*** *Systematization of the goals of assessment of intellectual resources. Methods of direct measurement of intellectual capital, methods of market capitalization, methods of return on assets, methods of calculating indicators. Expert and graphic approaches to the assessment of intellectual resources. Problems of using methods of assessment of intellectual resources.*<br><br>***International experience of managing intellectual resources.*** *Essential characteristics of foreign experience in managing intellectual resources. Features of the Japanese and Danish management system. The MERITUM system: essence, components and effectiveness of use.* |

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|---|---|
| | ***Literature:*** *[1, 2, 4, 7]* |
| ***Lecture 11*** | ***Strategic resources of a geotechnical enterprise: content, elements and their characteristics***<br><br>***Evolution of resource concepts in the modern theory of strategic management.*** *Comparative characteristics of the theory of industry competition, resource theory and theory of resource advantages. Definition of Ricardian and Schumpeterian rent.*<br><br>***Economic characteristics of strategic resources of a geotechnical enterprise.*** *Comparative characteristics of strategic and traditional resources. Properties of strategic resources of the enterprise. Value innovation and its practical implementation.*<br><br>***Relationship of strategic resources and their economic derivatives.*** *Building a map of strategic resources. Economic characteristics of assets, competencies, organizational capabilities, and organizational routines. Classification of competencies and construction of a "tree" of competencies. Types of organizational capabilities: dynamic and static capabilities.*<br><br>***Literature:*** *[1, 5, 6]* |
| ***Lecture 12*** | ***Knowledge as a strategic resource of a geotechnical enterprise***<br><br>***Economic nature of knowledge in the organization.*** *The concept of "organizational knowledge": interpretation from the standpoint of the resource approach. Interdependence and interdependence of information, data, knowledge and wisdom in the organization. Types of knowledge. The role of organizational knowledge in the company's acquisition of competitive advantages.*<br><br>***Methodical approaches to the assessment of knowledge as a resource of a geotechnical enterprise.*** *A system of scientific views on the assessment of the "knowledge" resource. Wheelwright-Clark's "Watering Can" idea screening model. Methodology of expert evaluations with ranking or determining the importance of evaluated parameters. Evaluation of ideas based on the concept of Co-creation. Methods of direct assessment of knowledge as an intangible asset. Methods of direct cost assessment of the "knowledge" resource.*<br><br>***The resource-generating function of enterprise knowledge in the modern business environment.*** *Essential characteristic of "knowledge organization", "adaptive professional business organization". Systematization of organizations included in the "knowledge format". The mechanism of value creation by knowledge organizations.*<br><br>***Literature:*** *[1- 5]* |
| ***Lecture 13*** | ***Effectiveness of enterprise resource management (3 hours)***<br><br>***The logic of the relationship between the effectiveness and efficiency of enterprise resource management.*** *The logic of defining concepts: "effectiveness", "efficiency". Criteria for determining the effectiveness of resource management. Traditional approaches to determining the effectiveness of the formation and use of enterprise resources. Basic provisions for determining the effectiveness of the formation and use of enterprise resources. Systematization of indicators for evaluating the efficiency of resource use. Disadvantages of using traditional approaches to diagnosing the state of enterprise resources.*<br><br>***Logistical aspects of the efficiency of enterprise resource management.*** *Development of a logistic approach to the management of enterprise resource flows. The logic of building a logistic approach in the context of determining the effectiveness of resource management.* |

| | |
|---|---|
| | *Peculiarities of movement of material, financial and information flows and peculiarities of their assessment.*<br><br>***Effectiveness of capital management as an economic resource of the enterprise.*** *Characterization of the ability of capital to create value in the process of business resource provision. The development of the theory of capital structure and its influence on decision-making regarding the formation of the optimal structure of sources of financing resources. Argumentation of the choice of the result of capital functioning in the context of modern concepts of financial management development. Indicators for evaluating the effectiveness of management of the formation and functioning of capital of enterprises.*<br><br>***Capitalization in the enterprise resource management system.*** *The content of capitalization in the context of enterprise resource management. Basic provisions of the value and resource concept in the development of the theory of capitalization. Management aspects of capitalization and the mechanism of their implementation. Characteristics of capitalization as a result of effective management of enterprise resources.*<br><br>***Literature:*** *[1-4, 6, 8]* |

**Practical classes (seminars)**

| № | *Tasks that are assigned to practical classes* |
|---|---|
| **Practice session 1** | *Management of a geotechnical enterprise based on a resource business model and the effectiveness of the use of enterprise resources.* |
| **Practice session 2** | *A systematic approach to resource management of a geotechnical enterprise. Stages of resource management of a geotechnical enterprise.* |
| **Practice session 3** | *The use of modern software products in the resource management system of a geotechnical enterprise* |
| **Practice session 4** | *Methodical tools for analyzing the effectiveness of manpower management of a geotechnical enterprise.* |
| **Practice session 5** | *Modular control work (MKW).* |
| **Practice session 6** | *Modern models of labor resources management, their introduction into domestic practice.* |
| **Practice session 7** | *Analytical support of material resource management processes of a geotechnical enterprise* |
| **Practice session 8** | *Modern models of effective management of material resources of a geotechnical enterprise.* |
| **Practice session 9** | *The essence of the methods of assessment of intangible assets of a geotechnical enterprise* |
| **Practice session 10** | *Evaluation of the effectiveness of the formation and use of financial capital of a geotechnical enterprise.* |
| **Practice session 11** | *Evaluation of the effectiveness of management of investment resources of a geotechnical enterprise.* |
| **Practice session 12** | *Information system as a means of improving the management of information resources of a geotechnical enterprise (3 hours).* |
| **Practice session 13** | **Test** |

## 6. Independent work of a student/graduate student

*The student's independent work involves:*

*preparation for classroom classes - 56 hours;*
*preparation for the modular control work - 4 hours;*
*preparation for the test - 6 hours*

## Policy and control

### 7. Policy of academic discipline (educational component)

*At the time of each lesson, both lecture and practical, the student must have the Zoom application installed on the device from which he works (in the case of distance learning), and the course "Resource Management of a Geotechnical Enterprise" must be opened on the "Sikorsky" platform (the access code to the course is provided at the first lesson according to the schedule). Syllabus; lecture material; tasks for each practical session; variants of modular control work; tests to be completed after lectures; variants of the credit test are posted on the "Sikorsky" platform and in the "KPI Electronic Campus" system.*

*During the course "Resource Management of a Geotechnical Enterprise", students are obliged to adhere to the general moral principles and rules of ethical behavior specified in the Code of Honor of the National Technical University of Ukraine "Ihor Sikorskyi Kyiv Polytechnic Institute".*

*The deadlines for the completion of each task are specified in the course " Resource management of a geotechnical enterprise " on the "Sikorsky" platform.*

*All students, without exception, are obliged to comply with the requirements of the Regulations on the Academic Plagiarism Prevention System at the National Technical University of Ukraine "Ihor Sikorskyi Kyiv Polytechnic Institute".*

*For participation in the All-Ukrainian Olympiad (competition of scientific works), a student is awarded 5 (I round) or 10 (II round) points. For writing an article and its publication, the student is awarded 10 points (edition included in Scopus or Web of Science) or 6 points (professional publication of Ukraine). 3 points for publication of report abstracts at a scientific conference. The total amount of incentive points cannot exceed 10 points..*

### 8. Types of control and rating system for evaluating learning outcomes (RSE)

*Current control: The student's rating from the credit module is calculated out of 100 points. The starting rating (during the semester) consists of points that the student receives for:*

*- writing 1 MKW in a practical session ( module work consists of 2 questions of 7 points each – 14 points);*

*– performance and defense of practical works (11 works = 66 points);*

*– test (20 points);*

*The student performs the test directly during the lecture, 5-10 minutes before its end. At the end of the class, the test is closed and cannot be rewritten or completed at home. The test contains questions and several answers to each of them, one of which is correct. Each correct answer is valued at 1 point.*

*Tasks within the framework of the practical lesson are evaluated in 6 points according to the following criteria:*

*– "excellent" - a complete answer (at least 90% of the required information), relevant justifications and a personal opinion are provided - 6 points;*

*– "good" - a sufficiently complete answer (at least 75% of the required information), which is completed in accordance with the requirements for the "skills" level or contains minor inaccuracies - 5 points;*

*– "satisfactory" - an incomplete answer (at least 60% of the required information), completed in accordance with the requirements for the "stereotypical" level and containing some errors - 4 points;*

*– "unsatisfactory" - unsatisfactory answer - 0 points.*

*Modular control work (maximum number of points per work – 14 points):*

*– "excellent" - complete answer (at least 90% of the required information) - 12.5-14 points;*

*- "good" - sufficiently complete answer with minor inaccuracies (at least 75% of the required information) - 10-12 points;*

*– "satisfactory" - incomplete answer (at least 60% of the required information) - 8-9.5 points;*

*– "unsatisfactory" - unsatisfactory answer (less than 60%) - <9 points.*

*Implementation and protection of practical works:*

*- performance of practical work 6 points (5-6 points are awarded for high-quality work, 2 points for poor performance);*

*Testing:*

*- maximum number of points - 20 points. The test consists of 20 questions (1 point for a correct answer, 0 points for an incorrect answer).*

*Calendar control: conducted twice a semester as a monitoring of the current state of meeting the requirements of the syllabus. The condition for a positive first and second calendar control is to obtain at least 50% of the maximum possible rating at the time of the corresponding calendar control.*

*Semester control: credit. Conditions for admission to semester control: completed and enrolled: practical work, MKW.*

*Students who have met all the admission requirements and have a rating of 60 or more points receive a rating corresponding to the rating without additional tests. The sum of the rating points received by the student during the semester is transferred to the final grade according to the table.*

*If the sum of points is less than 60, but the MKR has been completed and credited, the student completes the credit control work. In this case, the sum of points for the MKR and for the final test is transferred to the final grade according to the table.*

*A student who received more than 60 points in the semester, but wants to improve his result, can take part in a credit test. In this case, the final result consists of the points obtained on the final test and points for practical work.*

*The credit control work is estimated at 34 points. The control task of this work consists of two theoretical questions from the list provided in the appendix to the syllabus.*

*Each question is evaluated in 17 points according to the following criteria:*

*– "excellent" - a complete answer (at least 90% of the required information), relevant justifications and a personal opinion are provided - 15 - 17 points;*

*– "good" - a sufficiently complete answer (at least 75% of the required information), completed in accordance with the requirements for the "skills" level or containing minor inaccuracies - 12-14 points;*

*– "satisfactory" - an incomplete answer (at least 60% of the required information), completed in accordance with the requirements for the "stereotypical" level and containing some errors - 10 - 11 points;*

*– "unsatisfactory" - unsatisfactory answer - 0 points.*

*For correspondence education*

*Current control: MKW (14 points). The structure of MKW, requirements and evaluation criteria are similar to those for full-time education and are given above.*

*Semester control: assessment. Conditions for admission to the semester control: completed and credited MKW, practical work.*

*Students who have fulfilled the conditions for admission to the credit, perform the credit control work. The sum of points for the MKW, practical works and for the credit control work is transferred to the final grade according to the table.*

*Credit control work is estimated at 34 points, as for full-time education. The evaluation criteria are given above.*

*Table of correspondence of rating points to grades on the university scale:*

| Number of points | Evaluation |
|---|---|
| 100-95 | Perfectly |
| 94-85 | Very good |
| 84-75 | Fine |
| 74-65 | Satisfactorily |
| 64-60 | Enough |

| | |
|---|---|
| Less than 60 | Unsatisfactorily |
| Admission conditions not met | Not allowed |

## 9. Additional information on the discipline (educational component)

*The list of questions submitted for semester control is given in the appendix to the syllabus.*

*A student of higher education has the opportunity to take an online course(s) on one or more topics provided by the work program of the academic discipline. The applicant can choose an online course independently or on the recommendation of a teacher. 1 hour of the course is valued at 0.83 points. The maximum number of hours that can be credited based on the results of non-formal education is 12 hours, accordingly the maximum number of points for such results is 10 points.*

*Working program of the academic discipline (syllabus):*
*Compiled by Prof., Ph.D., Prof. Vovk by Oksana Oleksiivna*
*Approved by the Department of Geoengineering*
*Agreed by the methodical council of KPI named after Igor Sikorsky*

***Addition***

***The list of questions submitted for semester control***

1. *Resources of the geotechnical enterprise: definition, classification and identification.*
2. *Characteristics of the main factors of production in modern economic theory.*
3. *Theory of qualitative heterogeneity of resources.*
4. *Resource concept in strategic management.*
5. *The place, role and novelty of the resource concept in the theory of strategic management.*
6. *Systematization of geotechnical enterprise resources and their characteristics.*
7. *Characteristics of resources as an object of management. Interrelationship of the concepts "resource", "reserve", "stock".*
8. *Revealing the logic of the ratio of resources and production factors.*
9. *Signs of resources as an object of management.*
10. *Resource transformations as the basis of effective management of a geotechnical enterprise.*
11. *The role of the market in the distribution and redistribution of resources.*
12. *Market, resource and synthetic approaches in the modern theory of resource provision.*
13. *Principles of resource provision of the activity of a geotechnical enterprise.*
14. *The principles of cost minimization and profit maximization as the basis of the classical theory of enterprise management.*
15. *Correlation of the concepts "resources" and "costs". Valuable, tangible and intangible form of resources.*
16. *The principle of minimization as the basis of resource management in cost form, optimization in material form and maximization in non-material form.*
17. *Three-level provision of rationalization of the geotechnical enterprise's need for resources.*
18. *Business processes as areas of resource provision of enterprise activity.*
19. *Interrelationship of the priority form of the resource (intangible, valuable, material) and the stage of the business cycle of the enterprise.*
20. *Resource provision as a set of measures: search, preference, composition, rotation, modification and use of resources.*
21. *Three-dimensional model of resource provision of enterprise activity, characterized by a coordinate system: R (resources), Z (measures), P (processes).*
22. *Process management of resource provision of the geotechnical enterprise.*
23. *The mechanism of resource transformations in the process of activity of a geotechnical enterprise.*
24. *Mechanism of resource transformations. The indicator "resource suitability of the result" (RPR).*
25. *Evaluation of resource availability of results at different stages of the business cycle.*
26. *Policy of management of material and labor resources of a geotechnical enterprise.*
27. *Specific differences of traditional and strategic resources of the enterprise.*
28. *Approaches to the classification of traditional resources as an object of management: material, labor, financial.*
29. *Basic principles of management of traditional resources: structural and qualitative (optimization of reproduction and use, complexity and interconnectedness in use, target and strategic orientation).*
30. *Peculiarities of managing material resources of a geotechnical enterprise.*
31. *Tasks of managing the company's material resources.*
32. *Specifics of material resource management at the strategic, tactical and operational levels.*
33. *Key aspects of the material resources management system based on controlling, logistics and business process reengineering.*
34. *Strategic aspects of labor resources management, their characteristics and content.*
35. *Current management of labor resources: purpose, tasks, stages, functions and principles.*
36. *Modern approaches to personnel motivation. Formation of a motivational profile.*
37. *Methods of assessing the level of employee competencies.*
38. *Financial resources of a geotechnical enterprise: management aspect*

39. *Stages and elements of the mechanism of managing financial resources of the enterprise.*
40. *Purpose and content of financial planning.*
41. *Policy for managing financial investments of a geotechnical enterprise.*
42. *Main tasks, principles and stages of financial investment management. Types of financial investment management.*
43. *Formation of the enterprise's financial investment portfolio, its types.*
44. *Variability of capital placement in different types of financial instruments.*
45. *Characteristics of intellectual resources and their relationship with related economic categories.*
46. *The essence of the categories "intangible assets", "intellectual property", "intellectual capital", "intellectual resources".*
47. *Characteristics of knowledge and information as the basis of intellectual products.*
48. *Systematization of intellectual resources of a geotechnical enterprise. The main components of intellectual resources.*
49. *Classification of elements of intellectual resources.*
50. *Identification of intellectual resources of a geotechnical enterprise.*
51. *Evaluation of intellectual resources of a geotechnical enterprise*
52. *Intellectual resources management system.*
53. *International experience of managing intellectual resources.*
54. *Strategic resources of a geotechnical enterprise: content, elements and their characteristics*
55. *Economic characteristics of strategic resources of a geotechnical enterprise.*
56. Comparative characteristics of strategic and traditional resources. Properties of strategic resources of the enterprise. Value innovation and its practical implementation.
57. Methodical approaches to the evaluation of knowledge as a resource of a geotechnical enterprise. A system of scientific views on the assessment of the "knowledge" resource.
58. Methods of direct assessment of knowledge as an intangible asset. Methods of direct cost assessment of the "knowledge" resource.
59. The resource-generating function of enterprise knowledge in the modern business environment.
60. Effectiveness of resource management of a geotechnical enterprise.
61. Criteria for determining the effectiveness of resource management. Traditional approaches to determining the effectiveness of the formation and use of enterprise resources.
62. Effectiveness of capital management as an economic resource of a geotechnical enterprise.
63. Disadvantages of using traditional approaches to diagnosing the state of resources of a geotechnical enterprise.
64. Peculiarities of movement of material, financial and information flows and peculiarities of their assessment.
65. Capitalization in the resource management system of a geotechnical enterprise.