



## Course Syllabus (Academic Year 2017)

School of Interdisciplinary Studies, Kanchanaburi Campus, Mahidol University

- 1. Course No. and Title** : KAFT 211 Engineering Drawing  
**Credit (study hours)** : 1 (2-0-4)
- 2. Program Name** : Bachelor of Science in Food Technology
- 3. Course Module** : Specific Core Course, Required Subject  
**Pre/co-requisite** : -
- 4. Class Semester** : 1<sup>st</sup> Semester Academic Year 2018
- 5. Class Schedule & Venue** : Thursday, 10.00-12.00  
L-323 Drawing Room, Laboratory Building in Weeks 1-12  
Room 2204 Computer Lab on Thursday of Weeks 13-16 (10.00-12.00)
- 6. Class Coordinator** : Asst. Prof. Dr. Rungtiwa Wongsagonsup  
Contact No. : 082-470-7341 Email : rungtiwa.won@mahidol.ac.th

### 7. Course Description

Introduction to engineering drawing, use of drawing instruments and lettering, applied geometry, theory of orthographic projection and orthographic drawing, three dimensional drawing (isometric and oblique), convention practice and dimensioning, basic knowledge of using software application for computer-aided design, sectional views drawing, threaded fasteners, application of engineering drawing knowledge in food industry

### 8. Course Objectives / Course Learning Outcomes (CLOs)

No.	Objectives / CLOs	Expected Skills / Knowledge			PLOs
		Specific	Generic	Knowledge	
8.1	Describe the basic knowledge and theory of engineering drawing	S2	-	K6	1
8.2	Demonstrate the engineering drawing for parts in an industrial plant	S2	G8	K6	1
8.3	Discuss the engineering drawing knowledge to food industry field	S2	G9	K6	1

## 9. Class Instructor List

9.1 Name : Dr. Chollada Laofor (CL) Contact No. : 081-791-9992 Email : Chollada.lao@mahidol.ac.th

## 10. Course Outline

Week	Date	Contents	CLOs	Instructor's Names
1	23/08/18	Use of drawing instruments and lettering	8.1	CL
2	30/08/18	Applied geometry I	8.1, 8.2	CL
3	06/09/18	Applied geometry II	8.1, 8.2	CL
4	13/09/18	Theory of orthographic projection and orthographic drawing I	8.1, 8.2	CL
5	20/09/18	Theory of orthographic projection and orthographic drawing II	8.1, 8.2	CL
6	27/09/18	Three dimensional drawing (Isometric and oblique) I	8.1, 8.2	CL
7	04/10/18	Three dimensional drawing (Isometric and oblique) II	8.1, 8.2	CL
8	11/10/18	Convention practice and dimensioning	8.1, 8.2	CL
9	Mid-term Examination (15-19 October 2018)			
10	26/10/18	Sectional view drawing I	8.1, 8.2	CL
11	01/11/18	Sectional view drawing II	8.1, 8.2	CL
12	08/11/18	Threaded fasteners	8.1, 8.2	CL
13	15/11/18	Basic knowledge of using software application for computer-aided design	8.1, 8.2	CL
14	22/11/18	Application of engineering drawing knowledge in food industry I	8.3	CL
15	29/11/18	Application of engineering drawing knowledge in food industry II	8.3	CL
16	06/12/18	Application of engineering drawing knowledge in food industry III	8.3	CL
17	Final Examination (10-21 December 2018)			
18				

\* The make-up classes will be announced later

## 11. Course Assessment

No.	Methods / Activities	Regulations	CLOs	Week	Weight Distribution (%)
11.1	Mid-term exam	- Drawing equipments are allowed - Pencil is allowed - Document and calculator are not allowed	8.1, 8.2	1-8	30
11.2	Final exam	- Drawing equipments are allowed - Pencil is allowed - Document and calculator are not allowed	8.1, 8.2, 8.3	10-16	30
11.3	Quiz/Test	Individual assignment	8.1, 8.2, 8.3, 8.4	1-8, 10-16	15
11.4	Report/Exercise/Homework	Individual assignment	8.1, 8.2, 8.3, 8.4	1-8, 10-16	15
11.5	Class participation and accountability	Instructor evaluation of class participation and accountability	8.4	1-8, 10-16	10
				<b>Total</b>	<b>100</b>

## 12. Grading System

Criterion-referenced evaluation

Grade	Score	Grade	Score	Grade	Score	Grade	Score
A	≥ 80 %	B	70 – 74.99%	C	60 – 64.99%	D	50 – 54.99%
B+	75 – 79.99%	C+	65 – 69.99%	D+	55 – 59.99%	F	< 50 %

## 13. References

13.1 ชัชวาล ศุภเกษม. AUTOCAD 2010 ฉบับสมบูรณ์. ซีเอ็ดดูเคชั่น, กรุงเทพฯ; 2552

13.2 ศิริชัย ต่อกุล. การเขียนแบบวิศวกรรมพื้นฐาน (Fundamental of Engineering Drawing). ซีเอ็ดดูเคชั่น, กรุงเทพฯ; 2552.

13.3 Bertoline GR, Wiebe EN. Fundamentals of Graphic Communication. 5<sup>th</sup> ed. McGraw-Hill; 2007.