

Course Syllabus
EGLS 509 Lean Healthcare Logistics and Productivity Improvement
Semester 1 Academic Year 2018

Course ID and name: EGLS 509 Lean Healthcare Logistics and Productivity Improvement

Course coordinator: Dr.Rawinkhan Srinon

Instructors: Academic Staffs

Credits: 3(3-0-6)

Curriculum: Master of Engineering Program in Logistics and Supply Chain (Special Program)

Semester offering: First semester

Prerequisite: None

Course Description:

Lean principles and components; Application of lean in healthcare logistics; Waste elimination; Value stream mapping; Just in time production; Pull system; Kanban; Jidoka; Mistaken proofing system; Kaizen; Productivity improvement tools; Performance measurement; Information and technology; Interesting topics and case study in lean healthcare logistics and productivity improvement

Course Learning Outcomes (CLOs)

At the end of the course, the students will be able to

1. create academic work with integrity in Lean Healthcare Logistics and Productivity Improvement.
2. efficiently apply lean healthcare logistics and productivity improvement principles of inventory, warehouse, and transportation and distribution management
3. apply knowledge of lean healthcare logistics and productivity improvement in industry and service improvement
4. systemically analyze problems and propose solutions in lean healthcare logistics and productivity improvement via research methodology
5. work as a team with other disciplines related to lean healthcare logistics and productivity improvement.
6. communicate and select suitable method for presentation in lean healthcare logistics and productivity improvement.

Constructive Alignment of CLO s and Program s ELO s

CLOs	ELO 1	ELO 2	ELO 3	ELO 4	ELO 5	ELO 6
1	I, R					
2		I, R				
3			I, R			
4				I, R		
5					I, M	
6						I, P

I = ELO is introduced & assessed

P = ELO is practiced & assessed

R = ELO is reinforced & assessed

M = Level of Mastery is assessed

Course Schedule:

No.	Topic	Teaching & Learning Strategy	Assessment	Instructor
1	Introduction to Lean Healthcare Logistics and Productivity Improvement	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
2	Just in time production	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
3	Pull system and Kanban	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
4	Process Analysis and Design Work Methods	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon

5	Waste elimination &S and Visual Workplace	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
6	Value Stream Mapping	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
7	Value Stream Management	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
8	Kaizen	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
9	Jidoka Mistaken proofing system	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
10	Additional Productivity improvement tools and Performance measurement	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
11	สารสนเทศและเทคโนโลยีใน LEAN	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
12	LEAN Operations Design	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
13	Application of lean in healthcare logistics	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
14	Case Study/Guest Speaker	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon
15	Project Presentation	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Rawinkhan Srinon

Assessment Criteria

Class participation	10%
Individual work	20%
Group work	20%
Final examination	50%

Appeal Procedure

Should the students have any appeal regarding the assessments or grade, inquiry can be made to the instructors and/or the course coordinator immediately either by direct contact, telephone or email.

Study Material

Yasuhiro Monden ((2012)Toyota Production System: An Integrated Approach to Just-In-Time. 4th Edition. CRC Press. USA

Euclides A. Coimbra ((2013)Kaizen in Logistics and Supply Chains. McGraw-Hill. USA.

Mark Graban ((2009)Lean Hospitals: Improving Quality, Patient Safety, and Employee Satisfaction. CRC Press. USA.

Cindy Jimmerson ((2010)Value Stream Mapping for Healthcare Made Easy. CRC Press. USA.

Don Tapping et al. ((2002)Value Stream Management: Eight Steps to Planning, Mapping, and Sustaining Lean Improvements

เอกสารและข้อมูลสำคัญ

Peter L King and Jennifer S. King ((2015)Value Stream Mapping for the Process Industries. CRC Press. USA.

มังกร โรจนัฒนประภากร, ผู้แปล ((2550)ระบบการผลิตแบบโตโยต้า (Toyota Production System) ฉบับเข้าใจง่าย. 2nd edition. สำนักพิมพ์สมาคมส่งเสริมเทคโนโลยี (ไทย-ญี่ปุ่น). [Original version edited by Toyota Seisan wo Kangaeru Kai.]

มังกร โรจนัฒนประภากร, ผู้แปล ((2550)Zero Loss ด้วย TPM ฉบับเข้าใจง่าย. 3rd edition. สำนักพิมพ์สมาคมส่งเสริมเทคโนโลยี (ไทย-ญี่ปุ่น). [Original version คณะผู้เขียน: Society of TPM Research (TPM Tokoton Kenkyu Kai). ผู้เขียนและบรรณาธิการ: Kinjiro Nakano.]