COURSE OUTLINE: LOGISTICS

GENERAL

SCHOOL	ECONOMICS AND BUSINESS		
ACADEMIC UNIT	ECONOMICS		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	**OE808**	**SEMESTER**	**8th (Major C)**
COURSE TITLE	**LOGISTICS**		

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialized general knowledge, skills development*	Special background – Optional, Major: Business Economics
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES
COURSE WEBSITE (URL)	https://www.econ.uth.gr/en/studies/undergraduate-studies/courses-description/8th-semester/major-business-economics/logistics

LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

By the end of this course, students will be able to:

1. Apply minimum mean squared error forecasting techniques for demand at the various stages of supply chains,

2. Determine the order quantity at each stage of supply chains using the target inventory level replenishment policy,

3. Assess the operation of supply chains by balancing holding and shortage costs against achieving the desired level of customer service,

4. Propose alternative supply chain redesign programs.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
	Respect for difference and multiculturalism
	Respect for the natural environment
Adapting to new situations	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Decision-making	
Working independently	*Criticism and self-criticism*
Team work	*Production of free, creative and inductive thinking*
Working in an international environment	*……*
Working in an interdisciplinary environment	*Others…*
	…….
Production of new research ideas	

The course aims at the following general competencies:

- Search for, analysis and synthesis of data and information with the use of the necessary technology,
- Decision making,
- Autonomous work,
- Promotion of free, creative and inductive thinking,

and the following specific objectives:

(a) the formulation of inventory policies in supply chains under alternative demand patterns at the points of sale of the product,

(b) the benefits and obstacles arising in the effort to coordinate supply chain stages, and

(c) the implementation and evaluation of information sharing programs in supply chains.

SYLLABUS

Two-stage supply chains with deterministic and random demand, the method of economic order quantity with constant demand, the order-up-to (OUT) level policy of replenishing the target inventory level with random demand data, the methods of moving averages and exponential smoothing to forecast retailer and supplier demand, use of ARIMA (p,d,q) to model demand at various stages of supply chains, Supply Chain Reengineering Programs, Information sharing programs, Continuous Replenishment Programs (CRP), Vendor Managed Inventory Programs (VMI), Time evolution of retailer and supplier orders under alternative information sharing scenarios, The Bullwhip ratio and its determinants, Average on-hand inventory levels and shortage costs, Retailer and supplier benefits in information sharing programs.

TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	The learning process is supported through the use of (a) the electronic platform e-class and the institutional email, (b) Microsoft EXCEL, and (c) the packages MINITAB and e-VIEWS
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the* *ECTS*	The lectures are delivered in the classrooms of the Department of Economics through the use of Microsoft Office 365 tools (Word, EXCEL, Power-Point). Before each lecture, slides and supporting material have already been posted on the course electronic platform “e-class”, so that students can have access to them during the lecture. The existing technological equipment of the above rooms also enables the use of an electronic whiteboard through a WACOM device, which allows writing in presentations and texts with storage capabilities of rich texts and presentations. The enriched texts containing comments on the lectures and solutions to exercises and problems are also posted in the e-class after the end of each lecture. This uploaded material on e-class includes also files containing additional problems and exercises that students are invited to solve in order to practice and understand the taught material. Solutions and comments on these problems are given either during lectures or during office hours announced by the teacher responsible (in special cases even via e-mail using students’ institutional accounts) More specifically, the workload of the module is

	analyzed as follows: **Activity** / **Semester workload** Lectures: 39 hours Study at home: 85 hours Completion of assignment: 30 hours Preparation for the final exam: 24 hours Exams: 2 hours Course total: ***180***
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other.* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	SPRING SEMESTER EXAMINATION PERIOD Individual Assignment: 30% Final Written Exam: 70% REPEAT SEPTEMBER EXAM: Written exam: 100% The problems of the assignment and the written examination are broken down into individual questions, where each question indicates the grade received in the completed answer. The correction of the assignment and the written examination is based on a special marking scheme, for which students are informed during the lectures.

ATTACHED BIBLIOGRAPHY

Supply Chain Management, 7th Ed., Chopra Sunil, Pearson

Logistics and Supply Chain Management: Logistics & Supply Chain Management, 5th Ed., Christopher Martin, FT Publishing International

Indicative Papers:

Ali, M.M., Boylan, J.E. & Syntetos A.A. (2011). Forecast errors and inventory performance under forecast information sharing. *International Journal of Forecasting*

Alwan, L.C., Liu, J.J. & D-Q, Y. (2003). Stochastic characterization of upstream demand processes in a supply chain. *IIE Transactions*, 35:3, 207-219

Lee, H.L., SO, K.C., Tang, C.S., (2000). The value of information sharing in a two-level supply chain. *Management Science* 46(2), 626-643

Kevork, I.S. (2018). Benefits of vendor managed inventory programs in two-stage supply chains. 14th International Conference on Industrial Logistics 15-17 May Beer-Sheva Israel, ICIL 2018 Conference Proceedings, pp. 99-107