

**Course Syllabus**  
**EGLS 501 Research Methodology and Application**  
**Semester 1 Academic Year 2018**

**Course ID and name:** EGLS 501 Research Methodology and Application

**Course coordinator:** Dr. Detcharat Sumrit

**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:**

Research design in sciences and social sciences; Research Ethics; Research proposal development; Literature review; Problem and objective formation; Hypothesis statement and mathematical model development; Data collection; Research statistics and tools; Data analysis; Discussion, conclusion, recommendation, dissemination and application of research

**Course Learning Outcomes (CLOs)**

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

1. create academic work with integrity in Research Methodology and Application.
2. efficiently apply research methodology and application principles of inventory, warehouse, and transportation and distribution management
3. apply knowledge of research methodology and application in industry and service improvement
4. systemically analyze problems and propose solutions in research methodology and application via research methodology
5. work as a team with other disciplines related to research methodology and application
6. communicate and select suitable method for presentation in research methodology and application

**Constructive Alignment of CLOs and Program's ELOs**

CLOs	ELO1	ELO2	ELO3	ELO4	ELO5	ELO6
1	I, R					
2		I				
3			I			
4				I, R, P		
5					R	
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 of Conducting Scientific Research	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
2	Research Questions and Research Methodology	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
3	From research ideas to research project: Process of conducting a research project	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit

4	Systematic Literature review	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
5	Developing Research Conceptual Framework	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
6	Research Tools in Logistics and Supply Chain I	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
7	Research Tools in Logistics and Supply Chain II	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
8	Case Study I	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
9	Elementary Statistics -๑	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
10	Elementary Statistics II	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
11	Writing and publishing academic paper	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
12	Case Study II	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
13	How to write a research proposal ?	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
14	Research Proposal Presentation I	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit
15	Research Proposal Presentation II	Lecture, Case Study, Discussion	Q&A, feedback	Dr.Detcharat Sumrit

#### 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

Bryman, A. & Bell, E. (.2003)Business research methods. New York: Oxford University Press.

Salkind, N.J. (.2000)Exploring research. New Jersey: Prentice Hall.

Kotzab, H., Seuring, S., M?ller, M., Reiner, G. (.2001)Research Methodologies in Supply Chain Management. Springer.