

Jordan University of Science and Technology
Faculty of Agriculture
Department of Nutrition and Food Technology
Semester 2007

Course Information	
Course Title	Technology of Cereals and their products
Course Number	NF 378
Prerequisites	NF 275
Course Website	---
Instructor	Dr. Selma S. Abdul- Hussain
Office Location	C4L3
Office Phone	22276
Office Hours	---
E-mail	sabdulhussain@hotmail.com
Teaching Assistant	----
Course Description	

Text Book	
Title	Handbook of Cereal Science
Author(s)	Kulp, K. and Ponte, J.G
Publisher	Marcel Dekker NC, New York. U.S.A.
Year	2000

Assessment Policy		
Assessment Type	Expected Due Date	Weight
First Exam		30%
Second Exam		30%
Final Exam		40%

Course Objectives	Weights
<p>The purpose of this course is to provide students with basic background on cereal types including (wheat, Rice, Corn, Barley, Rye, Millet, oat, sorghum, and Triticale), their botanical classification, structure and chemical composition. This course will introduce the modern processing methods of cereals with concentration on wheat since it is related to bread and pasta production. Also, studying the nutritional aspects of different cereals and the best methods of cereal enrichment and fortifications.</p>	

Teaching & Learning Methods
Projector

Learning Outcomes: Upon successful completion of this course, students will be able to	
Related Objective(s)	Reference(s)
Cereal types, classification , structure , chemical composition and their nutritional aspects.	
Wheat technology including (milling and pastry making . pasta production)	
Rice technology including (milling and processing)	
Corn technology including (milling and processing)	
Barley technology including (milling and brewing)	
Rye Technology including (milling and processing)	
Oat Technology (milling and processing)	
Millet Technology (milling and processing)	
Sorghum Technology (milling and processing)	
Triticale Technology (milling and processing)	

Useful Resources
<ul style="list-style-type: none"> • Hosoney, R.C. (1986). principles of Cereal Science and technology .AACC, st. Paul , Minnesota , USA • Pyle. E. J. (1979) Baking Science and Techn. Vol. 1 and 11. Siebel Publishing comp.III. USA. • Pomeranz, Y (1987). Modern Cereal Science and Technology. VCH. • Pomeranz Y. (1988). "Wheat: Chemistry and Technology, two volums. AACC,st paul, Mins. U.S.A. • Pomeranz Y. (1989) "Wheat is Unique" AACC. St. paul, Minnesota, USA. • Pal, M., D. Jayanta and R.A.Rai (1987) Fundamentals of cereal crop production. Tata McGrqw – Hil publishing company limited, New Delhi.

Course Content		
Week	Topics	Chapter in Text (handouts)
1	General classification of cereal grain	1 ,3,8
2	Physical properties and structure	1 ,3,6
3	Cereal Composition	1,3,6,8
4-5	Wheat Processing	1,2,3,4,5,6
6	Wheat Flour Components In Bread making	1,2,3,4,5,6
7	Bread in Health and Disease	1,2,3,4,5,6
8	Soft wheat products	1,2,3,4,5
9	Rice Technology	1,3,6
10-11	Corn Technology	1,3,6,7
12	Barley Technology	1.3.6,8
13 –14	Oats , Sorghums and millets , and	1,3,6
15	Extrusion products	1,3,8
16	Industrial Uses of Cereals	1 ,3,7