Co-funded by the Erasmus+ Programme of the European Union

SUSDEV Course Description *(proposal: Marek Frankowicz & Lucjan Chmielarz, JU)*

Group: Food

574056-EPP-1-2016-1-PL-EPPKA2-CBHE-SP

Sus Dev

Омский Государственный ТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ

МГУПП

1865

Capacity Building Structural Project
574056-EPP-1-2016-1-PL-EPPKA2-CBHE-SP
Lifelong learning for Sustainable Development

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Wider Objective
Enhancement of the role of Higher Education Institutionsin ensuring sustainable development of industry and society, support of national "green policies" in Partner Countries and promotion of "green culture" by means of Lifelong Learning

Three complementary subject areas conditioning better quality of life
• Ecology • Food Production • Land Management

SPECIFIC PROJECT OBJECTIVES

- Development of modules to foster green skills for different target groups and qualifications levels
- Enhancement of access of target groups to open education resources, promotion of LLL
- Enhancement of green culture and continuing education through training of teaching staff, external stakeholders and public administration

EXPECTED OUTPUTS AND OUTCOMES:

- Analysis of "green policies and practices" in European Union and in Partner Countries
- Green Open Education Resources (OER) Repository and Network
- Green Training Centers (GTC) in Partner Countries
- Green Training Modules (GTM) for Ecology, Food Sector and Land Management

PARTNERS

Russian Federation
Ministry of Education and Science of the Russian Federation
Saratov State Agrarian University
Moscow State University of Food Production
Omsk State Institute of Service
Moscow State University of Geodesy and Cartography
State University of Land Use Planning
Tula State University
Russian State Agrarian University - Moscow Timiryazev Agricultural Academy
Siberian Federal University Krasnoyarsk
Agroten Semena Saratov

Republic of Kazakhstan
Ministry of Education and Science of the Republic of Kazakhstan
Taraz State University
Seifullin Kazakh Agrotechnical University
Kazakh National Agrarian University
Atyrau State University
West Kazakhstan Agrarian-Technical University - Uralsk
Kostanay State University
Coalition for Green Economy
Kazakh Agency of Applied Ecology

European Union
Warsaw University of Life Sciences - SGGW, Poland (Project Coordinator)
Jagiellonian University in Krakow, Poland
University of Natural Resources and Life Sciences (BOKU), Austria
Coimbra Polytechnic Institute, Portugal
Dublin Institute of Technology, Ireland
Royal Institute of Technology (KTH), Stockholm, Sweden
Association for European Life Science Universities (ICA), Belgium

PREVIOUS PROJECTS

Environmental curricula at agricultural universities
159188-TEMPUS-1-2009-1-PL-TEMPUS-JPCR

Development of Qualification Framework for Food Science Studies at Russian Universities
517336-TEMPUS-1-2011-1-PL-TEMPUS-SMHES

Elaboration of Qualification Framework for Land Management Studies at Russian Universities
530690-TEMPUS-1-2012-1-PL-TEMPUS-SMHES

PROJECT'S CHARACTERISTIC FEATURES

- Green skills will be promoted among different types of learners through lifelong learning channels and using new IT possibilities, starting from results of previous projects concerning curriculum development and sectoral qualifications frameworks for three complementary subject areas conditioning better quality of life (ecology, food sciences and land management).
- Fostering green skills improves quality of courses and positively influences qualifications framework descriptors. We have thus "the flywheel effect": educators gain momentum from a model for continuous improvement.
- A systemic approach based on "complex adaptive systems" methodology will be used. It will give theoretical framework for designing, testing and putting into motion "self-organization" mechanisms within the consortium and support feedback mechanisms between the project and its environment.
- Project's activities and outcomes will have anticipatory character, preparing target groups for future challenges and demands. Although various "green agendas" are present in public space, at the level of both education providers and labour market agents the awareness of the importance of sustainable development and of future needs for green skills and green jobs is still not too visible. Raising this consciousness shall lead to increased self-reflection on the resposibility for the future of our society.

RELATED PROJECTS

Adaptive learning environment for competence in economic and societal impacts of local weather, air quality and climate
561975-EPP-1-2015-1-FI-EPPKA2-CBHE-JP

European quality course system for Renewable Energy Development
561571-EPP-1-2015-1-IT-EPPKA2-CBHE-JP

QUESTIONS TO THE AUDIENCE:

- How are sustainable development issues present in your institutional policy and your curricula?
- Are green skills included in learning outcomes of your courses?

Омский Государственный

ТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ

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From ECTS Users' Guide - *Information about individual educational components:*

- code
- title
- type (compulsory/optional)
- cycle (short/first/second/third)
- year of study when the component is delivered (if applicable)
- semester/trimester when the component is delivered
- number of ECTS credits allocated
- name of lecturer(s)
- learning outcomes
- mode of delivery (face-to-face/ distance learning etc.)
- prerequisites and co-requisites (if applicable)
- course content
- planned learning activities and teaching methods
- assessment methods and criteria
- language of instruction

For SUSDEV purposes we propose the following template:

Course provider (institution)	OSTU
Title	Gastronomic club “Rainbow of taste”
Target group	Enrollee of “Production technology and organization of public catering” 19.03.04 direction of training: - school graduates; - college and training school graduates.
Short Description	This module envisages to guide the enrollee to identify green skills relevant to the future professional area of food industry. Also module raises awareness, knowledge level and identification of the application of these skills. The module is based on master classes conducted in the university laboratory and in the partner food industry enterprises. Master classes are guided by a mentoring team which is directed by a course coordinator.
Developed Green Skills	1. Impact assessment 2. Awareness raising 3. Opportunities management 4. Risk management 5. Day to day management
Type (compulsory/optional)	Optional module in structured occupational guidance programme for enrollee of “Production technology and organization of public catering” 19.03.04 direction of training.
Cycle (short/first/second/third)	Pre-university tutorial

Year of study when the component was delivered, semester/trimester when the component was delivered (if applicable)	Spring-summer semester
Number of ECTS credits allocated (if applicable)	5
Name of lecturer(s)	Shadrin Maxim will coordinate a mentoring team. shadrin_maxim@list.ru
Mode of delivery (face-to-face/ distance learning etc.); number of contact hours	Face-to-face learning. Conducting master classes in extracurricular time
Language of instruction	Russian
Learning outcomes	On completion of this module the learner should be able to demonstrate: ✓ know modern methods of food production quality control; ✓ assess the quality level of technical equipment through the food production process; ✓ apply expert evaluation methods of organoleptic quality indicators in food industry; ✓ the awareness of reflective practice of further green skills in their own career within a group of peer-practitioners.
Prerequisites and co-requisites (if applicable)	To be enrolled in a structured training programme of gastronomic club "Rainbow of taste" within the framework of the OSTU Polytechnic school. Identifying "green skills" as a knowledge gap which needs to be filled during the pre-university tutorial programme.
Course content	The following topics (as part of the Green economy) will be proposed as headings for the students of gastronomic club "Rainbow of taste" of OSTU Polytechnic school: • sensory methods and parameters of meals quality in food industry; • modern technologies of food industry production; • innovative technologies in European cuisine dishes cooking; • parameters and methods of recourse-saving technologies of food industry; • properties and parameters of catering equipment quality control; • safety parameters in food industry.
Recommended or required reading and other learning resources/tools	• Vasyukova A. T., Foreign technology of culinary products [Electronic resource]: Textbook for bachelors / Vasyukova A. T., Myachikova N. E., Puchkova V. F., Electronic text data. - M.: Dashkov and Co, 2015. — 368 c. — Access mode: http://www.bibliocomplectator.ru/book/?id=52292.— ""BIBLIO SELECTOR", by password. • Ershov V. D., industrial technology of public catering products: textbook. [Electronic resource]: textbook. — Electronic text data — SPB. : GIORD, 2011. - 232 p. - Access mode: http://e.lanbook.com/book/4882 • Vasyukova A. T., Public catering production: textbook for bachelors. [Electronic resource]: textbook / T. A. Vasyukov, A. A. Slavic, D. A. Kulikov. — Electronic data. - M.: Dashkov and Co, 2015. - 496 p. - Access mode: http://www.iprbookshop.ru/35319.html • Glavcheva S. I., Production and service organization in restaurants and bars [Electronic resource]: textbook / Glavcheva S. I., Cherednichenko L. E. — SPB: Troitskiy most, 2012. - 203 c.

Planned learning activities and teaching methods	The teaching method will involve the following elements: 1. Lectures 2. Master classes 3. Culinary championships 4. Participation in industrial forums The Module will apply in face-to-face learning. OSTU mobile content tools and portals will be used.
Assessment methods and criteria	The assessment will include: the first (initial) assessment demonstrating the acquisition of awareness and knowledge, the second (mid-term) – the ability to make a small demonstration of culinary skills and "green skills" application in food industry; the final assessment is aimed at assessing the knowledge of modern technologies of the food industry, presentation of the signature dish technology and "green skills" application. *Entrance (Initial) Assessment.* Assessment of the food industry knowledge and green skills obtained by participant. *Mid-term Assessment.* Presentation of culinary skills and application of "green skills" in food industry: • written test (3 levels of complexity); • dishes quality control. *Final Assessment*: Assessment reflection of modern technologies in food industry knowledge, presentation of signature dish technology and application of "green skills". The criteria for assessment will be the following: Test results (automatic verification), signature dish cooking, quality control of dishes, presentation of "green skills". • Case study: food processing technologies of food industry. The process of assessment will involve: • A feedback assessment from the mentoring team with the possibility re-introduce signature dishes made with "green skills" application in production technology; • A peer-assessment by the participants with the ability to respond. • Signature dish presentations that will be followed by group discussion. The criteria for assessment will be the following: **FIRST ASSESSMENT:** **PLANNING AND MANAGEMENT OF STRUCTURED LEARNING (LO1)** **Pass:** Evidence of a structured approach integrating an appropriate methodology on the awareness and knowledge of green skills in food field. **Fail:** Do not get the mark for the written test. **Feedback:** Explanation and advices by the mentoring team. **EVALUATION, REFLECTION AND PEER PROCESSES (LO2)** **Pass**: Get a mark for two master classes. **Fail:** Do not get a mark for one master class. **Formal Feedback:** Explanation and advices for chef's team evaluation. **SECOND ASSESSMENT** **PLANNING AND MANAGEMENT OF STRUCTURED LEARNING (LO3)** **Pass**: Know methods of quality control and food safety, apply quality control tools of food industry. **Fail:** Do not know methodology for determining quality control parameters in food industry. **Formal Feedback:** Explanation and advices for assessment team.

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- type (compulsory/optional)
- cycle (short/first/second/third)
- year of study when the component is delivered (if applicable)
- semester/trimester when the component is delivered
- number of ECTS credits allocated
- name of lecturer(s)
- learning outcomes
- mode of delivery (face-to-face/distance learning etc.)
- prerequisites and co-requisites (if applicable)
- course content
- planned learning activities and teaching methods
- assessment methods and criteria
- language of instruction

For SUSDEV purposes we propose the following template:

Course provider (institution)	OSTU
Title	Hazard Analysis and Critical Control Point (HACCP) food safety management system.
Target group	Students of "Production technology and organization of public catering" 19.03.04 direction of training.
Short Description	This module envisages to guide students to identify green skills relevant to the future professional area of food industry. Also module raises awareness, knowledge level and identification of the application of these skills in HACCP food safety management system. The module is based on risks identification and critical control points allocation in the technological process of food industry enterprise, as well as non-waste production systems implementation under the mentors team guidance which is directed by a course coordinator.
Developed Green Skills	1. Impact assessment 2. Awareness raising 3. Opportunities management 4. Risk management 5. Day to day management

Type (compulsory/optional)	Optional module in structured curriculum of "Production technology and organization of public catering" 19.03.04 direction of training.
Cycle (short/first/second/third)	Third
Year of study when the component was delivered, semester/trimester when the component was delivered (if applicable)	Spring-summer semester
Number of ECTS credits allocated (if applicable)	6
Name of lecturer(s)	Shadrin Maxim will coordinate a mentoring team. shadrin_maxim@list.ru
Mode of delivery (face-to-face/ distance learning etc.); number of contact hours	Face-to-face learning.
Language of instruction	Russian
Learning outcomes	Completion of this module the learner should be able to demonstrate: ✓ know risk determination techniques based on the decision-making tree; ✓ identify critical control points and bottlenecks of food industry production technology; ✓ apply non-waste production methods at food industry enterprise; ✓ the awareness of reflective practice of further green skills in their own career.
Prerequisites and co-requisites (if applicable)	To be enrolled in a structured training programme of "Production technology and organization of public catering" 19.03.04 direction of training. Identifying HACCP system and "green skills" as a knowledge gap which needs to be filled during the training programme.
Course content	The following topics (as a part of the Green economy) will be proposed for students to study within "Production technology and organization of public catering" 19.03.04 direction of training: • modern quality and safety systems, European experience; • risks as a factor of taking into account the hazards in food industry production; • critical control points and bottlenecks of food production technology; • parameters and methods of recourse-saving technologies in food industry; • properties and parameters of catering equipment quality control; • safety parameters in food industry.
Recommended or required reading and other learning resources/tools	• Product quality management, N. I. Danchenko, V. S. Yankovskaya, 2018, St. Petersburg, 304 p. • Qualimetry, N. I. Danchenko, V. S. Yankovskaya, 2016, 138 p. • Product quality improvement, V. V. Efimov, M., 2016, 240 p. • Kantere V. M. Sensory analysis of foods, M., 2003, 400 p.

	• Quality control, I. Mazur, M., 2006, 400 p. • Food product development. M. Earl, 2007, 384 p.
Planned learning activities and teaching methods	The teaching method will involve the following elements: 5. Lectures 6. Master classes 7. Culinary championships 8. Participation in industrial forums The Module will be deployed through face-to-face learning. OSTU mobile content tools and portals will be used.
Assessment methods and criteria	The assessment will include: the first (initial) assessment demonstrating the acquisition of awareness and knowledge, the second (mid-term) – the ability to make a small demonstration of HACCP principles implementation in food production technological process and "green skills" application in food industry; the final assessment is aimed at production control system developing based on HACCP principles and "green skills" application. *Entrance (Initial) Assessment.* Assessment of the food industry knowledge and green skills obtained by participant *Mid-term Assessment.* Demonstration of HACCP principles implementation in food production technological process and "green skills" application in food industry: • written test (3 levels of complexity); • development of a particular dish cooking technology and its production control taking into account HACCP principles. *Final Assessment*. Assessment reflection of modern technologies in food industry knowledge, development of production control system based on HACCP principles and "green skills" application. The criteria for assessment will be the following: test results (automatic verification), development of production control system based on HACCP principles, presentation of "green skills". • Case study: food processing technologies in food industry. The process of assessment will involve: • A feedback assessment from the mentoring team with the possibility to develop a production control system based on HACCP principles and non-waste production process application; • A peer-assessment by the participants with the ability to respond; • Signature dish presentations that will be followed by group discussion. The criteria for assessment will be the following: **FIRST ASSESSMENT:** **PLANNING AND MANAGEMENT OF STRUCTURED LEARNING (LO1)**

	Pass: Evidence of a structured approach integrating an appropriate methodology on the awareness and knowledge of "green skills" in food field. **Fail:** Do not get the mark in the written test. **Feedback:** Explanation and advices from the mentoring team. **EVALUATION, REFLECTION AND PEER PROCESSES (LO2)** **Pass**: Get mark for two technological processes using HACCP principles. **Fail:** Do not get the mark for one technological processes using HACCP principles. **Formal Feedback:** Explanation and advices for the evaluation of non-waste technology in food production. **SECOND ASSESSMENT** **PLANNING AND MANAGEMENT OF STRUCTURED LEARNING (LO3)** **Pass**: Know HACCP principles of food safety; apply quality control tools in food industry. **Fail:** Do not know methodology for determining quality control parameters in food industry. **Formal Feedback:** Explanation and advices for assessment team.

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- semester/trimester when the component is delivered
- number of ECTS credits allocated
- name of lecturer(s)
- learning outcomes
- mode of delivery (face-to-face/ distance learning etc.)
- prerequisites and co-requisites (if applicable)
- course content
- planned learning activities and teaching methods
- assessment methods and criteria
- language of instruction

For SUSDEV purposes we propose the following template:

Course provider (institution)	OSTU
Title	Industrial technologies at the food industry enterprises
Target group	Students of "Production technology and organization of public catering" 19.03.04 direction of training
Short Description	"Industrial Technologies at the food industry enterprises" discipline is focused on preparing bachelor's student for main types of activity such as professional problem solving connected with food technology stipulated by state educational standards in this area of training. Module's aim is developing systemic knowledge at the field of academic and theoretic fundamentals of functional and specialized food production which need to production technology and research activities at the functional food technology field and resource-saving technologies of industrial food production. Main objects of the module: - studying modern situation of population food supply; - scientific principles assimilation of micronutrient food fortification; - acquaintance with resource-saving principles; - academic fundamentals acquirement of functional and specialized purpose food production; - research of methods of control safety indicators and raw materials quality at functional and specialized purpose food production; - study of therapeutic and preventive nutrition products formulation.

Developed Green Skills	6. Impact assessment 7. Awareness raising 8. Opportunities management 9. Risk management 10. Day to day management
Type (compulsory/optional)	Optional module in structured curriculum of "Production technology and organization of public catering" 19.03.04 direction of training.
Cycle (short/first/second/third)	Second
Year of study when the component was delivered, semester/trimester when the component was delivered (if applicable)	Spring-summer semester
Number of ECTS credits allocated (if applicable)	4
Name of lecturer(s)	Shadrin Maxim will coordinate a mentoring team. shadrin_maxim@list.ru
Mode of delivery (face-to-face/ distance learning etc.); number of contact hours	Face-to-face learning.
Language of instruction	Russian
Learning outcomes	Completion of this module the learner should be able to demonstrate: ✓ know modern situation of population food supply; ✓ acquire academic fundamentals of functional and specialized purpose food production; ✓ know methods of control safety indicators and raw materials quality at functional and specialized purpose food production; ✓ apply non-waste production methods at food industry enterprise; ✓ awareness of reflective practice of further green skills in their own career.
Prerequisites and co-requisites (if applicable)	To be enrolled in a structured training programme of "Production technology and organization of public catering" 19.03.04 direction of training.
Course content	The following topics (as a part of the Green economy) will be proposed for students to study within "Production technology and organization of public catering" 19.03.04 direction of training: • modern quality and safety systems, European experience; • academic and theoretic fundamentals of functional and specialized food production which need to production technology and research activities at the functional food technology; • parameters and methods of resource-saving technologies of industrial food production; • properties and parameters of catering equipment quality control; • safety parameters in food industry.
Recommended or required reading and other learning resources/tools	• Vasyukova A. T., Foreign technology of culinary products [Electronic resource]: Textbook for bachelors / Vasyukova A. T., Myachikova N. E., Puchkova V. F., Electronic text data. - M.: Dashkov and Co, 2015. — 368 c. — Access mode: http://www.bibliocomplectator.ru/book/?id=52292.— ""BIBLIO SELECTOR", by password. • Ershov V. D., industrial technology of public catering products: textbook. [Electronic resource]: textbook. — Electronic text data — SPB. : GIORD, 2011. - 232 p. - Access mode: http://e.lanbook.com/book/4882 • Vasyukova A. T., Public catering production: textbook for bachelors. [Electronic resource]: textbook / T. A. Vasyukov, A. A. Slavic, D. A.

	Kulikov. — Electronic data. - M.: Dashkov and Co, 2015. - 496 p. - Access mode: http://www.iprbookshop.ru/35319.html • Glavcheva S. I., Production and service organization in restaurants and bars [Electronic resource]: textbook / Glavcheva S. I., Cherednichenko L. E. — SPB: Troitskiy most, 2012. - 203 c.
Planned learning activities and teaching methods	The teaching method will involve the following elements: 9. Lectures 10. Master classes 11. Culinary championships 12. Participation in industrial forums The Module will be deployed through face-to-face learning. OSTU mobile content tools and portals will be used.
Assessment methods and criteria	The assessment will include: the first (initial) assessment demonstrating the acquisition of awareness and knowledge, the second (mid-term) – the ability to make a small demonstration at the field of academic and theoretic fundamentals of functional and specialized food production which need to production technology and research activities at the functional food technology; the final assessment is aimed at developing industrial technology of food production and "green skills" application. *Entrance (Initial) Assessment.* Assessment of the food industry knowledge and green skills obtained by participant *Mid-term Assessment.* Demonstration at the field of functional food production technology and "green skills" application in food industry: • written test (3 levels of complexity); • development of a particular product at the field of functional food production. *Final Assessment*: assessment reflection of modern technologies in food industry knowledge, knowledge at the field of academic and theoretic fundamentals of functional and specialized food production which need to production technology and research activities at the functional food technology, resource-saving technologies of industrial food production and "green skills" application. The criteria for assessment will be the following: Test results (automatic verification), development at the field of academic and theoretic fundamentals of functional and specialized food production which need to production technology and research activities at the functional food technology, resource-saving technologies of industrial food production and "green skills" application. • Case study: food processing technologies in food industry. The process of assessment will involve: A feedback assessment from the mentoring team at the field of academic and theoretic fundamentals of functional and specialized food production which need to production technology and research activities at the functional food technology, resource-saving technologies of industrial food production; • A peer-assessment by the participants with the ability to respond; • Signature dish presentations that will be followed by group discussion. The criteria for assessment will be the following: **FIRST ASSESSMENT:** **PLANNING AND MANAGEMENT OF STRUCTURED LEARNING (LO1)** **Pass:** Evidence of a structured approach integrating an appropriate methodology on the awareness and knowledge of "green skills" in food field. **Fail:** Do not get the mark in the written test. **Feedback:** Explanation and advices from the mentoring team.

	EVALUATION, REFLECTION AND PEER PROCESSES (LO2) **Pass**: Get mark for two technological processes using knowledge at the field of academic and theoretic fundamentals of functional and specialized food production which need to production technology and research activities at the functional food technology, resource-saving technologies of industrial food production. **Fail:** Do not get the mark for one technological processes using at the field of academic and theoretic fundamentals of functional and specialized food production which need to production technology and research activities at the functional food technology, resource-saving technologies of industrial food production. **Formal Feedback:** Explanation and advices for the evaluation of non-waste technology in food production. **SECOND ASSESSMENT** **PLANNING AND MANAGEMENT OF STRUCTURED LEARNING (LO3)** **Pass**: Know principles of knowledge at the field of academic and theoretic fundamentals of functional and specialized food production which need to production technology and research activities at the functional food technology, resource-saving technologies of industrial food production. **Fail:** Do not know methodology for determining quality control parameters in food industry. **Formal Feedback:** Explanation and advices for assessment team.

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- cycle (short/first/second/third)
- year of study when the component is delivered (if applicable)
- semester/trimester when the component is delivered
- number of ECTS credits allocated
- name of lecturer(s)
- learning outcomes
- mode of delivery (face-to-face/ distance learning etc.)
- prerequisites and co-requisites (if applicable)
- course content
- planned learning activities and teaching methods
- assessment methods and criteria
- language of instruction

For SUSDEV purposes we propose the following template:

Course provider (institution)	OSTU
Title	Biotechnology fundamentals in specialized purpose products production
Target group	Students of ”Biotechnology” 19.04.01 direction of training
Short Description	”Biotechnology fundamentals in specialized purpose products production” discipline is focused on preparing master’s student for production technology and research activities; professional problem solving connected with food technology stipulated by state educational standards in this area of training. Module’s aim is developing system knowledge at the field of academic and theoretic fundamentals of specialized purpose products biotechnology which need to production technology and research activities at the field of specialized purpose products biotechnology, as well as non-waste production systems implementation under the mentors team guidance which is directed by a course coordinator.
Developed Green Skills	Impact assessment Awareness raising Opportunities management Risk management Day to day management
Type (compulsory/optional)	Optional module in structured curriculum of ”Biotechnology” 19.04.01 direction of training
Cycle (short/first/second/third)	Second
Year of study when the component was	Spring-summer semester

delivered, semester/trimester when the component was delivered (if applicable)	
Number of ECTS credits allocated (if applicable)	6
Name of lecturer(s)	Shadrin Maxim will coordinate a mentoring team. shadrin_maxim@list.ru
Mode of delivery (face-to-face/ distance learning etc.); number of contact hours	Face-to-face learning.
Language of instruction	Russian
Learning outcomes	Completion of this module the learner should be able to demonstrate: – latest developments at the field of combined food biotechnology, meat and meat products biotechnology, bread and bakery products biotechnology; – modern ingredients, starters and enzymes used in the biotechnology of specialized purpose products; – biotechnological aspects of specialized purpose combined food production; – theoretical and practical aspects of meat and meat products biotechnology; – biotechnological aspects of bakery products production; – main methods of experimental research used in biotechnology of specialized purpose products production; – rules of document execution and drafting of technical documentation, scientific reports, abstracts, publications and public discussions. – the awareness of reflective practice of further green skills in their own career.
Prerequisites and co-requisites (if applicable)	To be enrolled in a structured training programme of "Production technology and organization of public catering" 19.03.04 direction of training. Identification of system knowledge at the field of academic and theoretic fundamentals of specialized purpose products biotechnology which need to production technology and research activities at the field of specialized purpose products biotechnology and "green skills" as a knowledge gap which needs to be filled during the training programme.
Course content	The following topics (as a part of the Green economy) will be proposed for students to study within "Biotechnology" 19.04.01 direction of training: • studying historical background and development of biotechnology as a science • theoretical and practical aspects of biotechnology of specialized purpose products production; • research of microorganism isolate selection process for starters; • non-waste technology in food production using biotechnological aspects; • biotechnology of specialized purpose combined food.
Recommended or required reading and other learning resources/tools	• Product quality management, N. I. Danchenko, V. S. Yankovskaya, 2018, St. Petersburg, 304 p. • Qualimetry, N. I. Danchenko, V. S. Yankovskaya, 2016, 138 p. • Product quality improvement, V. V. Efimov, M., 2016, 240 p. • Kantere V. M. Sensory analysis of foods, M., 2003, 400 p. • Quality control, I. Mazur, M., 2006, 400 p. • Food product development. M. Earl, 2007, 384 p.

Planned learning activities and teaching methods	The teaching method will involve the following elements: 13. Lectures 14. Master classes 15. Culinary championships 16. Participation in industrial forums The Module will be deployed through face-to-face learning. OSTU mobile content tools and portals will be used.
Assessment methods and criteria	The assessment will include: the first (initial) assessment demonstrating the acquisition of awareness and knowledge, the second (mid-term) – the ability to make a small demonstration of system knowledge implementation and at the field of academic and theoretic fundamentals of specialized purpose products biotechnology which need to production technology and research activities at the field of specialized purpose products biotechnology and green skills application in food industry; the final assessment is aimed developing knowledge at the field of academic and theoretic fundamentals of specialized purpose products biotechnology. *Entrance (Initial) Assessment.* Assessment of the food industry knowledge and green skills obtained by participant *Mid-term Assessment.* Demonstration of system knowledge implementation at the field of academic and theoretic fundamentals of specialized purpose products biotechnology which need to production technology and research activities at the field of specialized purpose products biotechnology and green skills application in food industry; the final assessment is aimed developing knowledge at the field of academic and theoretic fundamentals of specialized purpose products biotechnology. • written test (3 levels of complexity); • development of biobased product technology and its production control *Final Assessment*. Assessment reflection of system knowledge at the field of academic and theoretic fundamentals of specialized purpose products biotechnology which need to production technology and research activities at the field of specialized purpose products biotechnology and green skills application. The criteria for assessment will be the following: test results (automatic verification), development of system knowledge at the field of academic and theoretic fundamentals of specialized purpose products biotechnology which need to production technology and research activities at the field of specialized purpose products biotechnology and green skills application. • Case study: food processing technologies in food industry. The process of assessment will involve: • A feedback assessment from the mentoring team with the possibility to analyse system knowledge at the field of academic and theoretic fundamentals of specialized purpose products biotechnology which need to production technology and research activities at the field of specialized purpose products biotechnology and using non-waste production systems at technological process; • A peer-assessment by the participants with the ability to respond; • Biobased products presentations that will be followed by group discussion The criteria for assessment will be the following: **PLANNING AND MANAGEMENT OF STRUCTURED LEARNING (LO1)** **Pass:** Evidence of a structured approach integrating an appropriate methodology on the awareness and knowledge of "green skills" in food field. **Fail:** Do not get the mark in the written test. **Feedback:** Explanation and advices from the mentoring team. **EVALUATION, REFLECTION AND PEER PROCESSES (LO2)** **Pass**: Get mark for two technological processes of specialized purpose products. **Fail:** Do not get the mark for one technological processes of specialized purpose products.

	Formal Feedback: Explanation and advices for the evaluation of non-waste technology in food production. **SECOND ASSESSMENT** **PLANNING AND MANAGEMENT OF STRUCTURED LEARNING (LO3)** **Pass**: • to be guided in the latest technological developments and processes of scientific research and production activities; • develop and solve research and scientific and production objectives at the at the field of specialized purpose products biotechnology using fundamental chapters of engineering and technology; • use modern domestic and foreign equipment and devices for implementation of laboratory and production research with the aim of solving research and scientific and production objectives; • analyze results of scientific research, implement results of research and development to practice. **Fail:** do not know: • latest developments at the field of combined food biotechnology, meat and meat products biotechnology, bread and bakery products biotechnology; • modern ingredients, starters and enzymes used in the biotechnology of specialized purpose products; • biotechnological aspects of specialized purpose combined food production; • theoretical and practical aspects of meat and meat products biotechnology; • biotechnological aspects of bakery products production; • main methods of experimental research used in biotechnology of specialized purpose products production; • rules of document execution and drafting of technical documentation, scientific reports, abstracts, publications and public discussions. **Formal Feedback:** explanation and advices for assessment team.


МГУПП

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SUSDEV Course Description *(proposal: Marek Frankowicz & Lucjan Chmielarz, JU)*

From ECTS Users' Guide - *Information about individual educational components:*

- code
- title
- type (compulsory/optional)
- cycle (short/first/second/third)
- year of study when the component is delivered (if applicable)
- semester/trimester when the component is delivered
- number of ECTS credits allocated
- name of lecturer(s)
- learning outcomes
- mode of delivery (face-to-face/ distance learning etc.)
- prerequisites and co-requisites (if applicable)
- course content
- planned learning activities and teaching methods
- assessment methods and criteria
- language of instruction

For SUSDEV purposes we propose the following template:

Course provider (institution)	Moscow State University of Food Production
title	Introduction to green technology
Target group, majoring in	College students Bachelor degree students 20.03.01 Safety engineering 27.03.01 Standardization and metrology 27.03.02 Quality management 19.03.02 Vegetable Raw Material Products
Brief description	The aim of the course is to build an understanding of the green culture. This course provides orientation for students to familiarize with the Concepts of green technology. It also includes the elaboration of skills and knowledge to use in everyday life, as well as in further Education programs.
Green skills gained / developed	The ability to correctly handle household waste and to determine the sources of negative environmental impacts in everyday life.
Type (compulsory / optional)	Optional / course for the training center
Cycle of studies (short / first / second / third)	0 - Short (preuniversity) First - Bachelor degree
year of study when the component is delivered, semester/trimester when the component is delivered (if applicable)	-

Number of ECTS credits allocated (if applicable	-
name of lecturer(s)	Kryukova EV - Doctor of Technical Sciences, Professor (KryukovaEV@mgupp.ru) Goryacheva E.D. - Candidate of Technical Sciences, Associate Professor (GoryachevaED@mgupp.ru)
Mode of delivery (face-to-face/ distance learning etc.); number of contact hours	**face-to-face, 18 hours**
language of instruction	Russian
learning outcomes	After taking the course the students should: - Gain knowledge of the benefits and objectives of various green skills (technologies) - Gain knowledge of environmental issues. - Be able to identify the sources of negative environmental impact in everyday life.
prerequisites and co-requisites (if applicable)	Course: "Biology"
Course content	1. Technology as a part of human culture 2. Ecological consciousness and morality 3. The interaction and interdependence of science, engineering, technology and production. 4. Ecological global problems of mankind. 5. Sources of negative environmental impact in everyday life
Recommended or required reading and other learning resources/tools	**Learning resources** **Classes equipped with multimedia learning tools** **Basic literature:** 1. Chelnokov A. A., Yushchenko L. F., Zhmykhov I. N. Osnovy 2012., Introduction to the ecology. Publishing House: Minsk: “Higher School”, P. 543. **Additional literature:** 1. Sanitary protection of cities and environmental protection. 2009. a textbook for students of "Engineering environmental protection" / Federal Education Agency, State. educational institution of higher. professional Education "Ulyanovsk State Technical. University"; compiled by O. E. Falova. - Ulyanovsk: UlSTU, -95 p. 2. Russian Federation. Laws. On Production and Consumption of Wastes: Federal Law (Collection of Legislation of the Russian Federation, 1998, No. 26, Art. 3009): as amended by Federal Laws: Dec 29th. 2000 No. 169-FZ (Collection of Legislation of the Russian Federation, 2001, No. 1, Part II, Article 21). Moscow: Axis-89, 2008. P.30.

Planned learning activities and teaching methods	1. Lecturing 2. Self-study (practical training) 3. Case-studies
Assessment methods and criteria	1. Grading system Credit / Non credit 2. For the implementation of practical tasks student get a certain number of points. 3. According to the total number of points, the evaluation is awarded: • Less than 60 points - no credit • 60 or more - credit

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- code
- title
- type (compulsory/optional)
- cycle (short/first/second/third)
- year of study when the component is delivered (if applicable)
- semester/trimester when the component is delivered
- number of ECTS credits allocated
- name of lecturer(s)
- learning outcomes
- mode of delivery (face-to-face/ distance learning etc.)
- prerequisites and co-requisites (if applicable)
- course content
- planned learning activities and teaching methods
- assessment methods and criteria
- language of instruction

For SUSDEV purposes we propose the following template:

Course provider (institution)	Moscow State University of Food Production
title	The use of green technology in the food and processing industry.
Target group	Bachelor degree students 20.03.01 Safety engineering 27.03.01 Standardization and metrology 27.03.02 Quality management 19.03.02 Vegetable Raw Material Products
Brief description	The aim of the course is the improvement of knowledge in the field of food and processing industry. The objective of the course is to acquaint students with advanced technologies in the food industry, to study the use of green technologies at the enterprise. This course provides for the study of existing green technologies, as well as their improvement and implementation in various sectors of the food and processing industry. The study of the existing full cycles of food production and farm-to-market supply chains.
Green skills gained / developed	- The ability to use existing green technologies in the food and processing industries

	- Skills to improve existing green technologies -Understanding the need for sustainable development throughout life
Type (compulsory / optional)	Bachelor optional subject
Cycle of studies (short / first / second / third)	First - Bachelor degree
year of study when the component is delivered, semester/trimester when the component is delivered (if applicable)	5th semester
Number of ECTS credits allocated (if applicable	2 credits
name of lecturer(s)	Kryukova EV - Doctor of Technical Sciences, Professor *(KryukovaEV@mgupp.ru)* Goryacheva E.D. - Candidate of Technical Sciences, Associate Professor *(GoryachevaED@mgupp.ru)*
Mode of delivery (face-to-face/ distance learning etc.); number of contact hours	**Face-to-face, full time, self-study 36 contact hours** **(9 lectures, 4 practice classes, 5 seminars)**
Language of instruction	Russian
Learning outcomes	After taking the course the student should master the following skills: *- Gain knowledge of various ways to use green technology* *- Know ways to improve green technologies in various sectors of the food and processing industry.* *-Be able to introduce green technologies in the full cycles of food production*
Prerequisites and co-requisites (if applicable)	Course: "Introduction to Technology", "Risk Analysis in Food Systems", "Life Safety", "Ecology"
Course content	1. The importance of green technology and sustainable development in the modern world of a global economy. 2. Full-cycle food enterprises as an example of green technologies usage. 3. Ecological management of food and processing enterprises, based on international standards ISO 14000 series. 4. Implementation of security management systems based on HACCP principles. 5. The use of integrated management systems for the sustainable development of enterprises.
Recommended or required reading and other learning resources/tools	**Learning resources** **Equipped laboratories** **Basic literature:** 1. Grinin, A. S. 2002. Industrial and household waste. Storage, utilization,and processing: study guide / A. S. Grinin, V. N. Novikov. – Moscow. GRAND. P. 332.

	2. Lukonin, A. V.2013. Recycling of bread-making waste with the production of protein-vitamin supplement / A. V. Lukonin // EKIR: Ecology and Industry of Russia. - № 1 – pp. 11-15. 3. Samoilova N.A.2014 Ecological management: textbook / N.A. Samoilova; Kemerovo Institute of Food Technology. - Kemerovo, P. 184. 4. Strukova, M.N. 2016. Environmental management and audit: study book/ M. N. Strukova, L. V. Strukova; [scientific ed. M. Shishov]; Ministry ofeducation and science of Russian. Federation, Ural State Federal University. Ekaterinburg: Publisher: Ural. University, P.80. **Additional literature:** 1. Passport of waste hazardness. 2006. Definition of hazard class of waste: study guide / A. V. Ryazantseva, G. V. Lukashin; Federal. Agency for Education, Moscow State Industrial University. Moscow: MSIU, P.35. 2. Shepel O.V.2006 Use of secondary food resources and processing industries / O.V Shepel // Achievements of science and technology of agriculture. №9. P. 37. 3. Salikov, P. Yu.2014. Pyrolysis. utilization of used products made of polyethylene terephthalate / P. Yu. Salikov // EKIR: Ecology and Industry of Russia. № 3. pp. 16-20. 4. Vetoshkin, A. G. 2008. Processes and devices for environmental protection: a manual for universities / A. G. Vetoshkin. - Moscow: High School, P. 639.
Planned learning activities and teaching methods	1. Lecturing 2. Seminars, round table talks 3. Practical training 4. Excursions and meetings with managers and employees of food enterprises. 5. Projects elaboration and presentation 6. Self-study
Assessment methods and criteria	1. Attendance - 18 points (maximum) 2. Presentation of laboratory work - 20 points (maximum) (5 points maximum for 1 presentation) 3. Project presentation - 20 points (maximum) 4. Presentation of the scientific report - 10 points (maximum) Total: 68 points Admission to the exam (test) - 60 points

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- title
- type (compulsory/optional)
- cycle (short/first/second/third)
- year of study when the component is delivered (if applicable)
- semester/trimester when the component is delivered
- number of ECTS credits allocated
- name of lecturer(s)
- learning outcomes
- mode of delivery (face-to-face/ distance learning etc.)
- prerequisites and co-requisites (if applicable)
- course content
- planned learning activities and teaching methods
- assessment methods and criteria
- language of instruction

For SUSDEV purposes we propose the following template:

Course provider (institution)	Moscow State University of Food Production
title	Green technologies in the food industry
Target group	• High school teaching staff • Food industry employees
Brief description	The aim of the course: Mastering of green technologies used in the food industry by students. The objective of the course is to acquaint students with the ways of processing and using waste at food enterprises; to build the understanding of the idea of the food enterprises impact on the environment. This course provides for students to get acquainted with the particularities of food production in order to apply green to further apply green technologies to it.
Green skills gained / developed	Ability to competently manage waste in certain sectors of food production Ability to assess the degree of pollution by enterprises to the environment. Ability to use green technology in food production
Type (compulsory / optional)	Optional course / on-line course
Cycle of studies (short / first / second / third)	4- advanced training.

year of study when the component is delivered, semester/trimester when the component is delivered (if applicable)	-
Number of ECTS credits allocated (if applicable	-
name of lecturer(s)	-
lecturer(s) e-mail	Kryukova EV - (KryukovaEV@mgupp.ru) Goryacheva E.D. - (GoryachevaED@mgupp.ru)
Mode of delivery (face-to-face/ distance learning etc.); number of contact hours	**distance learning, 18 hours**
language of instruction	Russian
learning outcomes	After taking the course the students should: - Gain knowledge of waste treatment options - Gain knowledge of various green skills (technologies) - Be able to properly handle food waste - Be able to assess the environmental impact of the activities of food enterprises (thermal pollution, water, air or soil, pollution, the threat of flora and fauna pollution)
prerequisites and co-requisites (if applicable)	Course: "Food Industry Technologies"
Course content	1. Description of the existing green technologies 2. Concepts of "food enterprises waste management" and "secondary raw materials of animal and vegetable origin" 3. Methods of processing and use of food enterprises waste management 4. Methods of processing and use of secondary raw materials of animal and vegetable origin 5. Food enterprises impact on the environment.
Recommended or required reading and other learning resources/tools	**Basic literature:** 1. Panin V.F., Sechin A.I., Fedosova V.D. 2014. Ecology: Ecological concept of the biosphere and economic levers to overcome the Global Environmental Crisis; review of modern principles and methods of protection of the biosphere: A textbook for universities. Ed. VF Panin. - Tomsk Polytechnic University. - Tomsk: Publishing House of Tomsk Polytechnic University. P.327. 2.Russian Federation. Laws. On Production and Consumption of Wastes: Federal Law (Collection of Legislation of the Russian Federation, 1998, No. 26, Art. 3009): as amended by Federal Laws: Dec 29th. 2000 No. 169-FZ (Collection of Legislation of the Russian Federation, 2001, No. 1, Part II, Article 21). Moscow: Axis-89, 2008. P.30. 3. Federal Law of Russian Federation "On Environmental Protection"

	4. GOST R 52106-2003 “Resource Conservation. General provisions 5. GOST R 52107-2003 “Resource Conservation. Classification and definition of indicators " 6. GOST R 53691-2009 “Resource Conservation. Waste management. Passport of I-IV hazard class waste. Primary requirements" 7. GOST R 53692-2009 “Resource Conservation. Waste management. Stages of the technological cycle of waste " 8. GOST R 53791-2010 “Resource Conservation. Stages of the life cycle of products for industrial purposes. General provisions. **Additional literature:** 1. Chelnokov A.A., Saevich K.F., Yushchenko L.F. 2014. General and applied ecology Minsk: Higher school, P. 656.
Planned learning activities and teaching methods	1. Lecturing 2. Self-study
Assessment methods and criteria	Conditions for obtaining a certificate - the passing of the theoretical part in the form of self-study. If passed - obtaining a certificate of course completion (reskilling) If failed - certificate of audition


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РГАУ-МСХА

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SUSDEV Course Description *(proposal: Marek Frankowicz & Lucjan Chmielarz, JU)*

From ECTS Users' Guide - *Information on individual educational components:*

- code
- title S
- type (compulsory/optional)
- cycle (short/first/second/third)
- year of study when the component is delivered (if applicable) semester/trimester when the component is delivered
- number of ECTS credits allocated
- name of lecturer(s)
- learning outcomes
- mode of delivery (face-to-face/ distance learning etc.)
- prerequisites and co-requisites (if applicable)
- course content
- planned learning activities and teaching methods
- assessment methods and criteria
- language of instruction

For SUSDEV purposes we propose the following template:

Course provider (institution)	RSAU-MTAA
title	Green skills management in food industry
target group	Bachelor degree Students in the area of Food Studies (ENEH 1007)
Short Description	**1** «Green skills management in food industry» In order to realize level studying in bachelor-master-Ph.D. system green skills and its management can make products competitive and satisfy consumer wishes and implement resource-saving, non-waste technologies and waste management, but continuing professional development or life-long-learning are provided. This module gives opportunity to manage green skills and business-processes. Product quality - is the authority of the company, increasing profits, increasing prosperity, and the work of th staff, from the leader to a specific executor of quality management, the interest of the whole team in the results of the work. Quality product – is the most important factor for industrial enterprise. Improving the quality of products to a large extent determines the survival rate of an enterprise under market conditions, the time of scientific and technical progress, increasing in production efficiency, and saving of all types of resources used in an enterprise and their management. Quality increase – is a significant characteristic for leading companies in the world. It is included european, american and asian companies.
Green Skills to acquire	
type (compulsory/optional)	Optional Module in Structured PhD Programme

cycle (short/first/second/third)	Third
year of study when the component is delivered, semester/trimester when the component is delivered (if applicable)	spring-summer semester
number of ECTS credits allocated (if applicable)	5
name of lecturer(s)	Dunchenko Nina will coordinate a mentoring team. dunchenko.nina@yandex.ru Dr. of biological sciences, professor A.Valihov (magistracy, FPK) Ph.D., associate professor Yankovskaya V.S. (bachelor degree, FPK) Ph.D., Associate Professor Voloshina E.S. "(Bachelor, master)
mode of delivery (face-to-face/ distance learning etc.); number of contact hours	Distance Learning, full-time, independent, distance
language of instruction	English, Russian
learning outcomes	On completion of this module the learner should be able to demonstrate:
prerequisites and co-requisites (if applicable)	To be enrolled in a structured PhD training programme. To have identified Green Skills as a training gap that needs to be addressed during the PhD training programme.
course content	The following topics (as part of the Green economy) will be proposed as headings for the self study portfolio: 1. For food technologist it is important to train theoretical and practical knowledge in the field of quality management, risk management , waste management. 2. Knowledge and practical skills for innovative development in food and process industry the key factors are: agro-industrial complex development, the modernization of enterprises of food and processing industry and the introduction of a quality management system in food products production. 3. International experience in quality management, adapting in Russia and achievements of the Russian science of quality 4. Knowledge of international and legislative regulatory and technical framework in the field of "green" skills of quality management, waste management, risk management. 5. Such questions like prevention of depletion and reduction of agricultural land lands and arable lands, control over the circulation of genetically modified organisms intended for release into the environment, and products obtained using such organisms or containing them, improving the system of technical regulation, sanitary and phytosanitary supervision, and security food for human health. 6. Green skills based on qualimetric forecasting, risk management and waste management. 7. To know how to apply green skills in professional sphere.

	The e-portfolio is divided into two parts that will reflect the personal development of the green skills as a practitioner during the course.
recommended or required reading and other learning resources/tools	•
planned learning activities and teaching methods	The teaching method will involve the following elements: Lectures and seminars Quiz Group projects Participation in industrial forum A community of peers involving the training group that will present the forum for an integration of the learning outcomes on a wide basis. The Module will be deployed through distance learning and will use virtual learning environment tools
assessment methods and criteria	Exam 1. Two parts of examination: written test and practical part. 2. The final assessment is made taking into account the proportional share and significance of various theoretical and practical elements of the module. 3. A prerequisite for grading is the successful implementation of all seminars and practical work.

In red: fields valid for all SUSDEV training courses

In blue: fields which may be relevant for courses for students

Green fields - descriptive part

Remark: For courses delivered in Russian and/or Kazakh there should be descriptions in English and in the language of instruction

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- code
- title S
- type (compulsory/optional)
- cycle (short/first/second/third)
- year of study when the component is delivered (if applicable) semester/trimester when the component is delivered
- number of ECTS credits allocated
- name of lecturer(s)
- learning outcomes
- mode of delivery (face-to-face/ distance learning etc.)
- prerequisites and co-requisites (if applicable)
- course content
- planned learning activities and teaching methods
- assessment methods and criteria
- language of instruction

For SUSDEV purposes we propose the following template:

Course provider (institution)	RSAU-MTAA
title	Green skills management in food industry
target group	Master degree Students in the area of Food Studies (ENEH 1007)
Short Description	This module provides green skills in the field of theoretical knowledge in quality management for food products, quality management on the all steps of technological process, risk management, quality planning, concept note of quality management and its importance in quality management. The main attention is payed on HACCP and GMP, lean production 5s. Implementation knowledge of quality management methods , using new green skills, and awards in the field of quality management. Based on TQM and international standards ISO 9000 with the use of safe management. Awards and other achievements in the field of quality management are the main mechanisms of increasing the performance in micro- and macro-economical levels. That's why using such a tool for quality increasing is reasonable for companies and consumers.
Green Skills to acquire	
type (compulsory/optional)	Quality management. Master degree
cycle (short/first/second/third)	Third
year of study when the component is delivered, semester/trimester when the	spring-summer semester

component is delivered (if applicable)	
number of ECTS credits allocated (if applicable)	5
name of lecturer(s)	Dunchenko Nina will coordinate a mentoring team. dunchenko.nina@yandex.ru Dr. of biological sciences, professor A.Valihov (magistracy, FPK) Ph.D., associate professor Yankovskaya V.S. (bachelor degree, FPK) Ph.D., Associate Professor Voloshina E.S. "(Bachelor, master)
mode of delivery (face-to-face/ distance learning etc.); number of contact hours	Distance Learning, full-time, independent, distance
language of instruction	English, Russian
learning outcomes	On completion of this module the learner should be able to demonstrate:
prerequisites and co-requisites (if applicable)	To be enrolled in a structured PhD training programme. To have identified Green Skills as a training gap that needs to be addressed during the PhD training programme.
course content	The following topics (as part of the Green economy) will be proposed as headings for the self study portfolio: The e-portfolio is divided into two parts that will reflect the personal development of the green skills as a practitioner during the course.
recommended or required reading and other learning resources/tools	
planned learning activities and teaching methods	The teaching method will involve the following elements: Lectures and seminars Quiz Group projects Participation in industrial forum A community of peers involving the training group that will present the forum for an integration of the learning outcomes on a wide basis. The Module will be deployed through distance learning and will use virtual learning environment tools
assessment methods and criteria	Exam Two parts of examination: written test and practical part. The final assessment is made taking into account the proportional share and significance of various theoretical and practical elements of the module. A prerequisite for grading is the successful implementation of all seminars and practical work.

In red: fields valid for all SUSDEV training courses

In blue: fields which may be relevant for courses for students

Green fields - descriptive part

Remark: For courses delivered in Russian and/or Kazakh there should be descriptions in English and in the language of instruction