

## Markets and international trade of bio-based products SYLLABUS

**Study subject No:** 4.2.

**Responsible Unit:** Latvia University of Life Sciences and Technologies (LBTU)

**Credits and distribution of academic hours\*:**

Form of studies	Credits ECTS	Contact hours		Independent study hours	Total hours
		Lectures	Practical works or seminars		
VMU	3	13	14	63	90
LBTU	2	10	8	42	60
<b>Total</b>	<b>5</b>	<b>23</b>	<b>22</b>	<b>105</b>	<b>150</b>

\* 1 ECTS = 30 hours (9 contact hours and 21 independent hours);

1 academic hour = 40 minutes;

Theoretical lectures not less than 50% of contact hours.

**Course developers:**

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Vytautas Magnus University (VMU), **Assoc. prof. Daiva Makutėnienė**

**Notes:** General study course for the master programme Bioeconomy.

**Prior knowledge:** Bioeconomy development and policy, Bioproducts and bio-based value chains.

**Annotation:** The course provides advanced theoretical knowledge of modern marketing communication techniques, as well as comprehensive practical knowledge and practical examples of the specifics of international business marketing communication in bio-based product business. Students learn marketing communication tools, with a particular focus on the specifics of bio-based product promotion to independently develop and manage an integrated marketing communication strategy, effectively communicating with buyers and consumers, policymakers and the general public, thereby contributing to business competitiveness and sustainable agriculture, aquaculture, forestry and food product development.

**The aim** of the course is to provide students with extended knowledge of the bio-based products market and international trade, as well as versatile practical knowledge and skills for managing international marketing of bio-based products' business and making meaningful marketing decisions, also evaluating the importance of international trade of bio-based products for the country's economy.

**Description of the organization and tasks of students' independent work:**

1. Individual research on the characteristics of the bio-based product market in a particular region / country should be developed. The results of the study should be summarized in a presentation. The specific region / country should be agreed with the teaching professor prior to the commencement of the study.
2. During the practice, complete the assignments (4-5) assigned by the professor that focus on working with secondary information sources and calculations on international market and international trade analysis methods

and their practical application for meaningful marketing decisions and international trade flows evaluation using MS Excel, SPSS etc. The completed assignments must be submitted electronically to the professor within the deadline.

- According to professors' instructions and methodological requirements, independently develop a portfolio and presentation of bio-based product marketing mix elements. Portfolio includes product-specific supply analysis, demand change forecasting, plan for implementation of international marketing activities. The developed portfolio (in written form) must be submitted to the professor within the deadline. The portfolio presentation should be presented at the exam.

**Learning outcomes (knowledge, skills and competences)**

Learning outcomes	Assessment methods	Levels of achievement		
		Satisfactory	Average	High
<b>KNOWLEDGE</b>				
Extended knowledge of the heterogeneity and convergence of bio-based products' markets and business models, the factors influencing it.	Presentation, discussions	Knowledge of the diversity and differences of bio-based products' markets and business models is sufficient but sometimes lacking an understanding of the influencing factors.	Demonstrates a high level of knowledge about the heterogeneity and convergence of bio-based products' markets and business models, is able to freely discuss the factors influencing it.	Knowledge of the heterogeneity and convergence of bio-based products' markets and business models goes beyond the requirements of the course. Enthusiastically engages in a discussion of influencing factors, is able to convincingly substantiate his / her opinion.
In-depth knowledge and understanding of the problems and economic aspects of the bio-based products' market.	Case study, group-work, discussions	The understanding of the problems and economic aspects of the bio-based products' market is sufficient with some gaps.	Has a good understanding of the problems in the bio-based products' market, is able to discuss them freely.	Demonstrates highly specialized knowledge and a critical understanding of the problems and economic aspects of the agricultural and food market, which sometimes go beyond the requirements of the course.
In-depth knowledge and understanding of the specifics of international marketing, strategies and indications for their use in different bio-based products' market conditions.	Case study, text analysis, discussion	Understands the principles of international marketing in specific situations, but it is difficult to see the regularities in different market conditions.	Knows and understands the specifics of international marketing activities, strategic activities and sees regularities in specific situations in different market conditions.	Knows and understands the strategic activities of international marketing and sees regularities in specific situations in different market conditions. Based on concrete facts, is able to argue the potential of international marketing for the development of agri-food business in different countries of the world.
In-depth knowledge and understanding of international marketing	Case study (using of ICT)	Knows and is able to find sources of international marketing	Knows, is able to find and use international marketing	Fully knows, is able to find, purposefully select and creatively use international marketing

information sources and their practical application for making meaningful marketing decisions.		information, but lacks an understanding of their meaningful use to solve marketing problems.	information sources to solve marketing problems.	information sources to solve marketing problems.
Extended knowledge and understanding of the economic assumptions of international trade of bio-based products, its benefits, the essence and significance of international trade theories.	Presentation, discussions	Knows and understands the economic assumptions of international trade of bio-based products, its benefits, international trade theories, but there are gaps in describing them.	Knows and understands the economic assumptions of international trade of bio-based products, its benefits, international trade theories, is able to discuss them freely.	Knows and understands the economic assumptions of international trade of bio-based products, is able to discuss them freely and argue by using examples. Knows and understands the benefits of international trade of bio-based products, is able to graphically illustrate and explain it. Knows and understands the essence and meaning of international trade theories, is able to discuss them.
Extended knowledge and understanding of the forms, objectives, types, advantages and disadvantages of the policy of international trade of bio-based products.	Presentation, case study, discussions	Knows and understands the forms, objectives, types, advantages and disadvantages of the policy of international trade of bio-based products, but there are gaps in describing them.	Knows and understands the forms, objectives, types, advantages and disadvantages of the policy of international trade of bio-based products, is able to provide examples and arguments.	Knows and understands the forms, objectives, types, advantages and disadvantages of the policy of international trade of bio-based products, is able to discuss them freely and compare. Is able to graphically illustrate and explain the economic consequences of using trade policy forms.
Extended knowledge and understanding of tariff and non-tariff methods of regulation of international trade of bio-based products, causes and consequences of their use.	Presentation, case study, discussions	Knows and understands the methods of regulation of international trade of bio-based products, their classification, causes and consequences of their use, but there are gaps in describing them.	Knows and understands the methods of regulation of international trade of bio-based products, their classification, causes and consequences of their use, is able to provide examples and arguments. Is able to explain the economic consequences of using regulatory methods.	Knows and understands the methods of regulation of international trade of bio-based products, their classification, causes and consequences of their use, is able to provide examples, compare, discuss them freely. Is able to graphically illustrate and explain the economic consequences of using regulatory methods.

Extended knowledge and understanding of international trade organisations, their operating principles, functions, impact on trade of bio-based products.	Presentation, documents analysis, discussions	Knows the international trade organisations, their operating principles, functions, impact on trade of bio-based products, but there are gaps in describing them.	Knows the international trade organisations, their operating principles, functions, impact on trade of bio-based products, is able to discuss them freely.	Knows the international trade organisations, their operating principles, functions, impact on trade of bio-based products, is able to discuss them freely and evaluate. Knows and understands special international trade agreements.
<b>SKILLS</b>				
<b>Hard skills</b>				
Can describe and discuss the bio-based products' market in a specific region / country.	Presentation, discussion	The description of the bio-based products' market is superficial, and sometimes there is a lack of justification for defending one's point of view in the discussion.	Is good at describing and discussing the bio-based products' market in a particular region / country.	Demonstrates highly specialized and advanced skills in developing an in-depth description of a specific bio-based product market in a particular region / country that goes beyond the course requirements. Convincingly discusses the topic.
Is able to practically apply life cycle analysis and value chain analysis methods to assess the sustainability and economic impact of food.	Group-work	Understands the nature of life cycle analysis and value chain analysis methods, but sometimes needs help in their practical application.	Is good at applying life cycle analysis and value chain analysis methods to assess the sustainability and economic impact of a particular bio-based product.	Demonstrates highly specialized skills in the application of life cycle and value chain methods, which provide a basis for generating new knowledge about food sustainability solutions.
Is able to critically evaluate, select, systematize and practically use various databases of scientific and professional organizations for the analysis of a specific problem that exists for bio-based products' business international marketing.	Practical work, with online data bases	Is able to select and practically apply databases of scientific and professional organizations. The information gathered is general and partly helps to gain an understanding of the specifics of a particular problem.	Is able to critically evaluate, select and practically apply databases of scientific and professional organizations. The information gathered helps to gain a clear understanding of the specifics of the particular problem.	Is able to critically evaluate, select and practically apply databases of scientific and professional organizations. The collected information is meaningfully systematized, which helps to gain a full understanding of the specifics, causes and regularities of the specific problem.
Is able to develop, manage and control a set of elements of the marketing mix of a bio-based product in a specific market, based on the	Portfolio	Knows and is able to develop a set of marketing mix elements of a bio-based product, but lacks a reasoned, calculation-based	Knows, is able to develop and manage a set of marketing mix elements of a bio-based product, offers a calculation-	Knows, is able to develop and manage a set of marketing mix elements of bio-based product, offers calculation-based justification for

collection and analysis of secondary data of a particular company, as well as primary data collection and processing using MS Excel / SPSS etc. data interpretation and presentation.		justification for the suitability of each mix element in the specific market situation.	based justification for the conformity of each mix element to the specific market situation.	compliance of each mix element to the specific market situation in the context of sustainable development, offers ideas for further adaptation of mix elements as the market situation changes.
Is able to find and systematise statistical data of international trade of bio-based products in databases and other sources of information, choose their evaluation methods and indicator systems.	Practical work, with online data bases	Is able to find and systematise statistical data of international trade of bio-based products in databases and other sources of information, but there are gaps in systematising data, selecting their evaluation methods and indicators.	Is able to find and systematise statistical data of international trade of bio-based products in databases and other sources of information, select their evaluation methods and specific indicators.	Is able to find and systematise statistical data of international trade of bio-based products in databases and other sources of information, select their evaluation methods and specific indicators. Is able to select statistics to calculate specific indicators.
Is able to theoretically and practically explain, analyse and critically evaluate the economic effects of trade of bio-based products and its regulation, and substantiate conclusions.	Case study, practical work, discussion	Is able to theoretically and practically explain and analyse the economic effects of trade of bio-based products and its regulation, but there are gaps.	Is able to theoretically and practically explain and analyse the economic effects of trade of bio-based products and its regulation and draw conclusions.	Is able to theoretically and practically explain, analyse and evaluate the economic effects of trade of bio-based products and its regulation, and substantiate conclusions. Is able to identify the factors that led to change.
<b>Soft skills</b>				
Ability to plan the implementation of the assigned practical research independently and responsibly.	Case study	Is able to carry out empirical research but requires constant supervision of the work. Delays deadlines. Some inaccuracies are present in the research work.	Is able to conduct empirical research independently and in a timely manner.	Is able independently and in a timely manner to implement empirical research, participating in the development of the relevant professional field.
Is able to participate in the development of goal-oriented group work.	Group-work, debates	Unable to engage or engage passively.	Gets involved, but more as an observer performing a limited number of tasks.	Actively participates, shows initiative, cooperates with group members in promoting the implementation of group work tasks.
<b>COMPETENCE</b>				
Demonstrates professional and scientific independence in linking and analysing	Presentation, discussions, practical work	Demonstrates partial professional and scientific independence in linking and analysing	Demonstrates professional and scientific independence in linking and	Competence indicates a very high level of professional and scientific independence in linking and analysing

the processes taking place in bio-based products' market and international trade with the world climate, economic and geopolitical processes.		the processes taking place in the bio-based products' market and international trade with the climate, economic and geopolitical processes taking place in the world, as sometimes there is a lack of understanding of the processes and the factors that influence them.	analysing the processes taking place in the bio-based products' market and international trade with the world climate, economic and geopolitical processes.	the processes taking place in the bio-based products' market and international trade with the processes taking place in the world. Demonstrates a deep understanding of processes and the perception and substantiation of regularities, applying knowledge from various fields.
Using theoretical knowledge and practical application of qualitative and quantitative data analysis, is able to independently develop, manage and control international bio-based products' business marketing activities in different geopolitical situations and different market competition conditions.	Portfolio	Based on independently collected and appropriately processed quantitative and qualitative data, the marketing activities of the international bio-based business have been superficially studied.	Based on independently collected quantitative and qualitative data, the marketing activities of international bio-based products' business, student has performed a comprehensive study determining the attractiveness of the market, summarizing potential risks. The conclusions follow from the facts gathered.	Based on independently collected quantitative and qualitative data, the marketing activities of international bio-based products' business have been studied in depth, determining the attractiveness of the market and potential risks. The conclusions follow from the summarized facts, their topicality is thoroughly explained; offers creative and original solutions for sustainable marketing.

**Requirements for awarding credit points:**

1. Prepared and successfully defended presentation of market characteristics of bio-based products in a specific region / country.
2. Positive evaluation for participation in case studies on functions, concepts, strategies of international marketing, indications for their use and limitations in different bio-based product's market conditions; the economic assumptions of international trade of bio-based products, its benefits, international trade theories, forms, objectives, types of the policy, tariff and non-tariff methods of regulation of international trade of bio-based products.
3. Positive evaluation for practical work with secondary information sources and calculations on international market and trade analysis methods and their practical application for meaningful marketing decisions and international trade flows evaluation.
4. Positive evaluation for the prepared portfolio (in written form according to the professors' instructions) on the development of a set of elements of the marketing mix of bio-based product, which includes an analysis of the supply of a specific product, forecasting of changes in demand, and a plan for the implementation of international marketing activities.
5. Positive evaluation for the exam presentation of the developed portfolio.

**Knowledge assessment and prerequisites for taking a test or examination**

The examination mark of the study course is determined by a cumulative assessment, in which 10% make up 1 point of the examination mark. Student is admitted to the exam work and exam presentation only after positive

evaluation for: 1) presentation about market characteristics of bio-based products in a specific region / country; 2) case study about international marketing functions, concepts and strategies with regard to a particular bio-based product; 3) independently developed practical works related with information sources analysis.

*\* 10 percent are equal to one point on a 10-point marking scale (or 10 percent are equal to 0.5 point on a 5-point marking scale).*

Topic	Type of assessment	Percentage		Assessment deadline
The market characteristics of bio-based products in a specific region / country.	Presentation	20		At the time scheduled for the presentation
Functions, concepts, strategies of international marketing, indications for their use and limitations in different bio-based product's market conditions; the economic effects of trade of bio-based products and its regulation.	Case study	20		During the whole course
Independent work with secondary information sources and calculations on international market and trade analysis methods and their practical application for analysing of international trade flows	Practical works	20		At the time scheduled for submission
Development of analysis of country's Y international market and trade for product Z , which includes calculations of international trade flows evaluation, assessment of export potential and recommendations for better market acquisition and enhancing international trade.	Portfolio development (exam work)	30	40	At the time scheduled for submission
Presentation of the developed portfolio to the exam commission, answering questions, discussion.	Exam	10		At the time scheduled for exam
<b>Total:</b>		<b>100</b>		

### *The course contents*

#### *1. Lectures*

1. Product concept, classification of products. Positioning and value creation. Marketing mix of bio-based product: communication, convenience, customer benefits, cost to customers, services mix. Analysis of product life cycle from cradle to grave.
2. The steps in developing efficient marketing communication for a bio-based product: strategy; objectives; industry; evaluation and metrics. The elements of the communication mix: advertising; digital marketing (content marketing, social media marketing); public relations; direct marketing; sales promotions; personal selling; events and exhibitions.
3. The importance of sociocultural environment in international marketing: layers and elements of culture; high and low context cultures. Cross-cultural sales negotiations: effects of cultural dimensions on decision making. Issues of marketing ethics.
4. Developing and implementing of a marketing plan for a bio-based product: situation analysis; formulation of marketing objectives, defining marketing strategies for marketing mix elements; implementation process; measurement and control.
5. Features of international trade of bio-based products. Economic assumptions of international trade: different production conditions; different levels of production efficiency; variety of tastes, inclinations, priorities. Benefits of international trade: consumer surplus, producer surplus, total surplus. International trade theories: classical theories of international trade; factor proportions theory; alternative theories of international trade.

6. Free trade of bio-based products, its purpose, advantages. Integration of trade, its forms. Protectionism, its types and forms. Dumping, its types. Economic consequences of dumping. Embargo, the reasons for its application. Economic consequences of embargo.
7. Methods for regulation of international trade of bio-based products: tariff, non-tariff. Tariff methods for regulation: customs duties, their functions, types, peculiarities of customs tariffs. Effects of import duties. Export duties, their functions. Tariff quotas, the economic consequences of their use. Quantitative non-tariff barriers: quotas, their types. Licensing.
8. International trade organisations and their impact on trade of bio-based products.
9. Economic effects of regulating trade of bio-based products: the effect of import duties (tariff) on national welfare (small country case); the effect of import duties (tariff) on national welfare (large country case); the effect of import quota on national welfare; the effect of import subsidy on national welfare; the effect of export subsidy on national welfare; the effect of export taxation on national welfare; the effect of production subsidy on national welfare.
10. Methods for evaluating the importance of international trade to the country's economy. Indicators for evaluating international trade flows.

## **2. Practicals**

1. Exploring the needs of agricultural and food market consumers of different countries, getting acquainted with world-renowned business experience.
2. Life cycle analysis (LCA) for a specific food.
3. Development of marketing mix elements of agricultural and / or food business product based on primary data collection, analysis and interpretation using marketing research methods.
4. Calculation and evaluation of the indicators of the significance of the country's trade of bio-based products for the national economy.
5. Calculation and evaluation of the indicators of the performance of the country's trade of bio-based products.
6. Calculation and evaluation of the indicators of the direction of the country's trade of bio-based products.
7. Calculation and evaluation of the structure and competitiveness indicators of the country's trade sectors.

### **List of sources of training, methodological and scientific literature and information**

#### ***Compulsory reading (books, scientific articles, online sources etc.):***

1. Hollensen S. (2014). Global Marketing, 6<sup>th</sup> edition. Available online: [https://www.academia.edu/36528871/Global\\_Marketing\\_Svend\\_Hollensen](https://www.academia.edu/36528871/Global_Marketing_Svend_Hollensen)
2. Gilbert G., Lenssen, N., Craig Smith Editors. Managing Sustainable Business: An Executive Education Case and Textbook (2019). Available online: <https://pb1lib.org/book/3577941/7b3c90>
3. Hansen E., Juslin H. (2018). Strategic Marketing in the Global Forest Industries. Available online: <https://open.oregonstate.education/strategicmarketing/>
4. Mikic M., Gilbert J. (2009). Trade Statistics in Policymaking. A handbook of commonly used trade and indicators. Revised Edition. Available online: [https://www.unescap.org/sites/default/files/0%20-%20Full%20Report\\_27.pdf](https://www.unescap.org/sites/default/files/0%20-%20Full%20Report_27.pdf)
5. Suranovic S. (2010). International Trade: Theory and Policy. Available online: [https://saylordotorg.github.io/text\\_international-trade-theory-and-policy/](https://saylordotorg.github.io/text_international-trade-theory-and-policy/)

#### ***Further reading:***

1. Bio-based products – from idea to market “15 EU success stories”. European Commission Directorate-General for Research and Innovation Directorate Bioeconomy. Available online: [https://renewable-carbon.eu/news/media/2019/03/KI0718113ENN.en\\_.pdf](https://renewable-carbon.eu/news/media/2019/03/KI0718113ENN.en_.pdf)
2. Research Institute of Organic Agriculture (FiBL) e-Learning Course on Successful Organic Production and Export (SOPE) Module 3: Organic market and trade (s.a.). Available online: [https://www.un-page.org/files/public/module\\_3\\_organic\\_market\\_and\\_trade.pdf](https://www.un-page.org/files/public/module_3_organic_market_and_trade.pdf)



3. Kotler P., Kartajaya H., Setiawan I. Marketing 4.0 Moving from Traditional to Digital, 2016: <http://www.ebook777.com/marketing-4-0-moving-traditional-digital/>
4. Trade Competitiveness Map. Benchmarking national and sectoral trade performance. Trade performance HS. Available online: <https://tradecompetitivenessmap.intracen.org/Documents/TradeCompMap-Trade%20PerformanceHS-UserGuide-EN.pdf>
5. Trade Competitiveness Map. Benchmarking national and sectoral trade performance. Trade performance index. Available online: <https://tradecompetitivenessmap.intracen.org/Documents/TradeCompMap-Trade%20Performance%20Index-Technical%20Notes-EN.pdf>
6. Krugman P. R., Obstfeld M., Melitz M. J. (2012). International economics: theory & policy. 9th ed. Available online: <https://cdn.prexams.com/8978/International%20Economics%20Theory%20and%20Policy%20Book%209th%20Edition.pdf>
7. A Practical Guide to Trade Policy Analysis. (2012). World Trade Organization. Available online: [https://www.wto.org/english/res\\_e/publications\\_e/wto\\_unctad12\\_e.pdf](https://www.wto.org/english/res_e/publications_e/wto_unctad12_e.pdf)

***Periodicals and other sources:***

1. Food and Agriculture Organization of the United Nations. Publications. Available online: <http://www.fao.org/publications/en/>
2. The World Bank. Research and publications. Available online: <https://www.weforum.org/reports/>
3. The World Economic Forum. Reports. Available online: <https://www.weforum.org/reports/>

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