



SYLLABUS “FUNDAMENTALS OF PRODUCTION MANAGEMENT”

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Department responsible for the course or equivalent: Institute of Management in Economic, Ecological and Social Systems Management and Innovative Technologies Department

Semester when the course unit is delivered: 1st

Level of course unit: Master level

ECTS credits: 5

ADMISSION REQUIREMENTS

Applicants are expected to have completed the following courses:

- Modern Management Technologies;
- Managerial Economy.

COURSE OBJECTIVES (AIMS)

- to manage organizations, units, groups (teams) of employees, projects and networks;
- to develop a corporate strategy;
- to possess skills in production analysis, highlighting the strengths and weaknesses of the manufacturing enterprise;
- to analyze the relationship between functional departments and workshops in order to prepare balanced management decisions;
- to master the mechanisms of automation of production processes.

COURSE CONTENTS

Session 1. The essence of production management. Enterprise as a production system.

- The concepts of production management, business processes, operating system.
- The main stages of development of production management.
- Operating system management methods.
- The principles of building production systems.
- The main elements of the operating system of the organization.

Session 2. Innovative aspects of production management. Technology transfer and commercialization.

- Production and innovation potentials of the enterprise.
- The mechanism of formation of the production potential of the enterprise.
- State and innovation.
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Domestic and foreign experience in technology transfer. • Promotion of technology transfer.

Session 3. Production infrastructure of the enterprise.

• Organization of instrumental production support. • Features of the organization of energy, transport and storage facilities. • Organizational design in mass and mass production. • Organizational design in single and small batch production

Session 4. Planning in production management. Planning and organization of the cycle of creation and development of new products and technologies. R&D organization.

• Classification, principles and methods of planning. • Production program of the enterprise. • The process of implementing an enterprise strategy. • The principles of the creation and development of new products and technologies cycle. • Stages of the cycle. • Types of effect of shortening the cycle. • Requirements for scientific and technical development. Evaluation of the effectiveness of R&D.

Session 5. Formation of a rational technological subsystem of a manufacturing enterprise.

• Basic concepts and definitions. • Classification of technology. • Feasibility study of the technological subsystem of the manufacturing enterprise. • Process cost assessment. • Assessment of the quality of the process. • Methodology for assessing the synergistic effect of the technological subsystem of manufacturing enterprise. • The choice of a rational combination of productive technological processes.

Session 6. Formation of a rational engine subsystem of a manufacturing enterprise.

• Analysis of the impact of the type of organization of the production process on the radical change in the product portfolio. • Analysis of the influence of the form of manufacturing system specialization on the radical changes in the product portfolio. • Analysis of the impact of manufacturing system integrity on the nature of its restructuring. • Quantitative assessment of integrity and isolation properties. • Determining the rational correlation of integrity properties, the universalism of its machine subsystem and the radical nature of the product portfolio change

Session 7. Personnel management in production management.

• The personnel structure of the enterprise. • HR functions. • HR management system, its elements. • Personnel policy of the enterprise.

Session 8. The process and content of product quality management. General product quality management functions.

• Monitoring, accounting and analysis of quality management processes. • Technical regulation and place in it standardization. • Confirmation of compliance.

LEARNING OUTCOMES

Knowledge:

- basic theories and approaches to implementing organizational change; the main stages of development of production management;
- principles of development and functioning of the organization; roles, functions and tasks of a manager in a manufacturing enterprise;
- core business processes in a manufacturing enterprise; a list of all production activities; market research methods;

Abilities:

- analyze the external and internal environment of the manufacturing enterprise, identify its key elements and evaluate their impact on the manufacturing enterprise;
- analyze the organizational structure and develop proposals for its improvement; analyze communication processes in the organization and develop proposals to improve their effectiveness;

Skills:

- skills of the competitive environment of the manufacturing industry;
- organizing teamwork skills to solve the managerial tasks of a manufacturing enterprise.

PLANNED LEARNING ACTIVITIES AND TEACHING METHODS

Each session lecturing accounts for about 60% of time, students' participation in discussion accounts for 40%. Specifically, the lecturer will invite students to speak during the lecture. At the end of each session, questions are presented for oral surveys.

During the seminars, students will have an opportunity to analyze some tasks, to work on creative task and recognize how to deal with it by using information technologies.

Comprehensive development of student discipline involves:

- students involvement in problem-based presentation;
- students self-guided reading of the further literature;
- students participation in oral surveys;
- students participation in practical tasks;
- creative task (project);
- exam.

ASSESSMENT METHODS AND CRITERIA



Criteria for evaluation:

Survey questions

The maximum number of points for survey questions : 20 points

The correct and comprehensive answers to all proposed questions are given.	17-20
Given the correct, in general, answers to all proposed questions, however, there are minor comments on the completeness and quality of the presentation	12-16
There are significant comments on the completeness and quality of the presentation of the material or some of the issues remained unresolved	5-11
No answers to questions or incorrect answers.	0-4

Practical tasks

The maximum number of points for practical tasks: 20 points

The correct and comprehensive answers to all proposed questions are given.	17-20
The correct, in general, answers to all proposed questions are given, however, there are minor comments on the completeness and quality of the presentation of the material.	12-16
There are significant comments on the completeness and quality of the presentation of the material or some of the issues remained unresolved	5-11
No answers to questions or incorrect answers.	0-4

Individual creative tasks

The maximum number of points for creative task (project): 20 points

Relevance, purpose and objectives: the problem is clearly identified and its relevance is justified, the goal is formulated, the research objectives are defined. Structure: the text is divided into sections, there are no errors in text structuring. Design: volume is maintained, requirements for external design are met. The text contains at least one figure and one table. References: The requirements of GOST 7.32-2001 and GOST 7.0.5-2008 with respect to bibliography and references are met. References include textbooks, scientific and popular science journals, legal acts, and links to electronic publications. The age of the sources is not	18-20
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<p>older than 5 years.</p> <p>Text quality: the analysis of the problem with the involvement of several sources of literature is carried out, own position is logically stated, conclusions are formulated, the topic is fully disclosed, links to sources from the list of literature are indicated.</p> <p>Protection: demonstrates a complete understanding of the described problem, gives correct answers to all questions on the topic of the abstract</p>	
<p>Relevance, purpose and objectives: the problem is not clearly defined, there is a rationale for its relevance, a goal is formulated, the research objectives are defined.</p> <p>Structure: the text is divided into sections, there are no gross errors in text structuring.</p> <p>Design: the text of the project is framed with minor violations of the design requirements set forth in this document, the volume is maintained. The text contains at least one figure and one table.</p> <p>References: when designing a project, most of the requirements of GOST 7.32-2001 and GOST 7.0.5-2008 with respect to bibliography and references are met. References include textbooks, scientific and popular science journals, legal acts, and links to electronic publications. The age of the sources is not older than 5 years.</p> <p>Text quality: the analysis of the problem with the involvement of several sources of literature is carried out, own position is logically stated, conclusions are formulated, the topic is fully disclosed, links to sources from the list of literature are indicated.</p> <p>Protection: demonstrates a significant understanding of the problem; not all questions are answered or incomplete answers</p>	13-17
<p>Relevance, purpose and objectives: the relevance of the problem is insufficiently substantiated, the purpose and objectives of the study are not formulated.</p> <p>Structure: the text is divided into sections, there are errors in text structuring.</p> <p>Design: The text of the project is framed with violations of the design requirements set forth in this document, the volume is not maintained, there are no figures and tables.</p> <p>References: during the design of the project, the requirements of GOST 7.32-2001 and GOST 7.0.5-2008 with respect to bibliography and references are partially observed. The list of references is framed with violations of the quality and age requirements of the sources.</p> <p>Text quality: the analysis of the problem was carried out according to</p>	8-12

<p>one source of literature, there are no conclusions, the topic is not fully disclosed.</p> <p>Protection: demonstrates a partial understanding of the problem, answers are given only to basic questions.</p>	
<p>Relevance, purpose and objectives: there is clearly no justification for the relevance of the problem, the purpose and objectives of the study.</p> <p>Structure: the text is not divided into sections or there are gross errors in structuring the text.</p> <p>Design: the text of the project is framed with gross violations of the design requirements set forth in this document.</p> <p>References: during the design of the project, most of the requirements of GOST 7.32-2001 and GOST 7.0.5-2008 with respect to bibliography and references are not complied with or there is no literature list.</p> <p>Text quality: the topic is not disclosed, the requirements for the task are not fulfilled.</p> <p>Protection: demonstrates a lack of understanding of the problem, there are no answers to questions or answers are incorrect</p>	0-7

Exam

The maximum number of points for exam questions : 40 points

The correct and comprehensive answers to all proposed questions are given.	30-40
Given the correct, in general, answers to all proposed questions, however, there are minor comments on the completeness and quality of the presentation	20-29
There are significant comments on the completeness and quality of the presentation of the material or some of the issues remained unresolved	10-19
No answers to questions or incorrect answers.	0-9

COURSE LITERATURE (RECOMMENDED OR REQUIRED)

1. Management of production quality in international corporations: Workshop - Stavropol: SKFU, 2016 .-- 167 p. <http://biblioclub.ru/index.php?page=book&id=459317>
2. Avilova V. V. Management of industrial clusters: workbook / V.V. Avilova, N.A. Lamberova; The Ministry of Education and Science of the Russian Federation; Kazan National Research Technological University - Kazan: K NRTU



- Press, 2017. - 88 c. <http://biblioclub.ru/index.php?page=book&id=500470>
3. Malish M. N. Production management / M.N. Kid; N.Yu. Donets - St. Petersburg: SPbGAU, 201 5. - 39 s. [http://biblioclub.ru/index.php?page=book & id = 364319](http://biblioclub.ru/index.php?page=book&id=364319)
 4. Production management: a training manual / A.B. Nazarenko, D.V. Zaporozhets, D.S. Kenina, L.I. Chernikova, O.N. Babkina - Stavropol: Stavropol State Agrarian University, 2017 .-- 140 p. [http://biblioclub.ru/index.php?page=book & id = 484943](http://biblioclub.ru/index.php?page=book&id=484943)
 5. Management: workshop - Stavropol: SKFU, 2016. - 132 p. [http://biblioclub.ru/index.php?page=book & id = 459095](http://biblioclub.ru/index.php?page=book&id=459095)
 6. Yagudin S. Yu. Production management nt / S.Yu. Yagudin; M.M. Romanova; S. A. Orekhov; IN AND. Kuznetsov - Moscow: Eurasian Open Institute, 2011. - 181 p. [http://biblioclub.ru/index.php?page=book & id = 90462](http://biblioclub.ru/index.php?page=book&id=90462)
 7. Drury K. Management and production accounting. Educational complex / K. Drury - 6th ed. - Moscow: Unity-Dana, 201 2. - 1424 c [http://biblioclub.ru/index.php? Page = book & id = 117546](http://biblioclub.ru/index.php?Page=book&id=117546)
 8. On-line course: Dairy Production and Management - <https://www.coursera.org/learn/dairy-production>
 9. 5. <http://www.gks.ru> - Official website of the Federal Service for Statistics (Rosstat)
 10. 6. <http://www.minfin.ru> - Official website of the Ministry of Finance of the Russian Federation
 11. <http://www.economy.gov.ru> - Official website of the Ministry of Economic Development of the Russian Federation.