

МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РОССИЙСКОЙ ФЕДЕРАЦИИ

ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ  
ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ  
«САМАРСКИЙ НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ  
УНИВЕРСИТЕТ ИМЕНИ АКАДЕМИКА С.П. КОРОЛЕВА»

ЛОГИСТИКА

МЕТОДИЧЕСКИЕ  
УКАЗАНИЯ  
К ПРАКТИЧЕСКИМ  
ЗАНЯТИЯМ

GUIDELINES  
FOR WORKSHOPS  
IN LOGISTICS

Рекомендовано редакционно-издательским советом федерального государственного автономного образовательного учреждения высшего образования «Самарский национальный исследовательский университет имени академика С.П. Королева» в качестве методических указаний к практическим занятиям для студентов Самарского университета, обучающихся по основной образовательной программе высшего образования по направлению подготовки 38.04.02 Менеджмент

Составитель *Е.А. Ефимова (E.A. Efimova)*

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Составитель *Е.А. Ефимова*

Рецензент д-р экон. наук, проф. И. В. М а н а х о в а

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Методические рекомендации разработаны в соответствии с требованиями Федерального государственного образовательного стандарта высшего образования по направлению подготовки 38.04.02 Менеджмент.

Объясняется порядок проведения практических занятий по дисциплине «Логистика» (Logistics) для студентов, обучающихся по направлению 38.04.02 Менеджмент – магистерская программа «High-Technology Business Management».

Раскрываются цели, методы и содержание практических занятий. Содержится перечень вопросов для проведения дискуссии на занятиях по основным темам курса. Рассмотрено содержание таких форм работы на практических занятиях, как решение кейсов и выполнение группового проекта. Предлагаются различные инструменты оценки работы студентов на практических занятиях в зависимости от формы его проведения.

Данные методические указания также могут использоваться для проведения практических занятий по дисциплине «Управление цепями поставок» (Supply Chain Management) для направления 38.04.02 Менеджмент.

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## INTRODUCTION

Logistics and supply chain management have always been significant activities for all kinds of organizations. These spheres of management combine different activities such as manufacturing, transportation, inventory, warehousing, purchasing, material processing, sales and customer service. Logistics is a business decision-making tool that consolidates traditional business areas – finance, accounting, management and marketing, statistics and the operational economy.

The course of Logistics examines the evolution of logistics and supply chain management disciplines. In this course we review contemporary logistics and supply chain management practices for effective coordination of the flows among supply chain members. The course focuses on the international approach to supply chain management and logistics enhancing global collaboration in logistics. The following topics will be covered: historical perspective of logistics, planning in logistics, logistical system of enterprise in high-tech business, the structure of the enterprise distribution network, transportation operations, sourcing and procurement, pricing, and information technologies in logistics.

The course will be a combination of workshops, problems solving, discussions, case studies, and assignments (homework, paper readings, etc.) Students should come prepared for the class, by reading in advance the sections of the textbook that will be covered in the lesson, as well as any other material handed by the instructor. The instructor can verify that the students have done their readings by asking questions during the lesson and conducting quizzes.

The aim of the workshops is to enable students to deepen their knowledge of the themes studied at the lecture. Under the supervision of a professor or an experienced teacher a student or a group of students find and perceive additional information, prepare presentations, write essays, etc. At the workshops students present and discuss their reports, made some conclusions. The supervisor of the workshop coordinates these processes.

## WORKSHOPS CONTENT

The atmosphere of the lessons is open, non-critical, exploratory, and opinion-forming. Honest academic search for facts, current status, and investigation occurs in an open, risk-free environment. Students ask their questions, formulate their thoughts and learn to express them to the class, while being open to and respectful of others' beliefs, values, and contributions. Students can informally interact with their colleagues and teammates through email, live chats face-to-face, or phone calls.

Assignments present in each unit of the course. The students will have the assignment that consists of series of questions and problems and/or a case study, with the purpose of practicing and assessing the understanding of the topics taught in class. The assignments can be done individually, or by groups of two or four students maximum (*Table 1*).

*Table 1*

**Workshops Content and Assignments**

Workshop topic	Workshop content	Assignments and formative assessment	Academic hours
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<b>1. Definition of logistics. Logistics Enterprise System</b>	1.1 Historical perspective of logistics. Planning for logistics 1.2 Classification of product and financial flows in logistics 1.3. Logistics and supply chain structure 1.4. The importance of logistics processes	Discussion, self-assessment test, individual report	2
<b>2. Manufacturing logistics</b>	2.1. Logistics enterprise in high-tech business 2.2. Manufacturing resource planning and material requirements planning 2.3. The product life cycle in high-tech business	Discussion, case-study, group report	2
<b>3. Distribution System</b>	3.1. The structure of the enterprise distribution network in high-tech business 3.2. Distribution system design in high-tech business 3.3. Distribution Management of high-tech enterprises	Discussion, case-study, group report	2
<b>4. Transportation System</b>	4.1. Transport in the logistics system	Case-study, problem	2

Workshop topic	Workshop content	Assignments and formative assessment	Academic hours
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<b>ms. Warehouse Management</b>	4.2. Multimodal and intermodal transportation, their principles and advantages 4.3. Transport mode characteristics 4.4. The role of warehouses 4.5. Warehouse design 4.6. Analysis of storage and its optimization	solution, group report	
<b>5. Inventory planning and management</b>	5.1. How Much to Order 5.2. Safety and Target Stock Level Planning 5.3. When to Place an Order	Discussion, problem solution, final project submission	2
<b>Total:</b>			<b>10</b>

## FINAL GROUP PROJECT

The students will do a final group project, which will be devoted to the study of the supply chain and logistical operations of Russian or foreign high-technology company. The project is meant to put into practice most of the topics studied in Logistics course and requires a significant analysis and implementation effort.

Being a team-oriented task, the project should be done by teams of two or four students. Deliverables of the project are:

1. An in-depth report (paper) presenting the background of the company, describing in detail its current supply chain, identifying quantitatively strengths and weaknesses of the chain and the logistics operations of the company, identifying alternatives, simulating the implementation of these alternatives if necessary, and making recommendations.

2. A portfolio of activities related to the project, containing the meetings that the project required and a report written individually by the members of the group assessing its own and the teammate's contribution.

3. A presentation during the class at the latest week of semester.

**Final group project submission:** students can hand in their final project reports to instructor in the classroom after their presentation at the latest week of semester.

### **Some Recommendations for Students**

There are three possible choices for student's final project as follows:

- To analyze an existing logistics process and suggest any improvements that should be done. For example, a study of the distribution system and goods deliveries to high-technology company, design of a logistics system for a manufacturer of refrigeration equipment, and an analysis of intermodal movement for a railroad.
- To identify a high-technology business opportunity and develop a business plan with a focus on supply chain issues. The goal is to identify the business opportunities and design the ideal supply chain for the high-technology company. The project should include implementation details.
- To study supply chain practices in high-tech industry from the point of describing risks, benefits, best practices along with industry examples of each.

Every member is expected to carry an equal share of the group's workload. As such, it is in student's interest to be involved in all aspects of the project. Even if students divide the work rather than work on each piece together, each student is still responsible for each project's part. The group project will be graded as a whole: its different components will not be graded separately. Student's credit test may contain questions that are based on some aspects of their group projects.

It is recommended that each group establish ground rules early in the process to facilitate students' joint work including a problem-solving process for handling conflicts. In the infrequent case where students believe that a group member is not carrying out his or her fair share of work, students are urged not to permit problems to develop to a point where they become serious. If students cannot resolve conflicts internally after their best efforts, they should be brought to instructor attention and he (she) will work with them to find a resolution.

Students will be asked to complete a peer evaluation form to evaluate the contribution of each of their group members (including own contribution) at the conclusion of each project. If there is consensus that a group member did not contribute a fair share of work to the project, the course instructor will consider this feedback during grading.

The main criteria for evaluating the final project are presented in *Table 2*.

*Table 2*

**Final Group Project Assessment Criteria**

<b>Criteria</b>	<b>Excellent</b> (Answers are well above average)	<b>Good</b> (Answers are above average)	<b>Adequate</b> (Answers are fair)	<b>Inadequate</b> (Answers are wrong or incomplete)
<b>Content</b>	Covers topic in-depth with details and examples. Subject knowledge is excellent.	Includes essential knowledge about the topic. Subject knowledge appears to be good.	Includes essential information about the topic but there are 1-2 factual errors.	Content is minimal or there are several factual errors.
<b>Organization</b>	Information is very organized with well-constructed paragraphs and subheadings.	Information is organized with well-constructed paragraphs.	Information is organized, but paragraphs are not well-constructed.	The information appears to be disorganized.
<b>Quality of Information</b>	Information clearly relates to the main topic. It includes several supporting details and/or examples.	Information clearly relates to the main topic. It provides 1-2 supporting details and/or examples.	Information clearly relates to the main topic. No details and/or examples are given.	Information has little or nothing to do with the main topic.
<b>Sources</b>	All sources (information and graphics) are accurately documented in the desired format.	All sources (information and graphics) are accurately documented, but a few are not in the desired format.	All sources (information and graphics) are accurately documented, but many are not in the desired format.	Some sources are not accurately documented.
<b>Originality</b>	Project shows a large amount of original thought. Ideas are creative and inventive.	Project shows some original thought. Work shows new ideas and insights.	Uses other people's ideas (giving them credit), but there is little evidence of original thinking.	Uses other people's ideas, but does not give them credit.



<b>Criteria</b>	<b>Excellent</b> (Answers are well above average)	<b>Good</b> (Answers are above average)	<b>Adequate</b> (Answers are fair)	<b>Inadequate</b> (Answers are wrong or incomplete)
<b>Workload</b>	The workload is divided and shared equally by all team members.	The workload is divided and shared fairly by all team members, though workloads may vary from person to person.	The workload was divided, but one person in the group is viewed as not doing his/her fair share of the work.	The workload was not divided or several people in the group are viewed as not doing their fair share of the work.

## **DISCUSSION QUESTIONS**

Discussion is a very significant element of the workshops of the Logistics course. It is important that all students take part in the discussion. The general instructions for any one of the Discussion Questions is to:

1. Select only one (1) of the questions.
2. Come to class with notes prepared to discuss the question that was selected.
3. In answering these questions students are encouraged to draw on additional sources.

### **Discussion Questions on Workshops Topics**

#### **Workshop 1. Definition of logistics. Logistics Enterprise System**

1. Describe the logistics value proposition.
2. Why is least total cost performance not always what the customer wants?
3. Comment on the statement: "A terrific location network is an economic advantage".
4. There are many collaborative supply chain arrangements. Pick one and describe it.

### **Workshop 2. Manufacturing logistics**

1. Define the loosely used term “sustainability” in the context of a supply chain. Why do customers care about this?
2. How is Quick Response Manufacturing beneficial to customers?
3. List several components of the strategic framework, like adding value, for example.
4. Describe the relationship between JIT (Just In Time, you studied in your Operations Management course, and logistics.

### **Workshop 3. Distribution System**

1. What rules would you apply if you had to design a distribution network for aircraft spare parts, which are generally high in value and low in both weight and volume?
2. The design of a logistics network does not happen by itself. In a typically large company, who would be involved in that design of a logistics network? List the hypothetical job titles only.
3. Channel pricing happens when a company sells the same product at different prices. For example, an airline ticket bought through a website may have a different price than the same ticket bought through a travel agent. Give another example of channel pricing and state its justification.

### **Workshop 4. Transportation Systems. Warehouse Management**

1. Consider rising fuel prices for motor carriers and how this affects a logistics network of a supply chain design
2. Assume to be in charge of a furniture making supply chain reaching from saw mill, to transport, to manufacturing and then retail. As a general manager, what customer information needs to be measured and why?
3. Global sourcing, industry relocation and its impact on transportation requirement.
4. The World Trade Organization process and quota regimes.

### **Workshop 5. Inventory planning and management**

1. List some of the differences between inventory management of a stand-alone manufacturing company, and of the same company as a partner in a supply chain.
2. Compare and contrast old fashioned purchasing with modern procurement.
3. Setting and measuring the effectiveness of inventory.

There are workshops assessment criteria in *Table 3*.

*Table 3*

**Workshops Assessment Criteria**

<b>Criteria</b>	<b>Excellent</b> (Answers are well above average)	<b>Good</b> (Answers are above average)	<b>Adequate</b> (Answers are fair)	<b>Inadequate</b> (Answers are wrong or incomplete)
<b>Understanding of Topic</b>	The team clearly understood the topic in-depth and presented their information forcefully and convincingly.	The team clearly understood the topic in-depth and presented their information with ease.	The team seemed to understand the main points of the topic and presented those with ease.	The team did not show an adequate understanding of the topic.
<b>Participation in Discussion or Class Debate</b>  Explores, explains, expands upon the issue being discussed. Uses text and experience to discuss subject matter. Demonstrate analysis on various levels other than the personal.	Very clear that readings were understood by incorporation into postings	Somewhat clear that readings were understood by incorporation into postings	Somewhat unclear that readings were understood by incorporation into postings, some experience and analysis explored.	Very unclear that readings were understood by incorporation into postings, little experience or analysis,
<b>Provocative in Discussion</b>  Promotes interaction and asks provocative questions or make	Multiple points from discussion questions clearly built upon in postings. Clearly take a position,	At least two points from discussion questions built upon in postings. Takes a position and some	At least one point from discussion questions clearly built upon in posting. Takes a position but d	One or more points from discussion post but doesn't take a position.

<b>Criteria</b>	<b>Excellent</b> (Answers are well above average)	<b>Good</b> (Answers are above average)	<b>Adequate</b> (Answers are fair)	<b>Inadequate</b> (Answers are wrong or incomplete)
s provocative remarks.	argues and supports her/his position.	what supports the position.	doesn't support it.	
<b>Use Facts and Statistic</b> to strengthen and enhance his answer	Every major point was well supported with several relevant facts, statistics and/or examples.	Every major point was adequately supported with relevant facts, statistics and/or examples.	Every major point was supported with facts, statistics and/or examples, but the relevance of some was questionable.	Every point was not supported.
<b>Small Group Work</b> Small group work can range from short, informal exercises to formalized problem sets that make up the majority of class.	Almost always listens to, shares with, and supports the efforts of others. Tries to keep people working well together.	Usually listens to, shares with, and supports the efforts of others. Does not cause "waves" in the group.	Often listens to, shares with, and supports the efforts of others, but sometimes is not a good team member.	Rarely listens to, shares with, and supports the efforts of others. Often is not a good team player.

## CASE-STUDY

Business activities involve group effort. Consequently, learning how to work effectively in a group is a critical part of the business education.

The case is a team project in which a team is composed of 2 to 4 students. Before starting on this project, they should view the case instruction. It tells students how to handle case studies.

Every member is expected to carry an equal share of the group's workload. The final paper is a team research effort on the worlds' top supply chains. Each team is to do the following:

1. Agree on doing a supply chain literature search on one of the international companies, covering the period 2005 to the present. The literature search is limited to mostly professional/academic journals.

2. Next, draw a map of any product or service supply chain, their partners and organization, from raw material to finished product and find out how they measure success.

3. Devote a few paragraphs to one of the following topics they covered during this course, namely: integration, strategic alliance, pricing, network planning, information technology, demand forecasting, collaboration and teams, supply chain models and analytics.

4. The team paper should be between 5 and 10 pages long not counting references and graphics. Each paper should contain an abstract, an introduction, the main body, a conclusion and observation, and the reference section made up of material students actually read and used.

5. Be prepared to present the final research paper in class.

The main criteria for evaluating the case-study are presented in *Table 4*

4.

*Table 4*

### Case-Study Assessment Criteria

Criteria	<b>Excellent</b> (Answers are well above average)	<b>Good</b> (Answers are above average)	<b>Adequate</b> (Answers are fair)	<b>Inadequate</b> (Answers are wrong or incomplete)
<b>Defining the Problem</b>	Problem is completely defined and answers to related questions demonstrate	Problem adequately defined. Related questions answered	Problem briefly defined and related questions briefly answered. Could	Parts of the assignment incomplete and/or problem not i

<b>Criteria</b>	<b>Excellent</b> (Answers are well above average)	<b>Good</b> (Answers are above average)	<b>Adequate</b> (Answers are fair)	<b>Inadequate</b> (Answers are wrong or incomplete)
	strategically efficient.	equally answered.	could be more complete.	identified properly.
<b>Listing Facts and Assumptions</b>	Listed all relevant facts and assumptions. All facts and assumptions were directly related to the analysis of the problem.	Listed most relevant facts and assumptions. Did not list assumptions as facts. Most facts relevant to the problem.	Listed a few basic facts and assumptions. Some assumptions listed as facts. Some facts not related to the problem.	Did not adequately list all facts and assumptions and/or confused facts and assumptions.
<b>Determining Causes</b>	All leadership questions well thought out and answered completely. Showed direct connection to the problem definition and the stated facts and assumptions. Showed critical thinking skills.	All leadership analysis questions answered completely but all the answers were not directly connected to the problem situation and the facts.	Adequately responded to all leadership analysis questions. Showed minimal analysis.	Did not adequately determine possible leadership causes. Some questions not answered.
<b>Additional Information</b>	Recognized all the critical information still needed to develop a plan.	Recognized most of the critical information still needed to develop a plan.	Recognized some of the additional information needed.	Did not recognize what additional information was needed.
<b>Developing Alternative Plan</b>	The alternative was well thought out and specifically focused.	The alternative was appropriate and very closely related to the problem.	The alternative was appropriate and somewhat related to the problem.	Alternative incomplete and/or not well thought out.

<b>Criteria</b>	<b>Excellent</b> (Answers are well above average)	<b>Good</b> (Answers are above average)	<b>Adequate</b> (Answers are fair)	<b>Inadequate</b> (Answers are wrong or incomplete)
	used on the identified causes; adverse consequences were complete and very clearly defined. Showed creativity.	tied to the identified causes. The adverse consequences were well defined.	ed to the identified causes. The adverse consequences were basically defined.	Adverse consequences not listed or not appropriate.
<b>Selecting the Best Plan</b>	The best alternative was selected and the rationale was directly related to the facts, assumptions, and identified or possible causes.	A good plan was selected and the rationale was mostly related to the facts, assumptions, and identified or possible causes.	Plan selected that might not be the best and the rationale was adequate but not directly related to the facts, assumptions, and identified or possible causes.	Plan selected (might not be the best one), but rationale faulty.

## **ATTENDANCE POLICY**

Students should recognize the advantages of regular and punctual class attendance; accept it as a personal responsibility. Absences are controlled by institution direction. The number of absences for whatever reason is taken into account in the final grade.

Attendance and participation in all class activities is important because the students will also learn from their class mates. For example, students will be playing business games in a group setting, so each of them won't be alone on the job. While attendance and participation is certainly part and parcel of a university discipline, it is of enormous benefit for the students. Therefore, course instructor will monitor attendance closely and grade accordingly. Students should stay in touch with course instructor encounter circumstances that cause students to miss a class or an assignment. Missing more than two successive classes without explanation will result in a failing grade. Students should participate and interact in all sessions.

The instructor has the right does not to admit the late student to the workshop.

In the case of missing a workshop the student must write an essay on the topic of the workshop or any other question suggested by the instructor.

Also it is possible to take the additional classes of workshops. Additional classes are paid by the student in accordance with the standards established by the institute administration.



## **REQUIRED COURSE MATERIALS**

### **Required Readings**

1. Blanchard D. Supply chain management: best practices. Wiley, 2010. 302 p. ISBN: 0470531886.
2. Clausen U., Hompel M.T., Klumpp M. (Eds.) Efficiency and Logistics Springer, 2012 305 p. 54 illus. ISBN: 978-3-6423-2838-1.
3. Crandall R.E., Crandall W.R., Chen C.C. Principles of Supply Chain Management. 2-nd ed. CRC Press, 2015. 704 p. (Resource Management). ISBN: 978-1-4822-1205-1.
4. Gleissner H., Femerling J.C. Logistics: Basics - Exercises - Case Studies. Springer, 2014. 311 p. (Springer Texts in Business and Economics). ISBN: 978-3-3190-1769-3.
5. Myerson, Paul. Lean Supply Chain and Logistics Management. McGraw Hill Publisher, 2012. 270 p. ISBN: 978-0-07-176626-5.
6. Waters D. Logistics: An Introduction to Supply Chain Management. Palgrave Macmillan, 2003. 364 p. ISBN: 978-0-3339-6369-2.

### **Further Readings**

7. Anbuudayasankar S.P., Ganesh K., Mohapatra S. Models for Practical Routing Problems in Logistics: Design and Practices. Springer International Publishing, Switzerland, 2014. 229 p. ISBN: 978-3-3190-5034-8.
8. Baker Peter, Croucher Phil, Rushton Alan. The Handbook of Logistics and Distribution Management. 4 ed. Kogan Page, 2010. 664 p. ISBN: 978-0-7494-5714-3.
9. Bookbinder J.H. (Ed.) Handbook of Global Logistics: Transportation in International Supply Chains. Springer, 2012. 553 p. 102 illus., 83 illus. in color. ISBN: 978-1-4419-6132-7.
10. Bowersox, D.J., Closs, David J, Cooper, Bixby, Bowersox, J.C., Supply Chain Logistics Management. 4-th ed. McGraw Hill, New York, 2013. ISBN -13: 978-0-07-802405-4.
11. Bowersox, D.J., Closs, David J, Cooper, Bixby, Bowersox, J.C., Supply Chain Logistics Management. 4-th ed. McGraw Hill, New York, 2013. ISBN -13: 978-0-07-802405-4.
12. Bozarth C., Handfield R.B. Introduction to Operations and Supply Chain Management. 2-nd ed. Prentice Hall, 2007, 600 p. ISBN: 978-0-1317-9103-9.

13. Chopra S. and Meindl P., Supply Chain Management – Strategy, Planning, and Operation, 3rd Edition”. 3 rd ed. Prentice Hall, Pearson, 2008. 552 p. ISBN: 978-0-1320-8608-0.
14. Jacobs F.R et al. Manufacturing Planning and Control for Supply Chain Management. McGraw-Hill Professional, 2011. 576 p. ISBN: 978-0-0717-5031-8.
15. Johnson, Leeders, Flynn, Purchasing and Supply Chain Management, 14th ed. McGraw-Hill, New York, 2011. ISBN-978-0-07-337789-6.
16. Kurbel K.E. Enterprise Resource Planning and Supply Chain Management. Springer, 2013. 359 p. 212 illus. ISBN 978-3-6423-1572-5.
17. Liang Z., Chaovalitwongse W.A., Shi L. Supply Chain Management and Logistics: Innovative Strategies and Practical Solutions. 2nd ed. CRC Press, 2016. 138 p. ISBN: 978-1-4665-7788-6.
18. Renko S. (Ed.) Supply Chain Management - New Perspectives. InTech, 2011. 784 p. ISBN: 978-9-5330-7633-1.
19. Waters D. Logistics: An Introduction to Supply Chain Management. Palgrave Macmillan. 2003, 364 p. ISBN: 978-0-3339-6369-2.
20. Wisner J.D., Tan K.-C., Leong G.K. Principles of Supply Chain Management: A Balanced Approach. 3rd ed. Cengage, 2012. 593 p. ISBN: 978-0-5384-7546-4.

*Методические материалы*

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Составитель *Ефимова Екатерина Андреевна*

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