

## **Course Syllabus**

**01058321 – Packaging Technology and Shelf Life 2(2-0-4)  
First semester, 2019**

**Department of Product Development, Faculty of Agro-Industry**

**Course description:** Type and properties of packaging materials and packaging technology for agro-industrial product innovation. Selection of packaging materials and technology for agro-industrial products. Packaging and product development for environment conservation. Factors affecting shelf life and relationship between package and shelf life of agro-industrial products.

### **Course outline:**

- Type and properties of packaging materials.
- Packaging technology for agro-industrial products.
- Intrinsic and extrinsic parameters of foods that affect quality of agro-industrial product.
- Selection of packaging materials and technology for agro-industrial products.
- Packaging and product development for environment conservation.
- Factors affecting shelf life and relationship between package and shelf life of agro-industrial products.
- Shelf-life Evaluation of agro-industrial products.

### **Methods of Instruction/Course Format/Delivery:**

01058321 is designed to cover the entire semester and will be structured in a weekly format. Reading assignments, taking quizzes, submitting homework on time are required for the course with two major exams (midterm and final exam).

### **Assessment**

Assignment	20%
Class presentation	10%
Midterm Exam	30%
Final Exam	35%
Class Attention	5%

**\*\* Students are required to attend at least 80% of classes.**

### **Course Grade:**

Your final grade will be based on norm-referenced evaluation.

### **Consultation after class :**

Monday 9.00-12.00. Phone no. 02-562-5013 Email: fagiwlc@ku.ac.th

### **Course Materials:**

Emblem, A. and H. Emblem. 2012. Packaging technology. Fundamentals, materials, and processes. Woodhead Publishing Limited, UK.

Labuza, T.P. 1982. Shelf-life Dating of Foods. Food and Nutrition Press, Westport, Connecticut.

Man, C.M.D. and A.A. Jones. 1994. Shelf-life Evaluation of Foods. Blackie Academic & Professional, Glasgow.

Robertson, G.L. 2013. Food Packaging. 3<sup>rd</sup> ed. CRC Press, Boca Raton, Florida.  
 Selke, S. E.M., J. D. Culter and R. J. Hernandez. 2004. Plastics Packaging. 2<sup>nd</sup> ed. HANSER, Ohio.  
 Taub, I.A. and R.P. Singh. 1998. Food Storage Stability. CRC Press, Boca Raton, Florida.  
 Yam, L.K. 2009. The Wiley encyclopedia of packaging technology. 3<sup>rd</sup> ed. John Wiley & Sons, Inc. New York.

**Lecture:** Sec. 435 Tuesday 8.00-10.00

Date	Content	Lecturer
13 Aug	Introduction	Asst. Prof. Dr, Walairut
20, 27 Aug	Type and properties of packaging materials	
3, 10 Sep	Packaging technology for agro-industrial products	
17, 24 Sep	Selection of packaging materials and technology for agro-industrial products.	
23-27 September 2019 Class evaluation #1 at <a href="https://eassess.ku.ac.th/">https://eassess.ku.ac.th/</a>		
*** Midterm *** Tuesday 1 <sup>st</sup> October 2019 8.00-10.00		
8 Oct	Intrinsic and extrinsic parameters of foods that affect quality of agro-industrial product.	Asst. Prof. Dr, Walairut
15 Oct	**Graduation Ceremony**	
22 Oct	Intrinsic and extrinsic parameters of foods that affect quality of agro-industrial product (con't)	Asst. Prof. Dr, Walairut
29 Oct & 5 Nov	Factors affecting shelf life and relationship between package and shelf life of agro-industrial products.	
12, 19, 26 Nov	Shelf-life Evaluation of agro-industrial products.	
3 Dec	Packaging and product development	
2-8 December 2019 Class evaluation #2 at <a href="https://eassess.ku.ac.th/">https://eassess.ku.ac.th/</a>		
*** Final *** Tuesday 10 <sup>th</sup> December 2019 8.00-10.00		

**Lecturer:**

Asst. Prof. Dr. Walairut Chantarapanont (course coordinator)



(Asst. Prof. Dr. Walairut Chantarapanont)

August 6, 2019