



MINISTRY OF SCIENCE AND HIGHER EDUCATION OF RUSSIAN FEDERATION  
Federal state autonomous educational institution of higher education  
**Far Eastern Federal University**  
**(FEFU)**

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**SCHOOL OF ECONOMICS AND MANAGEMENT**

Approved by  
Head of International programme  
Academic Program Director

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Head of Department of accounting and audit

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(surname and initials)

**COURSE TEACHING MATERIALS**

Venture capital investments and financial models (Венчурные инвестиции и  
финансовые модели)

**Field of training: 38.04.02 Management**

**International Business and Project Management**

Mode of Study: full-time

Year   2   Semester   3  

Lectures   0   hours

Practical Studies   36   hours

Seminars \_\_\_\_\_ hours

Laboratory Work \_\_\_\_\_ hours

Consultations \_\_\_\_\_ hours

Total In-class Work   36   hours

Independent Work   72   hours

Term Papers not applicable

Tests

Pass/fail   3   semester

Exam \_\_\_\_\_ semester

The course teaching materials has been prepared in accordance with the regulations of the federal state educational standard of higher professional education № 20 of January 16, 2017 for field of training: 38.04.02 Management

Рабочая программа обсуждена на заседании кафедры менеджмента, протокол № \_\_\_\_\_ от «»  
\_\_\_\_\_ 201 г.

Заведующий кафедрой: к полит. наук, доцент. Глотова Е.А.

Составители: магистр эконо. наук. Лутченко В.А.

**I. Рабочая программа пересмотрена на заседании кафедры:**

Протокол от « \_\_\_\_\_ » \_\_\_\_\_ 201\_ г. № \_\_\_\_\_

Заведующий кафедрой \_\_\_\_\_  
(подпись) (И.О. Фамилия)

**II. Рабочая программа пересмотрена на заседании кафедры:**

Протокол от « \_\_\_\_\_ » \_\_\_\_\_ 201 г. № \_\_\_\_\_

Заведующий кафедрой \_\_\_\_\_  
(подпись) (И.О. Фамилия)

## **ABSTRACT**

**Master's degree in 38.04.02 Management / International Business and Project Management**

**Course title:** Venture Capital Investments and Financial Models.

**Variable part of Block 3 credits.**

**Instructor:** Lutchenko Valeriia Alekseevna, Master degree of Economic Sciences, Assistance of Management Department.

**At the beginning of the course a student should be able to:**

- the ability of self-improvement and self-development in the professional field, of improvement of the cultural level;
- readiness to integrate into scientific, educational, economic, political, and cultural areas of Russia and countries of the Asia-Pacific Region;
- ability to take the initiative and make executive decisions, being aware of responsibility for the results of your professional activity;
- the ability to use modern methods and technologies (including information) in professional activities;
- the ability of self-organization and self-education;
- the ability to use normative documents in professional life, willingness to comply with the applicable laws and regulatory requirements;
- the ability to collect, store, process and evaluate the information necessary for the organization and management of professional activities (commercial, marketing, advertising, logistics, merchandising or trade and technologic); to apply the basic methods and tools for receiving, storing and processing information; to work with the computer as an information management tool;
- readiness to identify and meet the needs of the buyers of goods, their formation through marketing communications, the ability to study and predict the demand of consumers, analyze marketing information and market situation.

**Learning outcomes:**

Professional Competences (PC):

- ability to use modern methods of corporate finance management for solving strategic tasks (PC-3);

– the ability to use quantitative and qualitative methods to conduct applied research and business process management, to prepare analytical materials on the results of their use (PC-9).

### **Course description.**

The content of the course “Venture Capital Investments and Financial Models” consists of three sections and covers the following range of issues:

1. Fundamentals of venture investment and business venture: characterization of investment, definition and classification; theoretical foundations of investment; structure of investment sources of the enterprise; the concept of external financing and types of external financing; the economic importance of venture investment as a catalyst for the development of innovation; principles of venture business, basic schemes of venture business, sources of venture capital; investor portrait, venture investors as financial intermediaries, participation of venture investors in the management of funded companies; income extraction mechanisms by venture capital investors, the basic rules from the standpoint of the main participants in the venture investment process, Due Diligence procedures.
2. Risk, project risk management and business angels: theoretical foundations of risk, definition, types of risks, their classification, definition of risk management, its essence and content; implementation of risk management in the company, the main provisions of risk management in the organization; risk assessment of innovation; risk analysis of the project, the main methods of risk management, risk reduction methods; characterization of non-financial risks of companies and their prevention; project performance evaluation, venture method of company valuation; "The First Chicago Method" for evaluating innovative companies; concept of business angels, their principles of work; informal venture investors (business angels) and features of their functioning; project evaluation methods.
3. Financial modeling of the company: the concept of financial modeling, forecasting and modeling; the nature and main elements of the financial model, factors determining the growing importance of financial modeling, objectives and

areas of application; examples and types of models - various approaches to classification, typing models according to the degree of complexity and management areas: descriptive and prescriptive models, the use of optimization models, a satisfactory model; general and special purpose models, modeling of financial flows, financial condition, financial result of a company; modeling of business value calculations, design business modeling features.

**Main course literature:**

1. Korotky S.V. Venture business [Electronic resource]: a tutorial / Korotky SV - Electron. text data.— Saratov: University education, 2018.— 174 c.— Access mode: <http://www.iprbookshop.ru/72355.html>.— EBS “IPRbooks”

2. Mumladze R.G. Management of innovation activity [Electronic resource]: textbook / Mumladze RG, Nikolaev, OV, Tolparov, EB B. - Electron. text data.— M.: Rusains, 2015.— 148 c.— Access mode: <http://www.iprbookshop.ru/61670.html>.— EBS “IPRbooks”

3. Information technology in business planning [Electronic resource]: laboratory workshop / - Electron. text data.— Stavropol: North Caucasus Federal University, 2017.— 98 c.— Access mode: <http://www.iprbookshop.ru/75574.html>.— EBS “IPRbooks”

4. Financial markets and financial instruments: Tutorial / Gospodarchuk GG, Gospodarchuk S.A. - M.: SIC INFRA-M, 2018. - 88 pp.: 60x90 1/16. - (Higher education) ISBN 978-5-16-107386-5 (online) - Access mode: <http://znanium.com/catalog/product/1009831>

5. Optimum business model: Four risk management tools / K. Girotra - M.: Alpina Pub., 2016. - 216 pp.: ISBN 978-5-9614-4652-4 - Access mode: <http://znanium.com/catalog/product/915743>

**Form of final control:** pass/fail exam.

## ABSTRACT

The training course "Venture Capital Investments and Financial Models" is intended for students of the training direction 38.04.02 Management.

The discipline "Venture Capital Investment and Financial Models" is included in the section of the variable part as a discipline for the choice of the block "Disciplines".

The total complexity of the discipline is 3 credits, 108 hours. The curriculum includes classroom practical exercises (36 hours, including ALM 18 hours), independent work of students (72 hours). Discipline is implemented on the 2nd course in the 3rd semester.

The discipline "Venture Investments and Financial Models" is based on the knowledge of the disciplines "Economics and Management: Adaptation Course", "Strategic Management", "Theory of International Relations", "Project Management", "Organization Theory and Organizational Behavior", "Management Economics", "Marketing Management", "Quality Management in the Creation of Innovative Products", "Risk Management", "Entrepreneurship" and allows you to prepare the student to master a number of such disciplines as "Econometrics", "Doing Business in Asia", "Operational Management and Business Efficiency", "Business Planning"; to the passage of educational and industrial practices.

The content of the discipline consists of three sections and covers the following range of issues:

1. Fundamentals of venture investment and business venture: characterization of investment, definition and classification; theoretical foundations of investment; structure of investment sources of the enterprise; the concept of external financing and types of external financing; the economic importance of venture investment as a catalyst for the development of innovation; principles of venture business, basic schemes of venture business, sources of venture capital; investor portrait, venture investors as financial intermediaries, participation of venture investors in the management of funded companies; income extraction mechanisms by venture capital

investors, the basic rules from the standpoint of the main participants in the venture investment process, Due Diligence procedures.

2. Risk, project risk management and business angels: theoretical foundations of risk, definition, types of risks, their classification, definition of risk management, its essence and content; implementation of risk management in the company, the main provisions of risk management in the organization; risk assessment of innovation; risk analysis of the project, the main methods of risk management, risk reduction methods; characterization of non-financial risks of companies and their prevention; project performance evaluation, venture method of company valuation; "The First Chicago Method" for evaluating innovative companies; concept of business angels, their principles of work; informal venture investors (business angels) and features of their functioning; project evaluation methods.

3. Financial modeling of the company: the concept of financial modeling, forecasting and modeling; the nature and main elements of the financial model, factors determining the growing importance of financial modeling, objectives and areas of application; examples and types of models - various approaches to classification, typing models according to the degree of complexity and management areas: descriptive and prescriptive models, the use of optimization models, a satisfactory model; general and special purpose models, modeling of financial flows, financial condition, financial result of a company; modeling of business value calculations, design business modeling features.

**The goal** is to form students' understanding of the possibilities of applying knowledge gained from other courses, based on the analysis of practice and understanding of the realities faced by the Russian high-tech company in solving the tasks of organizing growth financing. As well as forming a complex of knowledge among students on the selection of innovative companies for financing and making management decisions in attracting venture capital depending on the stage of business development and the specifics of the industry.

**Objectives:**

- mastering the essence and fundamental functions of venture business in the market economy system;
- determination of the socio-economic role of venture capital as a source of investment in innovation activities;
- study of theoretical and practical aspects of venture investment;
- analysis of the features and prospects of its development abroad and in Russia;
- study of the mechanism of venture financing of innovations and elements of the typical structure of the transaction;
- acquisition of skills for self-study and systematization of regulatory and guidance documentation.

To successfully study the discipline "Venture Capital Investments and Financial Models", students should have the following preliminary competencies:

- ability to self-improvement and self-development in the professional sphere, to improve the general cultural level;
  - readiness to integrate into the scientific, educational, economic, political and cultural space of Russia and the APR;
  - the ability to take initiative and make responsible decisions, aware of the responsibility for the results of their professional activities;
  - the ability to use modern methods and technologies (including information) in professional activities;
  - ability to self-organization and self-education;
  - ability to use regulatory documents in their professional activities, willingness to comply with current legislation and the requirements of regulatory documents;
  - the ability to collect, store, process and evaluate information necessary for the organization and management of professional activities (commercial, marketing, advertising, logistics, merchandising, and (or) trade and technology); apply basic methods and means of receiving, storing, processing information and working with a computer as a means of managing information;



- ability to think logically, analyze, systematize, summarize, critically comprehend information, formulate research tasks and select ways to solve them.

As a result of studying this discipline, the students form the following professional competencies:

Codes	Description	
PC-3 ability to use modern methods of corporate finance management for solving strategic tasks;	knows	theoretical foundations of investments, venture business and external financing of the company, technologies for raising funds;
	able to	apply the main methods of attracting funding from the investor in the management of the organization;
	possess	managerial / investment decision making skills and professional tasks;
PC-9 possession of methods of economic and strategic analysis of the behavior of economic agents and markets in a global environment;	knows	theoretical foundations of business planning and the importance of financial information for an investor, measuring the business activity of an enterprise;
	able to	competently apply knowledge to solve a specific problem; apply methods to evaluate investment plans; interpret financial statement information for internal and external users;
	possess	skills of building financial models for companies; techniques for analyzing key financial indicators, as well as building financial forecasts and expectations;

The following methods of active / interactive learning are used to form the above competences within the discipline "Venture Capital Investments and Financial Models":

- practical exercise - analysis of specific situations;
- seminar - discussion, with presentations;
- cases.

## I. STRUCTURE AND CONTENT OF PRACTICAL COURSE PART

### Workshops

**(36 hours, including 36 hours using active learning methods (ALM))**

## **Section 1. Basics of venture investment and business venture. (10 hours)**

### **Practical lesson number 1. Basics of investment (2 hours)**

Issues for discussion: Characteristics of investment, definition and classification. The theoretical basis of investment. The structure of investment sources of the enterprise. The economic importance of venture investment as a catalyst for the development of innovative activities. Venture capital objectives, venture capital sources. The degree of participation of the venture capitalist in the activities of the enterprise.

### **Practical lesson № 2. External financing and venture business (2 hours)**

Issues for discussion: The concept of external financing, the main characteristics. Types of external financing. Characteristics of venture business. Description of the venture capital market. Principles of venture business. The main schemes of the venture business. Practical basics of business venture. The key to successful investing.

### **Practical lesson number 3. The main features of venture capital (2 hours)**

Issues for discussion: Venture capital as a source of financing innovative projects. Venture capital market and its structure. Difference of venture capital from other types of direct investments. Venture business and its relationship with innovation. Promising areas of venture investment. Venture project as a real option. Objects and subjects of venture investment.

### **Practical lesson number 4. Venture business. Innovative development (2 hours)**

Issues for discussion: The role of business venture in innovative development. Development of venture business in various countries. Russian legislation and prospects for the development of the venture business. The role of venture capital in the modern economy. Methods for evaluating companies by venture investors.

Distribution of venture investments by industry and stage. Risk and cyclical functioning of the venture business.

**Practical lesson number 5. The main features of a venture investor (2 hours)**

Issues for discussion: Portrait of an investor. Venture investors as financial intermediaries. Participation of venture investors in the management of funded companies. Income generation mechanisms by venture investors. Basic rules from the standpoint of the main participants in the venture investment process. Due Diligence procedures. Venture capital reward formation models. Non-financial criteria for decision making by venture capital investors. The role of venture investors in the management of the company. Factors affecting the selection of projects in the portfolio of a venture investor.

**Section 2. Risk, project risk management and business angels (12 hours)**

**Practical lesson number 6-7. The concept of risk. Risk management. (4 hours)**

*Active / interactive learning method - situational analysis method (situational tasks / case studies) (2 hours)*

Issues for discussion: Theoretical bases of risk: main characteristic, definition, types of risks, their classification. The main concepts of risk. Definition of risk management, its essence and content; basic concepts of financial risk analysis. Stages of risk management. Implementation of risk management in the company, the main provisions of risk management in the organization. Risk assessment of innovation.

The solution of a continuous case.

**Practical lesson number 8. Stages of project risk management. (2 hours)**

*Active / interactive learning method - situational analysis method (situational tasks / case studies) (2 hours)*

Issues for discussion: Project risk analysis, basic risk management methods, risk reduction methods; Characteristics of non-financial risks of companies and their prevention. The approaches used in the assessment of venture capital investments, the characteristics of the factors determining the success of the project, methods for evaluating venture investment. Evaluation of the effectiveness of the project. Venture company valuation method. "The first Chicago method" evaluation of innovative companies.

The solution of a continuous case.

### **Practical lesson number 9. Business angels, the main provisions. (2 hours)**

Issues for discussion: The concept of business angels, their principles of work. Informal venture investors (business angels) and features of their functioning. Project evaluation methods. Models of exit from the companies. The role of business angels in the development of innovative enterprises in the early stages.

### **Practical lesson number 10. Corporate venture funds. (2 hours)**

Issues for discussion: Corporate venture funds: main provisions, formation models. Direct and indirect corporate venture investments. The impact of KVI on the development of companies. Parameters and criteria when searching for projects of the FSC. Benefits of participation KVF. Existing corporate venture funds.

### **Practical lesson number 11. Models of venture funds with state participation. (2 hours)**

Questions for discussion: Models of venture funds with state participation. "Fund of funds". Regional venture funds. The model of "pushing". Model "pull". Mixed models. Model formation of funds with the participation of the state in Russia. Comparative characteristics of venture capital in the US and Europe. Models of formation of venture funds with state participation. Features and

prospects for the development of venture investment in Russia. The place and role of the state in the formation and development of venture investment.

### **Section 3. Financial modeling of the company (14 hours)**

#### **Practical lesson number 12-13. The concept of financial modeling of the company. Introduction to financial modeling. (4 hours)**

*The method of active / interactive learning - the method of situational analysis (situational tasks / case studies) (4 hours)*

Issues for discussion: The concept of financial modeling. Prediction and modeling. Accounting, budgeting, business plan and financial model. Essence and the main elements of the financial model. Factors determining the growing importance of financial modeling, objectives and areas of application. Typing models of S. Beringa. Examples and types of models - various approaches to classification, typing models according to the degree of complexity and management areas: descriptive and prescriptive models, the use of optimization models, a satisfactory model. Models of general and special purpose. Deterministic and probabilistic models. The main results of building a financial model and their use.

The solution of a continuous case.

#### **Practical lesson number 14-15. Modeling the company's operating activities. (4 hours)**

*The method of active / interactive learning - the method of situational analysis (situational tasks / case studies) (4 hours)*

Issues for discussion: A quality operating model as the basis of a financial model. Analysis of business processes as part of the operating model when building a financial model. The degree of participation of the management, its influence on the formation of the operating model and the responsibility for the quality and realism of the results. Elements of scenario analysis in the modeling of

operating activities and the construction of financial models. Features of modeling in growing companies in terms of mergers and acquisitions.

The solution of a continuous case.

**Practical lesson number 16-17-18. Simulation of financial flows, financial condition, financial result of the company. Simulation of business value calculations. Features of the design business modeling. (6 hours)**

*Active / interactive learning method - situational analysis method (situational tasks / case studies) (6 hrs.)*

Issues for discussion: Reflection of key business parameters in the forecast set: Balance sheet, Profit and loss report, Cash flow statement. Building a financial model for project financing. Modeling of individual components: capital costs and depreciation, working capital and features of its modeling in Russian companies, taxes, shifting data to years and quarters. Formation of the analytical unit of the system model and its specificity depending on information consumers. Features of perception and value of information of the analytical unit for investors, credit managers, financial analysts (directors), business owners. Techniques for analyzing efficiency, solvency, financial stability to various external and internal factors. Creation and comparison of models of alternative investment options, calculation of integral indicators of investment efficiency and preparation of recommendations for their use. Simulation of cash flows for the purposes of the income approach in business valuation. Preparing a financial model for company value management.

The solution of a continuous case.

## **II. TRAINING AND METHODOLOGICAL SUPPORT OF INDEPENDENT WORK OF STUDENTS**

Educational and methodological support of students' independent work in the discipline " Venture Capital Investments and Financial Models " is presented in Appendix 1 and includes:

- the schedule for the performance of independent work on the discipline, including approximate norms of time for the performance of tasks;
- characteristics of tasks for independent work of students and methodological recommendations for their implementation;
- requirements for the presentation and presentation of the results of independent work;
- criteria for assessing the performance of independent work.

### III. CONTROL OF ACHIEVEMENT OF COURSE GOALS

№	Controlled sections	Codes and stages of the formation of competencies		Evaluation tools	
				current control	intermediate control
1	Section I. Basics of venture investment and business venture - Section II. Risk, project risk management and business angels	PC-3	theoretical foundations of investments, venture business and external financing of the company, technologies for raising funds.	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2)	Questions for the pass/fail exam 1-28.
			apply the main methods of attracting funding from the investor in the management of the organization	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2);	Questions for the pass/fail exam 1-28
			managerial / investment decision making skills and professional tasks	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2);	Questions for the pass/fail exam 1-28
2	Section II. Risk, project risk management and business angels - Section III. Financial modeling of the company	PC-9	theoretical foundations of business planning and the importance of financial information for an investor, measuring the business activity of an enterprise;	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2);	Questions for the pass/fail exam 1-28
			competently apply knowledge to solve a specific problem; apply methods to evaluate investment plans; interpret financial statement information for internal and external users;	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2);	Questions for the pass/fail exam 1-28
			skills of building financial models for companies; techniques for analyzing key financial indicators, as well as building financial forecasts and expectations;	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2);	Questions for the pass/fail exam 1-28

**Current control.** It provides for taking into account the attendance by students of classes during the period of study and the assessment of the timeliness and quality of students in performing practical tasks and independent work.

An example of practical tasks and typical tasks for independent work, defining the procedures for evaluating knowledge, skills and (or) work experience, as well as criteria and indicators necessary for evaluating knowledge and skills and describing the stages of competency development in the process of mastering an educational program are presented in Appendix 2.

**Total control.** It provides for a rating of academic discipline during the semester in the learning process.

#### **IV. LIST OF EDUCATIONAL LITERATURE AND INFORMATION AND METHODICAL PROVISION OF DISCIPLINE**

##### **Main literature**

*(electronic and print publications)*

1. Short S.V. Venture business [Electronic resource]: a tutorial / Korotky SV - Electron. text data.— Saratov: University education, 2018.— 174 c.— Access mode: <http://www.iprbookshop.ru/72355.html>.— EBS “IPRbooks”

2. Mumladze R.G. Management of innovation activity [Electronic resource]: textbook / Mumladze RG, Nikolaev, OV, Tolparov, EB B. — Electron. text data.— M.: Rusayns, 2015.— 148 c.— Access Mode: <http://www.iprbookshop.ru/61670.html>.— EBS “IPRbooks”

3. Information technology in business planning [Electronic resource]: laboratory workshop / - Electron. text data.— Stavropol: North Caucasus Federal University, 2017.— 98 c.— Access mode: <http://www.iprbookshop.ru/75574.html>.— EBS “IPRbooks”

4. Financial markets and financial instruments: Tutorial / Gospodarchuk GG, Gospodarchuk S.A. - M.: SIC INFRA-M, 2018. - 88 pp.: 60x90 1/16. - (Higher education) ISBN 978-5-16-107386-5 (online) - Access mode: <http://znanium.com/catalog/product/1009831>

5. The optimal business model: Four risk management tools / K. Girotra - M.: Alpina Pub., 2016. - 216 pp.: ISBN 978-5-9614-4652-4 - Access mode: <http://znanium.com/catalog/product/915743>



### **Additional literature:**

*(electronic and print publications)*

1. Corporate governance: textbook / V.R. Vesnin, V.V. Kafidov. - M.: INFRA-M, 2017. - 272 p. + Add. materials [Electronic resource; Access mode <http://www.znaniium.com>]. - (Higher education: Magistracy).
2. Zharov D. Financial Modeling in Excel [Electronic resource] / Zharov D.— Electron. text data.— M .: Alpina Publisher, Alpina Business Books, 2016.— 170 c.— Access Mode: <http://www.iprbookshop.ru/41489.html>.— EBS “IPRbooks”
3. Vasilyeva T.N., Vasilyeva I.V. Development and development of venture business and its role in stimulating innovation in Spain // Innovations and Investments. - 2017. - No4. - Access mode: [http://innovazia.ucoz.ru/\\_ld/0/72\\_4\\_2017.pdf](http://innovazia.ucoz.ru/_ld/0/72_4_2017.pdf)
4. Vasilyeva T.N., Vasilyeva I.V. Management of venture capital funds in Spain // Innovations and Investments. - 2017. - No5. - Access mode: [http://innovazia.ucoz.ru/\\_ld/0/73\\_\\_5\\_2017.pdf](http://innovazia.ucoz.ru/_ld/0/73__5_2017.pdf)

### **The list of resources information and telecommunications network**

#### **"Internet"**

1. Freedom Collection / ScienceDirect <http://www.sciencedirect.com/>
2. FEFU Electronic Library and Database. <http://dvfu.ru/web/library/elib>
3. Electronic Library System "Scientific Publishing Center INFRA-M" <http://znaniium.com>
4. Electronic Library System of the Russian State Library named after Lenin. <http://www.rgb.ru>
5. CyberLenink Scientific Library: <http://cyberleninka.ru/>
6. Gulkin P.G. Venture capital <http://www.cfin.ru/investor/venture.shtml>
7. Angel Capital Association – Connections and ideals that drive returns. <http://angelcapitalassociation.org>
8. McKinsey&Company. <http://www.mckinseyquarterly.com>

### **List of information technology and software**

1. Microsoft Word
2. Microsoft Excel
3. Microsoft PowerPoint
4. Microsoft Publisher
5. ConsultantPlus / Garant
6. Microsoft Internet Explorer/ Mozilla Firefox/ Opera

## **V. METHODOLOGICAL INSTRUCTIONS ON THE DEVELOPMENT OF DISCIPLINE**

### *Description of the sequence of students' actions (discipline learning algorithm)*

Starting the study of the discipline " Venture Capital Investments and Financial Models ", the student must:

- read the program, examine the list of recommended literature; it will be necessary to return to the program of the course constantly, as each topic is mastered separately, in order to understand: whether all the questions have been thoroughly studied;

- carefully understand the structure of the discipline "Venture Capital Investments and Financial Models ", in the system of distribution of educational material by type of classes, forms of control, in order to have an idea of the practical part of the entire course of study;

- turn to electronic sources, according to the training course on the discipline " Venture Capital Investments and Financial Models ", allowing you to navigate in the sequence of tasks.

When preparing for classes in the discipline " Venture Capital Investments and Financial Models " should be guided by the norms of time to perform tasks. For example, when preparing for a lesson to study the outline of one lecture, textbooks are usually given from 0.5 hour to 2 hours, and to study primary sources of 16 pages of printed text with an outline of 1.5–2 hours, with a plan about 1 hour.

### *Recommendations for working with literature*

The most preferred sequence in the work with the literature. It can be represented as the following approximate algorithm:

- familiarization with the working curriculum and educational complex of the discipline;
- the study of basic educational literature;
- study of additional (educational and scientific) literature.

For a deep understanding of the essence of the topic set out in the framework of practical material, it is recommended to spend on reading the main and additional literature at least 2 hours a week. As an incentive, students may receive additional points on independent work with literature: searching for literature on a given topic, comparative analysis of scientific publications, preparation of a report, and participation in scientific conferences. The main literature is subject to mandatory study. To prepare for classes, current and intermediate certification, students can use the FEFU e-library located at <http://www.dvfu.ru/library/electronic-resources/>, where they have the opportunity to access educational materials like libraries university and other electronic library systems. In turn, students can take the necessary literature on the library library subscription, as well as use the reading rooms of the university.

In the course of reading, it is very useful, though not necessary, to make brief summaries of the readings, extracts, notes, to highlight unclear, difficult to understand questions. In order to clarify the latter need to contact the teacher. Upon completion of the study of recommended literature, it is useful to check the level of your knowledge with the help of test questions for self-examination.

It is strongly recommended to avoid mechanical learning of educational material. Practice convincingly shows: the most effective way is not “cramming”, but deep, creative, independent insight into the essence of the issues being studied.

It is necessary to conduct systematic daily work on literary sources. The amount of information on the course is so extensive that they cannot master the “last days” before the session, as some students sometimes count on it.

It is necessary to cultivate in oneself an attitude of strength, long-term assimilation of knowledge on the course. It must be remembered that they will be required not only and not so much during the course pass/fail exam, but - most importantly - in the subsequent professional activity.

Literature is available in the university library.

The student is obliged to know not only the recommended literature, but also new, essentially important publications on the course, published after its publication.

***Recommendations for preparing for the pass/fail exam according to the FEFU rating system for the pass/fail exam***

The implementation of the discipline "Venture Capital Investments and Financial Models " provides for the following types of academic work: practical exercises, independent work of students, current control and intermediate certification.

Mastering the course of the discipline “Venture Capital Investments and Financial Models ” implies a rating system for assessing students' knowledge and provides for the teacher on-the-spot monitoring of students' attendance of practical exercises, preparation and implementation of all types of independent work.

Intermediate certification for the discipline " Venture Capital Investments and Financial Models " is an pass/fail exam, which is held in the form of an oral survey on questions.

During the academic semester, students need to:

- master the theoretical material (20 points);
- successfully complete classroom and control tasks (50 points);
- timely and successfully perform all types of independent work (30 points).

A student is considered to be certified in the discipline “Venture Capital Investments and Financial Models ” subject to the implementation of all types of current control and independent work provided for in the curriculum.

Evaluation criteria for the discipline " Venture Capital Investments and Financial Models " for certification at the pass/fail exam are as follows: 86-100 points - "excellent", 76-85 points - "good", 61-75 points - "satisfactory", 60 or less points - " unsatisfactory. "

Recalculation of points for current control and independent work is made according to the formula:

$$P(n) = \sum_{i=1}^m \left[ \frac{O_i}{O_i^{max}} \times \frac{k_i}{W} \right],$$

where:  $W = \sum_{i=1}^n k_i^n$  for current rating;

$W = \sum_{i=1}^m k_i^n$  for the final rating;

$P(n)$  – student rating;

$m$  – total number of control measures;

$n$  – number of control measures taken;

$O_i$  – score received by a student at the i-th control event;

$O_i^{max}$  – maximum student score on the i-th control event;

$k_i$  – weighting factor of the i-th control event;

$k_i^n$  – the weighting factor of the i-th control measure, if it is the main one, or 0, if it is an additional.

### ***Recommendations for planning and organizing the time allotted for the study of the discipline***

Planning - the most important feature of human activity, one of the characteristic, mandatory signs of human labor. For the organization of complex learning activities it is very effective to use tools that remind us of the tasks before us, their sequence of implementation. Such means may be a mobile phone that has

an organizer program that includes an alarm clock, calendar, and to-do list; timers, reminiscent of the execution of tasks in the discipline; computer programs to create a list of cases, highlighting urgent and important matters.

Making a to-do list is the first step to organizing time. The list has the advantage of allowing you to see the whole picture. Streamlining, classifying cases in the list is the second step to organizing time.

Regularity is the first condition for finding more efficient ways of working. It is recommended to choose one day of the week for regular training in the discipline. Regularity not only allows you to prepare for the case, it creates an attitude for this matter, it allows you to work out the rules for doing things (for example, first working out the material of practical exercises, a textbook, reading the original source, then highlighting and fixing the main ideas in a notebook).

To facilitate the execution of tasks, it is necessary to define a time frame. Weekly training in the discipline " Operational Management and Business Efficiency " requires time-consuming. A clear fixation of regular cases in time, securing the same hours for them is an important step towards organizing time. When taking into account the time it is necessary to remember about the main goal of rationalization - to get the greatest effect with the lowest cost. Accounting is only a means to solve the main task: to save time.

Writing an outline of practical exercises: briefly, schematically, consistently fix the main provisions, conclusions, formulations, generalizations; tag important thoughts, highlight keywords, terms. Verification of terms, concepts with the help of encyclopedias, dictionaries, reference books with writing interpretations in a notebook. Mark questions, terms, material that causes difficulties, mark and try to find the answer in the recommended literature. If you are unable to understand the material on your own, it is necessary to formulate a question and ask the teacher for consultation, at the seminar lesson.

To prepare for the practical lesson, it is necessary to work out the work program, paying special attention to the goals and objectives of the structure and content of the discipline. Sourcing of sources. Work with the abstract of practical

classes, preparation of answers for test questions, review of recommended literature, work with text.

An important role in the organization of training activities is assigned to the program of the discipline, which gives an idea not only of the thematic sequence of studying the course, but also of the time spent on studying the course. The success of mastering a discipline largely depends on a properly planned time for self-preparation (depending on the specialty, from 2 to 3 to 5 hours per week).

## **VI. MATERIAL AND TECHNICAL MAINTENANCE OF DISCIPLINE**

For lectures, an audience equipped with a multimedia projector is required.

For laboratory classes - an audience equipped with a multimedia projector, personal computers at students' workplaces with Internet access and installed software (at least - Microsoft Office, Consultant Plus / Garant).



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**SCHOOL OF ECONOMICS AND MANAGEMENT**

**TRAINING AND METHODOLOGICAL SUPPORT**  
**INDEPENDENT WORK OF STUDENTS**

Venture Capital Investments and Financial Models

**Field of training: 38.04.02 Management**

**International Business and Project Management**

**Mode of Study: full-time**

**Vladivostok**  
**2018**



## I. Schedule for the performance of independent work in the discipline

№	Date / Deadline	Type of independent work	Estimated time	Form of control
1.	During the semester	A practical assignment / business game solution	36	Check for additional materials, files, assignments and their protection
2.	During the semester	Preparation of a group report	36	Checking the availability of practical materials, files, assignments and their protection, active participation in the discussion of issues on the topics of reports.
TOTAL			72	

## II. Tasks for independent work of students, methodical recommendations for their implementation

### *Recommendations for independent work of students*

Of particular importance for the development of theoretical material and for the acquisition and formation of skills is the independent work of students.

Independent work of students in the discipline " Venture Capital Investments and Financial Models " involves the study of the recommended primary and secondary literature, the solution of practical tasks, preparation for the implementation and protection of group reports and intermediate certification - the pass/fail exam.

### **Business game.**

**Task 1.** A business game in which students alternately perform different functions: the presentation of the basic model, expertise, making final decisions. To prepare for the pass/fail exam, the student must create a financial model of a venture capital fund, which is part of his independent work.

Example (venture capital firm)

A successful venture capital firm (SV), a venture capital firm, is creating a new venture capital fund SV II with a declared capital of \$ 500 million and is

considering two alternative ways to pay remuneration to the general partner. The management fee in both cases is 2.5% per annum of the declared capital, the fund is valid for 10 years. Under the first option, the remuneration of the general partner will be 25% of the profit calculated on the basis of the declared capital. According to the second option - 20% of the profit calculated on the basis of the capital invested by the fund.

You are the general partner of the company. In these conditions, evaluate the possibility of investing in the project that you represent.

**Criteria for evaluation:**

- 100-86 points are awarded to a student, if a student has expressed his opinion on the formulated problem, argued it, having precisely defined its content and components. The data of regulatory and technical documents. The student knows and has the skill of independent research work on the topic of research; methods and techniques for analyzing the theoretical and / or practical aspects of the studied area. There are no actual errors associated with understanding the problem; graphically the work is framed correctly;
- 85-76 points - the work is characterized by semantic integrity, coherence and consistency of presentation; No more than 1 error was made in explaining the meaning or content of the problem. For the argument given data of regulatory and technical documents. Demonstrated research skills. There are no actual errors in understanding the problem. One or two mistakes in the design of the work;
- 75-61 point - the student conducts a fairly independent analysis of the main stages and the semantic components of the problem; understands the basic fundamentals and theoretical justification of the chosen topic. Attracted regulatory and technical documents. No more than 2 mistakes were made in the sense or content of the problem, in the design of the work;
- 60-50 points - if the work is a completely rewritten source text, without any comments, analysis. The structure and theoretical component of the topic are not disclosed. Three or more than three mistakes were made in the semantic content of the disclosed problem, in the design of the work.

## **Topics and indicative content of analytical, research and creative tasks**

**Task 2.** Based on the study of the literature recommended by the teacher, prepare a group report on one of the topics related to management accounting and present a presentation on the chosen topic.

### **Guidelines for independent work on task 2: "Report on the selected topic."**

Topics for the disclosure in the first part of the homework.

1. Characteristics of investments, definition and classification. The theoretical basis of investment.
2. The structure of investment sources of the enterprise. The economic importance of venture investment as a catalyst for the development of innovative activities.
3. Venture capital objectives, venture capital sources. The degree of participation of the venture capitalist in the activities of the enterprise.
4. The concept of external financing, the main characteristics. Types of external financing. Characteristics of venture business.
5. Description of the venture capital market. Principles of venture business. The main schemes of the venture business.
6. Practical foundations of business venture. The key to successful investing. Venture capital as a source of financing innovative projects.
7. The venture capital market and its structure. Difference of venture capital from other types of direct investments.
8. Venture business and its relationship with innovation. Promising areas of venture investment. Venture project as a real option.
9. Objects and subjects of venture investment. The role of business venture in innovative development. Development of venture business in various countries.
10. Russian legislation and prospects for the development of venture business. The role of venture capital in the modern economy.

11. Methods for evaluating companies by venture investors. Distribution of venture investments by industry and stage. Risk and cyclical functioning of the venture business.

12. Portrait of an investor. Venture investors as financial intermediaries.

Participation of venture investors in the management of funded companies.

Income generation mechanisms by venture investors. Basic rules from the standpoint of the main participants in the venture investment process.

13. Due Diligence Procedures. Venture capital reward formation models. Non-financial criteria for decision making by venture capital investors.

14. The role of venture investors in the management of the company. Factors affecting the selection of projects in the portfolio of a venture investor.

15. Theoretical bases of risk: the main characteristic, definition, types of risks, their classification.

16. Basic concepts of risk. Definition of risk management, its essence and content; basic concepts of financial risk analysis. Stages of risk management.

17. Implementation of risk management in the company, the main provisions of risk management in the organization. Risk assessment of innovation.

18. Risk analysis of the project, the main methods of risk management, risk reduction methods; Characteristics of non-financial risks of companies and their prevention.

19. Approaches used in the assessment of venture capital investments, the characteristics of the factors determining the success of the project, methods of evaluating venture investment.

20. Evaluation of the effectiveness of the project. Venture company valuation method. "The first Chicago method" evaluation of innovative companies.

21. The concept of business angels, their principles of work. Informal venture investors (business angels) and features of their functioning. Project evaluation methods.

22. Models of exit from the companies. The role of business angels in the development of innovative enterprises in the early stages.

23. Corporate venture funds: basic provisions, formation models. Direct and indirect corporate venture investments. The impact of KVI on the development of companies.

24. Parameters and criteria for searching for projects of the FSC. Benefits of participation KVF. Existing corporate venture funds.

25. Models of venture funds with state participation. "Fund of funds". Regional venture funds.

26. The "pushing" model. Model "pull". Mixed models. Model formation of funds with the participation of the state in Russia.

27. Comparative characteristics of venture capital in the US and Europe. Models of formation of venture funds with state participation. Features and prospects for the development of venture investment in Russia.

28. Place and role of the state in the formation and development of venture capital investment.

29. The concept of financial modeling. Prediction and modeling. Accounting, budgeting, business plan and financial model.

30. The essence and the main elements of the financial model. Factors determining the growing importance of financial modeling, objectives and areas of application.

31. Typing models of S. Bering. Examples and types of models - various approaches to classification, typing models according to the degree of complexity and management areas: descriptive and prescriptive models, the use of optimization models, a satisfactory model.

32. Models of general and special purpose. Deterministic and probabilistic models. The main results of building a financial model and their use.

33. High-quality operating model as the basis of the financial model. Analysis of business processes as part of the operating model when building a financial model.

34. The degree of participation of management, its impact on the formation of the operating model and responsibility for the quality and realistic results.

35. Elements of scenario analysis in the modeling of operating activities and the construction of financial models.

36. Features of modeling in growing companies, in terms of mergers and acquisitions.

37. Reflection of key business parameters in the forecast set: Balance sheet, Profit and loss statement, Cash flow statement. Building a financial model for project financing.

38. Modeling of individual components: capital costs and depreciation, working capital and features of its modeling in Russian companies, taxes, shifting data to years and quarters.

39. Formation of the analytical unit of the system model and its specificity depending on information consumers.

40. Features of perception and value of information of the analytical unit for investors, credit managers, financial analysts (directors), business owners.

41. Techniques for analyzing efficiency, solvency, financial stability to various external and internal factors.

42. Creating and comparing models of alternative investment options, the calculation of integral indicators of investment efficiency and preparation of recommendations for their use.

43. Simulation of cash flows for the purposes of the income approach in business valuation. Preparing a financial model for company value management.

Using educational literature, scientific publications and Internet resources, search for information on selected topics. To study theoretical materials, expert opinion.

To discuss in their group selected materials on the selected subject, to collectively develop a plan for its presentation to the student audience. Distribute tasks in the group, responsibilities for finalizing the topic in accordance with the developed plan (for example, search for missing actual data, normative acts, examples).

Prepare a presentation and file in MS Word processor with accompanying text for each slide.

Search for legal documents on the topic in the reference and legal system Consultant Plus, create a folder with selected legal acts, prepare bookmarks for the necessary text fragments in the documents.

### ***Recommendations for independent work of students***

Organization and teaching and methodological support of students independent work (SIW)

1. The current and advanced SIW, aimed at deepening and consolidating knowledge, as well as the development of practical skills is to:

- students' work with lecture materials, search and analysis of textbooks and electronic sources of information on the subjects of the discipline being studied;
- performance of house individual and collective tasks;
- the study of topics submitted for self-study, active participation in their discussion in the classroom;
- the study of the theoretical material of the laboratory classes, the preparation of presentations and files with a text description of each slide;
- search for legal acts, comments of specialists in the reference and legal system on the topics of occupations, individual and collective tasks;
- mastering the technology of interaction with specified Internet resources and their use for solving practical problems;
- mastering the technology of creating the simplest website of the company (or, at the request of the student, in the form of an electronic portfolio of completed tasks in the discipline);
- preparation for the pass/fail exam.

### **Guidelines for the preparation of presentations**

1. The first slide should contain the title of the report, full name and coordinates (group number, direction of preparation, e-mail address) of the speaker. Each slide should have a title.

2. The presentation begins with an annotation, where one or two slides give an idea of what will be discussed. Most presentations require the announcement of the structure.

3. Move from slide to next page at a click of the mouse. The optimal switching speed is one slide in 1–2 minutes. Listeners should have time to perceive the information and visually from the slide, and by ear. “Universal” score - the number of slides is equal to the duration of the speech in minutes.

4. The font size of the main text - at least 16 pt, headers  $\geq$  20 pt. The most readable and traditionally used in scientific research is Times New Roman. Design all the slides in the same style.

5. The presentation is in addition to the report. Each slide is a “poster”, therefore it should contain tables with actual data and diagrams (with obligatory indication of references to sources if they are prepared independently), information in the form of diagrams and figures. Accompanying text to each slide save either in the Notes section, or in the MS Word file.

6. Do not overload the slide with information. Do not do a lot of small text. When preparing a presentation, it is recommended to use graphs, charts, diagrams and models with a brief description to the maximum extent. Photos and drawings make the presented information more interesting and help to keep the attention of the audience, giving the opportunity to clearly understand the essence of the subject. Long listings or large tables with numbers are hard to read, it's better to build graphs.

7. It makes sense to be careful. The slums made by slides (inconsistency in the fonts and indents, errors and typographical errors) arouse suspicion that the speaker also approached the substantive questions "sloppy." The finished presentation should be viewed carefully several times with a “fresh” look to identify design problems and typos.



8. If you feel at least a little insecure before an audience, or the performance is very responsible, then write and memorize your speech. Sounding one page (A4 format, 14pt font, one and a half interval) takes 2 minutes. Practice your presentation. Let someone listen and tell your mistakes, the impression of the performance, what is interesting, what is not clear how you looked.

9. Watch the time (performance schedule - 10-15 minutes).

10. Speech and slides should not be the same, then the presentation will be "volume". Speech style should be understandable for the audience, use examples, associations and images. Slides may contain more "technical" details: formulas, charts, tables, graphs. Always sign axes (which variable and its dimension).

11. The first phrases should intrigue. For example, it can be said about how difficult or how important this task is, or how unexpected the solution will be - this will keep the attention of the listeners to the end. But then the ending really should be non-trivial - otherwise the listener will be disappointed. Remember, you have only 20 seconds at the beginning of the report in order to attract the attention of listeners. If during this time something truly intriguing is not heard (or at least a good joke), it will be very difficult to return attention.

12. People remember better what they saw in the last!

13. In serious scientific presentations do not use animation effects.

14. Think in advance about possible problems with equipment. Copy the presentation file to your desktop in advance and check how it works, from the first to the last slide. Be sure to carry a copy of your presentation on a flash card. Check if there are any problems with displaying Russian fonts and formulas.

### **Criteria for assessing the implementation of a collective research and creative assignment**

№ п/ п	Criterion	Number of points
1	Readiness of the results of independent work in time	10
2	Presentation report, answers to questions from the audience	20
3	The material is modern, relevant, interesting to the audience.	25
4	The topic is covered deeply, the presentation of the material is	25

	logical, reasoned, supported by illustrations, tables and diagrams with factual data, diagrams and drawings	
5	Availability of a folder with regulatory legal acts, bookmarks in Consultant Plus, presentations and MS Word file with text material	20
	TOTAL	100



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**SCHOOL OF ECONOMICS AND MANAGEMENT**

**TEST AND EXAMINATION MATERIALS**

Venture Capital Investments and Financial Models  
**Field of training: 38.04.02 Management**  
**International Business and Project Management**  
**Mode of Study: full-time**

**Vladivostok**  
**2018**

**Passport of  
appraisal fund**  
« Venture Capital Investments and Financial Models »

Codes	Description	
PC-3 ability to use modern methods of corporate finance management for solving strategic tasks;	knows	theoretical foundations of investments, venture business and external financing of the company, technologies for raising funds;
	able to	apply the main methods of attracting funding from the investor in the management of the organization;
	possess	managerial / investment decision making skills and professional tasks;
PC-9 possession of methods of economic and strategic analysis of the behavior of economic agents and markets in a global environment;	knows	theoretical foundations of business planning and the importance of financial information for an investor, measuring the business activity of an enterprise;
	able to	competently apply knowledge to solve a specific problem; apply methods to evaluate investment plans; interpret financial statement information for internal and external users;
	possess	skills of building financial models for companies; techniques for analyzing key financial indicators, as well as building financial forecasts and expectations;

**Monitoring course achievement**

№	Controlled sections	Codes and stages of the formation of competencies		Evaluation tools	
				current control	intermediate control
1	Section I. Basics of venture investment and business venture - Section II. Risk, project risk management and business angels	PC-3	theoretical foundations of investments, venture business and external financing of the company, technologies for raising funds.	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2)	Questions for the pass/fail exam 1-28.
			apply the main methods of attracting funding from the investor in the management of the organization	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2);	Questions for the pass/fail exam 1-28
			managerial / investment decision making skills and professional tasks	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2);	Questions for the pass/fail exam 1-28
2	Section II. Risk, project risk management and business	PC-9	theoretical foundations of business planning and the importance of financial information for an investor,	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2);	Questions for the pass/fail exam 1-28

angels - Section III. Financial modeling of the company	measuring the business activity of an enterprise;		
	competently apply knowledge to solve a specific problem; apply methods to evaluate investment plans; interpret financial statement information for internal and external users;	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2);	Questions for the pass/fail exam 1-28
	skills of building financial models for companies; techniques for analyzing key financial indicators, as well as building financial forecasts and expectations;	solution of practical tasks; situational tasks (PR-11); independent work (Appendix 2);	Questions for the pass/fail exam 1-28

### Evaluation tools for testing the formation of competencies

Codes	Exercise
PC-3 the ability to use modern methods of corporate finance management for solving strategic problems	<p><i>Situation: You are considering a decision to acquire shares in a young airline. The size of dividends varied greatly from year to year. However, the company clearly maintains the share of dividend payments at the level of 40%. Financial statements show that last year the company's net profit amounted to 2 billion dollars. Analysts say that the growth rate of net profit in the first year will be 7%, in the second - 10%, and in the third - 8%. After that, everyone expects the onset of stabilization and predict a growth in financial indicators at the level of 3%. It is also expected that after entering the stable phase, the managers of the airline will decide to reduce the share of net profit invested to 30%. The required return on investment in shares of this company is 10%. The number of shares traded on the market is 250 million. Determine the true value of one share of the airline. What is your strategy?</i></p>
PC-9 owning methods of economic and strategic analysis of the behavior of economic agents and markets in the global environment	<p><i>Task 1. Assume that households have decided for some reason to save a higher proportion of their income at any level. As a result, the consumption function from <math>C1 = 0.5 \cdot Y</math> turned into <math>C2 = 0.2 \cdot Y</math>. Investments in both cases amount to 200 billion rubles.</i></p> <ol style="list-style-type: none"> <li><i>1. What is the impact of incomes on the change in consumption function? What will be the new level of equilibrium income?</i></li> <li><i>2. Do households save a higher proportion of their income in the new equilibrium?</i></li> <li><i>3. Do households in the conditions of a new equilibrium save absolutely more than before?</i></li> </ol> <p><i>Task 2. Initially, the economy is in a state of long-term equilibrium and is described as follows: the long-term AS curve is vertical at <math>Y = 2800</math>, the short-term AS curve is horizontal at <math>P = 1.0</math>, the AD curve is given by the equation</i></p> $Y = 3,5 \cdot \frac{M}{P}, \text{ where } M = 800.$ <p><i>An unfavorable supply shock occurred, with the result that prices rose to 1.4 (SRAS'), and the potential output level dropped to <math>Y = 2500</math> (LRAS').</i></p> <ol style="list-style-type: none"> <li><i>a) what are the new equilibrium values of <math>Y</math> and <math>P</math> in the short and long term if the government and the Central Bank do not intervene in the economy, i.e. AD curve remains the same?</i></li> <li><i>b) if the Central Bank conducts a stabilization policy, then what additional amount of money should it issue into circulation in order for the short-term equilibrium in the economy to be established at the level of issue <math>Y = 2800</math>?</i></li> <li><i>c) if the increased amount of money in the economy will be maintained further, then what will be the coordinates of the point of the new long-term equilibrium?</i></li> </ol>

### The scale of assessment of the level of formation of competencies

<b>Code of competence</b>	<b>Stages of competence formation</b>		<b>Criteria</b>	<b>Indicators</b>
PC-9 possession of methods of economic and strategic analysis of the behavior of economic agents and markets in a global environment	knows(elementary)	theoretical foundations of business planning and the importance of financial information for an investor, measuring the business activity of an enterprise;	knowledge of legal, regulatory and (legislative and regulatory acts of the Russian Federation, etc.) required for the preparation of accounting, management and tax reporting	- - ability to characterize the received information on the basis of regulatory and legislative acts
	able to (advanced)	competently apply knowledge to solve a specific problem; apply methods to evaluate investment plans; interpret financial statement information for internal and external users;	knows the main indicators in the management, tax and financial statements	- - able to correctly interpret the reporting indicators and carry out calculations according to accounting standards
	possess (high)	skills of building financial models for companies; techniques for analyzing key financial indicators, as well as building financial forecasts and expectations;	owns basic skills in financial modeling and forecasting	- - the ability to build financial models of the enterprise, costing and developing proposals for companies
PC-3 the ability to use modern methods of corporate finance management for solving strategic problems	knows(elementary)	theoretical foundations of investments, venture business and external financing of the company, technologies for raising funds;	knowledge of legal, regulatory and (legislative and regulatory acts of the Russian Federation, and others) necessary for financial activities	- - the ability to list and characterize legal acts regulating financial activities; - - the ability to correctly interpret the indicators of the financial statements of the company
	able to (advanced)	apply the main methods of attracting funding from the investor in the management of the organization;	knows the main financial indicators for calculating business plans and criteria for business and investment attractiveness	- - the ability to calculate financial indicators, prepare financial, management reports and financial reports with forecasting and building expectations
	possess (high)	managerial / investment decision making skills and professional tasks;	owns the main criteria for the effectiveness of projects	- - ability to make effective management decisions based on financial information received

## **Exam materials**

### **Evaluation tools for intermediate certification**

#### **Questions for the pass/fail exam**

1. The concept and essence of venture investment and business venture.
2. The economic importance of venture investment as a catalyst for the development of innovation.

3. Venture capital objectives, venture capital sources.
4. Principles of venture business.
5. The main schemes of venture business.
6. Portrait of a venture entrepreneur.
7. Objects and subjects of venture investment.
8. Distribution of venture investments by industry and stage.
9. The main stages of the formation and development of venture business abroad.
10. Risk and cyclicity in the functioning of the venture business.
11. Features and prospects for the development of venture investment in Russia.
12. The place and role of the state in the formation and development of venture capital investment.
13. Problems of the formation and development of the venture business and ways to solve them at the present stage.
14. Prospects for the development of venture business at the present stage.
15. Basic legal acts for the development of venture business in Russia.
16. Practical foundations of business venture. The key to successful investing.
17. Search and selection of companies from the perspective of a business venture.
18. “Due Diligance” procedure (“Thorough examination” / “Due diligence”).
19. Analysis of management from the perspective of a venture capitalist.
20. Analysis of financial statements and forecasts.
21. Monitoring of investments and post-investment management of the company.
22. The degree of participation of the venture capitalist in the activities of the enterprise.
23. Exit venture investor from the project. Analysis of various options.
24. Search mechanisms for venture business investment opportunities.
25. Managing investment opportunities.
26. Methods and technologies of project risk management.
27. Investment planning.
28. Assessment of the effectiveness of the investment project.

**Students' criteria for the discipline**  
**« Venture Capital Investments and Financial Models »**  
**(pass/fail exam)**

<b>Points</b>	<b>Grade Score</b>	<b>Requirements for the generated competencies</b>
86-100	« <i>credited</i> »/ « <i>excellent</i> »	The grade “excellent” is given to the student if he has deeply and firmly mastered the program material, expounds it exhaustively, consistently, clearly and logically in a harmonious way, knows how to closely link theory with practice, freely copes with tasks, questions and other kinds of knowledge, and does not find it difficult in response to the modification of tasks, he uses the material of monographic literature in the answer, correctly substantiates the decision made, has diverse skills and techniques for performing practical tasks.

76-85	<i>«credited»/«good»</i>	The mark “good” is given to the student if he knows the material firmly, competently and essentially sets it out, avoiding significant inaccuracies in answering the question, correctly applies theoretical principles in solving practical questions and problems, and has the necessary skills and techniques to carry them out.
75-61	<i>«credited»/«satisfactory»</i>	The mark “satisfactory” is given to the student, if he has knowledge of only the basic material, but has not learned its details, admits inaccuracies, insufficiently correct wording, violations of the logical sequence in the presentation of program material, has difficulty in answering additional questions.
less 61	<i>«non-credited»/«unsatisfactory»</i>	The rating “unsatisfactory” is given to a student who does not know a significant part of the program material, makes significant mistakes, hesitates, and does practical work with great difficulty. As a rule, the grade “unsatisfactory” is given to students who cannot continue their studies without additional classes in the relevant discipline.

### **Evaluation tools for current certification**

#### **Subject practical classes on discipline " Venture Capital Investments and Financial Models "**

#### **Section 1. Basics of venture investment and business venture. (10 hours)**

##### **Practical lesson number 1. Basics of investment (2 hours)**

Issues for discussion: Characteristics of investment, definition and classification. The theoretical basis of investment. The structure of investment sources of the enterprise. The economic importance of venture investment as a catalyst for the development of innovative activities. Venture capital objectives, venture capital sources. The degree of participation of the venture capitalist in the activities of the enterprise.

##### **Practical lesson № 2. External financing and venture business (2 hours)**

Issues for discussion: The concept of external financing, the main characteristics. Types of external financing. Characteristics of venture business. Description of the venture capital market. Principles of venture business. The main schemes of the venture business. Practical basics of business venture. The key to successful investing.



### **Practical lesson number 3. The main features of venture capital (2 hours)**

Issues for discussion: Venture capital as a source of financing innovative projects. Venture capital market and its structure. Difference of venture capital from other types of direct investments. Venture business and its relationship with innovation. Promising areas of venture investment. Venture project as a real option. Objects and subjects of venture investment.

### **Practical lesson number 4. Venture business. Innovative development (2 hours)**

Issues for discussion: The role of business venture in innovative development. Development of venture business in various countries. Russian legislation and prospects for the development of the venture business. The role of venture capital in the modern economy. Methods for evaluating companies by venture investors. Distribution of venture investments by industry and stage. Risk and cyclical functioning of the venture business.

### **Practical lesson number 5. The main features of a venture investor (2 hours)**

Issues for discussion: Portrait of an investor. Venture investors as financial intermediaries. Participation of venture investors in the management of funded companies. Income generation mechanisms by venture investors. Basic rules from the standpoint of the main participants in the venture investment process. Due Diligence procedures. Venture capital reward formation models. Non-financial criteria for decision making by venture capital investors. The role of venture investors in the management of the company. Factors affecting the selection of projects in the portfolio of a venture investor.

## **Section 2. Risk, project risk management and business angels (12 hours)**

### **Practical lesson number 6-7. The concept of risk. Risk management. (4 hours)**

*Active / interactive learning method - situational analysis method (situational tasks / case studies) (2 hours)*

Issues for discussion: Theoretical bases of risk: main characteristic, definition, types of risks, their classification. The main concepts of risk. Definition of risk management, its essence and content; basic concepts of financial risk analysis. Stages of risk management. Implementation of risk management in the company, the main provisions of risk management in the organization. Risk assessment of innovation.

The solution of a continuous case.

### **Practical lesson number 8. Stages of project risk management. (2 hours)**

*Active / interactive learning method - situational analysis method (situational tasks / case studies) (2 hours)*

Issues for discussion: Project risk analysis, basic risk management methods, risk reduction methods; Characteristics of non-financial risks of companies and their prevention. The approaches used in the assessment of venture capital investments, the characteristics of the factors determining the success of the project, methods for evaluating venture investment. Evaluation of the effectiveness of the project. Venture company valuation method. "The first Chicago method" evaluation of innovative companies.

The solution of a continuous case.

### **Practical lesson number 9. Business angels, the main provisions. (2 hours)**

Issues for discussion: The concept of business angels, their principles of work. Informal venture investors (business angels) and features of their functioning. Project evaluation methods. Models of exit from the companies. The role of business angels in the development of innovative enterprises in the early stages.

### **Practical lesson number 10. Corporate venture funds. (2 hours)**

Issues for discussion: Corporate venture funds: main provisions, formation models. Direct and indirect corporate venture investments. The impact of KVI on the development of companies. Parameters and criteria when searching for projects of the FSC. Benefits of participation KVF. Existing corporate venture funds.

**Practical lesson number 11. Models of venture funds with state participation. (2 hours)**

Questions for discussion: Models of venture funds with state participation. "Fund of funds". Regional venture funds. The model of "pushing". Model "pull". Mixed models. Model formation of funds with the participation of the state in Russia. Comparative characteristics of venture capital in the US and Europe. Models of formation of venture funds with state participation. Features and prospects for the development of venture investment in Russia. The place and role of the state in the formation and development of venture investment.

**Section 3. Financial modeling of the company (14 hours)**

**Practical lesson number 12-13. The concept of financial modeling of the company. Introduction to financial modeling. (4 hours)**

*The method of active / interactive learning - the method of situational analysis (situational tasks / case studies) (4 hours)*

Issues for discussion: The concept of financial modeling. Prediction and modeling. Accounting, budgeting, business plan and financial model. Essence and the main elements of the financial model. Factors determining the growing importance of financial modeling, objectives and areas of application. Typing models of S. Beringa. Examples and types of models - various approaches to classification, typing models according to the degree of complexity and management areas: descriptive and prescriptive models, the use of optimization models, a satisfactory model. Models of general and special purpose. Deterministic and probabilistic models. The main results of building a financial model and their use.

The solution of a continuous case.

**Practical lesson number 14-15. Modeling the company's operating activities. (4 hours)**

*The method of active / interactive learning - the method of situational analysis (situational tasks / case studies) (4 hours)*

Issues for discussion: A quality operating model as the basis of a financial model. Analysis of business processes as part of the operating model when building a financial model. The degree of participation of the management, its influence on the formation of the operating model and the responsibility for the quality and realism of the results. Elements of scenario analysis in the modeling of operating activities and the construction of financial models. Features of modeling in growing companies in terms of mergers and acquisitions.

The solution of a continuous case.

**Practical lesson number 16-17-18. Simulation of financial flows, financial condition, financial result of the company. Simulation of business value calculations. Features of the design business modeling. (6 hours)**

*Active / interactive learning method - situational analysis method (situational tasks / case studies) (6 hrs.)*

Issues for discussion: Reflection of key business parameters in the forecast set: Balance sheet, Profit and loss report, Cash flow statement. Building a financial model for project financing. Modeling of individual components: capital costs and depreciation, working capital and features of its modeling in Russian companies, taxes, shifting data to years and quarters. Formation of the analytical unit of the system model and its specificity depending on information consumers. Features of perception and value of information of the analytical unit for investors, credit managers, financial analysts (directors), business owners. Techniques for analyzing efficiency, solvency, financial stability to various external and internal factors. Creation and comparison of models of alternative investment options, calculation

of integral indicators of investment efficiency and preparation of recommendations for their use. Simulation of cash flows for the purposes of the income approach in business valuation. Preparing a financial model for company value management.

The solution of a continuous case.

**Criteria for evaluation:**

- 100-86 points are awarded to a student, if a student has expressed his opinion on the formulated problem, argued it, having precisely defined its content and components. The data of regulatory and technical documents. The student knows and has the skill of independent research work on the topic of research; methods and techniques for analyzing the theoretical and / or practical aspects of the studied area. There are no actual errors associated with understanding the problem; graphically the work is framed correctly;
- 85-76 points - the work is characterized by semantic integrity, coherence and consistency of presentation; No more than 1 error was made in explaining the meaning or content of the problem. For the argument given data of regulatory and technical documents. Demonstrated research skills. There are no actual errors in understanding the problem. One or two mistakes in the design of the work;
- 75-61 point - the student conducts a fairly independent analysis of the main stages and the semantic components of the problem; understands the basic fundamentals and theoretical justification of the chosen topic. Attracted regulatory and technical documents. No more than 2 mistakes were made in the sense or content of the problem, in the design of the work;
- 60-50 points - if the work is a completely rewritten source text, without any comments, analysis. The structure and theoretical component of the topic are not disclosed. Three or more than three mistakes were made in the semantic content of the disclosed problem, in the design of the work.

**An example of a case study and exercises for working in the classroom.**

**Case**

OJSC “Institute of Human Stem Cells” (HSCI) was established in 2003 with the aim of implementing projects in the field of cellular technologies. This company,

along with two other companies, Cryocenter LLC and Flora-Med LLC, created the stem cell storage banks market in Russia.

The general director and owner of a controlling stake in the company, Arthur Isaev, is a typical representative of successful innovation management. He has a higher medical education, an MBA degree, experience as a director of two audit and consulting firms and at least one successful start-up (as a co-investor he participated in a project now known as Yandex. Cork).

Currently, the company's shares are distributed as follows: 51% of the shares are owned by Artur Isaev, 44.1% are registered in the offshore zone of the First International Investment Group (on behalf of the First International Investment Group, the stake is managed by Artur Isaev), 2.9% of the shares belong to the chairman Board of Directors Andrei Isaev and 2% to Gemabank Director Alexander Prikhodko. The total size of the company's assets is, according to RAS, about 100 million rubles. (as of June 30, 2009). Profit before interest, taxes and depreciation (EBITDA) is estimated for the same period at 12.34 million rubles.

The first stage of the project was the formation of a stem cell bank (Gemabank) on the basis of the State Institution of the Russian Cancer Research Center. N.N. Blokhin RAMS. At this stage, the company required, according to its owners, about 500 thousand dollars. At first, the service was not in demand. For its promotion, HSCI actively conducted educational work among the general population: two Internet portals were created (one for specialists) and a scientific journal was published (Cell Transplantology and Tissue Engineering magazine). The emphasis was also placed on working with employees of maternity hospitals and other medical institutions that form public opinion. The first person who wanted to donate cord blood to the bank appeared in 2004. In 2005, the Oncology Center of the Russian Academy of Medical Sciences, with the participation of Gemabank, performed the first stem cell transplantation in a neuroblastoma (malignant tumor), and the operation was successful. Currently, more than 6,000 umbilical cord blood stem cell samples are stored in the Bank. In 2008, new processing laboratories and a bank equipped with GMP standards were opened in

Moscow. Gemabank today is an international stem cell bank with laboratories, storage facilities and offices in Moscow, St. Petersburg, Ukraine and Germany. Today HSCI, according to estimates by CJSC Alor Invest, occupies 54% of this market.

The second project, launched in 2004, was the creation of the Cell Technology Laboratory (LKT), which is involved in stem cell research and innovation. The laboratory was headed by Professor Sergey Kiselev, an expert in this field recognized in Russia and abroad. LKT is developing methods for the isolation, differentiation and expansion of cell cultures in order to create products and services for health care and pharmaceuticals. The laboratory created 8 lines of human embryonic stem cells (hESC). Developed methods for reprogramming adult cells. LKT scientists have developed a unique method for isolating and storing fibroblast-like stem cells and endotheliocytes from the umbilical cord in Gemabank. This provides additional opportunities for the use of stored cells for reprogramming and treatment of serious diseases. Methods have also been developed for differentiating embryonic stem cells into various cell types, such as endothelial cells, retinal pigment cells, neuronal cells, and a number of others. Research results are patented.

In 2008, HSCI opened another cell bank based on the Institute of General Genetics of the Russian Academy of Sciences (investment is estimated at about 1 million euros).

Also, the first part of the transaction on the acquisition of a blocking stake (25.01%) of shares of the German biotechnology company Symbiotec was completed, and an increase in the block of shares to 44% was announced. The company owns a number of patents related to Oncohist. The drug Oncohist was developed by German scientists on the basis of recombinant histone H1 (the nuclear protein of the cell required for assembly and packaging of DNA strands into chromosomes) and has already passed the first phase of clinical trials in Europe that proved its safety and also indirectly confirms the effectiveness of this drug in the treatment of acute myeloid leukemia. Oncohist has the status of "orphan drug." This status is assigned to medicines intended for the treatment of

rare dangerous diseases, and assumes the priority position of the drug during clinical trials in Europe, and also provides an accelerated procedure for its registration.

In July 2009, HSCI received an official permit from the Russian Federal Health Service for the conduct of clinical trials of Neovasculgen, Russia's first genotherapeutic drug with the VEGF 165 gene for the treatment of critical lower limb ischemia, a disease in which the vessels become impassable for one reason or another. In Russia, about 300,000 patients annually make this diagnosis. The drug is based on a gene that produces endothelial growth factor in the patient's cells - a substance that stimulates the growth of blood vessels. For many such patients, the drug can be a real alternative to amputation.

HSCI is also a co-founder of the Fertimed Center for Reproduction and Genetics, established in 2005. The Center works in conjunction with the Institute for Reproductive Genetics, Chicago, USA. The uniqueness of the center is that the method of pre-implantation diagnosis is used, which makes it possible to trace the presence of genetic defects in the embryo at the embryo stage.

By 2012, company executives expect to win 70% of the Russian market, and by 2014-2016 - 10% each of the markets in Europe and Asia. To implement these strategic plans, the company requires an investment of \$ 8.8 million.

Half of the costs are expected to be funded by the company's revenues. The rest of the company hopes to gain through the placement of shares (IPO). The volume of supply will be approximately 15 million ordinary shares, the placement will take place on the MICEX. The preliminary price range of placing shares at the level of 9-11 rubles per ordinary share has already been established, the company said.

It is assumed that the company's market capitalization after the IPO will be in the range of 675-825 million rubles, and the volume of shares in free circulation will be approximately 20%. After the completion of the IPO, HSCI Director General Artur Isaev will retain the largest stake in the company. The organizer of the placement is Alor Invest. As of today, according to the calculations of the placement organizer, the potential capitalization of the HSCI is at least 500 million rubles, while the evaluation of patents in the Russian context is a rather



complicated task. This takes into account the good, despite the crisis, the dynamics of the biotechnology market (in particular, the amount of revenue of listed companies in this sector in the world has increased by 12% since the beginning of the crisis).

Analysts are quite skeptical about the placement idea, pointing to the narrow market, unclear prospects for patent valuation, high risks and long project implementation periods (the 1-2 year terms stated in the prospectus seem too optimistic to most analysts).

Issues for discussion:

1. Describe HSCI as an innovative start-up. Was the development of the company successful? What are the stages of development can be identified?
2. Has the company come to the “valley of death”?
3. How successful and realistic are the company's plans to attract financing from the stock market? What sources of funding can a company use as alternatives?

### **Exercises.**

1. Suppose that the declared capital of a venture fund is \$ 300 million, the management fee in the first 5 years is 2% annually, and in the next 5 years (the life of the fund is 10 years) it decreases annually by 0.25%. The management fee is calculated on the basis of the declared capital. Calculate the total amount of management fees and the amount of capital invested by the fund.
2. A venture capital firm creates a venture capital fund with a declared capital of \$ 500 million. The fee for participation in management is 2% annually, the life of the fund is 10 years. Under the first option of payment of remuneration, it will be X percent of the declared capital. Under the second option, it will be Y percent of the capital invested by the fund. If the total income of the fund over 10 years is Z million dollars, determine the amount of remuneration for both options.

### **Criteria for evaluation:**

- 100-86 points are awarded to a student, if a student has expressed his opinion on the formulated problem, argued it, having precisely defined its content and components. The data of regulatory and technical documents. The student knows and has the skill of independent research work on the topic of research; methods and techniques for analyzing the theoretical and / or practical aspects of the studied

area. There are no actual errors associated with understanding the problem; graphically the work is framed correctly;

- 85-76 points - the work is characterized by semantic integrity, coherence and consistency of presentation; No more than 1 error was made in explaining the meaning or content of the problem. For the argument given data of regulatory and technical documents. Demonstrated research skills. There are no actual errors in understanding the problem. One or two mistakes in the design of the work;

- 75-61 point - the student conducts a fairly independent analysis of the main stages and the semantic components of the problem; understands the basic fundamentals and theoretical justification of the chosen topic. Attracted regulatory and technical documents. No more than 2 mistakes were made in the sense or content of the problem, in the design of the work;

- 60-50 points - if the work is a completely rewritten source text, without any comments, analysis. The structure and theoretical component of the topic are not disclosed. Three or more than three mistakes were made in the semantic content of the disclosed problem, in the design of the work.

### **Business game.**

**Task 1.** A business game in which students alternately perform different functions: the presentation of the basic model, expertise, making final decisions. To prepare for the pass/fail exam, the student must create a financial model of a venture capital fund, which is part of his independent work.

Example (venture capital firm)

A successful venture capital firm (SV), a venture capital firm, is creating a new venture capital fund SV II with a declared capital of \$ 500 million and is considering two alternative ways to pay remuneration to the general partner. The management fee in both cases is 2.5% per annum of the declared capital, the fund is valid for 10 years. Under the first option, the remuneration of the general partner will be 25% of the profit calculated on the basis of the declared capital. According

to the second option - 20% of the profit calculated on the basis of the capital invested by the fund.

You are the general partner of the company. In these conditions, evaluate the possibility of investing in the project that you represent.

**Criteria for evaluation:**

- 100-86 points are awarded to a student, if a student has expressed his opinion on the formulated problem, argued it, having precisely defined its content and components. The data of regulatory and technical documents. The student knows and has the skill of independent research work on the topic of research; methods and techniques for analyzing the theoretical and / or practical aspects of the studied area. There are no actual errors associated with understanding the problem; graphically the work is framed correctly;
- 85-76 points - the work is characterized by semantic integrity, coherence and consistency of presentation; No more than 1 error was made in explaining the meaning or content of the problem. For the argument given data of regulatory and technical documents. Demonstrated research skills. There are no actual errors in understanding the problem. One or two mistakes in the design of the work;
- 75-61 point - the student conducts a fairly independent analysis of the main stages and the semantic components of the problem; understands the basic fundamentals and theoretical justification of the chosen topic. Attracted regulatory and technical documents. No more than 2 mistakes were made in the sense or content of the problem, in the design of the work;
- 60-50 points - if the work is a completely rewritten source text, without any comments, analysis. The structure and theoretical component of the topic are not disclosed. Three or more than three mistakes were made in the semantic content of the disclosed problem, in the design of the work.

**Guidelines for independent work on task**

**: "Report on the selected topic."**

1. Characteristics of investments, definition and classification. The theoretical basis of investment.
2. The structure of investment sources of the enterprise. The economic importance of venture investment as a catalyst for the development of innovative activities.
3. Venture capital objectives, venture capital sources. The degree of participation of the venture capitalist in the activities of the enterprise.
4. The concept of external financing, the main characteristics. Types of external financing. Characteristics of venture business.
5. Description of the venture capital market. Principles of venture business. The main schemes of the venture business.
6. Practical foundations of business venture. The key to successful investing. Venture capital as a source of financing innovative projects.
7. The venture capital market and its structure. Difference of venture capital from other types of direct investments.
8. Venture business and its relationship with innovation. Promising areas of venture investment. Venture project as a real option.
9. Objects and subjects of venture investment. The role of business venture in innovative development. Development of venture business in various countries.
10. Russian legislation and prospects for the development of venture business. The role of venture capital in the modern economy.
11. Methods for evaluating companies by venture investors. Distribution of venture investments by industry and stage. Risk and cyclical functioning of the venture business.
12. Portrait of an investor. Venture investors as financial intermediaries. Participation of venture investors in the management of funded companies. Income generation mechanisms by venture investors. Basic rules from the standpoint of the main participants in the venture investment process.
13. Due Diligence Procedures. Venture capital reward formation models. Non-financial criteria for decision making by venture capital investors.

14. The role of venture investors in the management of the company. Factors affecting the selection of projects in the portfolio of a venture investor.

15. Theoretical bases of risk: the main characteristic, definition, types of risks, their classification.

16. Basic concepts of risk. Definition of risk management, its essence and content; basic concepts of financial risk analysis. Stages of risk management.

17. Implementation of risk management in the company, the main provisions of risk management in the organization. Risk assessment of innovation.

18. Risk analysis of the project, the main methods of risk management, risk reduction methods; Characteristics of non-financial risks of companies and their prevention.

19. Approaches used in the assessment of venture capital investments, the characteristics of the factors determining the success of the project, methods of evaluating venture investment.

20. Evaluation of the effectiveness of the project. Venture company valuation method. "The first Chicago method" evaluation of innovative companies.

21. The concept of business angels, their principles of work. Informal venture investors (business angels) and features of their functioning. Project evaluation methods.

22. Models of exit from the companies. The role of business angels in the development of innovative enterprises in the early stages.

23. Corporate venture funds: basic provisions, formation models. Direct and indirect corporate venture investments. The impact of KVI on the development of companies.

24. Parameters and criteria for searching for projects of the FSC. Benefits of participation KVF. Existing corporate venture funds.

25. Models of venture funds with state participation. "Fund of funds". Regional venture funds.

26. The "pushing" model. Model "pull". Mixed models. Model formation of funds with the participation of the state in Russia.

27. Comparative characteristics of venture capital in the US and Europe. Models of formation of venture funds with state participation. Features and prospects for the development of venture investment in Russia.

28. Place and role of the state in the formation and development of venture capital investment.

29. The concept of financial modeling. Prediction and modeling. Accounting, budgeting, business plan and financial model.

30. The essence and the main elements of the financial model. Factors determining the growing importance of financial modeling, objectives and areas of application.

31. Typing models of S. Bering. Examples and types of models - various approaches to classification, typing models according to the degree of complexity and management areas: descriptive and prescriptive models, the use of optimization models, a satisfactory model.

32. Models of general and special purpose. Deterministic and probabilistic models. The main results of building a financial model and their use.

33. High-quality operating model as the basis of the financial model. Analysis of business processes as part of the operating model when building a financial model.

34. The degree of participation of management, its impact on the formation of the operating model and responsibility for the quality and realistic results.

35. Elements of scenario analysis in the modeling of operating activities and the construction of financial models.

36. Features of modeling in growing companies, in terms of mergers and acquisitions.

37. Reflection of key business parameters in the forecast set: Balance sheet, Profit and loss statement, Cash flow statement. Building a financial model for project financing.

38. Modeling of individual components: capital costs and depreciation, working capital and features of its modeling in Russian companies, taxes, shifting data to years and quarters.

39. Formation of the analytical unit of the system model and its specificity depending on information consumers.

40. Features of perception and value of information of the analytical unit for investors, credit managers, financial analysts (directors), business owners.

41. Techniques for analyzing efficiency, solvency, financial stability to various external and internal factors.

42. Creating and comparing models of alternative investment options, the calculation of integral indicators of investment efficiency and preparation of recommendations for their use.

43. Simulation of cash flows for the purposes of the income approach in business valuation. Preparing a financial model for company value management.

### **Criteria for assessing the implementation of a collective research and creative assignment**

№ п/ п	Criterion	Number of points
1	Readiness of the results of independent work in time	10
2	Presentation report, answers to questions from the audience	20
3	The material is modern, relevant, interesting to the audience.	25
4	The topic is covered deeply, the presentation of the material is logical, reasoned, supported by illustrations, tables and diagrams with factual data, diagrams and drawings	25
5	Availability of a folder with regulatory legal acts, bookmarks in Consultant Plus, presentations and MS Word file with text material	20
	TOTAL	100

### **Methodical recommendations determining the procedures for evaluating the results of mastering the discipline**

**Current student certification.** The current attestation of students in the discipline “Venture Capital Investments and Financial Models ” is conducted in accordance with FEFU local regulations and is mandatory.

The current certification for the discipline “Venture Capital Investments and Financial Models ” is carried out in the form of control measures (assignments for practical classes, solving situational problems, writing group reports) to assess the actual learning outcomes of students and is carried out by a leading teacher.

Objects of evaluation are:

- academic discipline (activity in the classroom, timeliness of performing various types of tasks, attendance of all types of classes in a certified discipline);
- the degree of assimilation of theoretical knowledge ((activity during discussions of practical materials, active participation in discussions with arguments from additional sources, attentiveness, the ability to ask counter questions in the framework of discussion or discussion, interest in the materials being studied);
- the level of mastering practical skills and skills in all types of educational work (determined by the results of solving tasks);
- the results of independent work (tasks and evaluation criteria are available in Appendix 1).

**Intermediate certification of students.** Intermediate attestation of students in the discipline " Venture Capital Investments and Financial Models " is carried out in accordance with the local regulations of FEFU and is mandatory.

**Total control.** It provides for a rating of academic discipline during the semester in the learning process.

**Brief description of the procedure for applying the estimated means used.** As a result of attending lectures, laboratory classes, seminars and round tables, the student consistently masters the materials of the discipline and studies the answers to the pass/fail exam questions presented in the structural element of Appendix 2. During the intermediate certification, the student prepares an individual creative pass/fail exam task (an individual creative pass/fail exam task is placed in the



Appendix 2 structural element). The criteria for assessing the student in the standings are presented in the structural element of Appendix 2. Criteria for assessing the current certification - the control test of knowledge (laboratory work 1, laboratory work, group creative task) are presented in the structural element of Appendix 2.

**Criteria for grading a student on the pass/fail exam  
on discipline " Venture Capital Investments and Financial Models "**

<b>Points</b>	<b>Pass/fail Exam grade (standard)</b>	<b>Requirements for the generated competencies</b>
86-100	«excellent»	The grade “excellent” is given to the student if he has deeply and firmly mastered the program material, expounds it exhaustively, consistently, clearly and logically in a harmonious manner, knows how to closely link theory with practice, freely copes with tasks, questions and other kinds of knowledge, and the answer when modifying assignments, uses in the response the material of monographic literature, correctly substantiates the decision made, has diverse skills and techniques for performing practical tasks.
85-76	«good»	The mark “well” is given to the student, if he knows the material firmly, correctly and essentially sets it out, avoiding significant inaccuracies in answering the question, correctly applies theoretical principles in solving practical questions and problems, and has the necessary skills and techniques to carry them out.
75-61	«satisfactorily»	The mark “satisfactory” is given to the student if he has knowledge of only the basic material, but has not learned its details, admits inaccuracies, insufficiently correct formulations, violations of the logical sequence in the presentation of the program material, has difficulty in performing practical work.
60-0	«unsatisfactory»	The rating “unsatisfactory” is given to a student who does not know a significant part of the program material, makes significant mistakes, hesitates and does practical work with great difficulty. As a rule, the grade “unsatisfactory” is given to students who cannot continue their studies without additional studies in the relevant discipline.