**German Jordanian University
Deanship of Graduate Studies
School of Management & Logistic Sciences**

**Module descriptions M.Sc. in Logistics Management
(Thesis Track)**

Master

Module Title

Applied Data Analysis

Module Code

LOGS711

Compulsory Module	X	**Year of Study**	1	**Semester Hours**	3
Elective Module		**Spring Semester**		**Workload**	210
Optional Module		**Winter Semester**	X	**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination

30% Mid-term exam (oral, written, presentation, paper)
10% Quiz
15% Project
5% Presentation
40% Final exam

Responsible Lecturer(s)

Dr. Serena Sandri

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Applied Data Analysis	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence time in lectures: 45 hours;
- Preparation for quiz: 20 hours;
- Project workload: 60 hours;
- Practice and exercises at home: 40 hours;
- Presentation preparation: 20 hours;
- Preparation for exams: 25 hours.

Learning Outcomes:
The purpose of the modules is to provide the students with a roadmap on how to code, analyze, and interpret different types of data and empirical results. The module focuses on an overview of quantitative data analysis and reporting techniques relevant for logistics management.
By the end of the module, the student will be able to
- Code and visualize data.
- Choose appropriate data analysis techniques for different types of data.
- Apply basic data analysis techniques on different datasets.
- Test the predictive ability of alternative hypotheses.
- Apply basic forecasting techniques.
- Interpret empirical findings and develop recommendations based upon empirical evaluation.
- Report results in a format appropriate to its intended purpose and to the intended audience.
- Develop skills in using statistical software for quantitative data analysis.
- Write an empirical research paper.
- Communicate, present, and discuss in English the findings of the empirical research.

Module Contents:
This module covers the following topics related to quantitative models and statistical methods for decision-making and data analysis:

- Basics of data collection methods and coding of data;
- Hypothesis testing (one- and two-sample tests);
- Analysis of variance;
- Simple and multiple linear regression;
- Correlation analysis;
- Time series forecasting and further forecasting techniques.

Planned Learning Activities and Teaching Methods:
- Interactive lectures;
- Computer based tutorials;
- Class exercises and quizzes in class;
- Research paper and presentations.

Recommended or Required Reading:
Levine, D., Szabat, K. & Stephan, D.: Business Statistics: A First Module, Pearson, 8th Ed, 2020..
Gujarati, D. N.: Basic Econometrics, McGraw Hill, 4th Ed, 2004.

Usability of the Module:
This module is compulsory for both Thesis & Comprehensive Exam tracks' M.Sc. in Logistics Management Program. It intends to provide the students with the knowledge and skills on how to manage data in terms of coding and interpreting. The knowledge and skills of this module will help students to choose the most appropriate statistical technique in the field of Logistics and supply chain, applying statistical techniques in real cases, and Reporting the results in an appropriate way. This module provides students with the opportunity to gain hands-on experience of alternative tools and techniques to solve realistic supply chain problems using appropriate statistical tools.

Prerequisites and Co-requisites:
None

Language of Instruction:
English

Recommended Optional Program Components:
None

Module Title		**Module Code**
Production & Operations Management		LOGS712

Compulsory Module	X	**Year of Study**	1	**Semester Hours**	3
Elective Module		**Spring Semester**	X	**Workload**	210
Optional Module		**Winter Semester**		**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination

30% Mid-term exam (oral, written, presentation, paper)
30% Project, assignments and presentation.
40% Final exam

Responsible Lecturer(s)

Dr. Khaldoun Tahboub

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Production & Operations Management	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:

- Presence time in lectures: 45 hours;
- Preparation for exams: 50 hours;
- Readings and report writing: 45 hours;
- Project workload: 50 hours;
- Presentation preparation: 20 hours.

Learning Outcomes:
By the end of this module, the student will be able to:

- Understand all factors playing role in running any operation.
- Understand the influence of strategies on operations.
- Visualize the future of process improvements and control methodologies.
- Appreciate the importance of creating a holistic view of operations.
- Understand the interdependence of the operating system with other key functional areas of the firm.

Module Contents:
Operations management is about the transformation process that turns inputs into outputs. Among the wide spectrum of the activities that fall under operations management functions in the organization, this module focuses on the production aspect which is the core of the aforementioned transformation process. The introductory part of the module defines operations management from a process perspective then highlights the importance of operations management and its relation to the corporate strategy, to the creation of a competitive advantage, and to the supply chain network. The second part covers the main issues of process management including the process strategy and planning, how to plan capacity, and ho to consider process constraints. The last part of this module considers the demand management function that starts with forecasting the customer demand, then planning and scheduling are considered on the three levels of sales and operations planning, resource planning, and scheduling.

Planned Learning Activities and Teaching Methods:

- Lectures;
- Case problem & presentations.

Recommended or Required Reading:
- Krajewski, L. J., Malhotra, M. K. & Ritzman, L. P.: Operations Management: Processes and Supply Chains, Pearson, 11th edition, 2016.
- Haksever, C., & Render, B. (2017). Service and operations management. Global Ed, World Scientific Publishing Company.
- Starr, M. K., & Gupta, S. K. (Eds.). (2017). The Routledge companion to production and operations management. 1st Ed, Taylor & Francis.
-

Usability of the Module:
This module is compulsory for both Thesis & Comprehensive Exam tracks' M.Sc. in Logistics Management Program.. It intends to provide students with the skills and knowledge on how to manage production and it is operations with logistics orientation. Knowledge and skills learned from this module in Operations management is important in a business organization because it helps effectively manage, control and supervise goods, services and people. Operations management cuts across every sector and industry as it may concern. Ultimately, this module is the base for all other modules.

Prerequisites and Co-requisites:
None

Language of Instruction:
English

Recommended Optional Program Components:
None

Master

Module Title		Module Code
Managerial Accounting for Logistics		LOGS713

Compulsory Module		**Year of Study**	1	**Semester Hours**	3
Elective Module	X	**Spring Semester**		**Workload**	210
Optional Module		**Winter Semester**	X	**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination
60% Mid-term exam (oral, written, presentation, paper)
40% Final exam

Responsible Lecturer(s)

Dr. Khaldoun Tahboub

Course	Mode of Delivery	Contact Time	Self-study
Managerial Accounting for Logistics	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence time in lectures: 45 hours;
- Preparation for exams: 50 hours;
- Readings and report writing: 45 hours;
- Project workload: 50 hours;
- Presentation preparation: 20 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Know managerial accounting tools and techniques required for strategic planning and controlling processes.
- Demonstrate written and analytical competency in the concepts of managerial accounting.
- Understand cost behaviour, cost estimation and cost allocation.
- Gain an awareness of management accounting in a changing environment.
- Understand different costing systems with emphasis on Activity-based Costing.

Module Contents:
The course covers the fundamentals of managerial accounting and its interfaces with logistics and supply chain management activities. It covers some practices and methods in support of planning, decision-making, and control. The course introduces cost terms and the use of accounting information in planning and control decisions. It presents the managerial accounting tools related to logistics and supply chain such as cost-volume-profit analysis, comprehensive budgeting, and relevant costs related to nonrecurring decisions, responsibility accounting, and performance evaluation. It also covers capital budgeting, and concludes with a discussion of strategic management accounting techniques in the context of logistics and supply chain management.

Planned Learning Activities and Teaching Methods:
- Lectures;
- Case problem & presentations.

Recommended or Required Reading:
- Garrison R., Noreen E. & Brewer P.: Managerial Accounting, McGraw-Hill Education, 16th edition, 2018.
- Hilton, R. W.: Managerial Accounting, 9th Ed, 2014.
- Brewer, P. C., Garrison, R. H., & Noreen, E. W. (2015). Managerial accounting. 14th Ed, McGraw-Hill Create

Usability of the Module:
This is a compulsory module for the comprehensive exam' track M.Sc. in Logistics Management program and elective for the Thesis track. It will enable the student to have a clearer perspective in terms of handling with numbers from managerial perspective and understand the different profit margin and how to implement each one of them in Logistics and supply chain operations, in order to reach a decision. This module will help students to understand how to deal with accounts and calculate income and revenue to take the right decisions.

Prerequisites and Co-requisites:
None

Language of Instruction:
English

Recommended Optional Program Components:
None

Master

Module Title

Logistics and Supply Chain Management

Module Code

LOGS721

Compulsory Module	X	**Year of Study**	1	**Semester Hours**	3	
Elective Module		**Spring Semester**	X	**Workload**	210	
Optional Module		**Winter Semester**		**ECTS**	7	
Pre-university		**Pre-program**		**Remedial**		

Examination

30% Mid-term exam
10% Project 1
15% Project 2
5% Presentation
40% Final exam

Responsible Lecturer(s)

Dr Ismail Abushaikha

Course	Mode of Delivery	Contact Time	Self-study
Logistics and Supply Chain Management	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence in lectures: 45 hours;
- Project 1 workload: 40 hours;
- Project 2 workload: 40 hours;
- Presentation preparation: 15 hours;
- Preparation for exams: 50 hours;
- Field trip: 20 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Explain the different between logistics and supply chain.
- Describe the importance of logistics and supply chain in attaining a competitive advantage.
- Explain the theory and practice of managing effective supply chain practices.
- Illustrate the different methods used for optimizing logistics and supply chain activities.
- Analyze the performance of logistics function and the overall supply chain.

Module Contents:
This module discusses the main aspects of supply chain management, addresses the role of logistics, and explains the global dimensions in supply chains. Supply chain relationships, both vertical and horizontal, are to be discussed. Due to the increasing focus on customer service, demand management has become a key factor in planning of supply chains. The role of different carriers, third-party logistics (3pls) and logistics service providers in the supply chain will be addressed, to provide the module participants with a solid background for further modules on this subject. It is well established now that competition is based on supply chain against supply chain rather than firm against firm. The supply chain is defined as a network of connected and interdependent organizations mutually and co-operatively working together to control, manage, and improve the flow of materials and information from suppliers to end users. Thus, this module will shed a light on the importance of risk management in supply chains

and building successful supply chain strategies. The module will also deal with recent development in the discipline of logistics and supply chain management such as humanitarian logistics, sustainability and future trends in logistics.

Planned Learning Activities and Teaching Methods:
- Lectures;
- Within-class exercises;
- Field trips,
- Group discussion.

Recommended or Required Reading:
- Christopher, M.: Logistics & Supply Chain Management, FT press, 5th edition, 2016.
- Murphy, P. & and Knemeyer, M.: Contemporary Logistics, Pearson , 12th edition, 2017.
- Zijm, H., Klumpp, M., Regattieri, A., & Heragu, S. (Eds.). Operations, logistics and supply chain management. Berlin: Springer., Kindle Edition, 2019.
-

Usability of the Module:
This is an advanced compulsory module for the M.Sc. in Logistics Management program (Both Thesis & Comprehensive Exam tracks) where students will practice tools and techniques to mange logistics and supply chain operations. This module will help students Understand approaches to measure the lead-time gap and evaluate ways to improve it, including the application of lean thinking. Furthermore, students can evaluate how agile supply chains can be applied in practice to provide high variety and customised products and how they can be combined with lean approaches in a segmented approach to deliver high performing supply chains.

Prerequisites and Co-requisites:
None

Language of Instruction:
English

Recommended Optional Program Components:
None

Module Title						**Module Code**
Sourcing & Procurement Management						LOGS722

Compulsory Module	X	**Year of Study**	2	**Semester Hours**	3
Elective Module		**Spring Semester**	X	**Workload**	210
Optional Module		**Winter Semester**	X	**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination

30% Mid-term exam
10% Report writing
20% Module project and presentations
40% Final exam

Responsible Lecturer(s)

Dr. Luay Jum'a

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Sourcing & Procurement Management	Face-to-face	45	165

Duration of Study:
One semester

Allocation of Workload Hours:
- Presence time in lectures: 45 hours;
- Preparation for exams: 50 hours;
- Readings and report writing: 45 hours;
- Project workload: 50 hours;
- Presentation preparation: 20 hours.

Learning Outcomes:
By the end of this module, the student will be able:
- Explain the role of procurement and supplier management in today's business and value chain.
- Apply the basic concepts, techniques and methods of procurement and supplier management in real life context.
- Analyse the bidding and negotiation processes of real companies based in Jordan.
- Analyze and evaluate the purchasing process of real companies based in Jordan.
- Apply solutions methods to improve the purchasing process.
- Design a suppliers' evaluation tool to measure their performance and write a report for top management.
- Employ data provided by suppliers and/or the purchasing department in calculating key performance indicators (KPIs).
- Compare between suppliers based on based on data about their performance.
- Understand various types of purchasing strategies.
- Learn how to apply purchasing strategies based on the organisation's different resources.
- Apply the concept of total cost of ownership for large deals.
- Improve negotiations skills and learn their different tactics.
- Identify best practices used by companies through analysis of real case studies.

Module Contents:
Procurement management is a significant component for any business. Companies recognize the significant cost savings that can arise from effective procurement decisions and likewise how poor purchasing strategies may result in disaster. So, this module focuses on providing a solid managerial perspective of the purchasing function as a

part of the logistical activities and as a part of the supply chain management. It presents the most current and complete coverage of today's purchasing activities and provides numerous real-world cases, insights and knowledge into the strategies, processes, and practices of the purchasing function. Furthermore, this module introduces the basic concepts, techniques, methods and applications of procurement and supplier management, including supplier selection, sourcing decisions, and managing supplier performance. It explains purchasing strategies and polices as well as activities of the purchasing manager. Moreover, this module discusses the impact of purchasing on competitive success, profitability and other measures of organisational performance and defines what specialized purchasing skills and techniques are required.

Planned Learning Activities and Teaching Methods:
- Lectures;
- Within-class exercises;
- Case studies & group discussions;
- Presentations;
- Computer applications.

Recommended or Required Reading:
- Monczka, R. M., Handfield, R. B., Giunipero, L. C. & Patterson, J. L.: Purchasing & Supply Chain Management, South-Western/Cengage, 6th edition, 2015.
- O'Brien: J.: Category Management in Purchasing: A Strategic Approach to Maximize Business Profitability, Kogan Page, 4th edition, 2019.
- Baily, P., Farmer, D., Crocker, B., Jessop, D. & Jones, D.: Procurement, Principles & Management, Pearson Education, 11th edition, 2008.

Usability of the Module:
This module is compulsory for the M.Sc. in Logistics management Program (Both Thesis & Comprehensive Exam tracks). Students will have complete understanding and knowledge of the procurement management process, start to end. Also this module will lead to an increased knowledge and confidence to apply advanced procurement concepts to the existing process of one's organisation to increase efficiency, in turn demonstrating credibility and potential for higher roles and responsibilities. Moreover, students will get better understanding and skill to devise and document a seamless, well-defined procurement process to be followed by all individuals involved in the procurement.

Prerequisites and Co-requisites:
LOGS721: Logistics and Supply Chain Management (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Master

Module Title		**Module Code**
Transportation & Distribution Management		LOGS723

Compulsory Module	X	**Year of Study**	1	**Semester Hours**	3
Elective Module		**Spring Semester**	X	**Workload**	210
Optional Module		**Winter Semester**		**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination

30% Mid-term exam (oral, written, presentation, paper)
20% Presentation and paper
10% Homework
40% Final exam

Responsible Lecturer(s)

Dr. AbdelRahim Alsoussi

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Transportation & Distribution Management	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence time in lectures, exercises and presentations: 15 weeks * 3 hours = 45 hours;
- Excursion: 30 hours;
- Assignments: 55 hours;
- Preparation for mid-term: 40 hours;
- Preparation for exam: 40 hours

Learning Outcomes:
By the end of this module, the student will be able to:
- Demonstrate the importance of transportation to the firm, to the supply chain, and to the economy.
- Discuss the characteristics, advantages, and disadvantages of motor carriers, railroads, air carriers, water carriers, and pipelines.
- Explain the different types of intermodal and special carriers.
- Understand methods and strategies used by carriers and shipper.
- Formulate and solve mathematical transportation, transhipment, and assignment problems.

Module Contents:
Transportation and distribution management play an important role in the logistics system of the firm, in the supply chain, and in the macroeconomic system. The management of transportation is concerned with the overall purchase and control of this movement activity used by a firm in achieving its logistics objectives.
The content of this module is divided into four main parts. The first part considers the nature of transportation management as part of the logistics system of a company and its importance in the context of supply chain management. The value created for the society and the cost structure will be considered in this part as well. The second part will highlight the technical, operational, and economic characteristics of the five transportation modes, i.e. motor carriers, railroads, airlines, water carriers, and pipelines; and the role these modes play in the integrated physical distribution systems. In addition, the intermodal and multimodal transportation will be introduced. Afterward, the third part will tackle the process of managing the transportation system. While plenty of subtopics can be discussed under this title, more focus will be dedicated to carriers' strategies, third party logistics, and private

transportation and fleet management. Finally, the fourth part will demonstrate some quantitative models in transportation, transhipment, and assignment. The formulation, manual solution, and computer solution of these models will be covered.

Planned Learning Activities and Teaching Methods:
- Lecture;
- Case studies;
- Group projects;
- Computer applications.

Recommended or Required Reading:
- Coyle, J. J., Novack, R. A., Gibson, B., Bardi, E. J.: Transportation: A Global Supply Chain Perspective, South-Western Cengage, 8th edition, 2015.
- Taylor, :Introduction to Management Science,Pearson,12th edition,2016.
- Rushton, Croucher and Baker: The Handbook of Logistics and Distribution Management, , Kogan Page Limited. 4th edition , 2010.
- Ross, Distribution Planning and Control – Managing in the Era of Supply Chain Management., Springer. 3rd edition,2015.

Usability of the Module:
This module is a compulsory for Master's degree in Logistics management (Both Thesis & Comprehensive Exam tracks). This module provides students with comprehensive knowledge of the background and current technical information for all the modes of transportation as well as intermodalism. Students will be able to compare the five modes of transportation and identify their strengths and weaknesses. In addition to the transportation modes, students will also gain advanced understanding of the elements within the distribution chain, specifically warehousing, materials handling, and unitization devices. In addition, the course will introduce the students to the intermediate agencies (including freight forwarding and transportation brokers) as they relate to the field of transportation.

Prerequisites and Co-requisites:
LOGS721: Logistics and Supply Chain Management (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Module Title	Module Code
Warehousing and Inventory Management	LOGS724

Compulsory Module	X	**Year of Study**	1	**Semester Hours**	3
Elective Module		**Spring Semester**	X	**Workload**	210
Optional Module		**Winter Semester**		**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination

30% Mid-term exam
10% Project 1
15% Project 2
5% Presentation
40% Final exam

Responsible Lecturer(s)

Dr. Ismail Abushaikha

Course	Mode of Delivery	Contact Time	Self-study
Warehousing and Inventory Management	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence in lectures: 45 hours;
- Project 1 workload: 50 hours;
- Project 2 workload: 50 hours;
- Presentation preparation: 25 hours;
- Preparation for exams: 20 hours;
- Field trip: 20 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Explain the major types of inventory and warehouses.
- Describe the importance of inventory and warehousing in the supply chain.
- Explain the theory and practice of managing inventory and warehouses.
- Illustrate and sketch the different types of storage systems.
- Analyze the performance of inventory control and warehouse operations through case studies and field visits.
- Assess the performance of picking operations in warehouses according to inventory profiles.

Module Contents:
This module covers two parts. The first part discusses the movement of inventories through the supply chain, reasons for holding inventory, importance of inventory, role of inventory, and the costs associated with inventory. This part also focuses on independent demand inventory methods, starting with the classical EOQ model and then considering the cases of known demand and uncertain demand.
The second part of the module provides an introduction to the physical storage and handling materials. A range of picking methods and techniques will be discussed as to improve the warehouse efficiency. The module will also place an emphasis on improving the output of the warehouses and distribution centers through understanding the

methods of organizing workflows, warehouse layout, and use of information systems. Further, a wide range of case studies, exercises, group module works will be given, as well as a field visit will be made to one of the warehouses in the country as to better understand the theories being studied in this module.

Planned Learning Activities and Teaching Methods:
- Lectures;
- Within-class exercises;
- Field trips;
- Group discussion.

Recommended or Required Reading:
Core Text*:*
- Richards, G: Warehouse Management: A Complete Guide to Improving Efficiency and Minimizing Costs in the Modern Warehouse., Kogan Page, Kindle Edition, 2017
Supplementary Texts*:*
- Rushton, Croucher & Baker: The Handbook of Logistics and Distribution Management, Kogan-Page Limited, 6th edition, 2017.

Usability of the Module:
This is compulsory module for the M.Sc. in Logistics Management Program (Both Thesis & Comprehensive Exam tracks). It will provide students with the skills and knowledge of how to manage warehouses together, and the other related activities with inventory. Students will gain more advanced knowledge and skills in the field of warehousing and distribution management and what are the responsibilities for a variety of inventory control functions within the supply chain. Students will learn the processes and procedures related to inventory control, loss prevention, reverse logistics, and global security protocols.

Prerequisites and Co-requisites:
LOGS721: Logistics and Supply Chain Management (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Module Title		**Module Code**
Supply Network Design and Optimization		LOGS732

Compulsory Module	X	**Year of Study**	1	**Semester Hours**	3
Elective Module		**Spring Semester**	X	**Workload**	210
Optional Module		**Winter Semester**		**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination

30% Mid-Term exam
30% Module project and presentations
40% final exam

Responsible Lecturer(s)

Dr. Khaldoun K. Tahboub

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Supply Network Design and Optimization	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence time in lectures, exercises and presentations: 15 weeks * 3 hours = 45 hours
- Preparation, writing and presenting group project: 65 hours;
- assignments and self-reading at home: 60 hours;
- Preparation for mid-term and final exams: 40 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- State and define different terms and concepts of supply chain management and supply networks.
- Identify and explain the strategic importance of supply network design within the supply chain context.
- Identify and explain the differences between different supply chain configurations.
- Use, solve, and apply operations research models in supply network design.
- Identify and explain the different types of supply chain relationships.
- Identify and discuss information needs for supply chains.
- Analyze supply network design scenarios.
- Prepare a research paper within the context of supply network design and optimization.
- Write a research report.
- Communicate, present, and discuss in English the findings of the research paper.

Module Contents:
The module will cover the following topics:
- Supply chain configuration;
- Supply chain management system components;
- Links and nodes analysis of the supply chain (including demand analysis, number of facilities, capacity of each facility or warehouse, transportation optimization);
- Lean, Agile, and Leagile Networks;
- Managing the relationships in the supply chain (vertical and horizontal integration, strategic alliances, joint ventures, etc);

- Locating facilities (qualitative and quantitative models);
- Managing information flows.

Planned Learning Activities and Teaching Methods:
- Lectures with intensive discussions;
- Class exercises and quizzes in class, and home assignments;
- Research paper and presentations.

Recommended or Required Reading:
- Module references:
- Chopra, S. & Meindl, P.: Supply Chain Management: Strategy, Planning, and Operation, Pearson, 6th edition, 2014.
- Lu, D.: Fundamentals of Supply Chain Management, Bookboon, 1st edition, 2011.
- Hugos, Michael: Essentials of Supply Chain Management, Wiley, 3rd edition, 2011.
- Martel, A. & Klibi, W.: Designing Value-Creating Supply Chain Networks, Springer, 1st edition, 2016.
- Govil, M. & Proth, J.-M.: Supply Chain Design and Management-Strategic and Tactical Perspectives, 1st edition, 2002.
- Ghiani G., Laporte, G., & Musmanno R.: Introduction to Logistics Systems Management; Wiley; 2nd edition, 2013.

Usability of the Module:

This is compulsory module for the M.Sc. in Logistics Management program (Both Thesis & Comprehensive Exam tracks). This module will help students to describes network design processes like where warehouse facilities are located and how product flows between them, and strategic objectives like demand forecasting, establishing supplies, and the planning and scheduling of manufacturing operations. Also this module will equip students with the knowledge and skills needed to create a strategic supply chain deployment plan, inventory planning, and the coordination of assets to optimize delivery of goods, services and information from supplier to customers — balancing supply and demand. Furthermore, students will gain deep understanding of the execution-oriented applications and systems: warehouse and inventory management, transportation management, global trade management, and other execution applications, such as real-time decision support, supply chain visibility and order management systems.

Prerequisites and Co-requisites:
LOGS721: Logistics and Supply Chain Management (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Master

Module Title

Global Logistics & Supply Chain Management

Module Code

LOGS734

Compulsory Module		**Year of Study**	2	**Semester Hours**	3	
Elective Module	X	**Spring Semester**		**Workload**	210	
Optional Module		**Winter Semester**	X	**ECTS**	7	
Pre-university		**Pre-program**		**Remedial**		

Examination

30% Mid-term exam
10% Project 1
15% Project 2
5% Presentation
40% Final exam

Responsible Lecturer(s)

Dr Ismail Abushaikha

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Global Logistics and Supply Chain Management	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence in lectures: 45 hours;
- Project 1 workload: 55 hours;
- Presentation preparation: 30 hours;
- Preparation for exams: 55 hours;
- Field trip: 25 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Understand theory and practice of managing global supply chains.
- Illustrate how companies take the decision of centralization and decentralization of their distribution activities.
- Examine how companies design their logistics systems.
- Analyze logistics and supply chains in a global context.
- Assess the role of global supply chains in improving competitiveness.

Module Contents:
This module will be exposed to issues surrounding the location of distribution centers, optimal number of distribution, centralization and decentralization of logistics systems. The course also covers logistics hubs and network design, cross-docking, its types and design of cross-docking facilities, road demountable, benchmarking and performance measurement of logistics operations, logistics performance index and measurements of global logistics performance, sourcing models in logistics, the design and operations of dry ports, global trends in logistics, the design of humanitarian and sustainable networks.

Planned Learning Activities and Teaching Methods:
- Lectures;

- Exercises;
- Case studies;
- Projects.

Recommended or Required Reading:
Main textbook:
- Chopra, S. & Meindl P.: Supply Chain Management: Strategy, Planning, and Operation. Pearson Prentice Hall, 6th edition, 2015.

Supplementary Textbooks:
- Mangan, J., & Lalwani, C.. Global logistics and supply chain management. John Wiley & Sons. 3rd Edition, 2016.
- Waters, D., & Rinsler, S. Global logistics: New directions in supply chain management. Kogan Page Publishers. 7th Edition, 2014.

Usability of the Module:
This is an elective module for the M.Sc. in Logistic Management Program whereas it is compulsory for Comprehensive track program. This module will equip students with the skills and knowledge on the analysis of transportation, communication, utilities and technology infrastructure, supply chain security, risks and value. The acquired skills and knowledge will help students to understand Legal considerations, international contracts and insurance issues. Among the key skills which students will gain from this module are; Commercial documents and customs clearance, International commerce terms (incoterms). Moreover, students will gain sufficient knowledge and skills on how to design a global logistics strategy and manage global inventory.

Prerequisites and Co-requisites:
LOGS721: Logistics and Supply Chain Management (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Master

Module Title

Maritime Logistics

Module Code

LOGS741

Compulsory Module		**Year of Study**		**Semester Hours**	3	
Elective Module	X	**Spring Semester**		**Workload**	210	
Optional Module		**Winter Semester**	X	**ECTS**	7	
Pre-university		**Pre-program**		**Remedial**		

Examination

30% Mid-term exam
30% Course project and presentations
40% Final exam

Responsible Lecturer(s)

Dr. Ismail Abo Shikhah

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Maritime Logistics	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence time in lectures, exercises and presentations: 15 weeks * 3 hours = 45 hours;
- Preparation, writing and presenting group project: 75 hours;
- assignments and self-reading at home: 55 hours;
- Preparation for mid-term and final exams: 35 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Discuss the role of shipping and ports in the logistics chain.
- Characterize the shipping cycle.
- Review trends and challenges for the maritime freight transport industry.
- Compare between Liner and Tramp shipping services.
- Evaluate the impact of containerization and identify the containers types.
- Identify the sea freight calculation and define the fees and charges.
- Analyze the role of Inco terms in determining transportation responsibilities, risks, and costs.
- Identify the shipping documentation.
- Evaluate the functions of Bill of Lading and identify its types.

Module Contents:
The course will cover the following topics:
- International trade and shipping;
- Defining the maritime logistics and its value;
- Freight rates mechanism;
- Containerizations;
- Types of containers;
- Managing empty containers;
- Ports management and containers terminals;
- International freight transport and logistics;

- Liner shipping network.
- INCOTERMS / International Commercial Terms
- Bill of Lading Types

Planned Learning Activities and Teaching Methods:
- Lectures;
- Group work – study cases;
- Videos;
- Presentations.

Recommended or Required Reading:
- Song, D. P. Container Logistics and Maritime Transport. Routledge. 1st Edition,2021.
- Song, D.W. & Panayides, P.: Maritime Logistics: A Guide to Contemporary Shipping and Port Management, 2nd edition, 2015.
- Waters, D., & Rinsler, S. Global logistics: New directions in supply chain management. Kogan Page Publishers. 7th Edition, 2014.

Usability of the Module:
This is an elective module for M.Sc. in Logistics Management program (Both Thesis & Comprehensive Exam tracks). This module provides students with a deep understanding of the interrelations between terminal design and operations on the one hand, and liner shipping networks on the other. The emphasis is on container terminals as the interface between the maritime and hinterland transportation. Students will gain knowledge and skills for both terminal operator strategy/marketing and terminal operations.

Prerequisites and Co-requisites:
LOGS732: Supply Network Design and Optimization (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Module Title		**Module Code**
Sustainable Logistics		LOGS742

Compulsory Module		**Year of Study**	2	**Semester Hours**	3
Elective Module	X	**Spring Semester**		**Workload**	210
Optional Module		**Winter Semester**	X	**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination
30% Mid-term exam
10% Class- and homework
15% Project
5% Presentation
40% Final exam

Responsible Lecturer(s)
Dr. Hassan Younis

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Sustainable Logistics	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence in lectures: 45 hours;
- Homework workload: 55 hours;
- Project workload: 55 hours;
- Presentation preparation: 20 hours;
- Preparation for exams: 35 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Understand the main characteristics and challenges of sustainable logistics.
- Understand the three pillars of sustainability i.e. environmental, social and economic aspects.
- Communicate, present, and discuss about sustainable logistics globally and locally.
- Make logistics-oriented decisions to enable businesses to become competitively advantaged by adopting sustainable logistics strategies.
- Apply logistics concepts and methods of analysis to the specificity of sustainable logistics field.
- Write a scientific research project dealing with a topic related to sustainable logistics.

Module Contents:
The aim of this courses is to equip students with knowledge and competencies to apply sustainable logistics practices. Students get acquainted with the fundamental concepts of sustainability including it three pillars (i.e. environmental, social, economic) to reflect about how critical is sustainable logistics in elevating the performance of the entire supply chain. The course also deeply discusses the concept of carbon footprint and how organizations are currently scrutinized to comply with international standards in this field. The challenges of sustainability as well as the opportunities to collaboratively reduce the negative impact of supply chain operations on the environment are also explained.

Planned Learning Activities and Teaching Methods:
- Lectures with intensive discussions;
- Exercises in class and at home;
- Real case scenarios;
- Group exercises;
- Writing and presenting research papers alone or in group work.

Recommended or Required Reading:
- McKinnon, A., Cullinane, S., Browne M. & Whiteing, A.: Green Logistics: Improving the Environmental Sustainability of Logistics, Kogan page, 3rd edition, 2015.
- Bretzke, W. R., & Barkawi, K.. Sustainable logistics: responses to a global challenge. Springer Science & Business Media. 1st Edition 2012.

Usability of the Module:
This is an elective module for the M.Sc. in Logistics Management program (Both Thesis & Comprehensive Exam tracks). This module is vital for students as they will gain knowledge and skills to look at the challenges, the solutions and the regulatory frameworks. Students will acquire the knowledge and skills needed to master the current debate on global sustainability, understanding the relevance and role of sustainability in shipping and ports and Propose and evaluate decisions to increase sustainability in global supply chains.

Prerequisites and Co-requisites:
LOGS732: Supply Network Design and Optimization (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Master

Module Title

Humanitarian Logistics

Module Code

LOGS743

Compulsory Module		**Year of Study**	2	**Semester Hours**	3
Elective Module	X	**Spring Semester**		**Workload**	210
Optional Module		**Winter Semester**	X	**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination

30% Mid-term exam
10% Class- and homework
15% Project
5% Presentation
40% Final exam

Responsible Lecturer(s)

Dr. ismail Abo Shekhah

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Humanitarian Logistics	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence in lectures: 45 hours;
- Homework workload: 55 hours;
- Project workload: 55 hours;
- Presentation preparation: 5 hours;
- Preparation for exams: 50 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Understand the main characteristics and challenges of logistics for the humanitarian sector;
- Apply logistics concepts and methods of analysis to the specificity of the humanitarian field;
- Write a scientific research project dealing with a topic related to humanitarian logistics;
- Communicate, present, and discuss topics related to logistics and humanitarian logistics;
- Make logistics-oriented decisions in the humanitarian sector

Module Contents:
The aim of this courses is to equip students with competencies to apply logistics and supply chain management concepts to the humanitarian context. Students get acquainted with the fundamental concepts of disaster management and humanitarian logistics to reflect about how critical is logistics for the efficient and effective delivery of humanitarian assistance. After deepening the main topics of preparedness, coordination, and information management, the main features of warehousing and procurement management in humanitarian context are analyzed, together with a consideration of funding strategies and donors' requirements. Basics of partnership are introduced to explain principles of sound strategic cross-sector partnership management. The course concludes with the specificity of supply chain management in the humanitarian logistics and reflections on supply chain relationships in the humanitarian context.

Planned Learning Activities and Teaching Methods:
- Lectures with intensive discussions;
- Exercises in class and at home;
- Real case scenarios;
- Group exercises;
- Writing and presenting research papers alone or in group work.

Recommended or Required Reading:
- Tomasini, R., Van Wassenhove, L., & Van Wassenhove, L. Humanitarian logistics. Springer. 1st Edition, 2009.
- Klumpp, M., De Leeuw, S., Regattieri, A., & De Souza, R. (Eds.). Humanitarian logistics and sustainability. Berlin: Springer International Publishing. 1st Edition, 2015.
- Kovács, G., Spens, K., & Moshtari, M. (Eds.). The Palgrave handbook of humanitarian logistics and supply chain management. Springer.1st Edition, 2017.
- Tatham, P., & Christopher, M. (Eds.). Humanitarian logistics: Meeting the challenge of preparing for and responding to disasters. Kogan Page Publishers. 3rd Edition, 2018.

Usability of the Module:

This is an elective module for the M.Sc. in Logistics Management program (Both Thesis & Comprehensive Exam tracks). This module will equip students with a professional skills as the students will acquire a deeper insight into the humanitarian logistics area, analyse humanitarian supply chains and apply critical thinking to humanitarian logistics problems

Prerequisites and Co-requisites:
LOGS732: Supply Network Design and Optimization (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Master

Module Title			**Module Code**
Special Topics in Logistics			LOGS751

Compulsory Module		**Year of Study**	2	**Semester Hours**	3
Elective Module	X	**Summer Semester**	X	**Workload**	210
Optional Module		**Winter Semester**	X	**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination

30% Mid-term exam
30% Course project and presentations
40% Final exam

Responsible Lecturer(s)

Dr. Hassan Younis

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Special Topics in Logistics	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence time in lectures: 45 hours;
- Preparation for exams: 55 hours;
- Readings and report writing: 30 hours;
- Project workload: 55 hours;
- Presentation preparation: 25 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Understand the role of logistics within the supply chain management.
- Understand the role of supply chain management in today's business and value chain.
- Apply the basic concepts, techniques and methods of logistics and supply chain management.
- Analyse the current issues facing logistics operations locally and internationally.
- Discuss how artificial intelligence and machine learning are playing a key role in making supply chains more effective and efficient.
- Discuss the importance of big data and robotics and how they can be strong enablers for businesses and supply chains.
- Become familiar with logistics best practices adopted by leading firms through analysis of real case studies.

Module Contents:
- Introduction to logistics and supply chain management;
- Special aspects of supply chain management;
- Procurement and logistics;
- Manufacturing and logistics;
- Special aspects of inventory and warehousing management;
- Lean and sustainble logistics;
- Information technology and supply chain management;
- Sustainabilty and carbon footprint.

Planned Learning Activities and Teaching Methods:
- Lectures;
- In-class exercises;
- Case studies & group discussions;
- Presentations.

Recommended or Required Reading:
- Bowersox, D. J., Closs, D. J. & Cooper, M. B.: Supply Chain Logistics Management. McGraw-Hill, 4th edition, 2012.
- Heizer, J. & Render, B.: Operations Management, Pearson, 11th edition, 2013.
- Stock, J. R. & Lambert, D. M.: Strategic Logistics Management, McGraw-Hill, 4th edition, 2007.
- Wisner; J. D., Tan, K.-C. & Leong, G. K.: Principles of Supply Chain Management, South-Western, 3rd edition, 2012
- Langley, C. J. Jr., Coyle, J. J., Gibson, B. J. & Novack, R. A.: Managing Supply Chains: A Logistics Approach, South-Western/Cengage, 10th edition, 2017.
- Sunil, C.: Supply Chain Management: Strategy, Planning, and Operation", Pearson Education, 7th edition, 2018.

Usability of the Module:
This module is an elective module for the M.Sc. in Logistics Management program (Both Thesis & Comprehensive Exam tracks). This module helps deceion makers understand current issuses facing logistics and the best practices to overcome them. In this module students will be exposed on current logistics and supply chain issues and problems where they will understand different topics and gain more knowledge and skills as per the topics taken during the semester time.

Prerequisites and Co-requisites:
LOGS732: Supply Network Design and Optimization (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Master

Module Title		Module Code
Textile Supply Chain Management		LOGS752

Compulsory Module		**Year of Study**		**Semester Hours**	3
Elective Module	X	**Spring Semester**	X	**Workload**	210
Optional Module		**Winter Semester**	X	**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination
30% Mid-term exam
10% Class- and homework
15% Project
5% Presentation
40% Final exam

Responsible Lecturer(s)

Dr. Ismail Abo Shaekhah

Course	Mode of Delivery	Contact Time	Self-study
Textile Supply Chain Management	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence in lectures: 45 hours;
- Homework workload: 55 hours;
- Project workload: 55 hours;
- Presentation preparation: 5 hours;
- Preparation for exams: 50 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Explain the importance of supply chain management for textile industry.
- Understand what are the key players and the main elements of the textile supply chain.
- Illustrate the main decisions involved in textile supply chain management and the flow of information along the supply chain.
- Analyze the relationship between supply chain management, Corporate Social Responsibility and sustainability for the textile industry.
- Write a scientific research project dealing with a topic related to textile supply chain management.
- Communicate, present, and discuss about textile supply chain management.

Module Contents:
Textile and garment industry is important for the Jordanian economy and represents one of the few net exporting sectors. Supply chain management is hereby crucial to generate competitive advantages in the very competitive market of the fashion industry. The aim of this course is to enable students to understand the importance of supply-chain management for risk management and for building successful supply chain strategies in the textile industry. This course revises the main aspects of supply chain management, discussing them in light of the main features of the textile industry. Global factors affecting the textile supply chain are then discussed and key elements/decisions are presented, with a specific focus on raw materials, sourcing and production, retailers, consumers, flow of

information through the supply chain, and quality assurance. The course concludes explaining how supply chain management in the textile industry can contribute to Corporate Social Responsibility and sustainability.

Planned Learning Activities and Teaching Methods:
- Lectures;
- In-class exercises;
- Group discussion.

Recommended or Required Reading:
- Londrigan, M. & Jenkins, J.: Fashion Supply Chain Management, Bloomsbury Publishing. 1st Edition, 2018.
- Murphy, P. & Knemeyer, M.: Contemporary Logistics, Pearson, 12th edition, 2017.

Usability of the Module:
This is an elective module for the M.Sc. in Logistics Management program (Both Thesis & Comprehensive Exam tracks). Students in the Textile Supply Chain management receive in-depth skills and knowledge in the textile processes required to convert raw materials into finished products. Students will also gain knowledge and skills on how to manage the textile materials in supply chain management.

Prerequisites and Co-requisites:
LOGS732: Supply Network Design and Optimization (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Master

Module Title		**Module Code**
Supply Chain Management for SMEs		LOGS753

Compulsory Module		**Year of Study**	2	**Semester Hours**	3	
Elective Module	X	**Spring Semester**		**Workload**	210	
Optional Module		**Winter Semester**	X	**ECTS**	7	
Pre-university		**Pre-program**		**Remedial**		

Examination

30% Mid-term exam
10% Report writing
20% Course project and presentations
40% Final exam

Responsible Lecturer(s)

Dr. Luay Jum'a

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Supply Chain Management for SMEs	Face-to-face	45	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence time in lectures: 45 hours;
- Preparation for exams: 55 hours;
- Readings and report writing: 55 hours;
- Project workload: 50 hours;
- Presentation preparation: 5 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Explain the role of supply chain management in today's business and value chain.
- Apply the basic concepts, techniques and methods of supply chain management in SMEs context.
- Analyse supply chain processes of SMEs.
- Compare between the characteristics of SMEs and corporations.
- Examine supply chain opportunities and barriers for SMEs.
- Discuss the impact of SCM competencies in SMEs.
- Conclude best practices used by SMEs through analysis of real case studies

Module Contents:
- Summarize the main inputs to supply chain strategy & design with regards to SMEs.
- Examine how demand management process works for small and medium businesses..
- Determine the main logistics drivers in a small firms.
- Choose an appropriate supply chain metrics for SMEs..
- Define the role of distribution in the small and medium firms supply network.
- Estimate different logistics systems and choose the appropriate one for SMEs.

Planned Learning Activities and Teaching Methods:

- Lectures;
- In-class exercises;
- Case studies & Group discussions;
- Presentations.

Recommended or Required Reading:
- Langley, C. J. Jr., Coyle, J. J., Gibson, B. J. & Novack R. A.: Managing Supply Chains: A Logistics Approach, 10th edition, South-Western/Cengage, 10th edition, 2017.
- Chopra, S.: Supply Chain Management: Strategy, Planning, and Operation, Pearson Education, 7th edition, 2019.
- Chopra, S.: Supply Chain Management: Strategy, Planning, and Operation (What's New in Operations Management), FT Publishing, Pearson, 7th edition, 2013.

Usability of the Module:
This is an elective module for the M.Sc. in Logistics Management program (Both Thesis & Comprehensive Exam tracks). This course helps decision makers in SMEs to improve their supply chain operations. Students will acquire set of skills and knowledge pertinent to managing supply chains in small and medium enterprises.

Prerequisites and Co-requisites:
LOGS732: Supply Network Design and Optimization (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Module Title		**Module Code**
Project Management		LOGS754

Compulsory Module		**Year of Study**		**Semester Hours**	
Elective Module	X	**Spring Semester**		**Workload**	210
Optional Module		**Winter Semester**	X	**ECTS**	7
Pre-university		**Pre-program**		**Remedial**	

Examination
60% Mid-term exam (oral, written, presentation, paper)
40% Final exam

Responsible Lecturer(s)

Dr. Aziz Madi

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Project Management	Face-to-face	40	165

Duration of Study:
One semester.

Allocation of Workload Hours:
- Presence time in lectures: 45 hours;
- Exercises at home: 55 hours;
- Readings: 55 hours;
- Preparation for exams: 55 hours.

Learning Outcomes:
By the end of this module, the student will be able to:
- Describe a project life cycle, and skilfully map each stage in the cycle.
- Identify the resources needed for each stage, including involved stakeholders, tools and supplementary materials.
- Describe the time needed to successfully complete a project, considering factors such as task dependencies and task lengths.
- Provide internal stakeholders with information regarding project costs by considering factors such as estimated cost, variances and profits.
- Develop a project scope while considering factors such as customer requirements and internal/external goals.

Module Contents:
This course examines project management roles and environments, the project life cycle and various techniques of work planning, and control and evaluation to achieve project objectives. Emphasis will be placed on practical application of project-management principles, processes, and techniques, including project control, cost management, project tracking, and project outsourcing. Students will also learn how to control project schedules, budgets, and scope, using methods that minimize or completely eliminate "scope creep." Techniques such as fast-tracking, critical-path crashing, stochastic estimating, and exploiting activity lead-lag times will enable students to develop fast, accurate project schedules.

Planned Learning Activities and Teaching Methods:
- Lecture;

- Team work;
- Online chapter to be completed by the students themselves;
- Case studies;
- Presentations;
- Problem solving.

Recommended or Required Reading:
- Pinto J.: Project Management Achieving Competitive Advantage, Global Edition, Pearson5th edition, 2010.
- Meredith, J. R., Shafer, S. M. & Mantel, S. J. Jr.: Project Management: A Managerial Approach. John Wiley & Sons 10th edition, 2017.
- Wysocki, R.: Effective Project Management: Traditional, Agile, Extreme, Hybrid, Wiley, 8th edition, 2019.

Usability of the Module:
This is an elective module for the M.Sc. in Logistics Management program (Both Thesis & Comprehensive Exam tracks). This course helps to understand the project life cycle and various techniques of work planning and evaluation. Students will gain deep understanding about projects and how to design, implement and manage different projects in the field of logistics and supply chain.

Prerequisites and Co-requisites:
LOGS732: Supply Network Design and Optimization (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None

Master

Module Title		**Module Code**
Master Thesis		LOGS799

Compulsory Module	X	**Year of Study**	2	**Semester Hours**	3
Elective Module		**Spring Semester**		**Workload**	810
Optional Module		**Winter Semester**	X	**ECTS**	27
Pre-university		**Pre-program**		**Remedial**	

Examination

Thesis defence

Responsible Lecturer(s)

Dr. Ismail Abushaikha

Course	**Mode of Delivery**	**Contact Time**	**Self-study**
Master Thesis	Face-to-face	45	765

Duration of Study:
Two semesters.

Allocation of Workload Hours:
- Meetings with supervisor: 45 hours;
- Readings and writing the thesis: 765 hours

Learning Outcomes:
By the end of this module, the student will be able to:
- Use systematically the research methods techniques relevant to the topic;
- Identify, frame and deal with research problems;
- Solve problems in logistics industry and find solutions;
- Make a contribution to academia in the field of logistic sciences.

Module Contents:
This master thesis is the final research project which is offered to practice the knowledge and skills about research methodology by a student. During one semesters, the student should work closely with his/her supervisor to come up with a piece of research as per the choice of both of them. The project must be done methodically, well organized as per the guidelines given by the supervisor. Finally, the student has to present and defend this project in front of a defense committee.

Planned Learning Activities and Teaching Methods:
- Meetings;
- Writing up;
- Data collection;
- Defence.

Recommended or Required Reading:

- Quinlan, C., Babin, B., Carr, J. & Griffin, M.: Business Research Methods, South Western Cengage, 2nd edition, 2019.

- Bergh, D. D., & Ketchen Jr., D. J. (eds.): Building Methodological Bridges. Emerald Group Publishing, 1st Vol. 6, .2011.
- Denscombe, M.: The Good Research Guide: For Small-scale Social Research Projects. McGraw-Hill Education (UK), 2014.
- Dhawan, S.: Research Methodology for Business and management Studies. Swastik Publishers & Distributors, 1st Ed,2010.
- Esterberg, K. G.: Qualitative Methods in Social Research, 1st Ed, 2002.
- May, T.: Social Research. McGraw-Hill Education (UK), 4th Ed, 2011.
- Peffers, K., Tuunanen, T., Rothenberger, M. & Chatterjee, S.: A Design Science Research Methodology for Information Systems Research. In: Journal of Management Information Systems, Volume 24, Issue 3, 2nd 2007-8, pp. 45-78.
- Sekran, U. & Bougie, R: (Research Methods for Business: A Skills Building Approach. John Wiley & Sons, Inc., 7th Ed, 2016.

Usability of the Module:
This Module is the final compulsory module in the M.Sc. in Logistics Management program (Thesis Track). It is intended to let students practice their research methods skills and knowledge in order to come up with a M.Sc. thesis. Students will implement and enhance their skills in a real life context in logistics and supply chain. Ultimately, students will be equipped with the skills and knowledge needed to carry out a research in their future work context.

Prerequisites and Co-requisites:
- Department approval (prerequisite)
- Completing at least 5 modules (prerequisite)

Language of Instruction:
English

Recommended Optional Program Components:
None