

SYLLABUS:

Date / Revision 23 May 2015 / 02 May 2017 / PP
Faculty Life Sciences (LS)
Study Program Food Technology (FTE)

SUBJECT: Food Materials Introduction

1 Basic Information

1.01	Subject Name	Food Materials Introduction
1.02	Semester	2
1.03	Level	1
1.04	SKS	2
1.05	Mandatory / Curriculum	D-02
1.06	Subject Code	FOMI
1.07	Subject Code	FTE-CH-D-LS-117
1.08	Year	2017 (7)
1.09	Quality Control	Final Test, OFSE, see evaluation
1.10	Limitations	Min 12 and Max 32 students in one class
1.11	Combined with	FTE, and CHE as optional electives
1.12	Pre-requisite	Chemistry
1.13	Responsible	Dr. Tutun Nugraha
1.14	Revision	15-05-2017/pp

2 Description of Subject

This course will provide students with an understanding of the physiological, biological, physical and chemical aspects of food materials from plants and animals origin. Students will be encouraged to employ logic and original thinking in order to use the knowledge in food material processing.

Objectives

- This course introduce students to various types of commodities that are commonly utilized in the food productions. The materials covered include typical materials used in the industrial processes or traditionally used by the people as part of the cultural heritage. Studnets will also begin to appreciate the characetristics of each materials as well as the way they are utilized.

4 Competency

Through this subject students will understand various concepts relevant to food materials introduction currently used in the food industries, which includes

- The science of food materials from plant and animal origin
- Applications of science of food materials to new situations
- The characteristics of main types of commodities that are typically used by the industries as part of the raw materials for their production processes

5 Learning Approach / Methodology

- Lectures/ Class contact (time-tabled) supplemented with interactive questions and answers to build the projects;
- Tutorial/Laboratory/Practice Classes: preview of materials, revision and/or reports writing;
- Student Study Effort: homework/assignment; preparation for test/quizzes/ examination.
- Writing assignments/preseantations

6 Evaluation

5.1	Absence maximum	25%
5.2	Participation in Discussion	-
5.3	Homework / Classwork	15 Points
5.4	Presentation /Simulation	-
5.5	Daily Quiz	25 Points
5.6	Final Examination	60 Points
	Total	100 Points

7 Text Book and Reference

1	<p>Main Text Book:</p> <ul style="list-style-type: none"> • Understanding Food Principles and Preparation, Amy Brown, 5th Edition, ISBN-10: 1-133-60715-2, Cengage Learning, 2015
2	<p>Supplement Textbooks:</p>

8 Content / Topics of Lecture

Week	Content/ Topics of Lecturing	Text Book Chapter	Remark
1	Vegetables <ul style="list-style-type: none"> • Introduction • Classification of Vegetables • Composition of Vegetables • Quality aspect of vegetables • Storage of Vegetables • Effect of heat treatment on vegetables properties 	Brown, Chapter	1 x 2 x 50 minutes
2	Fruit <ul style="list-style-type: none"> • Introduction • Classification of Fruit • Composition of Fruit • Quality aspect of Fruit • Storage of Fruit • Changes during ripening and heating 	Brown, Chapter	1 x 2 x 50 minutes
3	Cereal and Legumes <ul style="list-style-type: none"> • Composition of Cereal Grain and Legumes • Types of cereal grains • Uses of Cereal Grain and legumes • Storage 	Brown, Chapter	1 x 2 x 50 minutes
4	Tubers and Starches <ul style="list-style-type: none"> • Types of Tubers • Starch Characteristic • Starch Transformation • Storage of Starches 	Brown, Chapter	1 x 2 x 50 minutes
5	Coffee & Tea <ul style="list-style-type: none"> • Processing, composition, types, and storage of coffee • Processing, composition, types, grading, and storage of coffee 	Brown, Chapter	1 x 2 x 50 minutes
6	Fats and Oil <ul style="list-style-type: none"> • Function of fats and oil • Type of fats and oil • Fat replaces • Storage of fat 	Brown, Chapter	1 x 2 x 50 minutes
7	Eggs <ul style="list-style-type: none"> • Composition of eggs • Quality aspect of eggs • Type of eggs • Function of eggs • Changes in prepared eggs • Storage of eggs 	Brown, Chapter	1 x 2 x 50 minutes
8	MIDTERM SEMESTER BREAK		

9	Poultry <ul style="list-style-type: none"> • Classification of poultry • Composition of poultry • Quality aspect of poultry • Changes during poultry preparation • Storage of poultry 	Brown, Chapter	1 x 2 x 50 minutes
10,11	Meat <ul style="list-style-type: none"> • Classification of Meat • Composition of Meat • Quality aspect of Meat • Changes during Meat heating • Storage of Meat 	Brown, Chapter	2 x 2 x 50 Minutes
12	Fish and Shellfish <ul style="list-style-type: none"> • Classification of fish and shellfish • Composition of fish and shellfish • Quality aspect of fish and shellfish • Storage of Meat 	Brown, Chapter	1 x 2 x 50 Minutes
13,14	Milk and Milk Product <ul style="list-style-type: none"> • Function of milk in food • Composition and types of milk • Storage and Changes of milk properties • Milk product 	Brown, Chapter	2 x 2 x 50 minutes
15	Beverages <ul style="list-style-type: none"> • Carbonated drink • Alcoholic beverages 	Brown, Chapter	1 x 2 x 50 minutes
16	Final Examination		