



Course Syllabus

EGME 694 – Semester 1/2018

Engineering research methodology

Course outline:

Concept of engineering and technological research; statistics for research planning and research study; data collection and data analysis; interpretations, conclusions and recommendations of research results.

Instructor:

Asst.Prof.Dr.Ittichote Chuckpaiwong

Ittichote.chu@mahidol.ac.th

Asst.Prof.Dr.Arom Boekfah

Arom.boe@mahidol.ac.th

Dr.Chawannat Jaroenhasemmesuk*

Chawannat.jar@mahidol.ac.th

*Course coordinator

Course website:

https://www.eg.mahidol.ac.th/dept/egme/?page_id=1631

<https://personalweb.mahidol.ac.th/chawannat-jar/2018/08/17/egme694-ph-d-research-methodology/>

Objective and learning Outcome:

At the end of this course, the students should be able to:

- understand basic concepts of research and its methodologies
- identify appropriate research topics
- prepare a research proposal

Recommend text and Reference:

Course documents from EGME



Learning activities:

No.	Date	Topic	Instructor
0	22 Aug 2018	Course introduction: Planning and research study	Dr.Chawannat
1	29 Aug 2018	Education system and the concept of engineering and technological research	Asst.Prof.Dr.Ittichote
2	5 Sep 2018	Life of researcher	Asst.Prof.Dr.Ittichote
3	12 Sep 2018	Advantage, Benefit, Objective, Scope & Originality	Asst.Prof.Dr.Arom
4	19 Sep 2018	Data collection and data analysis & Reference	Dr.Chawannat
5	26 Sep 2018	Statistics for research & DOE technique	Invited speaker
6	3 Oct 2018	Learning and sharing as instructor	Asst.Prof.Dr.Ittichote
7	31 Oct 2018	Interpretations conclusions and recommendations of research results.	Dr.Chawannat
8	7 Nov 2018	We are ready to do the research	Dr.Chawannat

Course scoring & grading:

Class attending/Activity	80%
Homework & Quiz	20%

A-D	Norm-Referenced Evaluation
F	Criterion-Referenced Evaluation 30%
W	Withdraw