

**Specjalność:**

**Smart and innovative business – ang.**

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Management concepts							Course code	ZSUA01142	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	1	
	30	60						No. of ECTS credits	5	
Entry requirements										
Course objectives	The demonstrate of the essence and limitations of each classical concept of management. Familiarize students with the main concepts of management oriented to quality, processes and knowledge. Practice the use of various management concepts in particular organizations. Acquisition by students of the ability to choose and implement contemporary management concepts according to the needs of the organization. Preparation of task classes and presentation the selected case studies worked out during teamwork on students discussion forum.									
Course content	Lecture: The essence of management organizations - overview of the classical management concept and the behavioural management perspective. The systems and the contingency perspective of organizations. Classes: Management concepts focused on quality and processes ISO 9001, TQM, Six Sigma, business process reengineering, outsourcing, Lean Manufacturing, benchmarking and CRM. Concepts of management-oriented knowledge: knowledge management, competency management, learning organization and virtual organization. Management concepts human-oriented, and corporate social responsibility.									
Teaching methods	Lecture - multimedia presentation; Classes - case study, problem analysis									
Assessment method	Lecture – written exam, classes – test; multimedia presentation of the management concept chosen by students, case studies									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	Student explains classic and contemporary management concepts, can describe their essence and principles of implementation of the organization								Z_W11, Z_W02	
LO2	Discusses the causes, the course and the consequences of changes taking place in contemporary organizations								Z_W13	
LO3	Analyzes the organization for possible realization in the modern management concepts								Z_U01, Z_K03	
LO4	Identifies and analyzes key issues related to the implementation of management concepts								Z_U05 Z_U08	
LO5	Prepare a draft for implementation of the selected management concepts and their practical realizations in the organization								Z_U05 Z_U07 Z_U13	
LO6	Can work in a team								Z_U10, Z_K01, Z_K03	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	exam, test								L, C	
LO2	exam, test								L, C	
LO3	test, presentation, evaluation of case study								C	
LO4	test, presentation, evaluation of case study								C	
LO5	test, presentation, evaluation of case study								C	

<b>LO6</b>	test, presentation, evaluation of case study	C	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	participation in classes	60	
	lecture attendance	30	
	collecting materials and preparing a multimedia presentation	12	
	participation in student-teacher sessions	5	
	preparation for the test	10	
	preparation for the exam and participation on it	8	
	<b>TOTAL:</b>	<b>125</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>97</b>	<b>3,9</b>
<b>Student workload – practical activities</b>		<b>85</b>	<b>3,4</b>
<b>Basic references</b>	<ol style="list-style-type: none"> <li>1. Borkowski S., Sygut P. (ed.), Toyota's principles as the key to success in European condition, Oficyna Wydawnicza Stowarzyszenia Menedżerów Jakości i Produkcji, 2015.</li> <li>2. Certo S., Certo, T., Modern Management: Concepts and Skills (14th Edition), Pearson Education, 2016.</li> <li>3. De Cenzo A. David, Coulter Mary A., Fundamentals of Management: Essential Concepts and Applications (10th Edition), Pearson Education, 2017.</li> <li>4. New Trends and challenges in management: concepts of management, ed. by E. Weiss, M. Godlewska, A. Bitkowska, Vizja PRESS &amp; IT, Warszawa 2008.</li> </ol>		
<b>Supplementary references</b>	<ol style="list-style-type: none"> <li>1. Frankel A. J., Gelman S.R., Case Management, an Introduction to Concepts and Skills, NY, Oxford University Press 2016.</li> <li>2. Harvard Business Review.</li> <li>3. Journal: Engineering Management in Production and Services. ISSN: 2543-6597 (print), 2300-0813 (online).</li> </ol>		
<b>Organisational unit conducting the course</b>	<b>Department of Management, Economics and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Andrzej Pawluczuk, PhD</b>	<b>30.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Psychology in management							Course code	ZSUA01288	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	1	
	15	15						No. of ECTS credits	2	
Entry requirements	-									
Course objectives	Teaching the elements of psychology relevant in the context of management science. Development of analytical and interpretational skills pertinent to management in the context of human psychological functioning. Development of social competences through the knowledge of teamwork.									
Course content	Lectures: The science of psychology. The field of psychology of management and levels of its inquiry (organisational and individual). Psychological notions of human being and their application in management. Psychological conditions of human behaviour in organisations: the role of cognitive and affective processes and dispositional structures of psyche (temperament, personality, attitudes, values). Development of professional stress and means of its elimination. Effective guidance (with special emphasis on the construct of motivation). Classes: Cognitive vs emotional intelligence and their role in professional functioning (with emphasis on management roles). Personal predispositions and conditions for certain professional roles. Management personality types. Strategies for effective team building. Conflicts at the workplace and the development of good relations. Styles of communication and notions of effective communication. Psychological resilience.									
Teaching methods	lectures (with multimedia presentation of selected topics), workshops, presentations, discussion, creative problem-solving									
Assessment method	lecture – test based on lecture contents; classes – test, teamwork evaluation (presentation), workshop activity assessed after each session									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	ability to characterise key theoretical developments in psychology and to use them as a context in the analysis of management problems.								Z_W04, Z_W13	
LO2	ability to describe cognitive, affective and dispositional structures of psyche, their relations and role from the perspective of effective functioning in an organisation and goal-oriented behaviour.								Z_W04, Z_U3	
LO3	ability to describe psychological characteristics of a leader, cultural conditions of leadership and factors contributing to successful leadership.								Z_W04, Z_U09, Z_U12	
LO4	knowledge of conflict models and creative resolution of interpersonal conflicts leveraging psychological knowledge.								Z_W04	
LO5	ability to work in teams, communicate effectively and maintain positive interpersonal relations.								Z_W04, Z_U12	
LO6	has knowledge about the conflict situations model and presents creative approach in solving interpersonal conflicts in the workplace.								Z_W13, Z_U09, Z_K01	
Symbol of learning outcome	Methods of assessing the learning outcomes								Type of tuition during which the outcome is assessed	
LO1	L – test, C – test, workshop activity, presentation								L, C	
LO2	L – test, C – test, workshop activity, presentation								L, C	
LO3	L – test, C – test, workshop activity, presentation								L, C	
LO4	L – test, C – test, workshop activity, presentation								L, C	
LO5	test, workshop activity, teamwork evaluation (presentation)								C	

<b>LO6</b>	L – test, C – test, workshop activity, presentation	L, C	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	lecture attendance	15	
	classes (attendance)	15	
	preparation for classes	5	
	participation in consultations	5	
	preparation of presentations	2	
	lecture test study	3	
	classes test study	5	
	<b>TOTAL:</b>	50	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>30</b>	<b>1,2</b>
<b>Basic references</b>	1. Goleman D., Leadership : the power of emotional intelligence : selected writings, Florence, MA: More Than Sound, 2011. 2. Szydło J., Szpilko D., Rus C., Osoian C., Management of multicultural teams. Practical lessons learned from university students, Oficyna Wydawnicza Politechniki Białostockiej, Białystok 2020. 3. Satinder D., Holistic Leadership. A New Paradigm for Today's Leaders, Springer 2017. 4. Goleman D., Guidelines for best practice. (how to improve emotional intelligence)(excerpt from 'Emotional Intelligence')(Cover Story), Training & Development, Oct, 1998, Vol.52(10), p.28(2).		
<b>Supplementary references</b>	1. Szultz D., Schultz S.E., Psychology and work today. Prentice-Hal Inc. Simon&Schuster Company 2014. 2. Kerpen D., The art of people: The 11 simple people skills that will get you everything you want. Copyright by Dave Kerpen 2016.		
<b>Organisational unit conducting the course</b>	<b>Department of Management, Economics and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Mirosława Czerniawska, PhD</b>	<b>23.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Innovative entrepreneurship							Course code	ZSUA01560	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	1	
	30	30						No. of ECTS credits	4	
Entry requirements										
Course objectives	Knowledge: the main goal is acquainting students with the theory of innovation, innovation processes in enterprises, innovative enterprise management methods, factors influencing enterprise innovativeness, innovation policy, possibilities of financing innovation and business environment, functioning and resources of enterprises, external environment of enterprises, condition of enterprise development. The aim is also to acquire knowledge about the most innovative companies (case studies) and principles of human resource management in a way that encourages innovation. Skills: the aim is to define innovations and their classification, characterizing innovative processes with particular focus on open and demand innovation, defining the principles of strategic, marketing and operational management of an innovative enterprise. Another skill is to identify factors conducive to innovation and to identify sources of funding. Students will gain knowledge of innovation policy and barriers to innovation. Social competence: developing the ability to combine innovation management theory in an enterprise with management practice, especially innovation planning.									
Course content	Lecture: The essence and definitions of innovation, innovation and innovative enterprise. Development of innovation theory. Development of research into enterprise innovativeness. Assumptions of a knowledge-based economy. Innovation systems. Innovation and R & D policy. Support for innovation implementation. Innovative company - goals, actions and resources. The external environment of the company and its impact on innovation. Business environment institutions supporting the introduction of innovation. Determinants of enterprise innovation. Sources of financing innovation. Innovative processes in the enterprise. Open Innovation and UDI. Managing change in the enterprise: strategic, marketing and operational management. Human resource management conducive to innovation. Classes: Identification and classification of innovation. Heuristic methods for innovation. Case studies of innovative enterprises. Case studies of innovative management. Designing innovation.									
Teaching methods	lecture with audiovisual support, classes: presentations of students' papers, discussions based on selected									
Assessment method	lecture – written final evaluation; classes – discussion, project									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
L01	The student knows and understands to an in-depth degree methods allowing to diagnose and solve complex problems related to the functioning of an innovative organization in a complex environment								Z_W01	
L02	The student knows and understands advanced issues about the place of management and quality sciences in the social sciences system and knows their relations to other sciences								Z_W02	
L03	The student knows and understands to an in-depth degree the phenomena and organizational processes as well as the theory of innovation and explains the complex processes and phenomena occurring in innovative enterprises on examples								Z_W03	
L04	The student knows and understands to a greater extent the principles and conditions of independent economic activity of innovative enterprises								Z_W07, Z_W15	
L05	The student is able to observe and interpret complex phenomena and social processes taking place in an innovative organization and its environment; knows and understands the evolution of management								Z_U03, Z_W11	

	and quality sciences and the main trends in the development of the theory of innovation		
L06	The student is able to select the sources of knowledge and to critically evaluate, analyze and synthesize them in relation to innovation in enterprises	Z_U04	
L07	The student is ready to think and act in an entrepreneurial way, can take part in building innovation projects and can use a foreign language at the B2 + level of the European System for the Description of Languages	Z_K03 , Z_U11	
Symbol of learning outcome	Methods of assessing the learning outcome	Type of teaching activities (if more than one) during which the outcome is assessed	
L01	Oral final evaluation	L	
L02	Oral final evaluation	L	
L03	Oral final evaluation, discussion	L	
L04	Discussion during the class	C	
L05	Final project presentation	C	
L06	Project	C	
L07	Discussion and project	C	
Student workload (in hours)		No. of hours	
Calculation	lecture attendance	30	
	participation in classes	30	
	preparation for classes	15	
	working on projects, reports, etc.	10	
	participation in student-teacher sessions	5	
	preparation for the final evaluation	10	
	TOTAL:	100	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		67	2,7
Student workload – practical activities Student workload – practical activities:		58	2,3
Basic references	1. Oslo Manual: Guidelines for Colletcing and Interpreting Innovation Data, 3rd Edition, OECD and Eurostat, Paris 2005. 2. T. Bernat (Ed.), Survey of student's entrepreneurship - cross countries analysis, Print Group Daniel Krzanowski, Szczecin 2008. 3. S. Gudkova (Ed.), Exploring entrepreneurship: inspirations from the field, Kozminski University, Warsaw 2015.		
Supplementary references	1. www.europa.eu 2. https://europa.eu/european-union/about-eu/funding-grants_en 3. H. Chesbrough, Open Services Innovation, Oxford 2010. 4. Moehrlie M.G., Isenmann R., Phaal R., Technology Roadmapping for Strategy and Innovation, Springer, 2013.		
Organisational unit conducting the course	Department of Marketing and Tourism	Date of issuing the programme	
Author of the programme	dr hab. Elżbieta Szymańska, prof.PB	20.11.2020	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Civil law							Course code	ZSUA01144	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	1	
	30	30						No. of ECTS credits	4	
Entry requirements	-									
Course objectives	Upon completion of the course, students will be able to: - know the fundamental concepts of the international civil law; - identify subjects of the International civil law and their ability to undertake actions governed by this law; - read and understand texts of normative acts; - interpret and analyze legal provisions; - formulate their own judgements on particular legal issues.									
Course content	Lecture: Polish legal system (the concept of Polish civil law, sources of Polish law - the constitution as a basic law, ratified international agreement, law, regulation, local law; copyright, legal facts - concept and typology). Classes: Solving problems and case studies related to the subject matter of the lecture. The legal system of the European Union. Natural and Legal persons. Period (period in days, months, month, year calculation). Judicial system in Poland.									
Teaching methods	Lecture - lecturing, discussion; classes - collaborating, classroom discussion of the legal problem.									
Assessment method	Lecture and classes – students will final essay or a task to solve a particular legal problem concerning with differences of Civil Law, as described by the teacher.									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student is able to explain the mechanism of the legal system of the state and organization and its influence on management								Z_W01, Z_W08, Z_W14	
LO2	The student is able to describe the sources of law and the principles of operation of the organization								Z_W01, Z_W08, Z_W14	
LO3	The student knows how to apply the provisions of law to the presented descriptions of facts								Z_U01, Z_U08, Z_U11	
LO4	The student is involved in making decisions and tries to identify priorities within individual and team tasks								Z_U01, Z_U08, Z_K03	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	test								L	
LO2	test								L	
LO3	L - test, C - solution of a specific legal problem concerning Polish civil law								L, C	
LO4	assessment of work in the classroom								C	
Student workload (in hours)									No. of hours	
Calculation	participation in lectures								30	
	participation in classes								30	
	preparation for exercises								12	
	participation in consultations								5	
	preparation to grading the lecture								8	



	preparation to grading the classes	15	
	<b>TOTAL:</b>	<b>100</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>65</b>	<b>2,6</b>
<b>Student workload – practical activities</b>		<b>60</b>	<b>2,4</b>
<b>Basic references</b>	1. The Civil Code - <a href="https://supertrans2014.files.wordpress.com/2014/06/the-civil-code.pdf">https://supertrans2014.files.wordpress.com/2014/06/the-civil-code.pdf</a> 2. Terpan, Fabien, Soft Law in the European Union—The Changing Nature of EU Law, European law journal, 2015. 3. Andrews, Arbitration and Contract Law, Springer International Publishing, 2016.		
<b>Supplementary references</b>	1. Chalmers D., Davies G., Monti G., European Union Law: Text and Materials, Cambridge University Press, Cambridge, 2014. 2. Frankowski S.(ed.), Introduction to Polish Law, Zakamycze, 2005. 3. Jamróży M., Basics of law, Warszawa : Warsaw School of Economics, 2015.		
<b>Organisational unit conducting the course</b>	<b>Department of Management, Economics and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Agnieszka Baran, PhD; Mirosława Laszuk, PhD</b>	<b>24.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Contemporary methods of management and smart IT tools							Course code	ZSUA01929	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	1	
	15	30			15			No. of ECTS credits	4	
Entry requirements										
Course objectives	Knowledge: To acquaint students with the methods and techniques of solving problems in modern economic units, in particular enterprises. Acquainting students with management support software. Skills: Developing the ability to use IT tools in an enterprise. Developing the ability to use selected methods in the functioning of entities on the market. Social competences: Analysis of case studies and preparation of information on the results of the analyzed case studies.									
Course content	Lecture: Introduction to management methods and techniques. Clarification of the most important concepts. Classification of management methods and techniques. Classes: Methods used in planning and organizing. Methods to increase employee motivation. Control methods. Computer classes: Using selected IT tools supporting communication and cooperation in the enterprise. Techniques for creating attractive forms of content presentation (infographics) and systems supporting the management of mailing campaigns. Applications supporting the organization of work in a team. Information systems for customer relationship management (CRM).									
Teaching methods	problem lecture, information lecture, project method, problem solving, team work, role playing, discussion, computer exercises – subject exercises									
Assessment method	Lecture – written test; exercises – tests, quality of teamwork, colloquium; computer exercises – evaluation of tasks performed during classes									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student defines, classifies and describes the concepts, methods and techniques of management								Z_W01, Z_W02, Z_W11	
LO2	The student can list the types of management support software and indicate the areas of its use in the enterprise								Z_W09	
LO3	The student supports selected business applications								Z_W12, Z_U06	
LO4	The student identifies problems, analyzes them and correctly selects methods and techniques for solving them								Z_U01,Z_U05	
LO5	The student can work in a team								Z_U12, Z_K01	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	L – written credit; C – colloquium								L,C	
LO2	Tasks carried out during classes								SW	
LO3	Tasks carried out during classes								SW	
LO4	Colloquium								C	
LO5	Tasks carried out during classes								C	
Student workload (in hours)									No. of hours	
Calculation	Participation in lectures								15	
	Participation in classes								30	
	Participation in computer classes								15	

	Preparation for exercises	6	
	Performing tasks	10	
	Preparation for a specialist workshop	10	
	Participation in consultations	5	
	Preparation to pass the classes	5	
	Preparation to pass the exercises Preparation to pass the lecture	4	
	<b>TOTAL:</b>	<b>100</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>65</b>	<b>2,6</b>
<b>Student workload – practical activities</b>		<b>80</b>	<b>3,2</b>
<b>Basic references</b>	1. Kalkowski A., Management Theory, Warsaw School of Economic, Warsaw, 2015. 2. Robbins S.P., Coulter M., Management, Harlow, Pearson Education, 2018. 3. Dyche J., The CRM Handbook: A Business Guide to Customer Relationship Management 1st Edition. Addison-Wesley, USA, 2002.		
<b>Supplementary references</b>	1. Smiciklas M., The Power of Infographics: Using Pictures to Communicate and Connect With Your Audiences (Que Biz-Tech). PEARSON EDUCATION, INC, USA, 2012. 2. "Harvard Business Review". 3. "ICAN Management Review".		
<b>Organisational unit conducting the course</b>	<b>Department of Management, Economics and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Justyna Grześ-Bukłaho, PhD</b>	<b>24.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Innovative marketing management and market research							Course code	ZSUA01930	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	1	
	15	30			30			No. of ECTS credits	5	
Entry requirements	-									
Course objectives	Presentation of the directions of development of modern marketing and market research focused on the implementation of innovative needs of modern enterprises. Showing the implementation of modern marketing tools. Presentation of modern techniques and research methods. The subject provides theoretical knowledge on innovative marketing management and innovative market research. It allows you to learn the basics of marketing management. The aim of the course is to develop students' practical skills in the field of market research and analysis of the environment, constructing questionnaires, and planning marketing activities.									
Course content	Lecture: The concept of innovative marketing management and innovative market research. The importance of innovative marketing management and innovative market research in the enterprise management process. The process of innovative market research. The process of innovative marketing management. Innovative marketing management tools. Methods and techniques of innovative market research. Classes: The process of innovative market research. The process of innovative marketing management. Innovative marketing management tools. Methods and techniques of innovative market research. Application of the principles of innovative marketing management in economic practice. Principles of preparing a research report. The process of constructing the questionnaire. Principles of preparing a research report. Specialist workshop: Application of the principles of innovative marketing management in economic practice. Principles of preparing a research report. The process of constructing the questionnaire. Principles of preparation of the research report and presentation of the results.									
Teaching methods	informational lecture, project method, case study method, multimedia presentations, discussion									
Assessment method	lecture - written test; exercises - multimedia presentation, evaluation of prepared case studies and projects written test; SW- task assessment									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	defines innovative marketing management and innovative market research								Z_W01, Z_W04	
LO2	characterizes the process of innovative marketing management and innovative market research								Z_W04, Z_W10	
LO3	lists and characterizes the methods and techniques of innovative market research as well as the tools of innovative marketing management								Z_U05, Z_W09	
LO4	uses the knowledge of innovative market research and innovative marketing management in business practice								Z_U02, Z_U03	
Symbol of learning outcome	Methods of assessing the learning outcomes								Type of tuition during which the outcome is assessed	
LO1	L - written exam, C - written test								L, C	
LO2	L - written exam, C - written test								L, C	
LO3	L - written exam, C - written test								L, C	
LO4	developing the concept of a methodology for a research project on a selected marketing problem for a selected company								SW	

Student workload (in hours)		No. of hours	
Calculation	attendance at lectures	15	
	participation in classes	30	
	participation in a SW	30	
	preparation for exercises	9	
	preparation for SW	10	
	project development	8	
	participation in consultations	5	
	preparation for the exam and attendance at it	8	
	preparation for the written test	10	
	<b>TOTAL:</b>	<b>125</b>	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		82	3,3
Student workload – practical activities		100	4,0
Basic references	1. Kotler P., Hermawan K., Setiawan I. Marketing 4.0 : moving from traditional to digital, Hoboken : John Wiley a. Sons, 2017 2. Solomon M., Marshall G.W., Stuart E.W. Marketing : real people, real choices, Harlow : Pearson Education, 2018 3. Hollensen S., Marketing management: a relationship approach, Harlow : Pearson, 2015.		
Supplementary references	1. Chernev A., Marketin plan handbook, Cerebellum Press, Chicago, 2011. 2. Kotler Ph., Marketing Moves, Harvard Business Rewiev Press, Boston, 2002. 3. Szwarc P., Research Customer Satisfaction and Loyalty, Kogan Press, London, 2007. 4. Wiśniowski W., Marketing of scientific and research organizations: an original, valuable and useful marketing book not only for scientists and researchers, Wydaw. Naukowe Instytutu Lotnictwa, Warszawa, 2012.		
Organisational unit conducting the course	Department of Marketing and Tourism	Date of issuing the programme	
Author of the programme	dr hab. Katarzyna Krot	28.11.2020	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Business process management							Course code	ZSUA01908	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	1	
	30				30			No. of ECTS credits	4	
Entry requirements	-									
Course objectives	Knowledge: Understanding the key aspects of process management in the enterprise. Hands-on learning process design, knowledge of the principles of analysis, modelling and documentation processes. Skills: Understanding of modern IT systems supporting the process designing and analysis. Developing creativity and contextual thinking. Prepare reports on project tasks, presentation of the results.									
Course content	Lecture: The essence of process management. Definition, structure and processes. Architecture of business processes. Business process management life-cycle Models and documentation processes. Principles of measurement and evaluation processes. Laboratory classes: Models and documentation processes. Process description and modelling with IT tools. Analysis and evaluation of processes.									
Teaching methods	Lecture and projects									
Assessment method	lecture - written test, specialization workshops - assessment of work in the classroom									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	student understand the process approach to enterprise management								Z_W01, Z_W03	
LO2	student identifies and classifies business processes								Z_W01, Z_W03	
LO3	student develops process models								Z_U01, Z_U06, Z_U7	
LO4	student defines and analyses metrics of a process and an organisation performance								Z_U01, Z_U05	
LO5	student independently solves research problems								Z_U01, Z_U7	
Symbol of learning outcome	Methods of assessing the learning outcomes								Type of tuition during which the outcome is assessed	
LO1	written test - L, written test - SW								L, SW	
LO2	written test - L, written test - SW								L, SW	
LO3	written test - L, written test - SW								L, SW	
LO4	written test - L, written test - SW								L, SW	
LO5	assessment of work in the classroom								SW	
Student workload (in hours)									No. of hours	
Calculation	lecture attendance								30	
	participation in specialization workshops								30	
	participation in student-teacher sessions								5	
	preparation to written test from lecture								13	

	preparation to pass the specialization workshops	22	
	<b>TOTAL:</b>	<b>100</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>67</b>	<b>2,7</b>
<b>Student workload – practical activities</b>		<b>55</b>	<b>2,2</b>
<b>Basic references</b>	1. Andersen B., Business process improvement toolbox, Milwaukee, ASQC Quality Press, 1999. 2. Becker J., Kugeler M., Rosemann M., Process management: a guide for the design of business processes, Berlin, Springer-Verlag, 2003. 3. Jeston J., Nelis J., Business process management: practical guidelines to successful implementations, Routledge, New York 2014.		
<b>Supplementary references</b>	1. Jones P., Strategy mapping for learning organizations: building agility into your balanced scorecard, Burlington, VT, Gower, 2011. 2. Jurczuk A., Wieloaspektowa identyfikacja i typologia źródeł niespójności procesów biznesowych, Oficyna Wydawnicza Politechniki Białostockiej, Białystok 2019. 3. Trkman P., Increasing process orientation with business process management: Critical practices. International Journal of Information Management 33.1, 2013.		
<b>Organisational unit conducting the course</b>	<b>International Department of Logistics and Service Engineering</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>dr hab. inż. Arkadiusz Jurczuk</b>	<b>20.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Business coaching and mentoring							Course code	ZSUA01931	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	1	
		30						No. of ECTS credits	2	
Entry requirements										
Course objectives	Knowledge: The aim of the classes is to familiarize students with the basic concepts of coaching, business coaching and mentoring. The student will gain knowledge about the essence of coaching, its history, the essence of change, leadership and group behavior. Skills: The student will be familiarized with good practices of business coaching and mentoring. Social competences: developing social competences through conducting and participating in coaching sessions, during which the student will acquire the ability to create a coaching contract; The student will be able to use coaching models in practice.									
Course content	History of coaching. The essence of coaching. The essence of mentoring. The essence of change. Setting goals. Coaching models: Dilts pyramid, GROW model, business circle. Manager as a coach. Giving feedback. Basics of leadership. Group behavior, group processes. Best practices in mentoring and business coaching.									
Teaching methods	exercises, role playing									
Assessment method	test, the evaluation of the coaching session									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student: understands the essence of business coaching and mentoring								Z_W03, Z_W11	
LO2	defines concepts of: change, leadership, group processes								Z_W03, Z_W04	
LO3	is familiar with and understands the best practices of business coaching and mentoring								Z_W04	
LO4	deals with the conflicts appearing in group processes								Z_K06, Z_U12	
LO5	knows how to use selected coaching models in practice								Z_U09,Z_U10, Z_U12, Z_K02, Z_K03,	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	test								C	
LO2	test, the evaluation of coaching								C	
LO3	test, the evaluation of coaching								C	
LO4	test, the evaluation of coaching								C	
LO5	test, the evaluation of coaching								C	
Student workload (in hours)									No. of hours	
Calculation	participation in the classes								30	
	preparation for the classes								10	
	participation in consultations								5	



	preparation for the test	5	
	<b>TOTAL:</b>	<b>50</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>50</b>	<b>2</b>
<b>Basic references</b>	1. Stoltzfus T., Coaching questions: a coach's guide to powerful asking skills, 2008 2. Enescu C., The organizational culture of coaching – a long term investment of modern management, Research and Science Today, 2012, pp.261-273. 3. Wiginton J. G., Catwright, P. A., Evidence on the impacts of business coaching, The Journal of Management Development, 2020, vol. 39(2), pp. 163-183.		
<b>Supplementary references</b>	1. Jones R., Napiersky U., Lyubnikova J., Concepyualizing the distinctiveness of team coaching, Journal of Managerial Psychology, March 2019, vol. 34 (2), pp. 62-67 2. Czarkowska L. (ed.), Coaching as a method of developing human potential, Warszawa: Wydawnictwa Akademickie i Profesjonalne: Kozminski University, 2010. 3. Collis D., Thinking strategically: expert solutions to everyday challenges, 2010.		
<b>Organisational unit conducting the course</b>	<b>International Department of Logistics and Service Engineering, Department of Management, Economics and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Anna Kononiuk, PhD, Joanna Jończyk, PhD</b>	<b>27.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	International marketing							Course code	ZSU02255	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2	
	15	15						No. of ECTS credits	3	
Entry requirements	-									
Course objectives	Knowledge: Familiarize students with the process of internationalization of the company and marketing strategies in the international markets. Skills: Develop the skills to plan and create strategies for entering international markets, including adapting marketing activities to the requirements of the international market in the framework of team workshop. Social competences: Develop social competencies in interaction and collaboration within the group.									
Course content	Lecture: The essence and elements of international marketing. Motives of internationalization of enterprises. Forms of entry into foreign markets. International business environment. Organisation of marketing in the international company. Classes: Marketing strategies at the international markets, including strategies for entry and development of businesses at international markets. International business orientations. Marketing research at the international markets. Sources of information about international markets. Creating the marketing mix tools on the international market. International targets and segments.									
Teaching methods	Information lecture, classes: multimedia presentation, case study analysis method, discussions based on selected literature									
Assessment method	Lecture (exam): written test, classes - assessment of the prepared group project of elements of the company's internationalization strategy from a given country and its presentation, assessment of activity during the classes									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
L01	Student identifies and describes the essence of the strategy of internationalization of the company, defines the problems of entering international markets.								Z_W02	
L02	Student elaborates and characterizes the marketing efforts of companies on international market.								Z_W04, Z_W12	
L03	Analyses case studies of companies operating on international market.								Z_U01	
L04	Properly designs and adopts the marketing strategy of an internationalized enterprise.								Z_U02, Z_U05	
L05	Student works in a team, engages and demonstrates creativity in the preparation of a group project.								Z_U13 Z_K01	
Symbol of learning outcome	Methods of assessing the learning outcomes								Type of tuition during which the outcome is assessed	
L01	written test								L	
L02	written test								L	
L03	assessment of the prepared group project and its presentation, assessment of activity during the classes								C	
L04	assessment of the prepared group project and its presentation, assessment of activity during the classes								C	
L05	assessment of the prepared group project and its presentation, assessment of activity during the classes, classroom observation								C	
Student workload (in hours)									No. of hours	
Calculation	attendance in lectures								15	

	participation in classes	15	
	preparation for classes	8	
	working on group project	10	
	implementation of homework	7	
	preparation for and participation in exam	12	
	working on multimedia presentation	3	
	participation in student-teacher sessions related to classes	5	
	<b>TOTAL:</b>	<b>75</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>37</b>	<b>1,5</b>
<b>Student workload – practical activities</b>		<b>46</b>	<b>1,8</b>
<b>Basic references</b>	1. Onkvisit S., Shaw J. J., International Marketing: Analysis and Strategy, Routledge, London 2004. 2. Szymura-Tyc M., Babińska D., International marketing in Europe, Katowice University of Economics, Katowice 2012. 3. Kotabe, M., International Marketing, Sage Publication, London 2007.		
<b>Supplementary references</b>	1. Stanley Paliwoda J., International marketing, Oxford: Butterworth-Heinemann, 1994. 2. Terpstra V., Sarathy R., International marketing, Fort Worth: Dryden Press, 1994. 3. Czinkota M. R., Ronkainen I. A., International Marketing, Harcourt College Publishers, USA 2001. 4. Usunier, J-C., Marketing Across Cultures, Prentice Hall, 6th edition, New York 2009. 5. Hampden-Turner Ch., Trompenaars F., The Seven Cultures of Capitalism: Value Systems for Creating Wealth in Britain, the United States, Germany, France, Japan, Sweden and the Netherlands, Piatkus Books, 1995.		
<b>Organisational unit conducting the course</b>	<b>Department of Marketing and Tourism</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>dr hab. Wiesław Popławski, prof. nzw.</b>	<b>20.11.2020</b>	

Bialystok University of Technology									
Field of study	Management							Degree level and programme type	second degree full-time
Specialization/ diploma path	Smart and innovative business							Study profile	academic
Course name	Mathematical statistics							Course code	ZSUA02143
								Course type	obligatory
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2
	30				30			No. of ECTS credits	4
Entry requirements	Mathematics								
Course objectives	Knowledge: acquainting students with the statistical methods of generalizing the results of research from a sample to the population. Skills: shaping the ability to use, with the support of computer programs, point and interval estimation of parameters, testing statistical hypotheses and methods of selecting a sample for the study. Social competences: developing social competences through engaging in teamwork and group discussions.								
Course content	Lecture: Distributions of random variables, estimation theory, point estimators, interval estimation, rules of statistical tests, parametric hypotheses, nonparametric hypotheses. Specialization workshops: point and interval estimation of parameters, testing statistical hypotheses and methods of selecting a sample for the study.								
Teaching methods	Problem lecture, computer simulation								
Assessment method	Lecture– exam (knowledge test); Specialistic Workshop - test, reports on statistical analysis, evaluation of group work, student activity recorded by the teacher after each class								
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study
LO1	skilfully uses the terminology of mathematical statistics								Z_W01, Z_U03
LO2	understands the importance of mathematical statistics in conducting research								Z_W06
LO3	is able to select the sample size								Z_W03, Z_W06, Z_U03
LO4	calculates and interprets the results obtained with the use of statistical inference tools								Z_W06, Z_U03, Z_U06
LO5	has the ability to generalize the results obtained on the basis of the sample to the entire community								Z_U03, Z_U06
LO6	cooperates in a group and knows how to argue their choices								Z_U12, Z_K03
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed
LO1	L-knowledge test, SW - test								L, SW
LO2	L-knowledge test, SW – test, student activity recorded by the teacher after each class								L, SW
LO3	L-knowledge test, SW – test, reports from the performed statistical analyzes								L, SW
LO4	L-knowledge test, SW – test, reports from the performed statistical analyzes								L, SW
LO5	test								SW
LO6	evaluation of group work, student activity recorded by the teacher after each class								SW
Student workload (in hours)									No. of hours
Calculation	lecture attendance								30

	participation in laboratory classes	30	
	preparation for laboratory classes	17	
	working on reports	10	
	participation in student-teacher sessions related to the lectures and classes	5	
	preparation for and participation in exams/tests	8	
	<b>TOTAL:</b>	<b>100</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>65</b>	<b>2,6</b>
<b>Student workload – practical activities</b>		<b>60</b>	<b>2,4</b>
<b>Basic references</b>	1. Agresti A., Categorical data analysis, Wiley-Interscience, Hoboken 2013. 2. Frączak E., Statistics for management and economics, Warsaw School of Economic, Warszawa 2015. 3. Kowalczyk B., Witkowski B., Mathematical Statistics for Management, Warsaw School of Economic, Warszawa 2015. 4. Tuffery S., Data mining and statistics for decision making, John Wiley a. Sons, Chichester, 2011.		
<b>Supplementary references</b>	1. Daglaard P., Introductory statistics with R, Springer, New York 2008. 2. Drăghici, Statistics and data analysis for microarrays using R and Bioconductor, CRC/Taylor & Francis, Boca Raton, 2012. 3. Michna Z., Statistics, Publishing House of Wrocław University of Economics, Wrocław 2014.		
<b>Organisational unit conducting the course</b>	<b>International Departament of Logistics and Service Engineering</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Justyna Kozłowska, PhD</b>	<b>29.11.2020</b>	

Bialystok University of Technology									
Field of study	Management							Degree level and programme type	second degree full-time
Specialization/ diploma path	Smart and innovative business							Study profile	academic
Course name	Macroeconomics							Course code	ZSUA02024
								Course type	obligatory
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2
	30	30						No. of ECTS credits	4
Entry requirements									
Course objectives	Knowledge: getting acquainted students with the basic principles of functioning of market economy. Overview of the main measures of economic activity and presenting the concept and principles of determining macroeconomic equilibrium. Presentation of the principles of operation and the relations that exist between goods, money and labour markets. Explanation of the differences between the major macroeconomic theories: Keynesian and classical. Skills: abilities of analysis of the problems of unemployment, inflation, and budget deficit and recession. Social Competences: substantive discussion on economic policy, teamworking.								
Course content	Lecture: Determinants of national income. Fiscal policy. Monetary policy. Labour market. Inflation. Economic growth and the business cycle. Classes: GDP, GNP and DN, the components of aggregate demand, the functioning of the multiplier in the economy. Budget functions, income and expenditure, the concept of budget deficit and public debt, public finance reform proposals. The phenomenon of demand and supply of money, the impact of Central Bank on money supply, the role of financial institutions. The concept of demand and supply of labour, measures of the labor market, the phenomenon of unemployment-types, causes. Ways of measuring, reasons, the link with the labour market - the Phillips curve. Growth measures and the conditions, the phases of the business cycle.								
Teaching methods	lecture, case study analysis, discussion								
Assessment method	Lecture: written exam. Classes: homework, activity during classes.								
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study
LO1	The student understands major theories of macroeconomics								Z_W01, Z_W05, Z_U03
LO2	The student describes economic policy instruments								Z_W03, Z_U06
LO3	The student compares different types of economic systems								Z_W05, Z_U03
LO4	The student identifies ethical and social aspects of economic policy								Z_W13, Z_K01
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed
LO1	evaluation of the exam, homeworks and student's performance in classes								L, C
LO2	evaluation of the exam, homeworks and student's performance in classes								L, C
LO3	evaluation of the exam, homeworks and student's performance in classes								L, C
LO4	evaluation of the exam, homeworks and student's performance in classes								L, C
Student workload (in hours)									No. of hours
Calculation	lecture attendance								30
	participation in classes								30

	preparation for classes	12	
	work on homeworks	10	
	participation in student-teacher sessions related to the class	5	
	preparation for and participation in exam	13	
	<b>TOTAL:</b>	<b>100</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>67</b>	<b>2,7</b>
<b>Student workload – practical activities</b>		<b>55</b>	<b>2,2</b>
<b>Basic references</b>	1. Sloman J., Essentials of economics, Prentice-Hall, Harlow 2007. 2. Coven T., A. Tabarrok, Modern Principles of Macroeconomics, MacMillan, 2014. 3. Acemoglu D. i in., Macroeconomics, Harlow : Pearson Education, 2019.		
<b>Supplementary references</b>	1. Mishkin F. S., The economics of money, banking, and financial markets, Pearson Education, Boston 2016. 2. Miklaszewicz S., International economics, Warsaw School of Economics, Warsaw 2015.		
<b>Organisational unit conducting the course</b>	<b>Department of Economics, Management and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Ewa Rollnik-Sadowska, PhD</b>	<b>23.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative Business							Study profile	academic	
Course name	Academic writing and communication							Course code	ZSUA02910	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2	
		30						No. of ECTS credits	2	
Entry requirements										
Course objectives	Developing reading and listening skills in English in order to access and interpret knowledge acquiring competences necessary to produce oral and written scholarly texts in English									
Course content	Academic English: lexis and syntax. Passive voice in research articles. Word formation and word families, paraphrasing and plagiarism. Compound nouns in specialist texts. Plain English in the sciences. How to compose an accurate written text: conjunctions, nominals, compound sentences. Collocations, parallel structures, typical language errors. Dynamics of a scientific text (sentence connectors, participial phrases). How to make a presentation in English.									
Teaching methods	pair work, group work									
Assessment method	grammatical and lexical tests									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	knows specialist terminology used in specialist texts								Z_U11	
LO2	knows language structures used in specialist texts; recognizes and uses the passive voice								Z_U11	
LO3	Is able to describe research results in English with respect to copyright and intellectual property								Z_U11	
LO4	knows word phrases used in specialist texts; recognizes and produces written and oral texts using suitable discourse components								Z_U11	
LO5	Is able to produce specialist texts in plain English								Z_U11	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	written test (passive voice in specialist discourse)								C	
LO2	written test (paraphrasing)								C	
LO3	written test (discourse components in cohesive written and oral texts)								C	
LO4	written test (plain English in specialist discourse)								C	
Student workload (in hours)									No. of hours	
Calculation	class participation								30	
	preparation for written tests								15	
	participation in duty-hours								5	
	TOTAL:								50	
Quantitative indicators									HOURS	No. of ECTS credits



<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1.4</b>
<b>Student workload – practical activities</b>		<b>50</b>	<b>2</b>
<b>Basic references</b>	1. McCarthy, M., O'Dell, F., (2008) Academic Vocabulary in Use. Cambridge: CUP. 2. Sowton, Ch., (2012) 50 Steps to Improving Your Academic Writing. Reading: Garnet Education. 3. Śleszyńska, M., (2011) Get Ready for Technical B2. Białystok: Wydawnictwo Politechniki Białostockiej. 4. Wallwork, A., (2016) English for Writing Research Papers. Basel: Springer.		
<b>Supplementary references</b>	1. Armer T. (2012) Cambridge English for Scientists. Cambridge: CUP. 2. Greene, A. E.,(2013) Writing Science in Plain English. Chicago: The University of Chicago Press. 3. Grussendorf, M., (2008) English for Presentations. Warszawa: WydawnictwoBC.edu.		
<b>Organisational unit conducting the course</b>	<b>Foreign Language Centre</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Monika Śleszyńska, MA</b>	<b>29.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Project management in innovative business							Course code	ZSUA02932	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2	
	30	30						No. of ECTS credits	4	
Entry requirements	Management concepts, Contemporary methods of management and and smart IT tools									
Course objectives	Knowledge: Understanding the importance of projects in innovative management of a company; gaining knowledge of project management, in particular regarding the implementation of innovations. Skills: Acquisition of practical skills to use modern instruments of planning and organization of projects, monitoring their implementation and control effects. Social competence: understanding the role of team building in the management of innovation projects and the ability to coordinate the work of project team.									
Course content	Basics of project management in an innovative environment - the concept and parameters of the project, project types and phases of their development, problems in the management of innovative projects. Planning process and project resources - the structure of the project, the organization of the project team, the cycle of design - realization, schedules and network methods of planning projects, identification of required resources of the project and assess their availability. Planning and control of project costs - methods of estimating costs, budgeting and monitoring the effects and costs of financing innovative activity. Risk and quality management in innovation projects - sources and types of threats in innovative projects, risk assessment, ways to reduce it. Selected standards and project management methodologies. Computer tools supporting project management. Classes: Application of the knowledge gained during the lecture concerning project planning and implementation in innovative business. Analysis of possibilities and conditions of using particular project management tools. Identification of sources of threats and risk assessment of innovative projects. Planning of project implementation as part of teamwork.									
Teaching methods	problem-based lecture, subject exercises, case studies, implementation of a project task									
Assessment method	lecture - written exam; exercises - final test, evaluation of work during exercises, evaluation of tasks carried out in task groups									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
L01	student knows the importance of project management in an innovative environment, indicates and describes the methods and techniques used in project management; defines and classifies instruments for managing project components, understands the complexity of organizational phenomena and processes								Z_W01, Z_W03	
L02	student knows innovative techniques and information and communication methods used in project management; understands the need to forecast changes taking place in the organization and its environment								Z_W09, Z_W12	
L03	student is able to solve problems typical for project management in an innovative environment; manages relations with various groups of stakeholders; defines the roles and competences of the members of the project team								Z_U02, Z_U09	
L04	student is able to prepare and carry out projects of innovative changes in organizations using the latest concepts and methods; effectively manages the work of the project team and interacts with other people as part of team work								Z_U07, Z_U12	

L05	student is ready to act in an entrepreneurial manner, has the ability to use IT tools supporting project management	Z_K03, Z_K06	
<b>Symbol of learning outcome</b>	<b>Methods of assessing the learning outcome</b>	<b>Type of teaching activities (if more than one) during which the outcome is assessed</b>	
L01	written exam	L	
L02	written exam	L	
L03	written exam, observation of work during exercises, assessment of the project task	L, C	
L04	written exam, observation of work during exercises, assessment of the project task	C	
L05	observation of work during exercises, evaluation of the project task	C	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	participation in lectures	30	
	participation in classes	30	
	preparation for classes	11	
	participation in consultations	5	
	preparation and attendance for the lecture exam	4	
	preparation for passing the classes	5	
	performing a task in a team	15	
	<b>TOTAL:</b>	<b>100</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>67</b>	<b>2,7</b>
<b>Student workload – practical activities</b>		<b>65</b>	<b>2,6</b>
<b>Basic references</b>	1. Ward Garth G.F., <i>Effective project management: guidance and checklists for engineering and construction</i> , Wiley-Blackwell, Hoboken, 2018. 2. Keays S. J., <i>Investment-centric innovation project management: winning the new product development game</i> , J. Ross Publ. Plantation, 2018. 3. Cobb C. G., <i>Zrozumieć Agile Project Management : równowaga kontroli i elastyczności</i> , APN Promise, Warszawa 2012.		
<b>Supplementary references</b>	1. <i>A Guide to the Project Management Body of Knowledge (PMBOK Guide)</i> , Fifth ed., Project Management Institute, Inc., Pennsylvania, 2013. 2. Kerzner H., <i>Project Management. A Systems approach for Planning, Scheduling and Controlling</i> , Eleventh ed., Jon Wiley& Sons, Inc. New Jersey 2013. 3. Bessant J., Pavitt K., Tidd J., <i>Managing Innovation - Integrating Technological, Market and Organizational Change</i> , Wiley and Sons, Chichester 2005.		
<b>Organisational unit conducting the course</b>	<b>Department of Production Management</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Andrzej Daniluk, PhD, Eng.</b>	<b>30.11.2020</b>	

Bialystok University of Technology									
Field of study	Management							Degree level and programme type	second degree full-time
Specialization/ diploma path	Smart and innovative business							Study profile	academic
Course name	Smart Start-Ups							Course code	ZSUA02932
								Course type	obligatory
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2
	15	30						No. of ECTS credits	3
Entry requirements	-								
Course objectives	Knowledge: Developing knowledge on: defining what a start-up and smart start-up is; understanding of a process and a stages of starting a start-up; the value proposition versus a start-up; segmentation and potential market size; business models connected to start-up; a new products implementation process; product and brand positioning in relation to start-up; start-ups and a fundraising process; One page marketing strategy for running the start-up. Skills: Analysis and assessment of ideas and the process of creating a start-up. Skills on developing marketing plan for a newly created start-up. Understanding of successful start-ups implementation based on business cases. Social competences: Preparation in groups the projects based on practical business cases. Communication with companies representatives when visiting these companies.								
Course content	Lecture: Defining what a start-up and smart start-up is. Contemporary issues of starting a smart start-ups businesses. Process and a stages of starting a start-up. The value proposition versus a start-up. Segmentation and potential market size. Business models connected to start-up. Classes: A new products implementation process. Product and brand positioning in relation to start-up. Start-ups and a fundraising process. One page marketing strategy for running the start-up.								
Teaching methods	lecture based on issue, informational lecture, classes of the module, project method, presentation, discussion, visiting the sites of the companies								
Assessment method	Lecture - oral exam; presentation of the lecture content; discussion; Classes - verification of preparation for classes; case studies; project completion; students presentation of reports based on the literature								
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study	
L01	Defines the notions and the idea of start-ups and explains the processes of starting the start-up business in relation to business practice including international environment+B16:M20							Z_W01 Z_W15 Z_W10	
L02	Identifies and can characterise the structural elements of different areas of starting the start-up business							Z_W01 Z_W03 Z_W09	
L03	Student is designing the projects on start-up company including all the structural elements of it.							Z_U02	
L04	Student prepares the project on a start-up company and prepares a reports presentations based on the literature							Z_U10 Z_U12	
L05	Student can cooperate and organize the work in the team							Z_K01 Z_K02 Z_K03	
Symbol of learning outcome	Methods of assessing the learning outcome							Type of teaching activities (if more than one) during which the outcome is assessed	
L01	passing oral exam, assessment of progresses of project realization, discussion on business problems tasks							L,C	
L02	passing oral exam, assessment of progresses of project realization, discussion on business problems tasks							L,C	
L03	assessment of progresses of project realization, discussion on business problems tasks, passing oral exam							L,C	

<b>L04</b>	assessment of the team project and its presentation, discussion on business problems tasks or discussion on the project, verification of preparation for classes, assessment of students' reports presentations based on the literature	C	
<b>L05</b>	observation of the work on the classes, discussion, co-verification of eventual mistakes, assessment of team presentation	C	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	participation in lecture	15	
	participation in classes	30	
	classes related tasks, including preparation of team project	10	
	classes related tasks - preparation of students' reports presentations	10	
	consultations attendance	5	
	preparation for oral exam	5	
	<b>TOTAL:</b>	<b>75</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>50</b>	<b>2</b>
<b>Student workload – practical activities Student workload – practical activities:</b>		<b>53</b>	<b>2</b>
<b>Basic references</b>	1. Cohan, Peter S. Scaling Your Startup. Berkeley, CA: Apress L. P, 2019. Web. 2. Ries, E. The Startup Way: How Entrepreneurial Management Transforms Culture and Drives Growth. London]: Portfolio Penguin, 2017. Print. 3. Ready K., Startup, Apres, 2011		
<b>Supplementary references</b>	1. Jonikas, D., Startup Evolution Curve. From Idea to Profitable and Scalable Business, Publisher: D. Jonikas, Columbia 2017. 2. Reypens, C., Delanote, J, Rückert, D. From Starting to Scaling. Luxembourg: Publications Office, 2020. EIB Thematic Study. Web. 3. Sethi, A. From Science to Startup. Cham: Springer International AG, 2016. Web.		
<b>Organisational unit conducting the course</b>	<b>Department of Marketing and Tourism</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>dr hab. inż. Dariusz Siemieniako, prof. nzw.</b>	<b>27.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Cross-national business models design							Course code	ZSUA02934	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2	
					15			No. of ECTS credits	2	
Entry requirements	-									
Course objectives	After completing this subject, students will acquire knowledge of how to define the strategy of internationalization of enterprises. They will also acquire the ability to use the latest managerial tools and business concepts used in the internationalization of enterprises.									
Course content	Internationalization of enterprises, global startups, models of internationalization, business models in internationalization of enterprises, Business Model Canvas method, Design Thinking method, case studies and success studies in internationalization of enterprises.									
Teaching methods	delegation of tasks and indication of key points, discussion during presentations, work in small groups									
Assessment method	evaluation of presentations by small groups of students; task execution - assessment based on the report									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	understands the importance of the company's internationalization strategy								Z_W10	
LO2	is able to set directions for internationalization in the enterprise								Z_U05, Z_W10	
LO3	is able to select and use methods supporting the effective definition of the company's internationalization strategy								Z_U06, Z_K03	
LO4	can present ideas of internationalization in a communicative manner and formulate appropriate plans								Z_K01, Z_K03, Z_U11	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	evaluation of the report, evaluation of the presentation								SW	
LO2	evaluation of the report, evaluation of the presentation								SW	
LO3	evaluation of the discussion, evaluation of the report								SW	
LO4	evaluation of the report, evaluation of the presentation								SW	
Student workload (in hours)									No. of hours	
Calculation	participation in a specialist workshop								15	
	preparation for a specialist workshop								20	
	work on the task								10	
	participation in consultations								5	
	TOTAL:								50	
Quantitative indicators									HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation									20	0,8

<b>Student workload – practical activities</b>		<b>Student workload – practical activities:</b>	<b>50</b>	<b>2</b>
<b>Basic references</b>	1. Collis D., International Strategy: Context, Concepts and Implications, Wiley, 2014. 2. Brown T., Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, Harper Business, 2009. 3. Yayici E., Design Thinking Methodology Book, ArtBizTech, 2016.			
<b>Supplementary references</b>	1. Deresky H., International Management: Managing Across Borders and Cultures, Text and Cases, Pearson 2013. 2. Osterwalder A., Pigneur Y., Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, John Wiley and Sons, 2010.			
<b>Organisational unit conducting the course</b>	<b>Department of Production Management</b>		<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>dr hab. inż. Wiesław Urban, prof. PB</b>		<b>22.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	Second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Trust management in innovative business							Course code	ZSUA02935	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2	
	15	15						No. of ECTS credits	3	
Entry requirements	-									
Course objectives	Acquaint students with the essence of trust inside and outside the organizational and presentation of its importance in innovative processes. Acquiring the ability to create a trusted work environment in an innovative organization and to measure trust in the organization. The student will acquire competences of effective communication, maintaining correct interpersonal relations and working in a team.									
Course content	Lecture: The essence, types of trust. The role of trust in an innovative organization. The ways of measuring organizational trust. Organizational relations and dimensions of trust. Horizontal and vertical trust. Intra-organizational trust management in an innovative enterprise Classes: Mechanisms of building customer trust. A committed customer as a source of innovation. Planning activities that build the organization's credibility from the perspective of various stakeholder groups.									
Teaching methods	informational lecture, case study method, discussion									
Assessment method	lecture - written test; exercises - multimedia presentation, evaluation of prepared case studies; team task assessment, presentation and discussion, tests of preparation for exercises									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
L01	diagnoses the level of trust in an innovative organization as well as problems and mechanisms building the organization's credibility in a complex environment								Z_W01, Z_U01	
L02	characterizes the role of employees in the process of managing trust in the organization								Z_W04	
L03	assesses the level of trust in the organization and is able to plan activities improving the innovation of the organization								Z_U03, Z_U05	
L04	solves complex problems related to trust management in organisation								Z_U09	
L05	is able to communicate effectively and is able to work in team								Z_K02	
Symbol of learning outcome	Methods of assessing the learning outcomes								Type of tuition during which the outcome is assessed	
L01	written test; test during exercises								L, C	
L02	written test; test during exercises								L, C	
L03	task assessment, discussion, evaluation of work on case studies								C	
L04	task assessment, discussion, evaluation of work on case studies								C	
L05	discussion, observation of work during classes								C	
Student workload (in hours)									No. of hours	
Calculation	attendance at lectures								15	
	participation in classes								15	



	preparation for classes	15	
	preparation of a team task	10	
	work on case studies and preparation of presentations	7	
	participation in consultations related to exercises	5	
	preparation for the written test (a lecture)	8	
	<b>TOTAL:</b>	<b>75</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>50</b>	<b>2</b>
<b>Basic references</b>	1. International Conference on Trust: Trust research from multi-disciplinary perspectives, 2017 2. Trust management, 4 <sup>th</sup> International Conference iTrust, Italy, 2006. 3. Paliszkievicz J., Koohang A., Social media and Trust: multinational study of university students, 2016		
<b>Supplementary references</b>	1. Irwin, K. "Prosocial behavior across cultures: The effects of institutional versus generalized trust" In Altruism and Prosocial Behavior in Groups. Published online: 09 Mar 2015; 165-198. 2. Michalenko P., "The Impact of Trust on the Organizational Merger Process" In Research in Organizational Change and Development. Published online: 09 Mar 2015; 279-314.		
<b>Organisational unit conducting the course</b>	<b>Katedra Marketingu i Turystyki</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>dr hab. Katarzyna Krot</b>	<b>28.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	Second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Service marketing							Course code	ZSUA02095	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2	
	15	15						No. of ECTS credits	3	
Entry requirements	-									
Course objectives	Acquaint students students with the specificity of services and the consequences of this specificity for the marketing management process. Analysis of business practice and developing the ability to use best practices. Preparation for solving simple problems in service activities. Learning to design a service process.									
Course content	Lecture: The role of services in the modern economy. Specifics of services and their marketing implications. The nature of service marketing. Relationship marketing in service activities. Relationship types in service activities. The role of trust in building service relationships. Classes: Designing a service process on the example of a selected type of service. The essence and specificity of the quality of services. The role of customer expectations in creating service quality. The importance of personnel in service marketing. Internal Marketing									
Teaching methods	informational lecture, project method, case study method, discussion									
Assessment method	lecture - written test; exercises - multimedia presentation, evaluation of prepared case studies and projects; team task assessment, presentation and discussion, tests of preparation for exercises									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
L01	recognizes and describes specific aspects of service marketing								Z_W01, Z_W10,	
L02	discusses the concept of relational and internal marketing								Z_W03, Z_W04	
L03	interprets and presents solutions used in service companies								Z_U01, Z_U03, Z_U04	
L04	correctly designs a simple service process								Z_U05	
L05	correctly analyzes and develops solutions to simple problems in the field of service and trade marketing (case studies)								Z_U05	
L06	can work in a team								Z_K02	
Symbol of learning outcome	Methods of assessing the learning outcomes								Type of tuition during which the outcome is assessed	
L01	L - written test, C - assessment of a team task								L, C	
L02	L - written test, C - assessment of a team task, multimedia presentation								L, C	
L03	team task assessment, presentation and discussion, tests of preparation for exercises								C	
L04	team task assessment, presentation and discussion, tests of preparation for exercises								C	
L05	evaluation of case studies								C	
L06	assessment of the team task, discussion of the team task, case studies, observation of work in the classroom								C	
Student workload (in hours)									No. of hours	
Calculation	attendance at lectures								15	

	participation in classes	15	
	preparation for classes	15	
	work on case studies and preparation of presentations	7	
	preparation of a team task	10	
	participation in consultations	5	
	preparation for the written test (a lecture)	8	
	<b>TOTAL:</b>	<b>75</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>50</b>	<b>2</b>
<b>Basic references</b>	1. Gronroos Ch., Service Management and Marketing, John Wiley & Sons, 2001. 2. Ciesielska-Maciągowska D., Service quality management Warszawa: Warsaw School of Economics, 2015. 3. Seretny M., Sustainable management - marketing perspective : essence, determinants and manifestations Warszawa : Oficyna Wydawnicza Politechniki Warszawskiej, 2018.		
<b>Supplementary references</b>	1. Pirrie A., Mudie P., Services Marketing Management, Routledge 2006. 2. Wirtz J., Lovelock Ch, Services Marketing: People, Technology, Strategy, Prentice Hall 2004. 3. Zeithaml V., Bitner M.J., Gremler D.D., Service marketing, McGraw-Hill Education, 1996.		
<b>Organisational unit conducting the course</b>	<b>Department of Marketing and Tourism</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>dr hab. Katarzyna Krot</b>	<b>28.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Methods of artificial intelligence							Course code	ZSUA02363	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2	
					15			No. of ECTS credits	2	
Entry requirements	-									
Course objectives	The aim of the subject is to acquaint students with modern IT methods and tools used for modeling and improving business processes and for effective management. During the course, the student learns about the nature, evolution and typology of selected artificial intelligence methods, including primarily artificial neural networks and expert systems. The student also acquires the ability to use these tools to support business decisions. He can use and link this knowledge to the key aspects of innovative enterprise management. As part of the course, the student develops the ability to independently conduct analysis, select the appropriate tools taking into account the specific nature of the problem as well as to model the economic processes. The student also acquires skills to make advantage of this knowledge in practice, using among others: Sphinx Software (PC-Shell) and Statistca package (Neural Networks module).									
Course content	Artificial intelligence methods. Fundamentals of expert systems, types, functioning and structure of expert systems, representation of expert knowledge, methods of reasoning. Construction of expert systems supporting the decision-making process in enterprise management. Designing the expert systems using modern IT tools (PC - Shell). Classification, construction and main tasks of artificial neural networks. Examples of neural network applications for solving problems in economics and management. Selection of neural network architecture and testing their parameters. Choosing the learning method and the fundamentals of training process. Testing neural model using IT tools (Statistica Automated Neural Networks). Hybrid systems designing.									
Teaching methods	case studies, multimedia presentation, discussion									
Assessment method	written test, evaluation of final project, assignments of preparation for classes									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student knows modern IT tools in the field of artificial intelligence and can apply appropriate solutions to solve various types of management problems								Z_W01, Z_W09	
LO2	The student is able to apply neural networks to forecast economic processes and phenomena and use them to solve regression and classification problems related to enterprise management								Z_W04, Z_W12, Z_U01, Z_U09, Z_U11	
LO3	The student is able to navigate the PC-Shell environment and use this skill to design and build applications (expert systems) that support business decisions								Z_K01, Z_K06	
LO4	The student is able to conduct the deduction, synthesis, analysis and interpretation of results and on this basis, make appropriate operational and strategic decisions in the field of company management								Z_U03, Z_U09, Z_U13	
LO5	The student can work in a team								Z_K02	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	written test, assignments of preparation for classes								SW	
LO2	written test, evaluation of final project								SW	

<b>L03</b>	written test, evaluation of final project	SW	
<b>L04</b>	evaluation of final project, discussions, observations of working during classes	SW	
<b>L05</b>	observations of working during classes, evaluation of final project	SW	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	participation in specialization workshops	15	
	preparation for specialization workshops	15	
	participation in student-teacher sessions related to the specialization workshops	5	
	preparation for written test	5	
	final project preparation	10	
	<b>TOTAL:</b>	<b>50</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>20</b>	<b>0,8</b>
<b>Student workload – practical activities</b>		<b>50</b>	<b>2</b>
<b>Basic references</b>	<ol style="list-style-type: none"> <li>1. Surma J., Business Intelligence. Making Decisions Through Data Analytics, Business Expert Press, 2011.</li> <li>2. Tuffery S., Data mining and statistics for decision making, Wiley, 2011.</li> <li>3. Ünal, Muhammet ; Ak, Ayça ; Topuz, Vedat ; Erdal, Hasan, Artificial Neural Networks, Studies in Computational Intelligence, Optimization of PID Controllers Using Ant Colony and Genetic Algorithms, 2013, pp.5-17</li> </ol>		
<b>Supplementary references</b>	<ol style="list-style-type: none"> <li>1. Rutkowski L., Computational Intelligence: Methods and techniques, Springer, 2008.</li> <li>2. Parkes, D. C., and M. P. Wellman. 2015. "Economic Reasoning and Artificial Intelligence." Science 349 (6245) (July 16): 267–272. doi:10.1126/science.aaa8403. <a href="http://dx.doi.org/10.1126/science.aaa8403">http://dx.doi.org/10.1126/science.aaa8403</a>.</li> <li>3. <a href="https://www.sciencedirect.com/journal/neural-networks/about/aims-and-scope">https://www.sciencedirect.com/journal/neural-networks/about/aims-and-scope</a></li> </ol>		
<b>Organisational unit conducting the course</b>	<b>International Department of Logistics and Service Engineering</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Julia Siderska, PhD</b>	<b>23.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	C/C++ programming							Course code	ZSUA02936	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	2	
					15			No. of ECTS credits	2	
Entry requirements	-									
Course objectives	Understanding the concept of programming with the example of C ++, acquiring the ability to analyze algorithms and creating simple programs using basic programming language instructions, improving cooperation while working in a team.									
Course content	Specialised Workshops: basic programming concepts, i.e., algorithm, code, compilation, IDE, program structure, basic language elements, variables, constants and operators, control instructions (if, switch, loops), complex structures, i.e. arrays, functions and their parameters, decomposing the program into functions, coding simple algorithms and testing in an integrated development environment.									
Teaching methods	presentation and problem analysis and discussion									
Assessment method	test; evaluation of work in the classroom									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	understands the idea of programming and the principle of operation of computer applications								Z_U05	
LO2	designs solutions to real problems using algorithms								Z_U01	
LO3	can write and analyze simple C ++ code								Z_U02	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	class work assessment, test								SW	
LO2	class work assessment, test								SW	
LO3	test								SW	
Student workload (in hours)								No. of hours		
Calculation	attendance at classes								15	
	preparation for passing classes								15	
	preparation for classes								15	
	participation in consultations								5	
	TOTAL:								50	
Quantitative indicators								HOURS	No. of ECTS credits	
Student workload – activities that require direct teacher participation								20	0,8	
Student workload – practical activities								50	2	

<b>Basic references</b>	1. Stroustrup B., The C++ Programming Language (4th ed., 8th print.), Upper Saddle River : Addison-Wesley Publ., 2018. (available in the Library). 2. Horton I., Weert Van P., Beginning C++17, Apress, Berkeley, CA, 2018 (online direct access, <a href="https://bazy.pb.edu.pl:2073/10.1007/978-1-4842-3366-5">https://bazy.pb.edu.pl:2073/10.1007/978-1-4842-3366-5</a> ). 3. Olsson M., C++ 14 Quick Syntax Reference, Apress, Berkeley, CA, 2015, (online direct access online, <a href="https://bazy.pb.edu.pl:2073/10.1007/978-1-4842-1727-6">https://bazy.pb.edu.pl:2073/10.1007/978-1-4842-1727-6</a> ).	
<b>Supplementary references</b>	Online programming courses: 1. LearnCpp.com, <a href="http://www.learncpp.com/">http://www.learncpp.com/</a> [26.11.2020]. 2. Cprogramming.com, <a href="http://www.cprogramming.com/">http://www.cprogramming.com/</a> [26.11.2020]. 3. cplusplus.com, <a href="http://www.cplusplus.com/">http://www.cplusplus.com/</a> [26.11.2020]. 4. CodesDope, <a href="https://www.codesdope.com/">https://www.codesdope.com/</a> [26.11.2020]. 5. Tutorials Point, <a href="https://www.tutorialspoint.com/cplusplus/index.htm">https://www.tutorialspoint.com/cplusplus/index.htm</a> [26.11.2020]. 6. w3schools.com, <a href="https://www.w3schools.com/cpp/default.asp">https://www.w3schools.com/cpp/default.asp</a> [26.11.2020].	
<b>Organisational unit conducting the course</b>	<b>International Department of Logistics and Service Engineering</b>	<b>Date of issuing the programme</b>
<b>Author of the programme</b>	<b>dr hab. inż. Ewa Chodakowska</b>	<b>26.11.2020</b>

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Green economy							Course code	ZSUA02937	
								Course type	elective	
Forms and number of hours of tuition	L	C	2	P	SW	FW	S	Semester	2	
	15	15						No. of ECTS credits	3	
Entry requirements	-									
Course objectives	Understanding the relationship between socio-economic development and the environmental sphere, acquiring knowledge about the green economy and the possibilities of implementing activities in its main areas. Acquiring the skills to include environmental issues in business.									
Course content	Lecture: Sustainable development as the basis of green economy. The concept, goals and principles of the green economy. Green economy in international, EU and Polish ecological policy. Main areas of green economy: sustainable energy and renewable energy sources, waste recycling, sustainable production and consumption, sustainable transport and sustainable agriculture. Green economy indicators. Financing activities in the field of green economy. Classes: Main areas of green economy: sustainable energy and renewable energy sources, waste recycling, sustainable production and consumption, sustainable transport and sustainable agriculture. Green economy indicators. Financing activities in the field of green economy.									
Teaching methods	informational lecture, problem lecture, case study									
Assessment method	lecture: written test; exercises: colloquium, two tests of preparation for classes, evaluation of completed tasks, evaluation of the prepared task in groups									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	knows the basic concepts of green economy and understands the impact of environmental issues on the activities of the organization								Z_W13	
LO2	lists the areas of green economy								Z_W01, Z_U01, Z_U03, Z_K01	
LO3	is aware of the social and ethical dimension of ecological issues, identifies the most important problems in these areas as well as their causes and effects, and selects appropriate methods of preventing them								Z_K02, Z_K04	
LO4	prepares the project and the presentation of its results								Z_U07, Z_U10	
LO5	can work in a team								Z_U12	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	final test, colloquium								L, C	
LO2	final test, tests of preparation for exercises, colloquium								L, C	
LO3	task discussion								C	
LO4	assessment of the task								C	
LO5	discussion of the task, observation of the work in a team								C	
Student workload (in hours)									No. of hours	
Calculation	participation in classes								15	



	Participation in lectures	15	
	preparation for classes	10	
	participation in consultations	5	
	realization of team tasks	15	
	preparation to pass lectures	5	
	preparation to pass classes	10	
	<b>TOTAL:</b>	<b>75</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>52</b>	<b>2,1</b>
<b>Basic references</b>	1. Allen C., Clouth S., A guidebook to the green economy, UNDESA, 2012 ( <a href="https://sustainabledevelopment.un.org">https://sustainabledevelopment.un.org</a> ).. 2. Sustainability, climate change and the green economy, ed. by G. Nhamo, V. Mjimba, Africa Institute of South Africa, South Africa 2016. 3. Towards a green economy: Pathways to sustainable development and poverty eradication, UNEP, 2011, ( <a href="http://www.unep.org/greeneconomy">www.unep.org/greeneconomy</a> ).		
<b>Supplementary references</b>	1. Dincer I. Rosen M.A. Exergy: energy, environment and sustainable development, Elsevier, Amsterdam 2007. 2. Hedstrom G.S., Sustainability: what it is and how to measure it., Walter de Gruyter, Boston-Berlin, 2019. 3. Transitioning to a green economy. Political economy of approaches in small states, ed. by N. Smith, A. Halton, J. Strachan, Commonwealth, London 2014 ( <a href="http://www.oecd-ilibrary.org">http://www.oecd-ilibrary.org</a> ).		
<b>Organisational unit conducting the course</b>	<b>Department of Production Management</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Joanna Godlewska, PhD eng.</b>	<b>26.11.2020</b>	

Bialystok University of Technology									
Field of study	Management							Degree level and programme type	second degree full-time
Specialization/ diploma path	Smart and innovative business							Study profile	academic
Course name	Low emission economy							Course code	ZSUA02938
								Course type	elective
Forms and number of hours of tuition	L	C	2	P	SW	FW	S	Semester	2
	15	15						No. of ECTS credits	3
Entry requirements	-								
Course objectives	Understanding the relationship between socio-economic development and the environmental sphere, acquiring knowledge about the low emission economy and the possibilities of implementing activities in its main areas. Acquiring the skills to include environmental issues in business.								
Course content	Lecture: relationship between sustainable development, green economy and low emission economy. The climate change problem as a cause of low emission economy development. Low emission economy in international, EU and Polish environmental policy. Renewable energy sources and energy efficiency in different economy sectors. Financing activities in the field of low emission economy. Classes: Renewable energy sources and energy efficiency in different economy sectors. Local low emissions action plans. Financing activities in the field of low emission economy.								
Teaching methods	informational lecture, problem lecture, case study								
Assessment method	lecture: written test; exercises: colloquium, two tests of preparation for classes, evaluation of completed tasks, evaluation of the prepared task in groups								
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study
L01	knows the basic terms of low emission economy and understands the impact of environmental issues on the activities of the organization								Z_W13
L02	identifies the most important causes and effects of climate change and selects appropriate methods of preventing them in the field of low emission economy								Z_W01, Z_U01, Z_U03, Z_K01
L03	is aware of the social and ethical dimension of ecological issues								Z_K02, Z_K04
L04	prepares the project and the presentation of its results								Z_U07, Z_U10
L05	can work in a team								Z_U12
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed
L01	final test, colloquium								L, C
L02	final test, tests of preparation for exercises, colloquium								L, C
L03	task discussion								C
L04	assessment of the task								C
L05	discussion of the task, observation of the work in a team								C
Student workload (in hours)									No. of hours
Calculation	participation in classes								15
	Participation in lectures								15
	preparation for classes								12

	participation in consultations	5	
	realization of team tasks	15	
	preparation to pass lectures	6	
	preparation to pass classes	7	
	<b>TOTAL:</b>	<b>75</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>52</b>	<b>2,1</b>
<b>Basic references</b>	1. Aligning Policies for a Low-carbon Economy, Publishing OECD, 2015. 2. The low carbon economy, ed. by Conway E., Lynch N., Paterson F., Baranova P., Palgrave Macmillan, 2017. 3. Sustainability, climate change and the green economy, ed. by G. Nhamo, V. Mjimba, Africa Institute of South Africa, South Africa 2016.		
<b>Supplementary references</b>	1. Dincer I. Rosen M.A. Exergy: energy, environment and sustainable development, Elsevier, Amsterdam 2007. 2. Hedstrom G.S., Sustainability: what it is and how to measure it., Walter de Gruyter, Boston-Berlin, 2019. 3. Transitioning to a green economy. Political economy of approaches in small states, ed. by N. Smith, A. Halton, J. Strachan, Commonwealth, London 2014 ( <a href="http://www.oecd-ilibrary.org">http://www.oecd-ilibrary.org</a> ).		
<b>Organisational unit conducting the course</b>	<b>Department of Production Management</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Joanna Godlewska, PhD eng.</b>	<b>26.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Business Ethics							Course code	ZSUA03154	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3	
	15	30						No. of ECTS credits	3	
Entry requirements	-									
Course objectives	Introduction to Ethics: components, concepts, types, levels (ethics theory, history of Ethics, Socrates method of teaching). The nature and types of values and their sources. Sources of moral standards - the rights and obligations of selected group. Typology of moral standards. Selected ethical theories. Ethics obligation. Ethics values. Elements of ethics. Analysis of codes of ethics. Utilities raising the level of ethics in the organization. The issue of corruption, mobbing, lobbying, human trafficking, child labour, modern slavery, Fair Trade (basic knowledge, case study).									
Course content	Lecture: The appearance of the existing world for ethical differences - a variety of models of decision-making and ethical dilemmas of selected professional groups diverse civilization, nationally and ethnically. Presenting the specifics of moral judgments and ethical reasoning, taking into account cultural differences, civilization and nation. Classes: Devices in the ethical analysis skills and competence to solve ethical dilemmas in the organization at the international level. Ethical recruitment, assessment and release. Ethics manager in charge of tolerance and openness towards others, strangers.									
Teaching methods	lecture, case studies, experiment									
Assessment method	lecture - written test; exercises - written test, assessment of the code of ethics, assessment of presentation.									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
L01	student: indicates the most important ethical theories								Z_ W01, Z_U08, Z_K02	
L02	indicates-making ethical decisions in organizations								Z_ W04, Z_U09, Z_K04,	
L03	identifies the core values of ethics: duty, utilitarian values								Z_ W13, Z_U10, Z_K05	
L04,	apply the principles and moral norms								Z_W01, Z_U09, Z_U06,	
L05	knows how to make an ethical program for companies								Z_W04, Z_U10, Z_K05.	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
L01	final essay								L	
L02	final essay								L	
L03	final test								C	
L04	final test								C	
L05	final test ,assessment of the code of ethics, assessment of presentation								C	
Student workload (in hours)									No. of hours	
Calculation	lecture attendance								15	
	participation in classes								30	

	participation in student-teacher sessions	5	
	preparation for classes	5	
	preparation for final essay	8	
	preparation for final test	12	
	<b>TOTAL:</b>	<b>75</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>50</b>	<b>2</b>
<b>Student workload – practical activities</b>		<b>50</b>	<b>2</b>
<b>Basic references</b>	<ol style="list-style-type: none"> <li>1. Roszkowska P. Business ethics: evidence from the world of finance / Warsaw School of Economic, Warszawa 2015,</li> <li>2. Jewish Foundations Of Business Ethic, Handbook of the Philosophical Foundations of Business Ethics, 2013,</li> <li>3. Munro, Iain, Organizational Ethics and Foucault's 'Art of Living': Lessons from Social Movement Organizations, Organization studies, August 2014, Vol.35(8), pp.1127-1148,</li> <li>4. Brown T., Marvin, Corporate integrity: rethinking organizational ethics, and leadership /New York: Cambridge University Press, 2005,</li> <li>5. Green, Ronald Michael., Stanford Encyclopedia of Philosophy</li> <li>6. <a href="https://plato.stanford.edu/index.html">https://plato.stanford.edu/index.html</a>,</li> </ol>		
<b>Supplementary references</b>	<ol style="list-style-type: none"> <li>1. The Ethical Organisation: Management, Governance a. Accountability: a jointconference: The 8th European Business Ethics Network -UK Association</li> <li>2. (EBEN-UK) Annual Conference and The 6th Ethics and Human Resource Management Conference, 1 and 2 April, 2004 / org. The Management School</li> <li>3. The University of Edinburgh, Stanford Encyclopedia of Philosophy <a href="https://plato.stanford.edu/index.html">https://plato.stanford.edu/index.html</a>, Toffler B., Managers Talk Ethics: Making Tough Choices in a Competitive Business World, John Wiley and Sons, New York 1991.</li> <li>4. Marc Elsberg, Greed: The page-turning thriller that warned of financial melt-down, Transworld Publishers Ltd, 2020.</li> </ol>		
<b>Organisational unit conducting the course</b>	<b>Department of Managament , Economisc and Finanse</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Joanna Szydło, PhD, Magdalena Ickiewicz-Sawicka, PhD</b>	<b>24.10.2020)</b>	

Faculty of Engineering Management									
Management								Degree level and programme type	second degree full-time
Specialization/ diploma path	Smart and innovative business							Study profile	academic
Course name	Management accounting							Course code	ZSUA03156
								Course type	obligatory
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3
	15	15						No. of ECTS credits	3
Entry requirements									
Course objectives	Knowledge: the aim of the course is to familiarize students with the idea, methods and tools of management accounting in the context of corporate management. Course focuses on describing and discussing the key aspects of budgeting process. Students will acquire skills of cost classification methods and cost accounting techniques for the purpose of management and will be able to determine the usefulness of cost information in analysis and effective problem solving. Student will be capable of using basic performance measurement techniques to monitor business performance.								
Course content	Lecture: Introduction to management accounting. Management accounting vs. financial accounting and cost accounting. Responsibility centres. Sources of information. Idea of costs and classification criteria. Cost calculation methods. Pricing decisions. Budgeting. Classes: Identification of costs according to various criteria. Costs calculation. Profitability calculation. Budget preparation. Presentation of information and reporting.								
Teaching methods	Case study lecture, information lecture, subject classes								
Assessment method	lecture – written exam from material covered (ca. 3-4 questions); mark will be increased by 0,5 point for students who achieved at least 4,5 from classes; classes – test at the end of semester from material covered during classes (ca. 4-5 questions); mark from classes can be increased up to 1 point for particularly active students if on-line method will be used - assessment would be made via CKZ platform; content of the test/exam will not deviate from stationary in such case								
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study
LO1	student defines and distinguishes between management accounting and financial accounting, recognises their roles and places in an enterprise information system								Z_W01, Z_W08, Z_W10
LO2	student classifies costs by various elements, selects method of cost calculation, calculates product cost and communicates those information to other professionals								Z_W05, Z_U01, Z_U10
LO3	student processes information on revenues, costs and profits according to absorption and variable costing while consulting other experts in the firm								Z_U01, Z_K01
LO4	student presents information in profit and loss account, analyses and assesses partial financial results while engaging other departments in the enterprise								Z_U10
LO5	student calculates break-even point								Z_W10, Z_U10
LO6	student clarifies and discusses key concepts used in modern management accounting methods and updates his knowledge								Z_U13, Z_K01
Symbol of learning outcome	Methods of assessing the learning outcomes								Type of tuition during which the outcome is assessed

L01	exam	L	
L02	exam, test	L, C	
L03	test	C	
L04	test	C	
L05	exam, test	L, C	
L06	test	C	
Student workload (in hours)		No. of hours	
Calculation	lecture attendance	15	
	participation in classes	15	
	participation in office hours	5	
	preparation for and participation in exam	9	
	preparation for test	16	
	preparation for classes	10	
	homework assignments	5	
	TOTAL:	75	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		37	1,5
Student workload – practical activities		49	2
Basic references	1. Srikant M Datar, Madhav V Rajan, Horngren's cost accounting: a managerial emphasis, Pearson Education, 2018 2. ACCA: study system. Paper F5, Performance management, DeVry/Becker Educational Development Corp., 2015. 3. ACCA: study question bank. Paper F5, Performance management, DeVry/Becker Educational Development Corp., 2014.		
Supplementary references	1. John R Dyson, Ellie Franklin, Accounting for non-accounting students, Pearson Education, 2017 2. Peter Atrill, Edward J McLaney, Accounting and finance for non-specialists, Pearson Education, 2017 3. Linda Smith Bamber, Karen Wilken Braun, Walter T Harrison Jr., Managerial accounting, Pearson Prentice Hall, 2008		
Organisational unit conducting the course	Department of Management, Economics and Finance	Date of issuing the programme	
Author of the programme	Andrzej Karpowicz, PhD	30.11.2020	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Innovation and strategic maangement							Course code	ZSU01165	
								Course type	Obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3	
	30	30						No. of ECTS credits	4	
Entry requirements	-									
Course objectives	Students know the basic terms of innovation and strategic management. Students know methods and strategic management tools; can classify and characterize them. Students is able to interpret phenomena related to innovations and use the tools of strategic analysis and strategic planning in the process of strategy formulation. Students are able to work in a team, applies the principles and ethical standards.									
Course content	Lecture: The essence and features of innovation. Division of innovation. Innovation management. The essence and features of strategic management. Principles of strategic management. Strategic management process and its models. The essence and types of strategies. Company vision and mission. The process of building the strategy and rules of strategy creation. External and internal conditions of the strategy implementation and components. Classes: Features of innovative enterprise. Methods and tools for analysis and strategic planning in an innovative enterprise. Formulating a strategy for an innovative enterprise.									
Teaching methods	Lecture with audiovisual support, classes: project method									
Assessment method	Lecture: exam Classes: quality of student's works, test, presentation									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	Student indicates the essence and features f innovation, can divide them, presents the innovation management process.								Z_W01, Z_W05	
LO2	Student indicates the essence, features and principles of strategic management.								Z_W11	
LO3	Student indicates the essence and types of strategies as well as their process, is able to propose strategies adequate to given conditions.								Z_W10, Z_U01, Z_U02	
LO4	Student indicates the essence of the company's vision and mission, presents their elements and is able to develop them editorial.								Z_W12, ZW_05, Z_U05	
L05	Student indicates the components of external and internal conditions for the implementation of the strategy and methods of getting to know them, can analyse their impact on the company, using appropriate methods.								Z_W01, Z_W12, Z_U03, Z_U07	
L06	Student knows and applies ethical principles and norms.								Z_U08, Z_K06	
L07	Student can work in a team.								Z_U12, Z_K01, Z_K03	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	L – exam; C – test								L, C	
LO2	L – exam; C – test								L, C	
LO3	L – exam; C – test								L, C	
LO4	L – exam; C – test								L, C	
LO5	L – exam; C – test								L, C	



<b>L06</b>	Quality of student's work, presentation	C	
<b>L07</b>	Quality of student's work, presentation	C	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	Participation in lectures	30	
	Participation in classes	30	
	Preparation for the classes	12	
	Doing homework/tasks	10	
	Participation in consultations	5	
	Preparation for the test	5	
	Preparation for the exam and attendance in exam	8	
	<b>TOTAL:</b>	<b>100</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>67</b>	<b>2,7</b>
<b>Student workload – practical activities</b>		<b>60</b>	<b>2,4</b>
<b>Basic references</b>	1. Wheelen, T.L., Hunger J. D., Hoffman, A. N., Bamford Ch. E., Concepts in strategic management and business plicy: globalization, innovation, and sustainability, Pearson Education, Harlow 2018 2. Pietras A., Szczepańczyk M., Strategic planning in a small company, Lodz University of Technology Press, Lodz 2016 3. Pearce J.A., Robinson Jr. R.B., Strategic management: planning for domestic a. global competitionMcGraw-Hill Education, New York 2015 4. Ched J., Brem A., Viardot E., Wong P.-K (ed.), The Routledge companion to innovation management, Routledge, New York 2019		
<b>Supplementary references</b>	1. Harvard Business Review		
<b>Organisational unit conducting the course</b>	<b>Department of Economics, Management and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Anna Tomaszuk, PhD</b>	<b>24.11.2020</b>	

Bialystok University of Technology									
Field of study	Management							Degree level and programme type	second degree full-time
Specialization/ diploma path	Smart and innovative business							Study profile	academic
Course name	Benchmarking							Course code	ZSUA03939
								Course type	obligatory
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3
	15				15			No. of ECTS credits	3
Entry requirements									
Course objectives	Presentation of the idea of benchmarking, its classification and application; review of benchmarking methodologies; best practices in the application of benchmarking; barriers in the application of benchmarking; presentation of benchmarking tools; students learn how to carry out a benchmarking project with particular emphasis on process benchmarking; process mapping in the Adonis or Microsoft Visio programme; students learn to work in a team on a benchmarking project;								
Course content	Lecture: The idea and areas of application of benchmarking. Benchmarking classifications. Benchmarking methodologies. Best practices, code of conduct for benchmarking, barriers and frequent errors in benchmarking. Benchmarking tools. Examples of benchmarking applications. Specialised workshop: Implementation of a process benchmarking project in which: a group is divided into smaller groups, representing companies. The selected process within the companies is benchmarked, within the framework of the project the students develop a project scope statement, draw up a code of conduct for the benchmarking group, map processes in Adonis or Microsoft Visio or Simul. Benchmarking workshops are conducted during which best practices are identified; a project report is prepared.								
Teaching methods	problematic and informative lecture, project method								
Assessment method	lecture - test; specialist workshop - assessment of preparation for classes, project execution, project defence								
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study
LO1	defines terms related to benchmarking and is able to discuss its essence								Z_W03,Z_W04, Z_W13
LO2	knows the types of benchmarking and is able to decide on the appropriate type of benchmarking depending on the situation								Z_W03, Z_W04, Z_W13
LO3	is able to launch a benchmarking project in accordance with the methodology								Z_W04, Z_W13, Z_U01, Z_U02, Z_U07, Z_U08
LO4	plans work, understands and interprets the results								Z_U01, Z_U02, Z_U03, Z_U07
LO5	prepare the project and present its results								Z_U01, Z_U02, Z_U03, Z_U07, Z_U11, Z_K06
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed
LO1	L - test; SW - points for the tasks								L, SW
LO2	L - test; SW - points for the tasks, preparation of a report								L, SW
LO3	Project evaluation, preparation to classes								SW
LO4	Evaluation of the project								SW
LO5	Evaluation of the project								SW
Student workload (in hours)									

Calculation	attendance at lectures	15	
	participation in a specialization workshop	15	
	project work, report preparation	17	
	participation in consultations	5	
	implementation of project tasks	15	
	preparation for a lecture test	8	
	TOTAL:	75	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		35	1,4
Student workload – practical activities:		50	2
Basic references	1. Anand G., Kodali R., Benchmarking the benchmarking models, “Benchmarking: An International Journal”, 2008, Vol. 15, No. 3, pp. 257-291. 2. Amaral P., Sousa R., Barriers to internal benchmarking initiatives an empirical investigation, “Benchmarking: An International Journal”, Vol. 16, No. 4, 2009, pp. 523-542. 3. Nazarko J., Kuźmicz K., Szubzda E., Urban J., Benchmarking and its application in higher education in Europe, „Higher Education in Europe”, 2009, Vol. 34, Nos. 3-4, pp. 497-510. 4. Stapenhurst T., The benchmarking book, Routledge, 2009. 5. Taschner A., Improving SME logistics performance through benchmarkingu, Benchmarking - an International Journal, 2016, Vol. 27, No 3, 1780-1797.		
Supplementary references	1. Alstete J.W., Measurement benchmarks or „real” benchmarking? An examination of current perspectives, “Benchmarking: An International Journal”, 2008, Vol. 15, No. 2, pp. 178-186. 2. Lai M., Wang W., Huang H., Kao M., Linking the benchmarking tool to a knowledge-based system for performance improvement, „Expert Systems with Applications”, 2011, Vol. 38, No. 8, pp. 10579-10586. 3. Zairi M., Al-Mashari M., The role of benchmarking in best practice management and knowledge sharing, „Journal of Computer Information Systems”, 2005, pp. 14-31		
Organisational unit conducting the course	International Department of Logistics and Service Engineering	Date of issuing the programme	
Author of the programme	Katarzyna Anna Kuźmicz, PhD	28.11.2020	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Strategic foresight							Course code	ZSUA03231	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3	
	30	15						No. of ECTS credits	3	
Entry requirements	-									
Course objectives	The student has knowledge about corporate foresight and acquires practical skills to apply this knowledge in practice of innovation management. The student is acquainted with the essence and evolution of foresight studies. The student acquires knowledge about corporate change and corporate perspective. The student is familiar with best practices of corporate foresight. In groups, the student develops the ability to use different research methods of corporate foresight. The student prepares mini-projects in selected areas of corporate foresight.									
Course content	Lecture: Historical review of foresight studies; The essence of foresight research; Foresight versus forecasting; The essence of corporate foresight; Strategic and innovation management perspective; Radical innovations and disruptions. The maturity model of corporate foresight. Classes: The methods used in corporate foresight: STEEPVL, SWOT, Delphi method, unprecedented events, scenario method: formal and informal. Best practices in corporate foresight.									
Teaching methods	lecture, workshops, projects									
Assessment method	lecture - written test or oral exam; class – presentation, discussion and evaluation of team works									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student is acquainted with the essence of strategic foresight								Z_W12; Z_U01	
LO2	The student is familiar with the evolution of foresight research								Z_W11, Z_W12	
LO3	The student has the ability to apply selected research methods of strategic foresight								Z_W01; Z_U02; Z_U03; Z_U04; Z_U05; Z_U06	
LO4	The student understands the role of corporate foresight in the context of innovation management								Z_W10; Z_U04	
LO5	has the practical ability to test a business concept using foresight methods								Z_U07; Z_K01; Z_K03	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	written test or oral exam								L	
LO2	written test or oral exam								L	
LO3	presentation, discussion and evaluation of team works								C	
LO4	presentation, discussion and evaluation of team works								C	
LO5	presentation, discussion and evaluation of team works								C	
Student workload (in hours)								No. of hours		
Calculation	participation in lectures								30	
	participation in classes								15	
	literature studies, preparation for the implementation of tasks								7	

	execution of tasks	10	
	participation in consultations	5	
	preparation for and attendance for the exam	8	
	<b>TOTAL:</b>	<b>75</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>52</b>	<b>2,1</b>
<b>Student workload – practical activities</b>		<b>35</b>	<b>1,4</b>
<b>Basic references</b>	1. Georghiou L.,Harper C.J., Keenan M., Miles I., Popper R. (eds.), The handbook of technology foresight: concepts and practice, Publisher Edward Elgar, Cornwall, 2008. 2. Rohrbeck R., Corporate foresight: towards a maturity model for the future orientation of a firm, Physica-Verlag, Berlin, Heidelberg, 2011. 3. Sacio-Szymańska A. (red.), Corporate foresight potential in Visegrad (V4) countries, Wydaw. Instytutu Technologii Eksploatacji – Państwowy Instytut Badawczy w Radomiu, Radom 2016.		
<b>Supplementary references</b>	1. Cornish. E., Futuring. The exploration of the future, World Future Society, Maryland, 2005. 2. Moehrle M.G., Isenmann R., Phaal R., Technology Roadmapping for Strategy and Innovation, Springer, 2013. 3. Rohrbeck R.,Gemünden H.G., Corporate Foresight: Its Three Roles in Enhancing the Innovation Capacity of a Firm, "Technological Forecasting and Social Change", 78(2) 2011, p. 231-243. 4. Rohrbeck R., Mahdjour S., Knab S., Frese T., Benchmarking Report: Strategic Foresight in Multinational Companies, Research Report of the European Corporate Foresight Group, Berlin, 2009.		
<b>Organisational unit conducting the course</b>	<b>International Department of Logistics and Service Engineering</b>	<b>Data opracowania programu</b>	
<b>Author of the programme</b>	<b>Anna Kononiuk, PhD; Andrzej Magruk, PhD</b>	<b>19.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Business excellence							Course code	ZSUA03925	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3	
	15	15						No. of ECTS credits	3	
Entry requirements	Management concepts									
Course objectives	The aim of the course is to acquire the knowledge and skills of the student in the following areas: understanding the concept of Business Excellence, identifying the concepts of Business Excellence, describing the maturity indicators of the management system, explaining the essence, criteria and benefits of self-assessment according to the EFQM Business Excellence Model; use one of the methods of self-assessment in practice, identifying areas for improvement on the basis of the self-assessment of the company.									
Course content	Lecture: The concept of business excellence. Evolution of the concept of business excellence. Determinants of the maturity of the management system. International management norms and standards; sectoral quality standards; principles, values and concepts of management; process approach model; methodology of process improvement; methodologies for measuring performance and self-evaluation models (Deming Award Model, Malcolm Baldrige Quality Award Model, European Quality Award Model - EFQM Excellence Model, Polish Quality Award Model); management system integration scope. Classes: Self-assessment according to the EFQM Business Excellence Model. Self-assessment concept, self-assessment criteria, RADAR logic, EFQM rewards, quality award winners, basic approaches to organizational self-assessment, benefits of self-assessment according to the EFQM model. Selected methods and instruments used in self-assessment. Results of empirical research on self-esteem and business excellence of enterprises.									
Teaching methods	lecture - multimedia presentation, classes - case study									
Assessment method	lecture - pass in the form of a test; classes - colloquium, project in the form of a multimedia presentation of models of excellence selected by students, case study analyzed by students									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student has an in-depth knowledge of the basic assumptions, definitions and methods of assessing business excellence, is able to introduce its specificity and principles of implementation								Z_W01, Z_W03	
LO2	discusses in depth the causes, course and consequences of changes taking place in modern organizations, and knows the functional areas of the organization that require continuous improvement								Z_W10	
LO3	uses the acquired knowledge of various functional areas of the organization in terms of the possibility of their improvement								Z_U01	
LO4	identifies and analyzes appropriate models of excellence to solve complex problems of the organization, prepares and carries out projects of changes in organizations								Z_U05 , Z_U07	
LO5	prepares a project on selected models of excellence and their practical implications in the organization								Z_U05 Z_U07	
LO6	can think and act creatively, critically evaluate the received content and can act in an entrepreneurial manner								Z_K01, Z_K03	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	pass the lecture in the form of a test, a test of classes								L, C	
LO2	pass the lecture in the form of a test, a test of classes								L, C	

<b>L03</b>	pass the lecture in the form of a test, a test of classes	L, C	
<b>L04</b>	pass the lecture in the form of a test, a test of classes	L, C	
<b>L05</b>	evaluation of the multimedia presentation, evaluation of the case study solution	C	
<b>L06</b>	evaluation of the multimedia presentation	C	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	participation in classes	15	
	participation in lectures	15	
	collecting materials and preparing a multimedia presentation for classes	17	
	participation in consultations	5	
	preparation to pass the classes	10	
	preparation to pass the lecture	13	
	<b>TOTAL:</b>	<b>75</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>45</b>	<b>1,8</b>
<b>Basic references</b>	<ol style="list-style-type: none"> <li>1. Bartoszek P., Quality Management, Warsaw School of Economics, 2015.</li> <li>2. Chen J., Brem A., Viardot E., Wong K., The Routledge companion to innovation management, Routledge/Taylor a. Francis Group, NY, 2019.</li> <li>3. Kaderabkova A., Challenges for european innovation policy: cohesion and excellence from a Schumpeterian Perspective, Edward Elgar, 2011.</li> <li>4. Rosenbau A., In quest of excellence: approaches to enhancing the quality of public administration education and training, Nispacee, Bratislava, 2015.</li> <li>5. Harvard Business Review Journal</li> </ol>		
<b>Supplementary references</b>	<ol style="list-style-type: none"> <li>1. Evans, James R., Managing for quality and performance, Boston: Cengage Learning, 2017.</li> <li>2. EFQM Framework. Innovation Agencies, EFQM 2012.</li> <li>3. Excellence in Business (3rd Edition), by Courtland L. Bovee and John V. Thill, Prentice Hall, 2006.</li> <li>4. Design for Operational Excellence: A Breakthrough Strategy for Business Growth, by Kevin J. Duggan, 2011.</li> <li>5. Understanding Business Excellence. An awareness guidebook for SMEs, Aisan Productivity Organization (pdf document).</li> </ol>		
<b>Organisational unit conducting the course</b>	<b>Department of Management, Economics and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Urszula Kobylińska, PhD</b>	<b>30.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Quality in enterprise							Course code	ZSUA03940	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3	
	15	15						No. of ECTS credits	3	
Entry requirements	Management concepts									
Course objectives	Indication of basic concepts of quality and quality management. Selected methods of testing the quality of products and services. Outline the essence of system quality management. Understanding the structure of the quality management system in the organization. Familiarize students with ISO 9001: 2015 requirements. Teaching students to create ISO 9001: 2015 documentation. Acquire by students the ability to use selected tools and methods of quality management.									
Course content	Lecture:Basic concepts and definitions of quality and quality management. Achievements of outstanding quality philosophers. Standardization, conformity assessment and international quality regulations. Quality management systems according to the ISO 9000 series (structure, requirements, the essence of the process approach, analysis of the organizational context and business risk, quality system documentation, system improvement tools). Classes:Quality management systems in selected industries. The essence of management systems integration. Comprehensive quality management (TQM). Quality management according to SixSigma. Quality costs. Quality system improvement indicators and tools.									
Teaching methods	Lecture -multimedia presentation; Classes - case study, problem analysis, project									
Assessment method	Lecture: pass in the form of a test; Classes: final test, a quality system design for a selected organization in the form of a multimedia presentation, case study analysed by students.									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student thoroughly defines, identifies and classifies the basic related aspects with quality in the organization and quality management, including the knowledge of the relationship of quality management with other sciences								Z_W01, Z_W02, Z_W03	
LO2	has in-depth knowledge of the quality management methodology in organization								Z_W06	
LO3	identifies, analyzes and interprets the basic problems related to quality management in the organization and is able to prepare a project of changes in the organization using quality management methods								Z_U01, Z_U02, Z_U03, Z_U05, Z_U07,	
LO4	is able to make a critical analysis of the functioning of the processes, procedures and instructions of the quality management system in the organization								Z_U03, Z_U04	
LO5	is able to select and apply appropriate methods and tools of quality management, including the use of advanced information and communication techniques								Z_U05	
LO6	can think and act creatively, critically evaluate the received content and can act in an entrepreneurial manner								Z_K01, Z_K03	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	pass the lecture in the form of a test, a test of classes								L, C	
LO2	pass the lecture in the form of a test, a test of classes								L, C	
LO3	evaluation of the case study, evaluation of the multimedia presentation								C	



<b>L04</b>	evaluation of the case study, evaluation of the multimedia presentation	C	
<b>L05</b>	evaluation of the case study, evaluation of the multimedia presentation	C	
<b>L06</b>	evaluation of the case study, evaluation of the multimedia presentation	C	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	participation in classes	15	
	participation in lectures	15	
	collecting materials and preparing a multimedia presentation for classes	15	
	participation in consultations	5	
	preparation to pass the classes, among others the preparation of quality system in an enterprise	12	
	preparation to pass the lecture	13	
	<b>TOTAL:</b>	<b>75</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>45</b>	<b>1,8</b>
<b>Basic references</b>	1. Bartoszczuk P., Quality Management, Warsaw School of Economics, June 2015. 2. Goetsch D.L., Davis S., Quality Management for Organizational Excellence: Introduction to Total Quality (7th Edition), Pearson, 2012. 2. Evans J.R., Lindsay W.M., Managing for Quality and Performance Excellence, South-Western College Publisher, 2012. 3. Pyzdek T., Keller, P., The Handbook for Quality Management, Second Edition: A Complete Guide to Operational Excellence, McGraw Hill, 2013. TQM: Introduction to and Overview of Total Quality Management, ASQ Quality Press, 2013.		
<b>Supplementary references</b>	1. Ciesielska-Maciągowska D., Service Quality Management, Warsaw School of Economics, June 2015. 2. International Journal of Quality and Reliability Management.		
<b>Organisational unit conducting the course</b>	<b>Department of Management, Economics and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Urszula Kobylińska, PhD</b>	<b>30.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Social media in business							Course code	ZSUA03941	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3	
					30			No. of ECTS credits	3	
Entry requirements	Innovative marketing management and market research									
Course objectives	Knowledge: the student is comfortable using the terminology of social networking sites (SNS) Skills: the student uses online tools to analyze various motivations and actions of users in the SN Social competencies: the student sees the possibilities of using social media in business processes									
Course content	Social networks in terms of the theory of self-presentation and social capital. SNS and creation of social capital. SNS and user motivation analysis. SNS and user involvement analysis. SNS and dissemination of knowledge. Analysis of SNS content strategies. SNS and shared content management. Comparative analysis of social media platforms. Analysis of the relationship between commitment and loyalty to the tourist brand.									
Teaching methods	specialization workshop									
Assessment method	workshop reports, project									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
L01	Student is effectively using the terms concerning social networking sites								Z_W02; Z_U10; Z_K01	
L02	Student is creating, sharing and analysing the spreading of content element.								Z_W09; Z_U06; Z_K03	
L03	Student is able to analyse the influence of content element on cognitive, affective and behavioural activities of the recipients								Z_W12; Z_U04	
L04	Student is creating the strategy for building virtual community and determining their role inbranding in social networks.								Z_W07; Z_U01; Z_U09; Z_K03	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
L01	reports, project								SW	
L02	reports, project								SW	
L03	reports, project								SW	
L04	reports, project								SW	
Student workload (in hours)								No. of hours		
Calculation	participation in special workshops								30	
	preparation of workshops reports								25	
	participation in student-lecturer sessions related to the workshop								5	
	preparation of project								15	
	TOTAL:								75	
Quantitative indicators								HOURS	No. of ECTS credits	

<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>75</b>	<b>3</b>
<b>Basic references</b>	<ol style="list-style-type: none"> <li>1. Stepaniuk K. Materials for the module "Social media in business". Unpublished. electronic version. Bialystok University of Technology, September 2020. Available at: <a href="https://docs.google.com/document/d/14uqnmlidCGjEXVaPrLYBmodP2aroXjrRijLOyRHcjWnY/edit?usp=sharing">https://docs.google.com/document/d/14uqnmlidCGjEXVaPrLYBmodP2aroXjrRijLOyRHcjWnY/edit?usp=sharing</a></li> <li>2. Juntunen, M., Ismagilova, E., Oikarinen, E.-L. (2020) B2B brands on Twitter: Engaging users with a varying combination of social media content objectives, strategies, and tactics, <i>Industrial Marketing Management</i> 89: 630-641, <a href="https://doi.org/10.1016/j.indmarman.2019.03.001">https://doi.org/10.1016/j.indmarman.2019.03.001</a>.</li> <li>3. Cheng, C.C.J., Shiu, E.C. (2020) What makes social media-based supplier network involvement more effective for new product performance? The role of network structure, <i>Journal of Business Research</i> 118: 299-310, <a href="https://doi.org/10.1016/j.jbusres.2020.06.054">https://doi.org/10.1016/j.jbusres.2020.06.054</a></li> <li>4. Hossain, A. (2019) Effects of uses and gratifications on social media use: The Facebook case with multiple mediator analysis, <i>PSU Research Review</i> 3(1): 16-28, <a href="https://doi.org/10.1108/PRR07-2018-0023">https://doi.org/10.1108/PRR07-2018-0023</a></li> <li>5. Li, M.-W., Teng, H.-Y., Chen, Ch.-Y.,(2020) Unlocking the customer engagement-brand loyalty relationship in tourism social media: The roles of brand attachment and customer trust, <i>Journal of Hospitality and Tourism Management</i> 44:184-192, <a href="https://doi.org/10.1016/j.jhtm.2020.06.015">https://doi.org/10.1016/j.jhtm.2020.06.015</a></li> </ol>		
<b>Supplementary references</b>	<ol style="list-style-type: none"> <li>1. Kaur, W., Balakrishnan, V., Rana, O., Sinniah, A. (2019) Liking, sharing, commenting and reacting on Facebook: User behaviors' impact on sentiment intensity, <i>Telematics and Informatics</i> 39: 25-36, <a href="https://doi.org/10.1016/j.tele.2018.12.005">https://doi.org/10.1016/j.tele.2018.12.005</a>.</li> <li>2. Rasheed, M.I., Malik, M.J. Pitafi, A.H., Iqbal, J., Anser, M.K., Abbas, M. (2020) Usage of social media, student engagement, and creativity: The role of knowledge sharing behavior and cyberbullying, <i>Computers &amp; Education</i>, Volume 159,(in press) <a href="https://doi.org/10.1016/j.compedu.2020.104002">https://doi.org/10.1016/j.compedu.2020.104002</a>.</li> <li>3. Gómez, M., Lopez, C., Molina, A. (2019) An integrated model of social media brand engagement, <i>Computers in Human Behavior</i> 96: 196-206, <a href="https://doi.org/10.1016/j.chb.2019.01.026">https://doi.org/10.1016/j.chb.2019.01.026</a>.</li> </ol>		
<b>Organisational unit conducting the course</b>	<b>Department of Marketing and Tourism</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Krzysztof Stepaniuk, PhD</b>	<b>22.09.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Social media management tools							Course code	ZSUA03942	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3	
					30			No. of ECTS credits	3	
Entry requirements	Innovative marketing management and market research									
Course objectives	knowledge: the student is comfortable using the terminology of social networking sites (SNS) skills: the student uses online tools to analyze various motivations and actions of users in the SN social competencies: the student sees the possibilities of using social media in business processes									
Course content	Social Networking Site and its functioning. Theoretical framework for content analysis, content creation and content management. Rule 70:20:10. Development and sharing small, graphical and textual content elements. SNS content management with using freeware tools, including: Socialloomph, Buffer, Crowd Booster, Evetypost, Hootsuite and others.									
Teaching methods	specialization workshop									
Assessment method	workshop reports, presentation									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	Student correctly uses the terminology related to social media								Z_W01	
LO2	Student creates content and shares them on social platforms								Z_W09; Z_U06; Z_K01	
LO3	Student freely uses freeware tools to manage the content created for the needs of the social networking sites								Z_U03; Z_K03	
LO4	Student creates a general concept for generating content for the activities of a small company in social networking sites								Z_W07; Z_U10	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	workshops reports, presentation								SW	
LO2	workshops reports, presentation								SW	
LO3	workshops reports, presentation								SW	
LO4	workshops reports, presentation								SW	
Student workload (in hours)									No. of hours	
Calculation	participation in special workshops								30	
	preparation of workshops reports								20	
	participation in student-lecturer sessions related to the worksho								5	
	preparation of presentation								20	
	TOTAL:								75	
Quantitative indicators									HOURS	No. of ECTS credits

<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>75</b>	<b>3</b>
<b>Basic references</b>	<ol style="list-style-type: none"> <li>1. Stepaniuk K. Materials for the module "Social media in business". Unpublished. electronic version. Białystok University of Technology, September 2020. .</li> <li>2. Computers in Human Behavior - artykuły naukowe publikowane w czasopiśmie.</li> <li>3. Chu S.K.W, Capio K.M, van Aalst J., Cheng E.W.L: Evaluating the use of a social media tool for collaborative group writing of secondary school students in Hong Kong, Computers &amp; Education, Available online 10 March 2017, ISSN 0360-1315, <a href="http://dx.doi.org/10.1016/j.compedu.2017.03.006">http://dx.doi.org/10.1016/j.compedu.2017.03.006</a>.</li> <li>4. Mills J.E., Law R.: Handbook of consumer behavior, tourism, and the internet. Routledge, 2005.</li> <li>5. Hossain, A. (2019) Effects of uses and gratifications on social media use: The Facebook case with multiple mediator analysis, PSU Research Review 3(1): 16-28, <a href="https://doi.org/10.1108/PRR07-2018-0023">https://doi.org/10.1108/PRR07-2018-0023</a></li> </ol>		
<b>Supplementary references</b>	<ol style="list-style-type: none"> <li>1. Echter D.: OThe Top 7 Free Social Media Management Software, 2017, <a href="http://blog.capterra.com/top-free-social-media-management-software/">http://blog.capterra.com/top-free-social-media-management-software/</a>.</li> <li>2. <a href="http://blogs.oregonstate.edu/osgprojects/files/2014/09/social-media-management-tools.pdf">http://blogs.oregonstate.edu/osgprojects/files/2014/09/social-media-management-tools.pdf</a></li> <li>3. Lester A.: Chapter 7. Information Management. w: Project Management, Planning and Control (Sixth Edition), 2014, 359-364</li> </ol>		
<b>Organisational unit conducting the course</b>	<b>Department of Marketing and Tourism</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Krzysztof Stepaniuk, PhD</b>	<b>22.09.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Techniques of business presentation							Course code	ZSUA03943	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3	
		15						No. of ECTS credits	2	
Entry requirements	-									
Course objectives	Student will gain knowledge about modern tools and methods of data mining required for presenting business cases and making decisions. Additionally rules and good practises of making business presentations will be discussed. Course will also teach how to prepare and speak during presentation with audio-visual support in business and marketing field.									
Course content	Business presentation as public appearance. Basics of being a speaker. How to deal with stress. Characteristics of good speaker. Presentation model. Elements of proper presentation. Improvised presentation. Preparing presentation (recipients analysis, determination of goals and subject, presentation plan). Multimedia presentation. Business presentation analysis. Real business examples. Final presentations.									
Teaching methods	Practical classes, discussions, case study									
Assessment method	Evaluation of individual and group work effects (presentation, individual and group work, activity during classes)									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
L01	Student can characterize a good speaker, is able to critically criticize his own traits in terms of qualities of a speaker								Z_W04	
L02	Describes rules of business appearance, can prepare good presentation								Z_W09, Z_U05	
L03	Is able to indicate effective ways of dealing with stress and influencing the audience, can deliver prepared presentation								Z_W09	
L04	Can critically analyze business presentation								Z_U04, Z_U10	
L05	Can arrange a team and determine his role in it								Z_U12, Z_K03	
L06	Can work in a team, communicate with others and maintain positive relations								Z_U12, Z_K04	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
L01	Student activity during classes								C	
L02	Evaluation of presentation, activity during classes								C	
L03	Evaluation of presentation, activity during classes								C	
L04	activity during classes								C	
L05	Evaluation of presentation, activity during classes								C	
L06	activity during classes								C	
Student workload (in hours)									No. of hours	
Calculation	Participation in practical classes								15	
	Preparation for practical classes								10	

	Participation in consultations	5	
	Preparation of final presentation	20	
	<b>TOTAL:</b>	<b>50</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>20</b>	<b>0,8</b>
<b>Student workload – practical activities</b>		<b>50</b>	<b>2</b>
<b>Basic references</b>	1. Czarkowska L. D. (ed.), Coaching as a method of developing human potential. Wydawnictwa Akademickie i Profesjonalne : Kozminski University, Warszawa 2010. 2. Harvard Business Review manager's handbook: the 17 skills leaders need to stand out. Harvard Business Review Press, Boston 2017. 3. Garvey B., Stokes P., Coaching and mentoring: theory and practice. Sage Publications, Los Angeles 2009.		
<b>Supplementary references</b>	1. Boddy D., Management: using practice and theory to develop skill. Pearson Education, Harlow 2020. 2. HCI International 2016 – Posters' Extended Abstracts. 18th International Conference, HCI International 2016, Toronto, Part I. European Materials Research Society, Canada 2016. 3. Stoltzfus T., Coaching questions: a coach's guide to powerful asking skills. Tony Stoltzfus, Virginia Beach 2008.		
<b>Organisational unit conducting the course</b>	<b>Department of Marketing and Tourism</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Romuald Ziółkowski, PhD</b>	<b>24.10.2020 r.</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Innovative tools for business presentation							Course code	ZSUA03944	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3	
		15						No. of ECTS credits	2	
Entry requirements	-									
Course objectives	Student will acquire knowledge about modern tools and methods for data mining needed in clean business presentation and making decisions. Also the class will teach rules of creating multimedia presentations used in business contacts and in individual enterprize development as well as how to use basic programs for gathering, analysing and data processing. Student will learn how to prepare and deliver his own oral presentation with audio-visual suport in business field, how to work in group and how to organise it while showing responsibility for his and others work. The course will also discuss how to mind and criticize expressing opinions about business presentation of his colleagues.									
Course content	Basics of speaking. Verbal and nonverbal speach. Designing presentations in the context of desired effect. Design patterns, functions and ratios of introduction, main content and conclusion. Preparation of presentation using PowerPoint. Rules of creating a informative and graphinc parts of a slide. Reinvigorating of presentation. Business presentation analysis. Real business examples. Final presentations.									
Teaching methods	Practical classes, computer work, case study									
Assessment method	Evaluation of individual and group work effects (presentation, individual and group work, activity during classes)									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
L01	Can characterize modern tools and technics of data mining, can use basic computer programs regarding data mining, computing and analysis								Z_W09, Z_U05	
L02	Is able to describe rules for preparing a presentation, can prepare a business presentation for a given subject								Z_U04	
L03	Have knowledge regarding data mining used for preparing a presentation								Z_U04	
L04	Can critically analyse a presentation								Z_U05	
L05	Can organise a team and determine his own role in it								Z_U12, Z_K03	
L06	Can work in team, communicate with teammates and maintain positive relations between them								Z_U12, Z_K04	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
L01	Student activity during classes								C	
L02	Student activity during classes, evaluation of a presentation								C	
L03	Student activity during classes, evaluation of a presentation								C	
L04	Student activity during classes								C	
L05	Student activity during classes, evaluation of a presentation								C	
L06	Student activity during classes, evaluation of a presentation								C	



Student workload (in hours)		No. of hours	
Calculation	Participation in practical classes	15	
	Preparation for practical classes	10	
	Participation in consultations	5	
	Preparation of final presentation	20	
	<b>TOTAL:</b>	<b>50</b>	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		20	0,8
Student workload – practical activities		50	2
Basic references	1. Duarte N., Slide:ology: The Art and Science of Creating Great Presentations, O'Reilly Media, 2008. 2. Reynolds G., Presentation Zen: Simple Ideas on Presentation Design and Delivery, New Riders, 2012. 3. Wempen F., PowerPoint 2013 Bible, John Wiley & Sons, Indianapolis, 2013.		
Supplementary references	1. Berkun S., Confessions of a Public Speaker, O'Reilly Media, 2009. 2. Ford N, McCullough M.,Schutta N.A., Presentation Patterns: Techniques for Crafting Better Presentations, Addison-Wesley, 2012.		
Organisational unit conducting the course	Department of Marketing and Tourism	Date of issuing the programme	
Author of the programme	Romuald Ziółkowski, PhD	24.11.2020 r.	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Master degree diploma seminar 1							Course code	ZSUA03071	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	3	
							30	No. of ECTS credits	6	
Entry requirements										
Course objectives	The main assumption is to prepare the student to participate in scientific and research work. The aim is to develop the thesis in accordance with the requirements of the methodology of scientific work.									
Course content	Determination of research issues and the topic of work. Discussion of the principles of formulation and formulation of the aim of the work and research questions. Discussing the techniques of searching for literature on the subject and indicating sources. Discussing the technique of writing thesis. Gathering and organizing the material. Discussing the principles of constructing the thesis (concept and plan of work). Developing the concept and plan of the thesis and its individual parts. Solving research and technical problems.									
Teaching methods	discussion, presentations, case studies									
Assessment method	Evaluation of the prepared concept and plan as well as the required parts of the diploma thesis; evaluation of the student's participation in the classes and knowledge of the basic rules of preparing diploma theses.									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student recognizes the basic rules of the diploma thesis methodology								Z_W06, Z_W14	
LO2	The student defines the research problem, subject, aim and research questions								Z_W01, Z_U03, Z_U04	
LO3	The student collects and interprets the subject literature.								Z_U06	
LO4	The student develops a concept and work plan and its individual parts.								Z_U04, Z_U13	
LO5	The student develops a concept for solving research and technical problems.								Z_U04, Z_U07	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	discussion in class, evaluation of chapters prepared by the student								S	
LO2	discussion in class, evaluation of chapters prepared by the student								S	
LO3	discussion in class, evaluation of chapters prepared by the student								S	
LO4	evaluation of chapters prepared by the student								S	
LO5	observing the work in class								S	
Student workload (in hours)									No. of hours	
Calculation	Participation in classes								30	
	Preparation for classes resulting from the realization of tasks entrusted to the student								55	

	Implementation of tasks concerning the preparation of the thesis	60	
	Participation in consultations	5	
	<b>TOTAL:</b>	<b>150</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>150</b>	<b>6</b>
<b>Basic references</b>	1. S. Bailey, <i>Academic writing: a handbook for international students</i> , 2011, 2. A. Oshima, L. Ravitch, <i>Longman academic writing series. 4, Essays</i> , 2017 3. WYTYCZNE w sprawie przygotowania prac dyplomowych (magisterskich, inżynierskich, licencjackich) na Wydziale Zarządzania Politechniki Białostockiej (Załącznik do Uchwały nr 4/10/2016 Rady Wydziału Zarządzania z dnia 12 października 2016 roku), <a href="http://wz.pb.edu.pl/media/a26fc5eb-1b7f-4004-8d4d-8dad4c1894f/E9BcoA/Studenci/Dziekanat/Prace%20dyplomowe/Wytyczne-do-pisania-prac-dyplomowych.pdf">http://wz.pb.edu.pl/media/a26fc5eb-1b7f-4004-8d4d-8dad4c1894f/E9BcoA/Studenci/Dziekanat/Prace%20dyplomowe/Wytyczne-do-pisania-prac-dyplomowych.pdf</a> [21.03.2017].		
<b>Supplementary references</b>	1. Specialist literature - according to the subject of the work.		
<b>Organisational unit conducting the course</b>	<b>International Department of Logistics and Service Engineering</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Anna Kononiuk, PhD</b>	<b>26.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Conflicts and negotiations in organization							Course code	ZSUA04577	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	4	
	15	15						No. of ECTS credits	2	
Entry requirements										
Course objectives	Knowledge: identifying the essence of conflict and conflict management in relation to contemporary problems in organizations. Familiarizing students with the types and strategies of conflict resolution and the ways of diagnosing negotiation potential. Skills: learning the most important principles, procedures and tools of conflict management. Preparing a conflict diagnosis. Preparation of a negotiation strategy. Preparation of a project on selected problems related to conflicts and negotiations in the organization. Social competences: developing social competences by transferring knowledge about teamwork and by involving students in teamwork and group discussions.									
Course content	Lecture:The essence of the conflict in the organization, sources and types of conflicts. Development of the theory of conflicts. Evolution of views on the consequences of conflicts. Traditional and modern methods of conflict management. Dispute resolution techniques. Classes: Developing the skill of conflict diagnosis and forecasting its consequences in the organization. Negotiations: the essence of negotiation and the negotiation process. Criteria for evaluating negotiations, negotiation strategies. Phases of the negotiation process (analysis, planning, discussion). Negotiation techniques. Collective bargaining. Professional negotiator profile.									
Teaching methods	lectures and classes, teaching discussion									
Assessment method	lecture – test, classes – test									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student: understands the essence of conflict and negotiations in organizations								Z_W03, Z_W11	
LO2	The student can identify and analyze the problems of conflict and negotiation.								Z_W04	
LO3	The student can develop an exemplary plan for conflict resolution and the use of negotiation techniques.								Z_W03, Z_W04	
LO4	The student deals with the conflicts appearing in group processes								Z_K06, Z_U12	
LO5	The student knows how to use selected models, techniques in practice.								Z_U09,Z_U10, Z_U12, Z_K02, Z_K03,	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	Passing lectures and classes, teaching discussion								L, C	
LO2	Passing lectures and classes, teaching discussion								L, C	
LO3	Passing lectures and classes, teaching discussion								L, C	
LO4	Passing lectures and classes, teaching discussion								L, C	
LO5	Passing lectures and classes, teaching discussion								L, C	
Student workload (in hours)									No. of hours	
participation in the lectures									15	

Calculation	participation in the classes	15	
	preparation for the classes	5	
	participation in consultations	5	
	preparation for the exercise test	7	
	preparation for the lecture test	3	
	TOTAL:	50	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		35	1,4
Student workload – practical activities		30	1,2
Basic references	1. Proksch S., Conflict Management, Springer International Publishing, Switzerland 2016 ( <a href="https://bazy.pb.edu.pl:2109/book/10.1007%2F978-3-319-31885-1#toc">https://bazy.pb.edu.pl:2109/book/10.1007%2F978-3-319-31885-1#toc</a> ) 2. McCarthy A., Hay S. Advanced Negotiation Techniques, Appres, New York, 2015, ( <a href="https://bazy.pb.edu.pl:2109/book/10.1007%2F978-1-4842-0850-2">https://bazy.pb.edu.pl:2109/book/10.1007%2F978-1-4842-0850-2</a> ) 3. Opresnik M. O., The Hidden Rules of Successful Negotiation and Communication. Getting to Yes!, Springer International Publishing Switzerland 2014 ( <a href="https://bazy.pb.edu.pl:2109/book/10.1007/978-3-319-06194-8">https://bazy.pb.edu.pl:2109/book/10.1007/978-3-319-06194-8</a> )		
Supplementary references	1. Boddy D.,Management: Using practice and theory to develop skill, 8th Edition Harlow Pearson Education, 2020 2. Shakun M. F. (ed.) Kilgour D. M. (ed.) Eden C. (ed.), Handbook of Group Decision and Negotiation, Dordrecht: Springer Netherlands, 2010, ( <a href="https://bazy.pb.edu.pl:2109/book/10.1007%2F978-90-481-9097-3">https://bazy.pb.edu.pl:2109/book/10.1007%2F978-90-481-9097-3</a> ) 3. Roger A.,Vinot D. (ed.)Skills Management: New Applications, New Questions (Human Resources Management Set) 1st Edition, ISTE ; Hoboken : John Wiley a. Sons, London 2019		
Organisational unit conducting the course	Department of Management, Economics and Finance	Date of issuing the programme	
Author of the programme	Joanna Jończyk, PhD	27.11.2020	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Managing employee performance							Course code	ZSUA04945	
								Course type	obligatory	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	4	
		30						No. of ECTS credits	1	
Entry requirements	Management concepts, Innovation and strategic management									
Course objectives	The goal is to understand the role of employees in building the overall success of an organization, the importance of continual improvement and development to achieve a business strategy, and creating a working environment that is conducive to high employee performance. The student will gain knowledge in improving people's performance and learns to integrate human resource management (HRM) practices with the strategy and goals of an organization in a competitive environment. The student will learn to implement expectations and standards for employee performance, evaluate employees through a formal performance evaluation process, and learn about methods to support employees in creating and achieving the goals and assumptions of the organization.									
Course content	History and definition of organizational performance management, goals and elements of an effective organizational and employee performance management system; the importance of human capital management and its contribution to the achievement of the organisation goals; creating a positive workplace; managerial competences aimed at building committed employees and rewarding the best; creating a team of highly productive employees, linking human capital measures with the organization's results.									
Teaching methods	presentation, discussion, teamwork, problem solving									
Assessment method	assessment of the performance of tasks, written test									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student understands the importance of human resource management in building the success of the organization								Z_W04	
LO2	The student is able to diagnose and solve complex problems related to integrating HRM practices with the strategy and goals of the organization								Z_W03, Z_U08,	
LO3	The student can create a favorable workplace, supporting employee engagement								Z_W04, Z_K02	
LO4	The student is able to build effective teams of employees								Z_U12, Z_K06	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	written test								C	
LO2	assessment of the performance of tasks								C	
LO3	assessment of the performance of tasks								C	
LO4	assessment of the performance of tasks, written test								C	
Student workload (in hours)									No. of hours	
Calculation	participation in classes								30	
	participation in student-teacher sessions related to the classes								1	

	<b>TOTAL:</b>	<b>31</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>31</b>	<b>1,2</b>
<b>Student workload – practical activities Student workload – practical activities:</b>		<b>31</b>	<b>1,2</b>
<b>Basic references</b>	1. Performance management, Teddington: DeVry/Becker Educational Development Corp., 2015. 2. Fryczyńska M., Human capital management, Warsaw School of Economic, 2015. 3. Jones P.; Strategy mapping for learning organizations: building agility into your balanced scorecard, Burlington, VT: Gower, 2011.		
<b>Supplementary references</b>	1. Dowling P.J., International human resource management, Hampshire: Cengage Learning, 2013. 2. Mann L., Atkins L. [et al.] Leadership, management, and innovation in R&D project teams, Westport: Praeger, 2005.		
<b>Organisational unit conducting the course</b>	<b>Department of Management, Economy and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>dr Joanna Samul</b>	<b>27.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Savoir-vivre in business							Course code	ZSUA04946	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	4	
		30						No. of ECTS credits	1	
Entry requirements										
Course objectives	Knowledge: The aim of module is to familiarize students with the principles of savoir vivre in business in order to create and maintain human relationships in everyday business dealings taking into account cultural differences. Skills: Students will obtain practical knowledge and skills to apply the principles of politeness and courtesy in international business relations especially business correspondence and communication, precedence rules, preparing business parties, appropriate behaviour and business dress code in different business situations. Social competence: Student will develop cooperation skills with foreign business partners and respect for different customs and traditions.									
Course content	Savoir vivre in business – what is it and how to use it. The principles of communicating in business - the first impression in professional relations, welcomes, people presenting and titles, giving and preparing business cards, body language, intonation, active listening, phone calls, the etiquette in electronic communication. Business precedence - the concept of precedence, precedence at work, precedence in corporation, precedence during multilateral conferences and meetings. Correspondence - the basic principles, the letter (formal, business and private), salutations, sending letters and e-mails. Business parties and meetings – organising parties, types of parties, invitations, table types, the place of honour at the table, seating. At the table - setting, cutlery, rules of behaviour at the table, service, order and selection of dishes, selection of wines, wine basics, selection of wines to the type of menu items, ways to eat different types of dishes. The business dress code – matching appropriate dress to the occasion, shaping the sense of esthetics and good taste. Business etiquette in different countries of the world.									
Teaching methods	case studies, individual and group exercises, brainstorming, moderated discussion									
Assessment method	evaluation of individual and team tasks and student's activity during classes, final test									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student is acquainted with the term and rules of business savoir-vivre and explains its objectives in international business relations								Z_W01, Z_W04, Z_W12	
LO2	The student is able to apply appropriate savoir-vivre rules in different business situations								Z_U03, Z_U9, Z_K05	
LO3	The student knows and is able to distinguish the differences in business etiquette in chosen countries								Z_U09, Z_U10, Z_K06	
LO4	The student has the ability to cooperate in a team								Z_U12, Z_K03, Z_K05	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	Evaluation of individual and team tasks and student's activity during classes, final test								C	
LO2	Evaluation of individual and team tasks and student's activity during classes, final test								C	
LO3	Evaluation of individual and team tasks and student's activity during classes, final test								C	



<b>LO4</b>	Evaluation of team tasks	C	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	Participation in classes	30	
	Participation in student-teacher sessions related to the class	1	
	<b>TOTAL:</b>	<b>31</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>31</b>	<b>1,2</b>
<b>Student workload – practical activities</b>		<b>31</b>	<b>1,2</b>
<b>Basic references</b>	<ol style="list-style-type: none"> <li>1. Martin J.S., Chaney L.H., Global business etiquette, A guide to business communication and customs, ABC Clio, Greenwood 2012.</li> <li>2. Pachter B., Essentials of Business Etiquette: How to Greet, Eat, and Tweet Your Way to Success, McGraw-Hill Education, 2014.</li> <li>3. Steers R.M., Nardon L.; Sánchez-Runde C., Management Across Cultures, Cambridge University Press, Cambridge, 2016.</li> <li>4. Randlesome C., Business cultures in Europe, 2nd ed. Oxford : Butterworth-Heinemann, 1993.</li> </ol>		
<b>Supplementary references</b>	<ol style="list-style-type: none"> <li>1. Bloomsbury Business Library - Email Etiquette.</li> <li>2. Margulis A. R., How to Rise to the Top...and Stay There!: A Leadership Manual, Springer, New York, 2011.</li> <li>3. Dunn, Dickel C., Formal forms or verbal strategies? Politeness theory and Japanese business etiquette training, Journal of Pragmatics, 2011, vol.43(15), pp.3643-3654. 3.</li> <li>4. du Pont M.K., Business etiquette and professionalism, Axco Press, 1993.</li> <li>5. Mac Pherson Ch., Pocket butler, Turnaround Publisher Services, London, 2014.</li> <li>6. Tomalin B., The world's business cultures and how to unlock them, Thorogood Publishing, London, 2007.</li> <li>7. Vollmer S., Business Etiquette in China Journal of Accountancy, 2012, vol.214(6).</li> </ol>		
<b>Organisational unit conducting the course</b>	<b>International Department of Logistics and Service Engineering</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Aleksandra Gulc, PhD</b>	<b>19.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Business culture							Course code	ZSUA04947	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	4	
		30						No. of ECTS credits	1	
Entry requirements										
Course objectives	Knowledge: Students will be accustomed with the concept of national culture in international business and the sources of stereotypes and prejudices. The areas of international business, on which national cultures have the greatest impact, will be identified. Skills: Students will be familiar with cultural differences in verbal and nonverbal communication and the importance of religion, values, and symbols in business. Social competences: Obtaining abilities to use verbal and nonverbal communication skills and effective negotiation in business contacts.									
Course content	Cultural environment - what is national culture? Stereotypes and prejudices - barriers resulting from the cultural background. The main cultural orientations. The importance of the cultural background in international business - concept and international business areas. The impact of cultural differences on international dealings. Forms of international orientation. Linguistic diversity in international business. The variety of verbal communication styles. Non-verbal communication in international business. Religion, values and symbols as cultural aspects in the international business. Intercultural negotiations. The essence of the negotiations. The style of negotiations. The duration of the negotiations, the manner and duration of decision making. The elements of business protocol - the importance of titles, business cards, dress code, gifts. Overcoming culture shock - what is culture shock? Who is exposed to the symptoms of culture shock? Acclimatization phase. Causes of culture shock. Learning and respecting other cultures.									
Teaching methods	case studies, individual and group exercises, brainstorming, moderated discussion									
Assessment method	evaluation of individual and team tasks and student's activity during classes, final test									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student understands the role of cultural background in business and the impact of cultural differences on international dealings								Z_W04, Z_W12	
LO2	The student can identify and apply different styles and ways of verbal and nonverbal communication in international business								Z_U03, Z_U09, Z_U10	
LO3	The student is able to conduct international negotiations effectively and apply the rules of the diplomatic protocol								Z_U09, Z_U10, Z_K05	
LO4	The student has the ability to cooperate in a team								Z_U12, Z_K05, Z_K06	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	Evaluation of individual and team tasks and student's activity during classes, final test								C	
LO2	Evaluation of individual and team tasks and student's activity during classes, final test								C	
LO3	Evaluation of individual and team tasks and student's activity during classes, final test								C	

<b>LO4</b>	Evaluation of team tasks	C	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	Participation in classes	30	
	Participation in student-teacher sessions related to the class	1	
	<b>TOTAL:</b>	31	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>31</b>	<b>1,2</b>
<b>Student workload – practical activities</b>		<b>31</b>	<b>1,2</b>
<b>Basic references</b>	1. Steers R.M., Nardon L., Sánchez-Runde C., Management Across Cultures, Cambridge University Press, Cambridge, 2016. 2. Randlesome C., Business cultures in Europe, 2nd ed.Oxford : Butterworth-Heinemann, 1993. 3. Smith A., Best commercial practice: business theory a. practice: culture, Recanati: ELI, 2013.		
<b>Supplementary references</b>	1. Gesteland R., Cross-Cultural Business Behavior. A Guide for Global Management, Gazelle Book Services, 2013. 2. Tomalin B.,Nicks M., The World's Business Cultures, Thorogood Publishing Ltd, London, 2007. 3. O'Donnel O., Boyle R., Understanding and Managing Organisational Culture, <a href="https://www.ipa.ie/_fileUpload/Documents/CPMR_DP_40_Understanding_Managing_Org_Culture.pdf">https://www.ipa.ie/_fileUpload/Documents/CPMR_DP_40_Understanding_Managing_Org_Culture.pdf</a> . 4. Schein E.H., Organizational culture and leadership, <a href="http://www.untag-smd.ac.id/files/Perpustakaan_Digital_2/ORGANIZATIONAL%20CULTURE%20Organizational%20Culture%20and%20Leadership,%203rd%20Edition.pdf">http://www.untag-smd.ac.id/files/Perpustakaan_Digital_2/ORGANIZATIONAL%20CULTURE%20Organizational%20Culture%20and%20Leadership,%203rd%20Edition.pdf</a>		
<b>Organisational unit conducting the course</b>	<b>International Department of Logistics and Service Engineering</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Aleksandra Gulc, PhD</b>	<b>19.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Internship							Course code	ZSUA04220	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	4	
	2 weeks (to be completed within two years of study)							No. of ECTS credits	2	
Entry requirements	-									
Course objectives	Knowledge: Integrating theoretical knowledge with practice through a detailed understanding of the principles and mechanisms of the organization / enterprise. Skills: Education and development of professional skills related to the field of study. Acquisition and broadening of professional skills allowing for solving problems resulting from the nature of the organization's activities and its environment. Social competences: Improving social skills and competences. Adapting to the rules prevailing in the organization / enterprise. Establishing professional contacts.									
Course content	Getting to know the organization / enterprise and applicable health and safety and fire regulations. Getting acquainted with the specificity of work in various positions. Acquiring practical knowledge of issues related to the field of study and specialization, and confronting the theoretical knowledge gained in the course of studies in the practice of the functioning of the company / organization. Improving social skills and competences.									
Teaching methods	-									
Assessment method	The condition for obtaining credit for internships is their completion in the dimension of min. 2 weeks in an organization verified by the internship supervisor and approved by the Dean, as well as fulfillment of the tasks set out in the internship program, achieving learning outcomes and providing the internship supervisor with correctly completed and signed documents - approval of the place and plan of the student internship (before the start of internship), agreement apprenticeship for students of the Bialystok University of Technology, journal of student apprenticeships, certificates of completed apprenticeships and the final report. The condition for obtaining credit for internships may also be employment in the country or abroad if the nature of work meets the requirements of the internship program, student participation in a research camp with a profile consistent with the internship program, student participation in research conducted by the University in accordance with the field of study, other forms of professional activity internships that meet the requirements of the program - e.g. running your own business, volunteering. The decision on crediting the internship in the above-mentioned situations is made by the Dean after consulting the internship tutor. Internships can be hospitalized.									
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study		
LO1	Has extensive knowledge of the processes and phenomena occurring in the organization and its environment.							Z_W03, Z_W10		
LO2	Has in-depth knowledge that allows him to diagnose and solve complex problems related to the elementary aspects of the functioning of the company / organization and its management in a complex environment.							Z_W10, Z_W12, Z_U01, Z_U03		
LO3	Can critically assess the phenomena occurring in the organization and its environment, and is aware of the responsibilities and challenges related to the profession.							Z_W12, Z_U08		
LO4	Demonstrates the ability to adapt to the requirements of the work environment, constructive evaluation of other people's work, demonstrates the ability to make decisions in complex matters related to work.							Z_U06, Z_U08, Z_K01		
LO5	He can critically assess the usefulness and justification of applying theoretical knowledge in practice.							Z_K01		
LO6	He is capable of effective communication, teamwork, professional career and his own lifelong learning.							Z_U12, Z_U13		

Symbol of learning outcome	Methods of assessing the learning outcome	Type of teaching activities (if more than one) during which the outcome is assessed	
L01	assessment of the compliance of the internship with its program		
L02	assessment of the compliance of the internship with its program		
L03	assessment of the compliance of the internship with its program		
L04	assessment of the compliance of the internship with its program		
L05	assessment of the compliance of the internship with its program		
L06	assessment of the compliance of the internship with its program		
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	participation in the practice (2 weeks)	50	
	<b>TOTAL:</b>	<b>50</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>50</b>	<b>2</b>
<b>Student workload – practical activities</b>		<b>50</b>	<b>2</b>
<b>Basic references</b>	-		
<b>Supplementary references</b>	-		
<b>Organisational unit conducting the course</b>	<b>Department of Management, Economics and Finance</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Justyna Grześ-Bukłaho, PhD</b>	<b>23.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Master degree diploma seminar 2							Course code	ZSUA04071	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	4	
							30	No. of ECTS credits	6	
Entry requirements										
Course objectives	The main assumption is to prepare the student to participate in scientific and research work. The aim is to develop the thesis in accordance with the requirements of the methodology of scientific work. The goal is also to prepare students to defend their thesis.									
Course content	Determination of research issues and the topic of work. Discussion of the principles of formulation and formulation of the aim of the work and research questions. Discussing the techniques of searching for literature on the subject and indicating sources. Discussing the technique of writing thesis. Gathering and organizing the material. Discussing the principles of constructing the thesis (concept and plan of work). Developing the concept and plan of the thesis and its individual parts. Solving research and technical problems. Discussing questions for the diploma examination. Discussing the content of the presentation for the diploma examination.									
Teaching methods	discussion, presentations, case studies									
Assessment method	Evaluation of the prepared concept and plan as well as the required parts of the diploma thesis; evaluation of the student's participation in the classes and knowledge of the basic rules of preparing diploma theses									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	The student recognizes the basic rules of the diploma thesis methodology								Z_W06, Z_W14	
LO2	The student defines the research problem, subject, aim and research questions								Z_W01, Z_U03, Z_U04	
LO3	The student collects and interprets the subject literature.								Z_U06	
LO4	The student develops a concept and work plan and its individual parts.								Z_U04, Z_U13	
LO5	The student develops a concept for solving research and technical problems.								Z_U04, Z_U07	
Symbol of learning outcome	Methods of assessing the learning outcome								Type of teaching activities (if more than one) during which the outcome is assessed	
LO1	discussion in class, evaluation of chapters prepared by the student								S	
LO2	discussion in class, evaluation of chapters prepared by the student								S	
LO3	discussion in class, evaluation of chapters prepared by the student								S	
LO4	evaluation of chapters prepared by the student								S	
LO5	observing the work in class								S	
Student workload (in hours)									No. of hours	
Calculation	Participation in classes								30	
	Preparation for classes resulting from the realization of tasks entrusted to the student								55	

	Implementation of tasks concerning the preparation of the thesis	60	
	Participation in consultations	5	
	<b>TOTAL:</b>	<b>150</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>35</b>	<b>1,4</b>
<b>Student workload – practical activities</b>		<b>150</b>	<b>6</b>
<b>Basic references</b>	1. S. Bailey, <i>Academic writing: a handbook for international students</i> , 2011, 2. A. Oshima, L. Ravitch, <i>Longman academic writing series. 4, Essays</i> , 2017 3. WYTYCZNE w sprawie przygotowania prac dyplomowych (magisterskich, inżynierskich, licencjackich) na Wydziale Zarządzania Politechniki Białostockiej (Załącznik do Uchwały nr 4/10/2016 Rady Wydziału Zarządzania z dnia 12 października 2016 roku), <a href="http://wz.pb.edu.pl/media/a26fc5eb-1b7f-4004-8d4d-8dad4c1894f/E9BcoA/Studenci/Dziekanat/Prace%20dyplomowe/Wytyczne-do-pisania-prac-dyplomowych.pdf">http://wz.pb.edu.pl/media/a26fc5eb-1b7f-4004-8d4d-8dad4c1894f/E9BcoA/Studenci/Dziekanat/Prace%20dyplomowe/Wytyczne-do-pisania-prac-dyplomowych.pdf</a> [21.03.2017].		
<b>Supplementary references</b>	1. Specialist literature - according to the subject of the work.		
<b>Organisational unit conducting the course</b>	<b>International Department of Logistics and Service Engineering</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Anna Kononiuk, PhD</b>	<b>26.11.2020</b>	

Bialystok University of Technology										
Field of study	Management							Degree level and programme type	second degree full-time	
Specialization/ diploma path	Smart and innovative business							Study profile	academic	
Course name	Diploma Thesis							Course code	ZSUA04221	
								Course type	elective	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	4	
								No. of ECTS credits	18	
Entry requirements	Diploma seminar									
Course objectives	Writing a diploma thesis (Master's thesis) by a student									
Course content	Definition of research issues and thesis topic; discussion of principles of formulation and formulation of the aim of the work and research questions; discussion of techniques of searching for literature on the subject and indication of sources; discussion of techniques of writing the master's thesis; collection and arrangement of material; discussion of principles of constructing the master's thesis (concept and plan of work); development of the concept and plan of the master's thesis and its individual parts; solving research and technical problems.									
Teaching methods	-									
Assessment method	Evaluation of the diploma thesis by the supervisor									
Symbol of learning outcome	Learning outcomes								Reference to the learning outcomes for the field of study	
LO1	is able to obtain knowledge from literature sources and assess its suitability for solving a selected problem/task								Z_U04, Z_K01	
LO2	formulates the objectives and scope of work, has knowledge of how to carry out the research process								Z_W06	
LO3	presents a detailed description of a given phenomenon, process or company in accordance with the subject of the work and its purpose								Z_W03, Z_U05	
LO4	formulate conclusions or final statements, taking into account the practical aspects of those conclusions								Z_U06	
LO5	has the ability to construct his/her master's thesis correctly (the structure of the thesis - proper sequence of chapters and subchapters and their completeness), applies the proper style of language and spelling, grammatical and stylistic rules								Z_U13	
LO6	behave ethically								Z_K06	
Symbol of learning outcome	Methods of assessing the learning outcomes								Type of tuition during which the outcome is assessed	
LO1	Master's thesis evaluation									
LO2	Master's thesis evaluation									
LO3	Master's thesis evaluation									



<b>LO4</b>	Master's thesis evaluation	
<b>LO5</b>	Master's thesis evaluation	
<b>LO6</b>	Master's thesis evaluation	
<b>Student workload (in hours)</b>		<b>No. of hours</b>
<b>Calculation</b>	Participation in consultations with the labour supervisor	<b>20</b>
	Preparation of the Master's thesis	<b>430</b>
	<b>TOTAL:</b>	<b>450</b>
<b>Quantitative indicators</b>		<b>HOURS</b> <b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>20</b> <b>0,8</b>
<b>Student workload – practical activities</b>		<b>450</b> <b>18</b>
<b>Basic references</b>	1. Specialist literature - according to the subject of the paper. 2. Guidelines concerning the preparation of diploma theses (master's, engineering and bachelor's theses) at the Faculty of Management of the Bialystok University of Technology, Appendix to Resolution No. 4/10/2016 of the Management Faculty Council of 12 October 2016. 3. Tharenou, P., Donohue, R., & Cooper, B., Management Research Methods, (1st ed.) Cambridge University Press, Cambridge UK 2007, <a href="https://doi.org/10.1017/CBO9780511810527">https://doi.org/10.1017/CBO9780511810527</a>	
<b>Supplementary references</b>	1. Randolph, J. J.. A guide to writing the dissertation literature review. Practical Assessment, Research & Evaluation, 14(13), 2009. 2. Stake R.E., Case studies, w: Handbook of Qualitative Research, red. N.K. Denzin, Y.S. Lincoln, Thousand Oaks, London, New Delhi 1994. 3. Yin R.K., Case Study Research: Design and Methods, Thousand Oaks, California 1994.	
<b>Organisational unit conducting the course</b>	<b>Department of Management, Economics and Finance</b>	<b>Date of issuing the programme</b>
<b>Author of the programme</b>	<b>Joanna Szydło, PhD</b>	<b>20.11.2020</b>