INSTITUTO POLITÉCNICO DE BRAGANÇA

Course Unit	Logistics Management in Health Units			Field of study	-		
Classification	Postgraduate Degree in Management of Health Units			School	School of Technology and Management		
Academic Year	2019/2020	Year of study	1	Level	2-1	ECTS credits	4.0
Type	Semestral	Semester	1	Code	5058-700-1106-00-19		

Workload (hours)	108	Contact hours	T	TP	PL	TC	S	E	OT	O
			-	-	-	-	-	-	-	25

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s): Carla Alexandra Soares Geraldes

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Define logistics and supply chain management (SCM) concepts and outline how both terms differ from each other.
2. Identify how best practices in logistics management and supply chain management can yield both cost reduction and added value in health sector.
3. Know management tools used in logistics approaches in health sector.
4. Identify policies to reduce inventories and explain storage and handling material processes in healthcare facilities providers.
5. Know the principles of managing patients in healthcare facilities aiming to reduce queuing times and to guarantee good service level.
6. Know layout best practices to apply in healthcare facilities.

Prerequisites

Before the course unit the learner is expected to be able to:
Demonstrate competences in Operations Research, Operations Management, and Statistics.

Course contents

Logistics and supply chain concepts in healthcare. Central issues of logistics management and supply chain management in healthcare providers. Management tools used in logistics approaches in health sector. Inventory management policies in healthcare units. Queuing systems in healthcare providers. Layout principles in healthcare facilities.

Course contents (extended version)

1. Logistics and Supply Chain Management in healthcare sector
   - Logistics and Supply Chain Management
   - Logistics and Supply Chain Management Dimensions
   - Logistics and Supply Chain Management Characteristics
2. Central themes in logistics management and supply chain management in healthcare providers
   - Patient or customer management
   - Materials and external services management
3. Management tools used in logistics approaches in healthcare
   - Block diagrams, flowcharts, organization charts and function diagrams
   - Checklists
   - Control charts
   - Brainstorming and cause-and-effect diagrams (Ishikawa diagram)
   - Failure mode and effect analysis (FMEA)
   - Value chain and value stream mapping
   - Five S's, Kaizen and Six Sigma approaches
   - PDCA/DMAIC cycles and processes life cycles
   - SWOT analysis
4. Inventory management policies in healthcare facilities
   - The role of inventory management
   - The role of forecasting and the importance in inventory management
   - Inventory management policies
   - Quantity disconts
   - Joint orders
   - Inventories centralization
   - ABC analysis
   - Inventory management evaluation
5. The management of queuing systems in healthcare units
   - Queues in healthcare providers
   - The queuing systems
   - Performance measurements of a queuing system
6. Layout principles in healthcare facilities
   - Layout of healthcare facilities
   - Warehouse layouts

Recommended reading

1. Carvalho, J. C. & Ramos T. (2019). Logística na Saúde. Edições Sílabo.
2. Carvalho, J. C. (2010). Logística e Gestão da Cadeia de Abastecimento. Edições Sílabo.
3. Ballou, R. (2007). Business Logistics/Supply Chain Management. Prentice-Hall International, Inc.
4. Johnson, R. , Clark, G. & Shulver, M. (2012). Service Operations Management: Improving Service Delivery. Pearson Education Limited.

Teaching and learning methods

To encourage student learning and facilitate the achievement of the programme outcomes the course is taught primarily by theoretical-pratical lectures supported by cases studies and solving pratical exercices.

Assessment methods

- Final Evaluation - (Regular, Student Worker) (Final)
   - Final Written Exam - 50% (An attendence of at least 75% of classes is mandatory.)
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Language of instruction

Portuguese

Electronic validation

Carla Alexandra Soares Geraldes	António Borges Fernandes	Paula Odete Fernandes	Paulo Alexandre Vara Alves
18-11-2019	20-11-2019	25-11-2019	13-12-2019