Course Description	
Course title:	**Desighning and Organization of Storage and Handling Systems**
Neptun code:	PRODLOG_S8_DOSH
Type (core, specialization, optional, dissertation, other):	core
Lecture/ Seminar (practical); hours per week:	2/2
Name and position of lecturer:	Tynchtyk Mukanov; Supply chain manager Gallery Ltd
Contact of lecturer:	tynchtyk.mukanov@gmail.com
Prerequisite course(s):	no
Language of the course:	English
Suggested semester: autumn /spring, 1-4	2
Number of credits:	5
Requirements (exam/practical mark/signature/report, essay):	s, m
Course objectives (50-100 words):	Design of warehousing and distribution systems is a science that reflects the cultures of particular design teams. Warehouses are often designed and operated by third party logistics companies with tight margins. Therefore, there is increased pressure to design warehouses that are flexible and adaptable, even while the available information is incomplete.

Course structure:	**Week**	**Topic**
	1.	Management of warehouse systems
	2.	Packaging and logistics units
	3.	Acceptance and receipt of goods
	4.	Storage
	5.	Warehouse management system
	6.	Conveyor control and monitoring systems
	7.	Collection, processing and visualization of data
	8.	Inventory
	9.	Basic data and key performance indicators of warehouse systems
	10.	Optimization of warehouse processes
	11.	Warehouse systems
	12.	Sorting and distribution systems
	13.	Distribution technology

Required readings:	1. Gudehus, T., Kotzab, H.: Comprehensive Logistics, Springer Berlin Heidelberg, 2012. 2. Mulcahy, David E.: Materials Handling Handbook; McGraw-Hill Professional, 1999.
Recommended readings:	1.Michael ten Hompel, Thorsten Schmidt, Warehouse Management, Automation and Organisation of Warehouse and Order Picking Systems. Springer, Verlag Berlin Heidelberg, 2007.
Evaluation method:	Continuous evaluation of mid-semester work

CV	
Name of lecturer:	Tynchtyk Mukanov
Position of lecturer:	Supply chain manager Gallery Ltd
Academic title, year obtained:	PhD (2012), habil. (2021)
Department, contact:	IHLS; tynchtyk.mukanov@gmail.com
Current courses in English:	KSTU, Program 580600-Procurement logistics, Master of Science, 2015
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Desighning and Organization of Storage and Handling Systems
Languages: **English**	A1 A2 B1 B2 **C1** **C2**
German	A1 A2 **B1** B2 **C1** C2
other:…….	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	12 pcs (IF: 20.096, Relative IF: 7.194)
Number of conference presentations in English:	15 pcs
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	https://cert.efset.org/4NEmuF

Course Description		
Course title:	Economics and Cost Analysis	
Neptun code:	PRODLOG_S7_ECA	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Shakirova Klara Kapanovna	
Contact of lecturer:	nauka-kg@mail.ru	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	Knowing how to conduct economic analysis at the enterprise and its main structural divisions and how to evaluate the production potential of the enterprise and its usage. Applying the results of factor analysis to justify management decisions and determine the financial condition of the company and trends its development. Analyzing of the socio-economic essence of cost management. Approaching production calculation technology. Familiarizing with the legal basis of pricing and cost management, the practice of preparing cost estimates and budgets and studying of classical and modern methods of cost management.	
Course structure:	**Week**	**Topic**
	1.	The concept of a modern enterprise. External and internal environment. Enterprise functions.
	2.	Concept and classification of fixed assets.
	3.	Methods of calculating depreciation, performance indicators.
	4.	Composition and structure of working capital. Indicators of efficiency of use of working capital.
	5.	Concept and types of intangible assets. Accounting and depreciation.
	6.	Composition and structure of the enterprise personnel. Forms and systems of remuneration.
	7.	The concept of labor productivity. Indicators of the level of labor productivity.
	8.	Concepts, types of enterprise costs. Analysis of enterprise costs. Building a break-even chart.
	9.	Concept and types of profit. Profitability account.
	10.	Pricing policy of the enterprise. Accounting and influence of pricing factors.
	11.	Stages of the pricing process.
	12.	Efficiency of the financial activities of the enterprise.
	13.	Analysis of performance indicators.
Required readings:	1. Kuz'mina M.S. Upravlenie zatratami predprijatija (organizacii): uchebnoe posobie [Cost management of an enterprise (organization): textbook] / M.S. Kuz'mina, B.Zh. Akimova. — M. : KNORUS, 2015. — 312 p. [In Russian]. 2.Erygina, L. V. Upravlenie zatratami: ucheb. posobie po napr. podgotovki 38.03.01 «Jekonomika» vseh form obuchenija. [Cost management: textbook for example preparation 38.03.01 "Economics" of all forms of education] / L. V. Erygina, M. V. Polubelova; Sib. gos. ajerokosmich. un-t. [Sib. state aerospace univ.] – Krasnojarsk, 2017. – 120 p. [In Russian].	
Recommended readings:	1. Jekonomika predprijatija: Uchebnik dlja vuzov [Economics of Enterprise: Textbook for Universities] / Ed. prof. V.Ya. Gorfinkel, prof. V.A. Shvandara. — 4-e izd., pererab. i dop. [reworked and additional]. - M.: JuNITI-DANA, 2007 - 670 p. - (Serija «Zolotoj fond rossijskih uchebnikov»)[Series "Golden Fund of Russian Textbooks"]. [In Russian].	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Dr. Shakirova Klara Kapanovna
Position of lecturer:	Head, editorial and publishing department of KNU named after Zh. Balasagyn
Academic title, year obtained:	PhD (2013), habil. (2021)
Department, contact:	Institute of Logistics, e-mail: nauka-kg@mail.ru
Current courses in English:	Economic analysis
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Economic analysis
Languages: **English**	A1 A2 **B1** B2 C1 C2
German	A1 A2 B1 B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	3
Number of conference presentations in English:	35 pcs
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	SPIN-код: 1820-1877 AuthorID: 990379 Scopus ID: 58694208100 ORCID: 0000-0002-4965-4035

Course Description		
Course title:	Energy and Resource Efficient Industry	
Neptun code:	PRODLOG_S9_EEI	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Dr. Azizbek Kydykov, assistant professor	
Contact of lecturer:	azizbek.kydykov@gmail.com	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	1	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	This course will provide knowledge of types of energy resources and problems of energy and resource conservation; stages of designing energy-efficient facilities and equipment; basic principles and methods for creating resource-saving technologies; requirements of regulatory documents to improve the energy efficiency of production processes.	
Course structure:	**Week**	**Topic**
	1.	Classification of energy resources
	2.	World experience in energy saving
	3.	Energy policy of Kyrgyzstan
	4.	Regulatory, legal and technical basis of state energy saving policy
	5.	Energy and resource conservation in production and distribution electricity
	6.	Electricity of the net
	7.	Non-traditional energy sources
	8.	Disposal of waste from the electricity industry
	9.	General directions of energy saving
	10.	Energy saving in industry
	11.	Accounting for energy resources and energy carriers
	12.	Economic and organizational direction of energy saving
	13.	Solving practical tasks.
Required readings:	1. Niall Enright: Energy and Resource Efficiency without the tears: The complete guide to to adding value and sustaining change in an organization. 2017 2. Durmuş Kaya (Author), Fatma Çanka Kılıç (Author), Hasan Hüseyin Öztürk.:Energy Management and Energy Efficiency in Industry: Practical Examples (Green Energy and Technology) Publisher, 2021.	
Recommended readings:	1. W. F. Kenney: TEnergy Conservation in the Process Industries (Energy Science & Engineering: Resources, Technology, Management) Publication date : December 2, 2012 2. JAMIE GRAY: Improving Energy Efficiency in Industrial Energy Systems: An Interdisciplinary Perspective on Barriers, Energy Audits, Energy Management, Policies,	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Dr. Azizbek Kydykov, assistant professor
Position of lecturer:	assistant professor
Academic title, year obtained:	PhD (2015)
Department, contact:	Higher School of Logistics, e-mail: azizbek.kydykov@gmail.com
Current courses in English:	Lean Manufacturing
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	
Languages: **English**	A1 **A2** B1 B2 C1 C2
German	A1 A2 B1 B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	3 pcs
Number of conference presentations in English:	-
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	Analytical and Logistic Approach Kuzmynchuk, N., Kutsenko, T., Zhagyparova, A., ...Kydykov, A., Konokhov, S. Green Energy and Technology, 2023, p 55–68 2. Application of smart logistics technologies in the organization of multimodal cargo delivery Orozonova, A., Gapurbaeva, S., Kydykov, A.,..Prause, G., Lytvynenko, S. Transportation Research Procedia, 2022, 2352-1465 © 2022 The Authors. Published by ELSEVIER B.V.

Course Description		
Course title:	Industrial Automation	
Neptun code:	GEVAU303-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Dr. Attila Trohák, associate professor	
Contact of lecturer:	trohak.attila@uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	1	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, e	
Course objectives (50-100 words):	Introducing the fundamentals of automated production and the role of Programmable Logic Controllers (PLC). Introducing the sensors which are able to provide information about pre manufacturing system and the actuators which are able to influence the production process. The types of Human Machine Interfaces (HMI) which can inform the operator about the machine. The wired and wireless communication methods providing data exchange with MES/ERP systems. Introducing the development method of unique	
Course structure:	**Week**	**Topic**
	1.	PLC systems in general.
	2.	Digital and analog sensors.
	3.	Digital and analog actuators.
	4.	PLC programming languages.
	5.	Basics of control.
	6.	Control loops and their operation.
	7.	HMI devices and methods.
	8.	HMI services: basics, creating screens, archiving data.
	9.	HMI services: event logging, alarm handling.
	10.	HMI services: multilanguage projects, user rights.
	11.	Wired communication.
	12.	Wireless communication.
	13.	Case studies: the development of unique production surveillance systems
Required readings:	1. Dr. Ajtonyi István: PLC és SCADA-HMI rendszerek I., ISBN 978-963-06-3165-5, AUT-INFO Kft., 2007. 2. Dr. Ajtonyi István: PLC és SCADA-HMI rendszerek III., ISBN 978-963-06-5774-7, AUT-INFO Kft., 2008. 3. Dr. Ajtonyi István: PLC és SCADA-HMI rendszerek IV., ISBN 978-963-08-1516-1, AUT-INFO Kft., 2011. 4. K.H. John, M. Tiegelkamp: IEC61131-3: Programming Industrial Automation Systems. Springer-Verlag Berlin Heidelberg, New York, 1995.	
Recommended readings:	1. IDC Technologies: Industrial Programming using 61131-3 for PLCs	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Dr. Attila Trohák
Position of lecturer:	associate professor
Academic title, year obtained:	PhD, 2015
Department, contact:	Institute of Automation and Info-Communication , trohak.attila@uni-miskolc.hu
Current courses in English:	Industrial Automation
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Industrial Automation
Languages: **English**	A1 A2 B1 **B2** C1 C2
German	A1 A2 B1 B2 C1 C2
other:	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	9 (IF: 5.289)
Number of conference presentations in English:	19
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month:	
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10029329

Course Description		
Course title:	Industry 4.0 Information Systems	
Neptun code:	GEIAL550-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Prof. Dr. László Kovács, professor	
Contact of lecturer:	kovacs@iit.uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	4	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, e	
Course objectives (50-100 words):	Overview of the role of information systems in I4.0 architecture; Different types of applications (OLTP,OLAP). Foundation of data warehouses. MD models and operations, application areas. Web-based applications: architecture and application areas. Application of intelligent sensors, data analysis. Cloud and Big Data architectures, Application of blockchain technologies. Smart applications.	
Course structure:	**Week**	**Topic**
	1.	History of I4.0.
	2.	Role of IT in I4.0.
	3.	OLTP and OLAP systems.
	4.	Decision support systems
	5.	Databases and data warehouses, application areas
	6.	MD data model.
	7.	Data operations.
	8.	MDX
	9.	Blockchain technologies
	10.	Web-architecture, application areas
	11.	Cloud-architecture, application areas
	12.	Intelligent sensors
	13.	Smart applications
Required readings:	1. Alasdair Gilrichst: Industry 4.0: The industrial internet of things, Apress, 2016. 2. Alp Ulstundag, Emre Cevikcan. Industry 4.0: Managing the Digital Transformation, Springer, 2018. 3. Jerzy Duda, Aleksandra Gąsior: Industry 4.0 A Glocal Perspective, Published September 17, 2021 by Routledge	
Recommended readings:	1. P. Tan, M: Steinbach, V. Kuwar Introduction to Data Mining, 1st Edition 2. Klaus Schwab: The Fourth Industrial Revolution, Crown Publishing, 2016. 3. Luis Norberto , Jorge Posada: New Industry 4.0 Advances in Industrial IoT and Visual Computing for Manufacturing Processes, MDPI Publisher, 2020	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Prof. dr. László Kovács
Position of lecturer:	full professor
Academic title, year obtained:	PhD habil
Department, contact:	Institute of Information Science, Miskolc-Egyetemváros
Current courses in English:	Foundations of Data Mining; IT of Industry 4.0
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Database Systems, Data Mining and Analysis (guest lecturer at TU Kosice), XML Data Management (TU Siuallie Litvania)
Languages: English	A1 A2 B1 B2 **C1** C2
German	A1 A2 B1 B2 **C1** C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	76
Number of conference presentations in English:	104
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	www.iit.uni-miskolc.hu, Scopus ID: 7201471183

Course Description		
Course title:	Simulation Examination of Logistics Systems	
Neptun code:	GEALT178-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Prof. Dr. Péter Tamás, professor	
Contact of lecturer:	peter.tamas@uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	During the course, students will be introduced to the possibilities of simulation modeling, evaluation and efficiency improvement of typical logistics systems. Using the knowledge gained, students will be able to model, evaluate, develop and design logistics processes with a simulation framework.	
Course structure:	**Week**	**Topic**
	1.	Objectives of modeling logistics systems.
	2.	Principles of simulation modeling.
	3.	Possibilities of simulation modeling.
	4.	Application of Lean philosophy in modeling logistics systems.
	5.	Logistics objects of procurement logistics systems.
	6.	Logistics objects of production, logistics systems.
	7.	Logistics objects of distribution logistics systems.
	8.	Logistics objects of recycling logistics systems.
	9.	The material flow characteristics to be taken into account when modeling the logistics subsystems.
	10.	Method of modeling logistics operations in a simulation framework.
	11.	Method of modeling logistics processes in a simulation framework.
	12.	Description of case studies for modeling and development of automotive logistics systems.
	13.	Solving practical tasks.
Required readings:	1. Tamás P.: Innovative simulation testing methods in logistics, Tankönyv, ISBN: 978-963-358-239-8 , 2021. 2. Pedro García Márquez, F.; Segovia, R. I.; Bányai, T., Tamás, P.: Lean Manufacturing and Six Sigma – Behind the Mask, London, Egyesült Királyság/Anglia: InTech Open Access Publisher, 2021.	
Recommended readings:	1. Tamás P., Illés B.: Examining the Integration Possibilities for Lean Tools and Simulation Modeling, Solid State Phenomena 261: pp. 516-522. (2017) 2. Illés B., Glistau E., Machado N. I. C.: Logistik und Qualitätsmanagement, ISBN 978 963 87738 1 4, Miskolc, 2007.	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Prof. Dr. Péter Tamás
Position of lecturer:	head of institute, university professor
Academic title, year obtained:	PhD (2012), habil. (2021)
Department, contact:	Institute of Logistics, e-mail: peter.tamas@uni-miskolc.hu
Current courses in English:	lean logistics
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	lean logistics
Languages: **English**	A1 A2 B1 **B2** C1 C2
German	A1 A2 **B1** B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	52 pcs (IF: 20.096, Relative IF: 7.194)
Number of conference presentations in English:	35 pcs
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	http://geik.uni-miskolc.hu/intezetek/LOG/staff.php?id=156 https://scholar.google.hu/citations?user=ukuc1_EAAAAJ&hl=hu MTMT ID: 10029326; Scopus ID: 57144122400; ORCID: 0000-0002-4346-242X researchgate.net/profile/Peter-Tamas

Course Description		
Course title:	Resource Efficient Production Logistics	
Neptun code:	PRODLOG_S7_REPL	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Dr. Azizbek Kydykov, assistant professor	
Contact of lecturer:	azizbek.kydykov@gmail.com	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	1	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	During the course, students will be introduced to the sustainable use of resources using various production processes. Increased knowledge about green production without loss of productivity; Sustainable development as a triad of economics, ecology and social responsibility.	
Course structure:	**Week**	**Topic**
	1.	Objectives of Production Logistics
	2.	Flows of company material resources
	3.	Lean manufacturing principles. Types of losses.
	4.	Value. Value Stream
	5.	Organization of flow movement
	6.	Pull. Perfection
	7.	Creating Lean Manufacturing
	8.	Simple case. More complex case.
	9.	Test of endurance
	10.	Differences between lean manufacturing and traditional precision
	11.	Lean Production Action Plan
	12.	Description of case studies on Just in Time, kaizen, 5S-methodology
	13.	Solving practical tasks.
Required readings:	1. James P. Womack, Daniel T. Jones: Lean Thinking, New York London Toronto Sydney Singapore, 2015 2. Pedro García Márquez, F.; Segovia, R. I.; Bányai, T., Tamás, P.: Lean Manufacturing and Six Sigma – Behind the Mask, London, Egyesült Királyság/Anglia: InTech Open Access Publisher, 2021.	
Recommended readings:	1. Eliyahu M. Goldratt: Theory of Constraints Paperback – 1999 2. Andrew Stein: The philosophy of Lean. Lean production at work and at home - 2014	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Dr. Azizbek Kydykov, assistant professor
Position of lecturer:	assistant professor
Academic title, year obtained:	PhD (2015)
Department, contact:	Higher School of Logistics, e-mail: azizbek.kydykov@gmail.com
Current courses in English:	Lean Manufacturing
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	
Languages: **English**	A1 **A2** B1 B2 C1 C2
German	A1 A2 B1 B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	3 pcs
Number of conference presentations in English:	-
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	Analytical and Logistic Approach Kuzmynchuk, N., Kutsenko, T., Zhagyparova, A., ...Kydykov, A., Konokhov, S. Green Energy and Technology, 2023, p 55–68 2. Application of smart logistics technologies in the organization of multimodal cargo delivery Orozonova, A., Gapurbaeva, S., Kydykov, A.,..Prause, G., Lytvynenko, S. Transportation Research Procedia, 2022, 2352-1465 © 2022 The Authors. Published by ELSEVIER B.V.

Course Description		
Course title:	Quality Management of Logistics Systems	
Neptun code:	GEALT179-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Prof. Dr. Béla Illés, professor	
Contact of lecturer:	bela.illes@uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	4	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	During the course, students will be introduced to the relationship between quality assurance and logistics, as well as the application of the basic methods and techniques used in quality assurance in logistics.	
Course structure:	**Week**	**Topic**
	1.	Logistics product, logistics process and logistics system.
	2.	The concept and development of quality.
	3.	The relationship between quality and logistics. Logistics quality.
	4.	Total quality management in logistics.
	5.	Capturing customer needs, the benefits of Customer Relationship Management.
	6.	QFD method for the realization of customer expectations. Use of QFD in logistics - LFD.
	7.	Application of benchmarking in logistics.
	8.	Prevention techniques, error analysis in logistics.
	9.	Business Process Reengineering (BPR) in logistics. Comparison of Kaizen method and reengineeering.
	10.	Use of the seven analytical tools and other analytical methods in logistics.
	11.	Logistics application of the seven management tools and additional management tools.
	12.	Manageability of logistics processes, six sigma, regulatory circuits, statistical process control.
	13.	Relationship system of quality assurance and logistics, mathematical manageability of quality assurance logistics.
Required readings:	1. Pyzdek, Thomas, and Paul Keller. Handbook for quality management: A complete guide to operational excellence. McGraw-Hill Education, ISBN 978-0071799249, 2013. 2. Illés, B., Glistau, E., Machado, N. I. C.: Logistik und Qualitätsmanagement, Budai Nyomda, ISBN 978-963-87738-1-4, 2007. 3. Márquez, F. P. G., Segovia, I., Bányai, T., & Tamás, P. (Eds.). (2020). Lean Manufacturing and Six Sigma: Behind the Mask. BoD–Books on Demand. ISBN 978-1-78923-908-9	
Recommended readings:	1. Hompel, Michael, and Thorsten Schmidt. (2006): Warehouse management: automation and organisation of warehouse and order picking systems. Springer Science & Business Media 2. Bányai, Tamás, and Ireneusz Kaczmar, eds. Green Supply Chain: Competitiveness and Sustainability. BoD–Books on Demand, ISBN 978-1-83968-301-5, 2021.	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Quality Management of Logistics Systems
Position of lecturer:	professor
Academic title, year obtained:	PhD (1998), habil. (2006)
Department, contact:	Institute of Logistics, e-mail: bela.illes@uni-miskolc.hu
Current courses in English:	Quality Management of Logistics Systems
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Quality Management of Logistics Systems
Languages: **English**	A1 A2 B1 **B2** C1 C2
German	A1 A2 B1 **B2** C1 C2
other: Russian	A1 A2 B1 **B2** C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	105, IF: 25.387
Number of conference presentations in English:	
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	Magdeburg 3 month, Eindhoven 2 month
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=authors10003202

Course Description		
Course title:	Information and Identification Technologies in Logistics	
Neptun code:	PRODLOG_S8_IIT	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Begaliev SAMYIBEK Associate Professor	
Contact of lecturer:	samyi.b8@gmail.com;	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	Learning skills for commissioning and use of radio and image-based identification, location and communication technologies. Design of telematics systems for long process chains in the logistics and intralogistics tasks.	
Course structure:	**Week**	**Topic**
	1.	Video-based systems
	2.	Camera, pattern recognition
	3.	RFID systems for identification
	4.	Readers, multiplexers, antennas
	5.	Low Cost 3D scanning device
	6.	Complex solutions
	7.	Intelligent Container
	8.	RFID Kanban
	9.	RFID in the fashion industry
	10.	Freight scanning
	11.	IoT in Logistics
	12.	AI in Logistics
	13.	RPA in Logistics
Required readings:	1. Identification, assessment, and quantification of new risks for Logistics 4.0 Vijaya Dixit &Priyanka Verma. Published online, 2022. 2. Y. Ding, M. Jin, S. Li, and D. Feng, “Smart logistics based on the internet of things technology: an overview,” International Journal of Logistics Research and Applications, vol. 24, no. 4, pp. 323–345, 2021.	
Recommended readings:	1. K. Leng, L. Jin, W. Shi, and I. van Nieuwenhuyse, “Research on agricultural products supply chain inspection system based on internet of things,” Cluster Computing, vol. 22, no. S4, pp. 8919–8927, 2019. 2. Q. Gao, S. Guo, X. Liu, G. Manogaran, N. Chilamkurti, and S. Kadry, “Simulation analysis of supply chain risk management system based on IoT information platform,” Enterprise Information Systems, vol. 14, no. 9-10, pp. 1354–1378, 2020. 3. X. Yan and J. Li, “Animal intelligent logistics management based on RFID technology,” Revista Científica de la Facultad de Ciencias Veterinarias, vol. 29, no. 6, pp. 1772–1781, 2019.	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Begaliev SAMYIBEK
Position of lecturer:	Associate Professor at the National Certification Committee of the Kyrgyz Republic, Ph.D.
Academic title, year obtained:	PhD (1995)
Department, contact:	e-mail: samyi-b9@mail.ru; samyi.b8@gmail.com;
Current courses in English:	Information and Identification Technologies in Logistics
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Information and Identification Technologies in Logistics
Languages: English	A1 A2 **B1** B2 C1 C2
German	A1 A2 B1 B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	5 pcs
Number of conference presentations in English:	27 pcs
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	Someofthemare: 1. Kinematics of mechanisms ejection sharikoshtapovochnogo press machine BSHA 85. In the coll. scientific works of the Institute of Mechanical Engineering, National Academy of Sciences. Issue 1. Bishkek, Ilim, 1997. s.285-292 2. Profiling cam mechanism and cutting the workpiece transfer press machine. / Proceedings of the International V scientific and theoretical conference "Problems and prospects of integration of education" devoted to the 5th anniversary of the Kyrgyz-Russian Slavic universiteta- Bishkek, 1998.s. 8Program of calculation and technology of manufacturing a cam mechanism for cutting and harvesting punching ball transfer press machine. / Proceedings of the International Conference "Mechanisms of variable structure and vibro-impact machine" .- Bishkek, Publishing House "Kyrgyzstan". Publisher: "Mektep" 1999.s.220-225 3. Technology of the cam mechanism cutting and transfer the workpiece ball forge-avtomat CAD system. / Proceedings of the International Conference of the Kyrgyz Technical University. - Bishkek. Publisher: "Bulletin of KTU" 1/1999 (6) Bishkek, 1999 p. 88-94. 4. Program and methods of industrial testspunching ball press machine BSHA 85. Proceedings of the International Conference of the Kyrgyz-Russian Academy of Education, Bishkek, 2002 p. 43-48. 5. Computer tutorial database «Access200» Proceedings of the Workshop "IT in higher education in the humanities -Bishkek 2003 s.165-173.

Course Description		
Course title:	Intelligent Material Handling Machines and Systems	
Neptun code:	GEALT176-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Dr. Péter Telek, associate professor	
Contact of lecturer:	alttelek@uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	1	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	Objective of the course is to present the intelligent material handling solutions for the students. The course gives an overview about the types, structures and operation of the automated handling machines applied in logistic processes.	
Course structure:	**Week**	**Topic**
	1.	Principles of material handling.
	2.	Operation of material handling machines.
	3.	Elements of material handling machines.
	4.	Principals of automated material handling.
	5.	Automated material handling machines.
	6.	Theory of material handling systems.
	7.	Material handling system solutions.
	8.	Automated material handling systems.
	9.	Intelligent logistic solutions.
	10.	Planning of material handling.
	11.	Planning of handling systems.
	12.	Planning of automated handling processes.
	13.	Reliability and maintenance of automated handling machines and systems.
Required readings:	1. R. A. Kulwiec: Materials handling handbook. J. Wiley and Sons, 1985. 2. M. P. Stephens, F. E. Meyers: Manufacturing Facilities Design and Material Handling, Pearson, 2010. 3. J. M. Apple: Material handling system design, J. Wiley and Sons, 1977.	
Recommended readings:	1. Müller, T.: Automated guided vehicles. IFS (Publications) Ltd., Berlin, Heidelberg, New York 1983. 2. Heinrich Martin: Förder- und Lagertechnik. Vieweg. Braunschweig 1978. 3. Michael G. Kay: Material Handling Equipment, North Carolina State University, 2012.	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Intelligent Material Handling Machines and Systems
Position of lecturer:	associate professor
Academic title, year obtained:	PhD., 2013
Department, contact:	Institute of Logistics, alttelek@uni-miskolc.hu
Current courses in English:	Computer design of material handling equipment
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Materials handling in manufacturing systems, Testing of material handling equipment, Material handling machines and systems
Languages: **English**	A1 A2 B1 **B2** C1 C2
German	**A1** A2 B1 B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	23
Number of conference presentations in English:	24
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month:	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10029512

Course Description		
Course title:	Introduction into Datamining	
Neptun code:	GEIAL529-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Prof. Dr. László Kovács, professor	
Contact of lecturer:	kovacs@iit.uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, e	
Course objectives (50-100 words):	Foundation of data management and data analysis. Basic skills in relational databases, Basic statistical tools for data analysis; Statistical tests and regression; introduction into data mining; Overview of the basic clustering and classification methods, introduction in neural networks, Learing how to use Excel, rapidMiner and Python for basic data analysis tasks.	
Course structure:	**Week**	**Topic**
	1.	Relational databases, architecture and operations, basic SQL commands
	2.	Basic programming skills in Python
	3.	Overview of basic statistical methods, normal distribution, statistical tests, regression
	4.	Statistical tools and visualisation in Excel, Python and rapidMiner
	5.	Overview of the DataMining methods, application areas
	6.	Association rule mining, markert basket analysis
	7.	Clustering methods
	8.	HAC algorithm, k-means method
	9.	Clustering Python and rapidMiner
	10.	Classification methods, Bayesian algorithm, decision tree method
	11.	Classifrication in Python and rapidMiner
	12.	Overview of neural networks
	13.	NN-tools in Python and rapidMiner
Required readings:	1. J. Han – M. Kamber: Data Mining. Concepts and Techniques, 3rd Edition (The Morgan Kaufmann Series in Data Management Systems), 2017 2. Pang -Ning Tan: Introduction to Data Mining., Publisher: Pearson Education; 2019 3. Provost: . Data Science for Business: What You Need to Know about Data Mining andData Analytic Thinking, 2014	
Recommended readings:	1. Jared Dean, Big Data, Data Mining, and Machine Learning: Value Creation for Business Leaders and Practitioners, 2014 2. Witte, Frank, Hall, Pal : Data Mining: Practical Machine Learning Tools and Techniques, 2011 3. Berson, Smith: Data Warehousing, Data Mining and OLAP. McGraw Hill, 1997.	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Prof. dr. László Kovács
Position of lecturer:	full professor
Academic title, year obtained:	PhD habil
Department, contact:	Institute of Information Science, Miskolc-Egyetemváros
Current courses in English:	Foundations of Data Mining; IT of Industry 4.0
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Database Systems, Data Mining and Analysis (guest lecturer at TU Kosice), XML Data Management (TU Siuallie Litvania)
Languages: English	A1 A2 B1 B2 **C1** C2
German	A1 A2 B1 B2 **C1** C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	76
Number of conference presentations in English:	104
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	www.iit.uni-miskolc.hu, Scopus ID: 7201471183

Course Description		
Course title:	Lean fundamentals	
Neptun code:	GEALT142-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Prof. Dr. Péter Tamás, professor	
Contact of lecturer:	peter.tamas@uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	The course introduces the lean management philosophy and its tools. At the end of the course, students will be able to analyze and improve material flow systems in line with the lean philosophy.	
Course structure:	**Week**	**Topic**
	1.	The history of the development of Lean.
	2.	5 principles.
	3.	Methods to define value-creating, non-value-creating processes, and losses (MURI, MUDA, MURA).
	4.	Steps to draw a value stream map.
	5.	Preparation of a present and future state map.
	6.	Introduction to Lean tools (5S, Andon system, visual management principles, Poka Yoke, SMED, Pull principle, JIT, Kanban, Jidoka, Heijunka, Kaizen, etc.).
	7.	Application of Lean tools in practice.
Required readings:	1. Tamás, P.: Innovative simulation testing methods in logistics: Miskolc, 2021., ISBN: 978-963-358-239-8 2. Bányai, T.: Design of Material flow systems. 2021. ISBN 978-963-358-237-4 3. Bartholdi, J. J., Hackman, S. T.: Warehouse & Distribution Science, Release 0.85, www.warehouse-science.com	
Recommended readings:	1. Langford, J.: Logistics principles and applications, Sole Press, ISBN-10: 0-07-147224-X, 2007. 2. Pedro García Márquez, F.; Segovia R. I.; Bányai, T., Tamás, P.: Lean Manufacturing and Six Sigma – Behind the Mask: London, Egyesült Királyság/Anglia: InTech Open Access	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Prof. Dr. Péter Tamás
Position of lecturer:	head of institute, university professor
Academic title, year obtained:	PhD (2012), habil. (2021)
Department, contact:	Institute of Logistics, e-mail: peter.tamas@uni-miskolc.hu
Current courses in English:	lean logistics
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	lean logistics
Languages: **English**	A1 A2 B1 **B2** C1 C2
German	A1 A2 **B1** B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	52 pcs (IF: 20.096, Relative IF: 7.194)
Number of conference presentations in English:	35 pcs
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	http://geik.uni-miskolc.hu/intezetek/LOG/staff.php?id=156 https://scholar.google.hu/citations?user=ukuc1_EAAAAJ&hl=hu MTMT ID: 10029326; Scopus ID: 57144122400; ORCID: 0000-0002-4346-242X researchgate.net/profile/Peter-Tamas

Course Description		
Course title:	Legal Regulation of Logistics Activities, Procedures	
Neptun code:	AJAMU08GEN-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/0	
Name and position of lecturer:	Dr. Zsolt Czékmann, assoc. Professor	
Contact of lecturer:	zsolt.czekmann@uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	4	
Number of credits:	1	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	The course aims to acquire legal knowledge and regulatory processes related to logistics. Within this framework, the knowledge of the legal regulation covers transportation, transportation, material handling, waste management, etc. to examine the civil, administrative, and environmental aspects of the regulatory areas.	
Course structure:	**Week**	**Topic**
	1.	Fundamentals of public and private law
	2.	Basics of legal regulation
	3.	Areas of regulation and peculiarities of administrative law
	4.	Organizational issues of public administration
	5.	Administrative logistics
	6.	Fundamentals of civil law / commercial law and liability regime
	7.	Regulation of activities related to the movement of goods (transportation transportation, etc.)
	8.	Legal relations related to storage (deposit, public storage, etc.)
	9.	Insurance legal relations in logistics
	10.	Regulatory areas, liability issues and system of environmental law
	11.	Regulatory methodology of environmental law
	12.	International and EU environmental law aspects
	13.	Economic instruments of environmental law (taxes, levies, refund systems, etc.)
	14.	Waste management and waste management services
	15.	Processing of legal cases
Required readings:	1. Potóczki György: Közigazgatási logisztika. Budapest, NKE, 2014. 2. Csák Csilla: Környezetjog I., Novotni Kiadó, Miskolc, 2008. 3. Szilágyi János Ede (szerk.): Környezetjog II., Novotni Kiadó, Miskolc, 2010. 4. Barta Judit: The possibility and significance of legal guarantees in the case of construction contracts. ACTA UNIVERSITATIS SAPIENTIAE 4:(1) pp. 5-15. (2015)	
Recommended readings:	1. Ujváriné dr. Antal Edit: Felelősségtan. Patrocinium, Budapest, 2017. 2. Nancy K. Kubesek, Gary S. Silverman: Environmental Law, 2014.	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Zsolt Czékmann
Position of lecturer:	associate professor
Academic title, year obtained:	PhD, 2016
Department, contact:	Institute of Public Law, Department of Administrative Law; zsolt.czekmann@uni-miskolc.hu
Current courses in English:	Administrative law special seminar I-II.; E-government in the EU; The public administration system of the EU
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	
Languages: **English**	A1 A2 B1 **B2** C1 C2
German	A1 **A2** B1 B2 C1 C2
other:……	10
Number of scientific journal papers in English (with cumulative impact factor, if any):	21
Number of conference presentations in English:	
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	ORCID: 0000-0002-5611-3878; Google Scholar ID: hTXFFqQAAAAJ; ResearcherID: R-9906-2018; ResearchGate: Zsolt_Czekmann; MTMT: https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10031539&view=simpleList
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	

Course Description		
Course title:	Logistics Strategies and Methods	
Neptun code:	PRODLOG_S8_LSM	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Niyazaliyev Uran Suerkulovich	
Contact of lecturer:	office@danagro.com.kg	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	Overview of current trends and strategies. Knowledge of methods, tools and procedures. Development of practical skills and abilities. Recognizing, structuring of acquired knowledge in research paper.	
Course structure:	**Week**	**Topic**
	1.	Terms. Historical development.
	2.	Product process system model.
	3.	Current development trends.
	4.	Quality management and logistics.
	5.	Six Sigma tools.
	6.	Assessment and analysis methods.
	7.	Modeling and Simulation Virtual Techniques (Digital Engineering, DEM).
	8.	Technical information and communication systems.
	9.	Environment as a factor of production.
	10.	Sustainability and mobility.
	11.	System reliability and risk management.
	12.	Human factor (working conditions and motivation).
	13.	Strategy and business planning.
Required readings:	1. A. Harrison, R. Van Hoek, H. Skipworth: Logistics Management and Strategy: Competing through the Supply Chain. Pearson, 2014 2. Ruhet Genç: The Methods and Concepts of Logistics and Supply Chain Management. CreateSpace Independent Publishing Platform, 2011	
Recommended readings:	1. Whittington, R.: Fundamentals of Strategy. Pearson, 2020 2. Drahoš Vaněček: Logistic Management: Processes and Methods. LAP LAMBERT Academic Publishing, 2012	
Evaluation method:	Continuous evaluation of mid-semester work	

CV		
Name of lecturer:	Niyazaliyev Uran Suerkulovich	
Position of lecturer:	Director General of "Dan Agro Products" LLC	
Academic title, year obtained:	Faculty of Engineering and Economics Department: Management	
Department, contact:	"Dan Agro Products" LLC, http://www.danagro.com.kg/	
Current courses in English:	Management of business processes in logistics operations of an	
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):		
Languages:	**English**	A1 A2 B1 **B2** **C1** **C2**
	German	A1 A2 B1 **B2** **C1** C2
	other:.....	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	15	
Number of conference presentations in English:	10	
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	• Training Course on Poverty Reduction and Development for SCO countries in 2023, People's Government of Shandong Province, People's Government of Qingdao City, Qingdao, China. • Participant of the IPD program (Import Promotion Desk 2016-2021) - a project to promote increased exports of processed food products and natural ingredients from Kyrgyzstan to European markets.	
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)		

Course Description		
Course title:	Management of business processes in logistics operations of an	
Neptun code:	PRODLOG_S8_MBP	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Niyazaliyev Uran Suerkulovich; Director General of “Dan Agro Products” LLC	
Contact of lecturer:	office@danagro.com.kg	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	To know approaches to management of business processes in transport and logistic companies. To be able to use separate approaches to management of business processes in transport and logistic companies. To be skilled in using separate approaches to management of business	
Course structure:	**Week**	**Topic**
	1.	Some approaches to business processes management in transport and logistic companies;
	2.	Business processes in transport and logistic operations
	3.	Concept, essence, classification
	4.	Reengineering of business processes in transport and logistic operations;
	5.	Modeling of business processes in transport and logistic operations;
	6.	Analysis and key indicators of business processes in transport and logistic operations;
	7.	Key groups of methods of business processes optimization in transport and logistic operations;
	8.	Accounting optimization of business processes
	9.	Developing a corporate strategy
	10.	Development program of organizational
	11.	Development and changes
	12.	Case studies
	13.	Solving practical tasks.
Required readings:	1. Logistics Operations and Management Concepts and Models Book, 2011. 2. Logistics Management and Strategy Competing through the supply chain, Alan Harrison, Remko van Hoek, Pearson Education Limited Edinburgh, 2008.	
Recommended readings:	1. Managing Logistics SystemsPlanning and Analysis for a Successful Supply Chain By John M. Longshore, Angela L. Cheatham, 2022.	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Niyazaliyev Uran Suerkulovich
Position of lecturer:	Director General of "Dan Agro Products" LLC
Academic title, year obtained:	Kyrgyz Technical University named after I. Razzakov Faculty of Engineering and Economics Department: Management Postgraduate studies, 2022; Middle East Technical University- METU, Ankara Turkey Institute of Humanities and Economic Sciences, Department: Political Science and Public Administration Degree: Master of Science (MBA), 2004
Department, contact:	"Dan Agro Products" LLC, http://www.danagro.com.kg/
Current courses in English:	Management of business processes in logistics operations of an
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	
Languages: English	A1 A2 B1 **B2** **C1** **C2**
Turkish	A1 A2 B1 **B2** **C1** C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	15
Number of conference presentations in English:	10
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	• Training Course on Poverty Reduction and Development for SCO countries in 2023, People's Government of Shandong Province, People's Government of Qingdao City, Qingdao, China. • Participant of the IPD program (Import Promotion Desk 2016-2021) - a project to promote increased exports of processed food products and natural ingredients from Kyrgyzstan to European markets.
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	

Course Description		
Course title:	Master thesis I.	
Neptun code:	GEALTDTA-ML-a_DL-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	0/10	
Name and position of lecturer:	Péter VERES, senior lecturer	
Contact of lecturer:	peter.veres@uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	3	
Number of credits:	15	
Requirements (exam/practical mark/signature/report, essay):	report, essay	
Course objectives (50-100 words):	During the course, the student must apply what he/she has learned in a variety of logistics subjects. He/She needs to create a solution and write down findings of a complex specific practical task under the professional guidance of the Institute Mentor and the Institute/Industry Consultant. This allows the student to practice the steps and	
Course structure:	**Week**	**Topic**
	1.	Independent work and consultation
	2.	Independent work and consultation
	3.	Independent work and consultation
	4.	Independent work and consultation
	5.	Independent work and consultation
	6.	Independent work and consultation
	7.	Independent work and consultation
	8.	Independent work and consultation
	9.	Independent work and consultation
	10.	Independent work and consultation
	11.	Independent work and consultation
	12.	Independent work and consultation
	13.	Independent work and consultation
Required readings:	1. Cselényi J., Illés B. szerk.: Anyagáramlási rendszerek tervezése és irányítása I., Miskolci Egyetemi Kiadó, ISBN 963 661 672 8, Miskolc-Egyetemváros, 2006. 2. Tamás P., Illés B., Dobos P., Seres L.: Lean logisztika I., Miskolci Egyetem, Logisztikai Intézet, Miskolc-Egyetemváros, ISBN 9789633581742, 2018. 3. Rushton, A., Croucer, P., Baker, P.: The handbook of logistics and distribution	
Recommended readings:	1. Bányai T., Bányainé Tóth Á., Illés B., Tamás P.: Ipar 4.0 és logisztika, Miskolci Egyetem, Miskolc-Egyetemváros, ISBN 9789633581827, 2019. 2. Prezenszki J.: Logisztika I.-II., BME Mérnöktovábbképző Intézet, Budapest, 2004. 3. Langford, J.: Logistics principles and applications, Sole Press, ISBN-10: 0-07-147224-X,	
Evaluation method:	Based on the submitted work, the institute consultant and a committee decide the grade.	

CV	
Name of lecturer:	Péter VERES
Position of lecturer:	Senior lecturer at University of Miskolc, PhD
Academic title, year obtained:	PhD (2020)
Department, contact:	e-mail: peter.veres@uni-miskolc.hu
Current courses in English:	Design of Material Handling Systems
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	
Languages: English	A1 A2 **B1** B2 C1 C2
German	A1 A2 B1 B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	18 pcs
Number of conference presentations in English:	23 pcs
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	1 month in Fraunhofer IFF and OVGU University Magdeburg in 2016 2 month in Fraunhofer IFF and OVGU University Magdeburg in 2017
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	MTMT ID: 10045858 Scopus ID: 56559768200 ORCID ID: 0000-0001-9924-9196 Research Gate profile: https://www.researchgate.net/profile/Peter-Veres-2

Course Description		
Course title:	Master thesis II.	
Neptun code:	GEALT195-M-a	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	0/10	
Name and position of lecturer:	Dr. Péter VERES, senior lecturer	
Contact of lecturer:	peter.veres@uni-miskolc.hu	
Prerequisite course(s):	GEALT194-M-a	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	4	
Number of credits:	15	
Requirements (exam/practical mark/signature/report, essay):	report, essay	
Course objectives (50-100 words):	During the course, the student must apply what he/she has learned in a variety of logistics subjects. He/She needs to create a solution and write down findings of a complex specific practical task under the professional guidance of the Institute Mentor and the Institute/Industry Consultant. This allows the student to practice the steps and	
Course structure:	**Week**	**Topic**
	1.	Independent work and consultation
	2.	Independent work and consultation
	3.	Independent work and consultation
	4.	Independent work and consultation
	5.	Independent work and consultation
	6.	Independent work and consultation
	7.	Independent work and consultation
	8.	Independent work and consultation
	9.	Independent work and consultation
	10.	-
	11.	-
	12.	-
	13.	-
Required readings:	1. Cselényi J., Illés B. szerk.: Anyagáramlási rendszerek tervezése és irányítása I., Miskolci Egyetemi Kiadó, ISBN 963 661 672 8, Miskolc-Egyetemváros, 2006. 2. Tamás P., Illés B., Dobos P., Seres L.: Lean logisztika I., Miskolci Egyetem, Logisztikai Intézet, Miskolc-Egyetemváros, ISBN 9789633581742, 2018. 3. Rushton, A., Croucer, P., Baker, P.: The handbook of logistics and distribution	
Recommended readings:	1. Bányai T., Bányainé Tóth Á., Illés B., Tamás P.: Ipar 4.0 és logisztika, Miskolci Egyetem, Miskolc-Egyetemváros, ISBN 9789633581827, 2019. 2. Prezenszki J.: Logisztika I.-II., BME Mérnöktovábbképző Intézet, Budapest, 2004. 3. Langford, J.: Logistics principles and applications, Sole Press, ISBN-10: 0-07-147224-X,	
Evaluation method:	Based on the submitted work, the institute consultant and a committee decide the grade.	

CV	
Name of lecturer:	Péter VERES
Position of lecturer:	Senior lecturer at University of Miskolc, PhD
Academic title, year obtained:	PhD (2020)
Department, contact:	e-mail: peter.veres@uni-miskolc.hu
Current courses in English:	Design of Material Handling Systems
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	
Languages: English	A1 A2 **B1** B2 C1 C2
German	A1 A2 B1 B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	18 pcs
Number of conference presentations in English:	23 pcs
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	1 month in Fraunhofer IFF and OVGU University Magdeburg in 2016 2 month in Fraunhofer IFF and OVGU University Magdeburg in 2017
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	MTMT ID: 10045858 Scopus ID: 56559768200 ORCID ID: 0000-0001-9924-9196 Research Gate profile: https://www.researchgate.net/profile/Peter-Veres-2

Course Description		
Course title:	Mathematical Modelling of log. Processes	
Neptun code:	PRODLOG_S9_MMP	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Begaliev SAMYIBEK Associate Professor	
Contact of lecturer:	samyi.b8@gmail.com;	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	Using applied mathematical tools to solve classical problems of analysis, forecasting, and optimization of management decisions in supply chains. Choosing, using and setting the limits of application and adequacy of economic and mathematical models and methods in the	
Course structure:	**Week**	**Topic**
	1.	Introduction to the discipline, subject and tasks, forms of control, information sources, conceptual apparatus.
	2.	Types of models and features of modeling in logistics.
	3.	Forecasting models and methods in logistics. System analysis.
	4.	Research of logistics systems. Analysis and synthesis.
	5.	Research of target functions.
	6.	Models and methods of decision-making under uncertainty.
	7.	Analytical model.
	8.	Queuing theory for solving logistics problems.
	9.	The material flow characteristics to be taken into account when modeling the logistics subsystems.
	10.	Economic and mathematical models and optimization algorithms in functional logistics problems.
	11.	Elements of graph theory.
	12.	Models and methods for supporting management decision-making.
	13.	Hierarchies, comparisons, and priorities.
Required readings:	1. Edward A. Bender, An Introduction to Mathematical Modeling, Courier Dover, 2000. 2. Charles R. MacCluer, Industrial Mathematics (Modeling in Industry, Science, and Government), Prentice Hall, 2000.	
Recommended readings:	1. M. Meerschaert, Mathematical Modeling, (3rd edition), Academic Press, 2007 2. Mike Mesterton-Gibbons, A Concrete Approach to Mathematical Modelling, John Wiley and Sons, 2007.	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Begaliev SAMYIBEK
Position of lecturer:	Kyrgyz Republic, Ph.D.
Academic title, year obtained:	PhD (1995)
Department, contact:	e-mail: samyi-b9@mail.ru; samyi.b8@gmail.com;
Current courses in English:	Information and Identification Technologies in Logistics
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Information and Identification Technologies in Logistics
Languages: English	A1 A2 **B1** B2 C1 C2
German	A1 A2 B1 B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	5 pcs
Number of conference presentations in English:	27 pcs
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	1. Kinematics of mechanisms ejection sharikoshtapovochnogo press machine BSHA 85. In the coll. scientific works of the Institute of Mechanical Engineering, National Academy of Sciences. Issue 1. Bishkek, Ilim, 1997. s.285-292 2. Profiling cam mechanism and cutting the workpiece transfer press machine. / Proceedings of the International V scientific and theoretical conference "Problems and prospects of integration of education" devoted to the 5th anniversary of the Kyrgyz-Russian Slavic universiteta- Bishkek, 1998.s. 8Program of calculation and technology of manufacturing a cam mechanism for cutting and harvesting punching ball transfer press machine. / Proceedings of the International Conference "Mechanisms of variable structure and vibro-impact machine" .- Bishkek, Publishing House "Kyrgyzstan". Publisher: "Mektep" 1999.s.220-225 3. Technology of the cam mechanism cutting and transfer the workpiece ball forge-avtomat CAD system. / Proceedings of the International Conference of the Kyrgyz Technical University. - Bishkek. Publisher: "Bulletin of KTU" 1/1999 (6) Bishkek, 1999 p. 88-94. 4. Program and methods of industrial testspunching ball press machine BSHA 85. Proceedings of the International Conference of the Kyrgyz-Russian Academy of Education, Bishkek, 2002 p. 43-48. 5. Computer tutorial database «Access200» Proceedings of the Workshop "IT in higher education in the humanities -Bishkek 2003 s.165-173.

Course Description		
Course title:	Mechatronics in Logistics	
Neptun code:	GEALT196-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Dr. Ákos Cservenák, senior lecturer	
Contact of lecturer:	cservenak.akos@uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, e	
Course objectives (50-100 words):	Nowadays, in logistics, material handling cannot be carried out without the use of various mechatronic equipment and tools. The aim of the course is to present the concept and subject areas of mechatronics to students of logistics engineering. Mechatronics covers three main disciplines, and the subject presents them as well. Another element of the subject is the fit of mechatronics into logistics.	
Course structure:	**Week**	**Topic**
	1.	Presentation of the concept of mechatronics
	2.	History of mechatronics
	3.	Detailing the disciplines of mechatronics
	4.	Overview of actuators
	5.	Overview of hydraulic systems
	6.	Overview of pneumatic systems
	7.	Overview of electric motors
	8.	Sensor overview
	9.	Automation of material handling equipment and devices with mechatronic devices
	10.	Overview of industrial robots
	11.	Programming of industrial robot
	12.	Industrial robot simulation
	13.	Mechatronic devices in road vehicles
Required readings:	1. Robert H. Bishop: The Mechatronics Handbook, 2002 CRC Press, Boca Raton-London-New York- Washington, D.C.	
Recommended readings:	1. Habib, M.K. Handbook of research on advanced mechatronic systems and intelligent robotics (2019) Handbook of Research on Advanced Mechatronic Systems and Intelligent Robotics, pp. 1-466. 2. Hans-Peter Schöner, Automotive mechatronics, Control Engineering Practice, Volume 12, Issue 11, 2004, Pages 1343-1351, ISSN 0967-0661	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Dr. Ákos Cservenák
Position of lecturer:	senior lecturer
Academic title, year obtained:	2021 (PhD)
Department, contact:	Institute of Logistics, cservenak.akos@uni-miskolc.hu
Current courses in English:	Available in Erasmus: Mechatronics in material flow, Automated material handling
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Mechatronic systems, Lean logistics
Languages: **English**	A1 A2 B1 B2 **C1** C2
German	A1 A2 B1 **B2** C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	17, Relative IF: 1.448
Number of conference presentations in English:	5
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month:	Austria, June 2022
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10052869

Course Description		
Course title:	Modeling and Simulation of Transport Systems	
Neptun code:	GEALT197-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Dr. Róbert Skapinyecz, associate professor	
Contact of lecturer:	altskapi@uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	4	
Number of credits:	4	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	During the course, students will be introduced to the structure of the road transport system, the basics of road traffic and public transport modeling, the use of modern traffic simulation and traffic planning software, and the application possibilities of the latter.	
Course structure:	**Week**	**Topic**
	1.	The concept and purpose of transport. Modal split, transport cooperation and coordination.
	2.	Transport system and subsectors. The system of road transport: road network, means and indicators of road passenger transport, traffic technology.
	3.	Advanced tools for measuring road traffic.
	4.	Quality indicators and characteristic parameters of public transport. Sustainability in transport.
	5.	Parameters describing road traffic flows. Typical traffic generation, traffic distribution, traffic sharing and traffic load models.
	6.	Advanced traffic management strategies. The purpose of traffic simulations and their application possibilities.
	7.	Introduce students to the main functions of the traffic simulation environment to be used during the semester. Creating a simple intersection, setting priority rules, creating a roundabout, defining public transport in the simulation environment.
	8.	Creating intersections with traffic lights, setting up pedestrian traffic, using 3D objects in the simulation environment.
	9.	Creating and examining complex traffic nodes with traffic signal control using the simulation environment.
	10.	Introduce students to the main functions of the traffic planning software to be used during the semester.
	11.	Defining traffic zones, creating traffic networks, defining traffic flows, and applying different traffic models in the traffic planning software.
	12.	Creating a public transport network, defining and applying timetables in the transport planning software.
	13.	Modeling and examining complex transport networks. Main characteristics of fixed track transport and its application in urban transportation.
Required readings:	1. Tettamanti, Tamás, Tamás Lupsay, and István Varga. "Road Traffic Modeling and Simulation." (2019), Budapest, Hungary: Akadémiai Kiadó, ISBN 978 963 454 385 5 2. Tamás, Péter. „Innovative simulation testing methods in logistics.” (2021), Miskolc-Egyetemváros, Hungary: Miskolci Egyetem, Logisztikai Intézet, ISBN 9789633582398	
Recommended readings:	1. Femke. Kessels. (2018). Traffic Flow Modelling: Introduction to Traffic Flow Theory Through a Genealogy of Models. SPRINGER. ISBN 9783319786940 2. Theeg, G., and S. Vlasenko. "Railway Signalling & Interlocking: Edition." Germany, Leverkusen PMC Media House GmbH (2020).	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Dr. Róbert Skapinyecz
Position of lecturer:	associate professor
Academic title, year obtained:	PhD, 2018
Department, contact:	Institute of Logistics, altskapi@uni-miskolc.hu
Current courses in English:	Logistics and quality management, Logistics
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Logistics and quality management, Logistics
Languages: **English**	A1 A2 B1 B2 C1 C2
German	A1 A2 B1 B2 C1 C2
Spanish	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	18 (10,492)
Number of conference presentations in English:	16
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month:	
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10029559

Course Description		
Course title:	Numerical Methods and Optimization	
Neptun code:	GEMAK116-Ma	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Dr. Attila Körei, associate professor	
Contact of lecturer:	matka@uni-miskolc.hu	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	1	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, e	
Course objectives (50-100 words):	Applying iterative methods in solving mathematical problems. Effective methods and algorithms in optimization theory. Using Matlab/Octave to formulate and solve problems on optimization and numerical analysis.	
Course structure:	**Week**	**Topic**
	1.	Preliminaries: basic concepts of linear algebra and analysis
	2.	Representation of numbers, number systems, different types of errors
	3.	Direct and iterative methods for solving systems of linear equations
	4.	Computing eigenvalues and eigenvectors
	5.	Solving nonlinear equations and nonlinear systems: fixed point method, Newton method
	6.	Interpolation and the least square method
	7.	Numerical solution of differential equations
	8.	Basic concepts of optimization, classification of optimization problems
	9.	Solving linear programming problems by the simplex method
	10.	Duality and sensitivity analysis
	11.	Special LP problems
	12.	Some methods of unconstrained optimization
	13.	Constrained optimization: Karush-Kahn-Tucker conditions
Required readings:	1. Pardalos, P. M. and Butenko, S.: Numerical Methods and Optimization: An Introduction, CRC Press, Taylor & Francis Group, 2014. 2. Cheney, W., Kincaid, D: Numerical Mathematics and Computing, Brooks Cole, 2012. 3. Foulds, L. R.: Optimization Techniques, Springer Verlag, 1981.	
Recommended readings:	1. Hunt, B. R., Lipsman, R. L., Rosenberg, J. M.: A Guide to MATLAB – for Beginners and Experienced Users, Cambridge University Press, 2001. 2. Nocedal, J., Wright, S. J.: Numerical Optimization, Springer, 1999.	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Dr. Attila Körei
Position of lecturer:	associate professor
Academic title, year obtained:	PhD, 2008
Department, contact:	Department of Applied Mathematics, +36 46-565111/1836
Current courses in English:	Numerical Methods and Optimization
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	Operation Research
Languages: **English:**	A1 A2 B1 B2 **C1** C2
German	A1 A2 B1 B2 C1 C2
other:……	A1 A2 B1 B2 C1 C2
Number of scientific journal papers in English (with cumulative impact factor, if any):	6
Number of conference presentations in English:	15
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month:	
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…):	https://vm.mtmt.hu//www/index.php?AuthorID=10029373

Course Description		
Course title:	Project Management and Risks in Logistics	
Neptun code:	PRODLOG_S9_PM	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Chingiz Umetaliev, teacher	
Contact of lecturer:	umetalievchingiz@gmail.com	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	Knowledge of the various aspects of Project Management (technical, economical, strategic and intercultural) as well as project steps and associated methodologies. Knowing how to compute critical path and margins and decompose a project in elementary tasks. Being able to model and to manage a project	
Course structure:	**Week**	**Topic**
	1.	Basic of Project Management
	2.	Technical aspects; project actors
	3.	Project views (PBS, RBS, WBS...)
	4.	Project steps (phases, milestones)
	5.	Project planning problem
	6.	Resources, constraints
	7.	Project Management and Information Technology
	8.	Strategic, human and economic aspects of Project Management
	9.	Leadership
	10.	Project teams; Risk analysis
	11.	Purchasing Management; Cost analysis
	12.	Intercultural aspects; Case studies;
	13.	Communication techniques
Required readings:	1. Adrienne Watt: Project Management. Bccampus, 2014 2. P. Edwards, P. Vaz-Serra, M. Edwards: Managing Project Risks. John Wiley & Sons, Ltd. 2020	
Recommended readings:	1. J. Bartlett: Project Risk Analysis and Management Guide. APM Publishing Limited, 2004 2. Dirk H. Hartel (ed.): Project Management in Logistics and Supply Chain Management - Practical Guide With Examples From Industry, Trade and Services. Springer, 2022	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Chingiz Umetaliev
Position of lecturer:	Senior Operations Accountant Kumtor Gold Company
Academic title, year obtained:	versity of Turin & ITCILO (2005); CERTIFICATE OF MINI MBA COURSE WITH INTERNSHIP
Department, contact:	Operations Accounting and Financial Reporting, e-mail: umetalievchingiz@gmail.com
Current courses in English:	English for technical and scientific purposes
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	English for technical and scientific purposes, KSTU
Languages: **English**	A1 A2 B1 **B2** C1 C2
German	A1 A2 B1 B2 C1 C2
other:……	A1 A2 B1 B2 C1 **C2**
Number of scientific journal papers in English (with cumulative impact factor, if any):	
Number of conference presentations in English:	20 pcs
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month:	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc…)	https://www.linkedin.com/in/honey-mount/

Course Description		
Course title:	Project work - practical work	
Neptun code:	PRODLOG_S7_PROJ	
Type (core, specialization, optional, dissertation, other):	core	
Lecture/ Seminar (practical); hours per week:	2/2	
Name and position of lecturer:	Chingiz Umetaliev,	
Contact of lecturer:	umetalievchingiz@gmail.com	
Prerequisite course(s):	no	
Language of the course:	English	
Suggested semester: autumn /spring, 1-4	2	
Number of credits:	5	
Requirements (exam/practical mark/signature/report, essay):	s, m	
Course objectives (50-100 words):	The aim of the project work - the practical work of undergraduates is to expand and consolidate the theoretical and practical knowledge acquired by undergraduates in the learning process, the acquisition and improvement of practical skills according to the chosen master's program, preparation for professional activities. The practical work of students enrolled in the educational program for the preparation of masters is an integral part of the main educational program in the direction of 580600-Logistics. Practical work is based on previously studied disciplines of the theoretical cycle, as well as on previously conducted research in an organization or enterprise.	
Course structure:	**Week**	**Topic**
	1.	Introduction to the project, organization of project groups, selection of projects.
	2.	Deadline for choosing a project. Introduction to the Project Planning Document.
	3.	Discussion of the model and documentation standards.
	4.	Group presentations and deadline for submission of project planning document.
	5.	Discussion of the document with user requirements.
	6.	Group presentation and final deadline for preparation of the User Requirements Document.
	7.	Discussion of the software requirements document.
	8.	Group presentation and deadline for preparation of the Software Requirements Document.
	9.	Discussion of the project document.
	10.	Discussion of the project document.
	11.	Group presentation and final deadline for project submission.
	12.	Discussion of the next stages of the project.
	13.	Final presentation of the completed project.
Required readings:	1. Jan V. Riketts, Upravlenie vashim programmnym proektom: rukovodstvo dlja studentov [Managing Your Software Project: A Guide for Students], Springer Verlag, 1998.	
Recommended readings:	1.Scott Berkun Iskusstvo upravlenija IT-proektami [The art of IT project management]. 2014, Piter. Paperback, 432 p. [In Russian].	
Evaluation method:	Continuous evaluation of mid-semester work	

CV	
Name of lecturer:	Chingiz Umetaliev
Position of lecturer:	Senior Operations Accountant Kumtor Gold Company
Academic title, year obtained:	DEVELOPMENT University of Turin & ITCILO (2005); CERTIFICATE OF MINI MBA COURSE WITH INTERNSHIP IN JAPAN JICA & KRJC (2
Department, contact:	Operations Accounting and Financial Reporting, e-mail: umetalievchingiz@gmail.com
Current courses in English:	English for technical and scientific purposes
Courses ever taught in English at UoM or at any other institutions (please specify where, in not at UoM):	English for technical and scientific purposes, KSTU
Languages: **English**	A1 A2 B1 **B2** C1 C2
German	A1 A2 B1 B2 C1 C2
Russian	A1 A2 B1 B2 C1 **C2**
Number of scientific journal papers in English (with cumulative impact factor, if any):	
Number of conference presentations in English:	-
Visiting professorship/ Research work abroad (place, duration) only if longer than 1 month**:**	-
Web-site (Web of Science, Researchgate, LinkedIn, MTMT, etc...)	https://www.linkedin.com/in/honey-mount/

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