



APPROVED:
Vice-rector for study and methodical work
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Зеленые технологии в логистике/ Green technologies in logistics **Syllabus of the course**

Specialty *38.04.02 Management*
Specialization *International Business Administration*
Level of higher education *Master's Degree*
Form of training *Full-time*
Year of enrolment *2022*
Authored by:
Associate Professor, PhD, Elvira M.Bukrinskaya

| | | |
|-----------------------|-----|---|
| Total number of hours | 108 | Form of final attestation: Test: semester 3 |
| incl: | | |
| contact work | 28 | |
| self-study | 80 | |
| practical training | 0 | |
| control hours | 0 | |

Hours distribution:

| | |
|-----------------------------|------------|
| Semester: | 3 |
| Type of classes | Hours |
| Contact hours | 2 |
| Practical training | |
| Laboratory work | |
| Total contact hours | 28 |
| Self-study | 80 |
| Control hours | 0 |
| Total academic hours | 108 |
| Total credits | 3 |

Saint-Petersburg
2022

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1. LEARNING OBJECTIVES

| | |
|-------------------|--|
| Objective: | Formation of undergraduate skills in applying the concept of sustainable development in logistics activities |
|-------------------|--|

2. COURSE PLACE IN THE PROGRAMME STRUCTURE

Discipline FTD.DV Green technologies in logistics refers to optional disciplines and is optional for studying when mastering the educational program.

3. EXPECTED LEARNING OUTCOMES

| Code and name of graduate competence | Code and name of the competence achievement indicator | Expected learning outcomes |
|---|---|---|
| UK-1 – Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy | UK-1 – Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy | <p>To know: types of strategies for managing organizational development and changes in logistics business processes and systems</p> <p>To be able to: organize a phased process of implementing strategic programs, monitor the implementation of the process.</p> <p>To master: digital tools to ensure the transformation of logistics business processes and increase the flexibility of strategic programs.</p> |

4. COURSE STRUCTURE AND CONTENT

| Code and name of the topics | Course content | Academic hours | | | |
|---------------------------------------|--|----------------|-----------|-----------|------------|
| | | Contact work | | | Self-study |
| | | Lectures | Practices | Workshops | |
| Topic 1. Basic terms and definitions | Sustainable development. Green economy. Circular economy. Sustainable Development Goals (SDGs). Green technologies. The market of green technologies, its segmentation. Advantages and disadvantages of the transition to a green economy. Factors affecting the ability to transition to a green economy. Classification of green technologies. | 1 | | | 12 |
| Topic 2. Logistics in a green economy | Transformation of the role of logistics in the modern economy. The evolution of logistics concepts. Directions for the transformation of logistics activities within the framework of the green agenda. Logistics and carbon footprint. | 1 | | | 12 |

| | | | | | |
|--|--|----------|----------|----------|------------|
| Topic 3. Green technologies in supply logistics. | Development of green procurement principles. The main criteria for selecting suppliers. Trends in increasing the environmental friendliness of industrial packaging. | | | | 16 |
| Topic 4. Green technologies in production logistics | The structure of the ESG strategies of manufacturing companies. The role of logistics in the implementation of the ESG strategy. Energy-saving technologies and their application in logistics. Resource saving. Industrial waste management system. Extended producer responsibility as a tool for implementing green logistics technologies. | | | | 20 |
| Topic 5. Green logistics technologies in the field of distribution | The role of wholesale and retail trade in achieving the SDGs. The structure of ESG strategies for distribution companies. Management of reverse flows in trade. Foodsharing as a green logistics technology. The development of electronic commerce as a risk factor in achieving ESG indicators. Consumer packaging as an object of logistics management. | | | | 16 |
| Topic 6. Green technologies in warehousing logistics | Transformation of the role and tasks of warehouse activity in the modern green agenda. Digitalization of warehouse logistics. Introduction of new loading and unloading technologies. | | | | 15 |
| Topic 7. Green technologies in transport logistics | Transport as the main source of environmental pollution. Changes to vehicle specifications to reduce carbon footprint. Technological changes in the transportation process to reduce the carbon footprint. | | | | 15 |
| Control: | | | | | |
| Total hours: | | 2 | 0 | 0 | 106 |

5. TEACHING AND LEARNING TOOLS OF THE COURSE

5.1 Recommended literature

| Bibliographic description of the publication (author, title, type, place and year of publication, number of pages) | Digital resources |
|---|--|
| Goncharova E.V. Green economy as a basis for the formation of innovative clusters in the regions of Russia: Monograph / Goncharova E.V. Moscow: Rusajns, 2019. - 227 p. | https://reader.new.book.ru/?t= ...hsf1QmjcwkbceT1PWol5w&v=0 |
| Anufriev, Valery Pavlovich Sustainable development. Energy efficiency. Green Economy: Monograph / Ural Federal University. the first President of Russia B.N. Yeltsin Moscow: LLC "Scientific Publishing Center INFRA-M", 2021. - 201 p. | https://znanium.com/read?id=376169 |
| Vdovin, Sergey Mikhailovich Strategy and mechanisms for the sustainable development of the region: Monograph / National Research Mordovian State University. N.P. Ogareva1 Moscow: LLC "Scientific and Publishing Center INFRA-M", 2021. - 154 p. | https://znanium.com/read?id=372838 |

5.2 List of software (including national production)

- 7-Zip
- Microsoft Office Professional
- Microsoft Windows Professional

5.3 List of reference systems and modern professional databases

| № | Name of reference systems and professional databases |
|-----|--|
| 1. | Digital library Grebennikon.ru – www.grebennikon.ru |
| 2. | Science Digital Library eLIBRARY – www.elibrary.ru |
| 3. | Science Digital Library КиберЛенинка – www.cyberleninka.ru |
| 4. | Database ПОЛПРЕД Справочники – www.polpred.com |
| 5. | Database OECD Books, Papers & Statistics on the platform OECD iLibrary www.oecd-ilibrary.org |
| 6. | Legal reference system КонсультантПлюс (installed resource UNECON or www.consultant.ru) |
| 7. | Legal reference system «ГАРАНТ» (installed resource UNECON or www.garant.ru) |
| 8. | Information and referral system «Кодекс» (installed resource UNECON or www.kodeks.ru) |
| 9. | Digital library system BOOK.ru - www.book.ru |
| 10. | Digital library system ЭБС ЮРАЙТ – www.urait.ru |
| 11. | Digital library system ЗНАНИУМ (ZNANIUM) – www.znanium.com |
| 12. | Digital library UNECON – opac.unecon.ru |

6. TECHNICAL FACILITIES

There are special rooms for lectures, seminars, coursework, group and individual consultations, current and interim assessments, as well as rooms for self-study.

The premises are equipped with equipment and teaching aids.

The rooms for students' independent work are equipped with computers with Internet connection and access to the university's electronic learning environment.

| Name of classroom | Classroom location |
|--|---|
| Classroom 1043 Training classroom (for lecture- and seminar-type classes, coursework, group and individual consultations, current control and intermediate attestation), equipped with a multimedia system. Specialised furniture and equipment: Educational furniture for 42 seats (21 desks), teacher's workplace, chalk board 1 pc. (3 sections), chair 1 pc., table 2 pcs., iso chair 2 pcs.. Portable multimedia kit: Laptop HP 250 G6 1WY58EA, Multimedia projector LG PF1500G. Sets of display equipment and visual aids: multimedia applications for lecture courses and practical sessions, interactive teaching and visual aids. | 191023, St. Petersburg, Griboedova canal, 30-32, lit. A, B, P |
| Classroom 1064 Training classroom (for lecture- and seminar-type classes, coursework, group and individual consultations, current control and intermediate | 191023, St. Petersburg, |

| | |
|---|---|
| attestation), equipped with a multimedia system. Special furniture and equipment: Educational furniture for 42 seats, a teacher's workplace, a whiteboard - 1 pc, a table - 1 pc, a chair - 1 pc, an interactive projector Epson-EB-455Wi - 1 pc, a computer Intel i3-2100 2.4 Ghz/4Gb/500Gb/Acer V193 19" - 1 pc. Sets of display equipment and visual aids: multimedia applications for lecture courses and practical sessions, interactive teaching and visual aids. | Griboedova canal, 30-32, lit. A, B, P |
| Classroom 2007 Training classroom (for lecture- and seminar-type classes, coursework, group and individual consultations, current control and intermediate attestation), equipped with a multimedia system. Specialized furniture and equipment: Training furniture for 126 seats, teacher's workplace, m/m table - 1 pc, desk - 6 pcs, chair - 1 pc, chalk board (3 sectional) - 2 pcs, Chair - 3 pcs., Computer Intel i3-2100 2.4 Ghz/4Gb/500Gb/Acer V193 19" - 1 pc, Multimedia projector Type 2 Panasonic PT-VX610E - 1 pc, ScreenMedia Champion 244x183cm (SCM-4304) - 1 pc. Sets of display equipment and visual aids: multimedia applications for lecture courses and practical sessions, interactive teaching and visual aids. | 191023, St. Petersburg, Griboedova canal, 30-32, lit. A, B, P |
| Classroom 2009 Training classroom (for lecture- and seminar-type classes, coursework, group and individual consultations, current control and intermediate attestation), equipped with a multimedia system. Special furniture and equipment: Educational furniture for 122 seats (study table 61 pcs., chairs 122 pcs.), the teacher's workplace, desk m/m, drawer 1 pc, chalk board 1 pc (3 sections), chair 1 pc, drawer 1 pc, chair 1 pc, Chair 2 pcs., Intel i3-2100 2.4 Ghz /4Gb/500Gb/Acer V193 19" - 1 pc, Sound projector Yamaha YSP-3000 - 1 pc, Projector stand with camera decks - 1 pc, Projection screen draper - 1 pc, Multimedia projector Type 2 Panasonic PT-VX610E - 1 pc, Screen Media D1 ceiling bracket - 1 pc. Sets of display equipment and visual aids: multimedia applications for lecture courses and practical sessions, interactive teaching and visual aids. | 191023, St. Petersburg, Griboedova canal, 30-32, lit. A, B, P |

7. METHODOLOGICAL GUIDELINES FOR STUDENTS

The following documents should be made available to the trainee before the start of the course:

- training and methodological documentation;
- local normative acts regulating the main issues of the organisation and implementation of educational activities, including those regulating the procedure for current monitoring and interim assessment of students;
- the schedule of consultations of the teaching staff.

The level and depth of mastering the discipline is determined by the active and systematic work of students in lectures, seminars, independent work, including in terms of identifying the most significant and relevant problems for further study. A special condition for qualitative mastering of the discipline is an effective organisation of work, which allows distributing the academic workload evenly in accordance with the schedule of the educational process.

When preparing for classes, students have the opportunity to attend consultations with the staff of UNECON according to the timetable set out in the schedule of consultations.

The students' in- and out-of-classroom work should aim to form:

- the fundamentals of the learner's world view and scientific understanding;
- basic knowledge relevant to the training area and the declared professional field, forming the target and professional basis for training;
- professional competences oriented towards the needs of the labour market;
- an individual trajectory by mastering a unique set of professional competences that complement the learner's competence model, through a focus on specific professional specialised areas of knowledge defined by labour market representatives;
- meta-skills for learners, such as teamwork and leadership, data analysis, digital skills, project design and implementation, intercultural interaction.

8. SPECIFICATIONS FOR TEACHING DISABLED PERSONS

Students with disabilities, if necessary, are taught on the basis of an adapted work programme using special teaching methods and didactic materials that take into account the particularities of their psychophysical development, individual capacities and health status.

In order for disabled persons and persons with disabilities to master the curriculum, the University shall ensure that:

- for the visually impaired and visually impaired: availability of information on the timetable in accessible places and adapted forms for learners who are blind or visually impaired; presence of an assistant to assist the learner as needed; production of alternative formats of teaching materials (large print or audio files);
- for the hearing-impaired and hearing-impaired: adequate sound reproduction of information;
- for persons with disabilities and persons with mobility impairments: the possibility of unimpeded access for students to classrooms, restrooms and other areas of the department, as well as their stay in these areas.

Learners with disabilities and persons with disabilities are provided with printed and/or electronic educational resources in forms adapted to their disabilities. The education of students with disabilities may be organised with other students or in separate groups or organisations.

ASSESSMENT RESOURCES

1.1 Control tasks and assignments for interim attestation

Is not provided by the work programme of the discipline.

1.2 Topics for written task

Is not provided by the work programme of the discipline.

1.3 Intern checkpoints

| Number | Type | Method of conduct | Topic number |
|--------|---------------------------------|--|--------------|
| 1 | Information and analytical work | with the help of technical means and information systems | 1-3 |
| 2 | Information and analytical work | with the help of technical means and information systems | 4-7 |
| 3 | Information and analytical work | with the help of technical means and information systems | 1-7 |

1.4 Other assessment objects

Is not provided by the work programme of the discipline.

1.5 Self-study

| Name of self-study | Topic number |
|---|--------------|
| Essay writing | 1-3 |
| Working with analytical databases, regulatory documents, reference literature | 4-7 |
| Подготовка к лекционным и практическим занятиям | 1-7 |

1.6 Grading scale

Scales of assessment and procedures for assessing learning outcomes of the discipline are regulated by the Regulations on the current control of progress and interim attestation of students in higher education programmes and the Regulations on the scoring and rating system.

A grading and rating system is used to assess the learning outcomes of the discipline:

The final control of the discipline is an examination (or a differentiated test), the final grade being formed in accordance with the scale given in the table below:

| Points | Grade |
|--------|-------|
|--------|-------|

| | |
|-----------|--------------|
| ≤ 54 | fail |
| 55-69 | satisfactory |
| 70-84 | good |
| ≥ 85 | excellent |

Grading scale

| | |
|-------------------|---|
| 2 (points to 54) | Demonstrates a lack of understanding of the problem. Many of the requirements of the assignment are not met. An initial perception of the material is demonstrated. The work is incomplete and/or plagiarized. |
| 3 (points 55-69) | Demonstrates a partial understanding of the problem. Most of the requirements of the task have been met. Mastery of the elements of the assigned material. The material is mostly clear and coherent. |
| 4 (points 70-84) | Demonstrates considerable understanding of the issue by the discipline. All requirements of the assignment are fulfilled. The content of the completed tasks is disclosed and examined from different perspectives. |
| 5 (points 85-100) | Demonstrates full understanding of the problem. All requirements of the assignment are fulfilled. Demonstrates proficiency in the discipline. The completed assignments are holistic, complete, structured, present different points of view and demonstrate creativity. |