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**MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE  
RUSSIAN FEDERATION**  
Federal State Autonomous Educational Institution of Higher Education  
"MOSCOW POLYTECHNIC UNIVERSITY

Faculty of Economics and Management,  
Department of Management

**METHODOLOGICAL GUIDELINES FOR COURSEWORK**  
in the discipline  
**"Business Process Management."**

Field of study  
**38.03.02 - "Management"**  
Profile: "Business Process Management"

Graduate qualification (degree)  
**Bachelor**

Form of training  
**Full-time, part-time**

Moscow 2024

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## **1.Purpose and organisation of coursework .**

In accordance with the curriculum students of the first and second year of training direction 38.03.02 "Management" in the process of studying the discipline "Business Process Management" perform coursework.

The purpose of coursework - to consolidate students' theoretical knowledge of the methodological foundations of business process modelling, to develop skills in building models of business processes, analysis and their use in the organisation and management of the enterprise.

In the course of coursework the student must demonstrate the ability to work with academic and scientific economic literature, skills in the use of computer technology and application packages of business process modelling, apply scientific methodology in the construction and analysis of business process models, to make reasoned conclusions and give recommendations on the use of models in the organisation and management of the enterprise.

Structurally, the coursework consists of three parts - theoretical, practical and analytical. The theoretical part is devoted to methodological issues of building models of business processes, practical - practical mastering of the methodology of building and analysis of business process models of a particular enterprise (organisation), implementation of recommendations for the reorganisation of existing business processes of the organisation, analytical - conducting independent practical research with the use of mastered methodology and computer technology.

Coursework, completed with a grade of "good" or "excellent", may later be one of the components of the final qualification work. The coursework must be completed and submitted within the deadlines established by the schedule of the educational process.

Completion of the coursework involves:

- acquaintance with the programme of the discipline "Business Process Management" and methodological recommendations for the implementation of coursework;
- selecting the topic of the coursework and a variant of the assignment for the practical part;
- working through the relevant sections of the methodology of business process design, studying the recommended academic and specialised literature;
- drawing up a coursework plan;
- coverage of the studied methodology and methods of building business processes in the theoretical part of the coursework;
- fulfilment of the practical part of the coursework with the application of mastered scientific methods;

- collection of necessary statistical materials for practical and analytical parts of the course work;
- analysing the collected materials and building business process models using the learnt methods and computer technologies;
- analysis of constructed models of business processes of a particular organisation (enterprise);
- making recommendations on reorganisation of business processes and building appropriate models;
- execution of the term paper in accordance with the established requirements. The choice of the topic of the course work and the variant of the task for the practical part is carried out on the basis of the table.

Topics of coursework in accordance with the variants of assignments are given in p. 4.

The student has the right to independently choose the topic, carried out on the basis of specific statistical materials available to the student, as well as depending on the profile of his/her work, professional and scientific interests. The choice of topics of coursework on the student's choice is made in agreement with the teacher. It is also possible to carry out a term paper on an individual topic proposed by the student. To approve the topic of a term paper of the student's choice or an individual topic, the student must submit to the department a statement with a brief justification of the choice of topic. The statement signed by the Head of the Department or his/her deputy is an authorisation to carry out a term paper.

### **Distribution of coursework options.**

The last two digits of the grade <small>book</small>	Option	The last two digits of the grade <small>book</small>	Option	The last two digits of the grade <small>book</small>	Option	The last two digits of the grade <small>book</small>	Option
01	1	26	6	51	11	76	16
02	2	27	7	52	12	77	17
03	3	28	8	53	13	78	18
04	4	29	9	54	14	79	19
05	5	30	10	55	15	80	20
06	6	31	11	56	16	81	1
07	7	32	12	57	17	82	2
08	8	33	13	58	18	83	3
09	9	34	14	59	19	84	4
10	10	35	15	60	20	85	5
11	11	36	16	61	1	86	6
12	12	37	17	62	2	87	7
13	13	38	18	63	3	88	8
14	14	39	19	64	4	89	9
15	15	40	20	65	5	90	10
16	16	41	1	66	6	91	11
17	17	42	2	67	7	92	12
18	18	43	3	68	8	93	13
19	19	44	4	69	9	94	14
20	20	45	5	70	10	95	15
21	1	46	6	71	11	96	16
22	2	47	7	72	12	97	17
23	3	48	8	73	13	98	18
24	4	49	9	74	14	99	19
25	5	50	10	75	15	00	20

The departmental lecturer, who is the head of the coursework, approves the plan of the coursework and counsels the student on its implementation. At the consultations, the student discusses and clarifies the content of the theoretical and analytical parts of the work, as well as submits the practical part for verification. For all questions related to the implementation of the coursework should contact the supervisor of the work.

The completed work is submitted to the department for review within the deadlines established by the academic schedule. The review period is not more than 5-7 days. The reviewer evaluates the quality of the work, the degree of independence of its implementation, the level of literacy of presentation of the material, notes the positive aspects and shortcomings of the work and determines whether it is allowed for defence. The review of the term paper is made in writing and assesses the quality of the work in accordance with the Regulations on the point-rating system of assessment of students' knowledge.

The reviewed work, which received a positive assessment, is returned to the student for preparation for defence. The student must make the necessary corrections and additions to all the comments of the reviewer before the defence of the term paper. If the term paper is not allowed for defence, it must be revised in accordance with the comments of the supervisor.

The reviewer has the right not to admit the work to defence if it does not meet the requirements for the structure and content of the theoretical or practical parts, is not done independently or contains data without reference to their sources. The student submits the repeatedly completed coursework for review together with the review of the previous version of the work.

The defence of the coursework consists of an oral report on the results of the work and answers to questions related to its content. In the process of defending the term paper reveals the level of knowledge of the student and the degree of his/her independence in carrying out the work. If necessary, the defence of the analytical part performed by the student is held in the computer room.

Students who receive an unsatisfactory grade at the defence will not be allowed to take the examination. In this case, the student should make the necessary changes in the work and better prepare for the repeated defence. In case of repeated unsatisfactory assessment, the student receives another topic of the coursework for fulfilment at the department.

## **2. Structure of coursework .**

In the execution of term paper coursework  
it is necessary adhere to the following structure:

- cover page;
- table of contents;
- introduction;
- theoretical part;
- practical part; analytical part;
- Conclusion;
- list of references used;
- applications.

The title page is the first page of the term paper. A sample of the title page is given in the Appendix. The table of contents (volume - one page) gives the names of all sections of the work with the indication of the pages from which these sections begin.

All sections of the term paper, except for the introduction, conclusion, list of references and appendices, should be numbered. Introduction, conclusion and list of references are not numbered. The titles of the sections in the table of contents should correspond exactly to their titles in the text.

In the introduction (1-2 pages in length):

- The relevance of the topic is substantiated;
- the purpose of the coursework is indicated;
- formulate the tasks related to the whole coursework;
- enumerate methods, used in fulfilment coursework;

- a brief description of the structure of the coursework, including the content of its theoretical, practical and analytical parts;
- The name of software tools used in the process of work execution is given. The conclusion briefly summarises the results of the research (1-2 pages).

### **2.1. Requirements for the structure and content of the theoretical part of the course work.**

The theoretical part (volume - 10-12 pages) aims to deepen the knowledge of students on certain sections of scientific methodology of building business process models in accordance with the thematic focus of the work. The plan of presentation of this part should be made by the student after reviewing the relevant literature and agreed with the head of the work. The theoretical part of the coursework should be divided into three paragraphs. The content and titles of paragraphs can be determined by the student independently depending on the specifics of the chosen topic and the availability of practical material.

For example:

- § 1. The role and place of business processes in a modern enterprise.
- § 2. Theoretical and methodological foundations of business process modelling.
- § 3 Business process modelling standards. When presenting the material § 1-3 should be guided by the following.

In § 1, the concept, characteristic features and role of the scientific approach to business process modelling in a modern enterprise should be briefly outlined;

In § 2 it is necessary to:

- 1) provide classification and principles of construction, methods and methodology of designing business process models;
- 2) outline other issues directly related to the disclosure of the topic of the coursework. At the end of the paragraph it is necessary to indicate the sources of obtaining statistical information.

In § 3 it is appropriate to:

- 1) consider existing modelling standards and modern tools for building business process models;
- 2) describe in detail one of them with illustrations of its capabilities and features of application for specific models. When presenting the theoretical material it is necessary to refer to the relevant pages of sources from the list of used literature.

Only those issues directly related to the main content of the topic should be covered, without touching upon the problems of other branches of knowledge: economic analysis, banking, financial management, etc.

## **2.2. Requirements for execution and design of practical part of the course work.**

The practical part of the course work (the volume - within the limits of assignments - is aimed at mastering by students the methodology and techniques of building models of business processes on the example of a particular enterprise (organisation).

It is recommended that the practical part be divided into 3§: In § 1 should:

- 1) give briefly characterise organisation (enterprise) and its corresponding business processes;
- 2) characterise the main and auxiliary processes, active and passive process objects, etc.
- 3) to characterise in more detail one of the selected processes (or sub-processes) for which the model is to be built;

In § 2 it is necessary to:

- 1) make a structural diagram of the business process (subprocess) model, i.e. design the AS-IS model;
- 2) realise analyse constructed model, identify bottlenecks bottlenecks and inefficiencies in the model,
- 3) form recommendations for process re-engineering; In §3 it is necessary:
  - 1) Based on the study carried out in point 2, build a TO-BE model;
  - 2) to estimate the economic effect of implementing the TO-BE model.

Particular attention should be paid to conclusions and recommendations, which should be economically justified and confirm the independence of the students' performance of coursework.

## **2.3. Requirements for the execution and design of the analytical part of the course work.**

The analytical part of the course work (the volume - no more than 10 pages) gives the student the opportunity to independently conduct a practical study on the construction of business process models using modern computer technologies and specialised application software packages such as BPWin, EPWin, Buznes Studio and others. The choice of the software product is made by the student independently. The content of the analytical part of the work, corresponding to its theme, the student determines independently.

The materials necessary for the implementation of practical research should be practical materials 12 at the student's place of work or factual data published on websites or in the periodical press. In the first stage of the research, the student in accordance with

with the recommendations of the head of the work independently selects relevant materials on the topic of the term paper for the purpose of their further processing and analysis. At the second stage of research the analysis of the presented materials is carried out with the use of computer technology and packages of applied software for modelling business processes in accordance with the methodology and methods of building models of business processes, considered in the previous parts of the work. The choice of software tools for carrying out calculations is made by the student independently on the basis of their availability (BPWin, EPWin, Buznes Studio, etc.).

The analytical part concludes with reasoned conclusions based on the research conducted. To illustrate the use of computer technology models of business processes, printouts of relevant dialogue windows and screen forms should be given. In the conclusion of the course work (volume - one page) in a brief form summarises the results of the work, assesses the possibility of their use at the place of work of the student or in other organisations, institutions, enterprises. The list of used literature includes only those sources that were used by the student in the course work and which are referenced in the main part of the work.

When describing a literary source, you should include:

- surname(s) and initials of the author(s);
- title of the book, collection, article;
- place of publication; publisher;
- year of publication;
- number of pages or specific pages (the latter in case of reference to an article or statistical compendium).

The standard format of the description of sources is the list of literature of these methodological guidelines. The appendices contain additional or auxiliary materials that it is not reasonable to cite in the main text of the work (e.g., tables with characteristics of the activities of the analysed organisation, auxiliary screen forms, etc.).

### **3. Requirements for the design of coursework**

The following requirements should be followed when designing a term paper.

1. The volume of the coursework - 30-35 pages of typewritten text (excluding annexes) on standard sheets of A4 format, typed on a computer using a text editor, table processor or other software.

2. Pages should be numbered and designed in accordance with the established requirements: font type - Times New Roman, size

font size - 14, line spacing - one and a half lines, paragraph indent - 1.25 cm; margins: top and bottom - 2 cm, left - 3 cm, right - 1.5 cm.

3. Each structural part of the work should start on a new page. At the end of the title of the section, chapter, paragraph no dots should be put.

4. Abbreviations of words and the use of abbreviations, except for common abbreviations, are not allowed in the work.

5. Statistical data, figures and facts presented in the paper should be accompanied by references to the relevant sources of information from the list of literature used.

6. Each table should have a thematic heading. All tables should have consecutive numbering (separate for theoretical, practical and analytical parts).

7. Charts and graphs in the paper should also be numbered and captioned (numbering is continuous throughout the section).

8. The description of literature sources follows the standard requirements given in the previous section.

9. To illustrate the technology of computer calculations of the analytical part of the course work it is necessary to submit printouts of screen forms of tables and dialogue windows in accordance with the instructions of paragraph 2 "Structure of the course work". 2 "Structure of the course work".

10. When drawing up annexes, each annex should start on a new sheet of paper with the word in the upper right-hand corner "Annex" and have a subject heading, which is placed in the centre. Annexes are numbered with Arabic numerals. Annexes are linked to the main text through references in the text to the corresponding annexes.

11. On the last page of the term paper, the student must sign and date it.

#### **4. Topics of coursework in accordance with the variants of assignments.**

Business engineering subject domain. Designing business process models and information system models

1. Manufacturing business (using a specific organisation as an example).

2. Retail business (on the example of a trading enterprise).

3. Wholesale business (on the example of a specific organisation).

4. Agro-industrial business (on the example of a specific organisation).

5. Banking business (on the example of a credit organisation).

6. Hospitality business (on the example of a specific organisation).

7. Car repair business (on the example of a specific organisation).

8. Automotive business (using a case study of a specific organisation).

9. Restaurant business (on the example of a specific organisation).

10. Organisation of family nutrition (case study).

11. Document management system (on the example of a specific organisation).

12. Inventory management (organisation of the warehouse-store system).
13. Organisation of management controlling (on the example of a specific organisation).
14. Marketing activities (on the example of a specific organisation).
15. Advertising business (on the example of a specific organisation).
16. Personnel service of the organisation (on the example of a particular organisation).
17. The library business (case study).
18. Insurance company (on the example of a specific organisation).
19. Notary office (case study).
20. Online shop (case study).
21. IT company (on the example of a specific organisation).
22. Educational organisation (using a specific organisation as an example).
23. Admissions committee university (by as an example of a particular organisation).
24. Tourism business (on the example of a specific organisation).
25. The publishing business (using a case study of a specific organisation).

## **5. Structure of typical tasks for the practical part of the course work .**

The practical part contains several standardised tasks, in the performance of which the student uses data from a particular enterprise (organisation), so the construction of models, their analysis, re-engineering and the conclusions and proposals obtained from the research results will be individual.

In addition to 2.2 above, the following directions should be clarified:

In § 1 it follows:

- 1) give briefly characterise organisation (enterprise) and its corresponding business processes;
- 2) Provide an analysis of the external environment and the external environment of the organisation;
- 3) to carry out economic analysis of the organisation's performance indicators;
- 4) characterise the main and auxiliary processes, active and passive process objects, etc.
- 5) characterise in more detail one of the selected processes (or sub-process) for which the model is to be built.

In § 2 it is necessary to:

- 1) make a structural diagram of a business process (subprocess) model using IDEF0 methodology;
- 2) implement supplement model processes with organisational diagrams;
- 3) Design a Data Flow Diagramming (Data Flow Diagramming);
- 4) to design a diagram of IDEF3 methodology (Workflow Diagramming);

- 5) analyse the model, identify bottlenecks and inefficiencies in the model;
- 6) form recommendations for the reorganisation of the process.

In §3 it is necessary to:

- 1) On the basis of the research carried out in §2, build a model of TOVE ("as it should be" in your opinion);
- 2) to estimate the economic effect of implementing the TO-BE model.

Particular attention should be paid to conclusions and recommendations, which should be economically justified and confirm the independence of the students' performance of coursework.

## **6. Educational-methodical and information support of the discipline Main**

### **literature:**

1. Gromov, A. I. Business process management: modern methods : a monograph / A. I. Gromov, A. Fleischmann, V. Schmidt ; edited by A. I. Gromov. - Moscow : Yurait Publishing House, 2022. - 367 c. - (Actual monographs). - ISBN 978-5-534-03094-5. - Text : electronic // Educational platform Yurait [website]. - URL: <https://urait.ru/bcode/489237>

2. Kupriyanov Y. V. Business systems. Fundamentals of management theory : textbook for universities / Y. V. Kupriyanov. - 3rd ed., revised. and ext. - Moscow: Yurait Publishing House, 2022. - 217 c. - (Higher Education). - ISBN 978-5-534-14352-2. - Text: electronic // Educational platform Yurait [website]. - URL: <https://urait.ru/bcode/493732>

3. Information systems of production company management: textbook and workshop for universities / edited by N. N. Lychkina. - Moscow: Yurait Publishing House, 2022. - 249 c. - (Higher education). - ISBN 978-5-534-00764-0. - Text: electronic // Educational platform Yurait [website]. - URL: <https://urait.ru/bcode/489408>

4. Dolganova, O. I. Modelling of business processes: textbook and practice for universities / O. I. Dolganova, E. V. Vinogradova, A. M. Lobanova; edited by O. I. Dolganova. - Moscow: Yurait Publishing House, 2022. - 289 c. - (Higher Education). - ISBN 978-5-534-00866-1. - Text: electronic // Educational platform Yurait [website]. - URL: <https://urait.ru/bcode/489496>

### **Further reading:**

1. Regular Management Designer: Multimedia Training Package. Supported by centres... / Edited by V.V. Kondratyev - Moscow: SIC INFRA-M, 2019 - 256 pp. + CD-ROM. - (Upravlyu. produktiv.). (about, cd rom) - Access mode: <http://urait.ru/catalog/product/417533>

2. Corporate information management systems: Textbook / Edited by Abdikeyev N.M., Kitova O.V. - M.: INFRA-M, 2022. - 464c. - (HE: Master's programme). - Access mode: EBS Znanium

3. Reengineering of business processes of modern organisations / Blinov A. O., Rudakova O. S. // - Economics and management: problems, solutions. - 2021. -N6. - C.68 - 74. - (Full text available from the Finuniversitet network)

4. Zaramenskikh E.P. Fundamentals of business informatics: textbook and practice for Bachelor's and Master's Degree / E.P. Zaramenskikh. - Moscow: Yurait Publishing House, 2019. - 407 c. - (HE). - Access mode: <https://urait.ru/bcode/433677>

### **Internet resources**

1. <http://www.gartner.com> / Gartner - IT analytical resource
2. <http://www.idc.com> / IDC - IT analytical resource
3. <http://bpms.ru> / BPMS.ru - Analytical resource in the field of IT and BPM
4. <http://www.finexpert.ru> / Portal FineXpert.ru
5. <http://www.betec.ru> / Information portal Betec - "Business Engineering Technologies"
6. <http://www.cfin.ru> / Internet project "Corporate Management"
7. <http://www.osp.ru> / Open Systems
8. <http://www.citforum.ru> / CIT forum
9. <http://www.iteam.ru> / Portal iTeam - Technologies corporate governance
10. <http://www.idef.com> / IDEF Methodologies
11. <http://www.interface.ru/home.asp?artId=4449> / Electronic version of the book David A. Mark, Clement McGowan. Marka, Clement McGowan SADT Structural Analysis and Design Methodology.
12. <http://www.fa.ru/dep/cko/msq/Pages/default.aspx> / International quality standards.
13. <http://office.microsoft.com/ru-ru/support/FX100996114.aspx> / Microsoft Visio
14. <http://wf.runa.ru/rus> / DBMS RunaWFE
15. <http://www.bizagi.com> / Bizagi
16. <http://www.businessstudio.ru> / Business Studio
17. [http://www.casewise.com/ru/products/corporate\\_modeler\\_suite.html](http://www.casewise.com/ru/products/corporate_modeler_suite.html) / Casewise Corporate Modeler Suite
18. <http://www.interface.ru/home.asp?artId=106> / Process Modeler
19. <http://www.oracle.com/technetwork/ru/middleware/bpa/index.html> / Oracle Business Process Analysis Suite
20. <http://www.softwareag.com/ru> / Software AG
21. <http://www-03.ibm.com/software/products/ru/ru/wbi> / IBM WebSphere Business Modeler
22. <http://www.consultant.ru> / JSS Consultant Plus
23. <http://www.garant.ru> / JSS Garant

**Appendix 1 - A sample of the title page of the coursework:**

MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION  
FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF HIGHER  
EDUCATION

"Moscow Polytechnic University"

Faculty of Economics and Management,  
Department of Management

**COURSEWORK**

in the discipline

"Business Process Management."

on the subject:

"Information support of strategic development of the organisation"

**Done by:** student(s) of

FEU group

FULL NAME.

**Research Supervisor:**

Candidate of Economic Sciences,

Associate Professor.

Moscow

2024