



## Module (Course Syllabus) Catalogue 2022-2023

College/ Institute	Khabat Technical Institute	
Department	Food Security and Public Health	
Module Name	Food processing	
Module Code	FOP 302	
Degree	Technical Diploma <input type="checkbox"/> * <input type="checkbox"/>	Bachler <input type="checkbox"/>
	High Diploma <input type="checkbox"/> Master <input type="checkbox"/>	PhD <input type="checkbox"/>
Semester	3	
Qualification	Ph.D. in Food safety and Packaging	
Scientific Title	Lecturer	
ECTS (Credits)	8	
Module type	Prerequisite <input type="checkbox"/>	Core <input checked="" type="checkbox"/> Assist. <input type="checkbox"/>
Weekly hours	5	
Weekly hours (Theory)	( 2 )hr Class	( 72 )Total hrs Workload
Weekly hours (Practical)	( 3 )hr Class	( 50 )Total hrs Workload
Number of Weeks	16	
Lecturer (Theory)	Dr. Rozhgar Kamal Mohammed	
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Lecturer (Practical)	M. Hawsar Syamand Hussein	
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Websites	<a href="https://epu.edu.iq">https:// epu.edu.iq</a>	

# Course Book

<p><b>Course Description</b></p>	<p>In this course the student must be know the methods to industrial, preserve and storage the foods. Food processing includes the methods and techniques used to transform raw ingredients into food for human consumption. Food processing takes clean, harvested or slaughtered and butchered components and uses them to produce marketable food products</p>
<p><b>Course objectives</b></p>	<p>The purpose for this course to process and avoid the foods from the wastage, extent the shelf life.</p> <ul style="list-style-type: none"> <li>• To understand the methods of food preservation &amp; techniques of each methods.</li> <li>• To understand the kinds &amp; methods of pre-treatments before food preservation.</li> <li>• To know definition and steps of each of each preservation techniques.</li> </ul>
<p><b>Student's obligation</b></p>	<ol style="list-style-type: none"> <li>1. Students have to attend theoretical and practical lectures to obtain primary information.</li> <li>2. Students must done quiz weekly in practice lectures.</li> <li>3. Suitable clothes, safety gloves and masks have to be used for practice lectures.</li> <li>4. Students must to complete homework, reports and seminars on time.</li> <li>5. Obtained information of theory and practice lectures is student's duty through several different sources such as (notes during lectures, books, internet and journals).</li> </ol>
<p><b>Required Learning Materials</b></p>	<ol style="list-style-type: none"> <li>1. Theory lectures will be tough by data show in PPT form.</li> <li>2. Practice lectures will be tough by data show in PPT form,</li> </ol>

	scientific movies, laboratory works and scientific visiting. 3. Group working during practice lectures, in labs.				
<b>Assignments</b>	<b>Task</b>	<b>Weight (Marks)</b>	<b>Due Week</b>	<b>Relevant Learning Outcome</b>	
	Paper Review				
	Assignments	Homework	8		14%
		Class Activity	2		2%
		Report			
		Seminar	4		8%
		Essay			
		Project	10		10%
	Quiz		8		8%
	Lab.				2%
	Midterm Exam		16		16%
	Final Exam		40		40%
Total		100		100%	
<b>Specific learning outcome:</b>	<p>1- Theory: lecture, group discussion, seminar, pair work, group work, role play, case-based learning.</p> <p>2- Laboratory with equipment for training, oven, incubator, balance, burner...</p> <p>3- General: library, computer suite with internet access</p> <p>4- Student ought to be able to preserve's foods through drying, freezing, cooking....</p> <p>5- Student must identify industry of food and food products</p>				
<b>Course References:</b>	1. Brennan, J. G. (2006).Food Processing Hand book. published				

by WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim ISBN: 3-527-30719-2.

2. Lecturers of Industrial (1986), Food Industrial, Cairo University.

3. Stef Steffe.J.F. (1992). Rheological methods in food process engineering, Freeman Press, Michigan University, East Lansing, MI, 1.

Course topics (Theory)	Week	Learning Outcome
Introduction and goals to food processing	1	
Types of processing of food	2	
Classes of raw materials	3	
Chilling	4	
Advantages & Dis advantages of Chilling	5	
Food Preservation by Freezing	6	
Physical Freezer Burn	7	
Food Preservation by Drying	8	
Food Preservation by Chemicals	9	
Food preservation by heat treatment	10	
Boiling	11	

Principle of food Preservations	12	
<b>Practical Topics</b>	<b>Week</b>	<b>Learning Outcome</b>
Introduction of food processing	1	
Methods of determination solutions concentration	2	
Turkish Delight (Lokum) Processing	3	
Mayonnaise	4	
Tomato Product Processing	5	
Food preservation by sugar	6	
Juice	7	
Curing	8	
Jam	9	
electric field processing	10	
Ultra high-temperature processing	11	
Fermentation	12	
<b>Questions Example Design</b>		
<p>1- Blanks</p> <p>2-write the reasons</p> <p>3- True false and correcting false sentences</p> <p>4- Multiple choose</p> <p>5- Explanations</p> <p>6- Definitions</p> <p>7-Write differences between</p> <p>8-Match the word from list A to the word from list B</p>		

**Extra notes:**

**External Evaluator**