1. Subject name	**Logistics information system planning**				
2. Subject name in Hungarian	Logisztikai információs rendszerek tervezése				
3. Code	**BMEKOALM321**	4. Evaluation type	mid-term grade	5. Credits	**5**
6. Weekly contact hours	**2 (10) Lecture**	**0 (0) Practice**		**2 (11) Lab**	
7. Curriculum	**Logistics Engineering MSc (L)**	8. Role	**Mandatory (mc) at Logistics Engineering MSc (L)**		

9. Working hours for fulfilling the requirements of the subject					**150**
Contact hours	56	Preparation for seminars	18	Homework	30
Reading written materials	34	Midterm preparation	12	Exam preparation	0

10. Department	**Department of Material Handling and Logistics Systems**
11. Responsible lecturer	Dr. Tokodi Jenő
12. Lecturers	Dr. Tokodi Jenő, Lénárt Balázs
13. Prerequisites	

14. Description of lectures

Traditional and integrated logistics supply chain. The ERP systems. Functional operating model of ERP systems. WEB-based structure of the ERP systems. The NetWeaver technology. The Enterprise Portal. Logistics expectations of the companies. Logistics services of EIS Cockpit. Data Warehouse with the APO. Development of adaptive logistics network. Advanced Planning & Optimization. The Oracle data management. The ABAP/4 runtime environment. Demand & Supply Network Planning. Heuristic & Capable-To-Match Methods. Detailed Scheduling Planning Board. Multi-level problem solving with order pegging. Production Scheduling. Business Scenarios. Periodic Repostings. Cost Center. Planning Goals. Idea of SRM. System landscape, release information. Purchasing with SRM. Organisational structure. Master data. Connections to catalogs. Administration. Source, BI units, Source system creation and connection BW objects overwiew (Infoobjects, Infocubes, DSO …) Data Loading process: Extraction and Transformation. BEx reporting overview: Query Design, Broadcasts, Reporting. Introduction to SAP HANA: the HANA Architecture. Solution Manager: SAP HANA. BW with In-Memory-Appliance.

15. Description of practices

16. Description of labortory practices

Data scheme: XML, XSD, XSLT, EDI, AS1,2, X12, process desription, query design (BPMN, BPEL). SOA, web services, interfaces, ESB (Enterprise Service Bus), Orchestrating. T-SQL (tranzaction SQL. Creating master data: items, customers, vendors. Item master data: item groups, units of measure, item valuation - serial numbers. Steps & automation in sales & procurements processes. Bin location. Accounting process: incoming & outgoing payments. Banking. Basics of Controlling. Enterprise Data Warehouse: BI, risk management, KPI calculation. Work in SAP B1: reporting, BI views, analysing the customer & vendor management, choosing the highest account partners, optimisation of bin location. Company case studies.

17. Learning outcomes

A. Knowledge
- Knowledge of the structure and functions of ERP systems.
- Knowledge of the formats and protocols in enterprise data communication.
- Knowledge of the information IT representation of general logistics process procedures.
- Knowledge of the BI reporting.
- Knowledge of the basic logistics transactions in user level.
- Knowledge of runtime and development environment in ERP transactions.

B. Skills
- Can design logistics IT systems application by the above mentioned knowledge and the additional professional knowledge.

C. Attitudes

- Strive to maximize their abilities to make their studies at the highest possible level, with a profound and independent knowledge, accurate and error-free, in compliance with the rules of the applicable tools, in collaboration with the instructors.

D. Autonomy and Responsibility
- Take responsibility for the quality of the work and the ethical standards that set an example for the classmates, using the knowledge acquired during the course.

18. Requirements, way to determine a grade (obtain a signature)
As homework: successfull solving the SAP Learning HUB at least 3 test min. 50% , 2 pcs of midterm test (weight: 50% - 50%)

19. Opportunity for repeat/retake and delayed completion
1-1 repeat of midterm tests

20. Learning materials
SAP B1 Logistics dedicated eLearning for University Appliance Program in August 20- Sales & Purchasing & Accounting. SH & SAP Learning HUB eLearning (moodle system). SAP B1 installed version in University Appliance Program.

Effective date	10 October 2019	**This Subject Datasheet is valid for**	Inactive courses