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Department of Chemical Engineering	
Food Processing Technology (64571)	
Total Credits	**3**
major elective	
Prerequisites	-

Course Contents

Different topics of food processing are covered in this course: Introduction to food storage, cleaning. Sorting, upgrading, blanching .... Food concentration, dehydration processes: evaporators and dryers, concentrating of milk, fruit ices. Extrusion and baking techniques and processes. Emulsification and packaging

	Intended Learning Outcomes (ILO's)	Student Outcomes (SO's)	Contribution
1	Students should be able to formulate , identify and solve process engineering problems	E	80 %
2	Ability to communicate effectively orally and in writting	G	20 %

Textbook and/ or Refrences

Editor: James G. Brennan, Food Processing Handbook. Edited by James G. Brennan Copyright 2006 WILEY-VCH Verlag GmbH &Co. KGaA, Weinheim, ISBN: 3-527-30719-2 REFERENCES 1. Stewart, G. F. and Amerine, M.A. Introduction to Food Science and Technology. 2ed edition. 2. Fryer, P.J., Plyle, D.L. and Rielly, C.D. Chemical Engineering for the Food Industry. First edition 1997. 3. David, T. and James. T. Corrosion Science and Technology, CRC Press LLC, 1998.

Assessment Criteria	Percent (%)
First Exam	20 %
Second Exam	20 %
Projects	20 %
Final Exam	40 %

Course Plan

Week	Topic
1-2	Handling and Preparation of Foods for Processing, storage, sorting, cleaning, qualification, peeling, blanching. Sulphiting.
3-4	Evaporation and dehydration, evaporators, concentration of milk, juices, granulated sugar, and instant coffee manufacturing.
5-7	Drying equipment and processes, thermal, freeze drying, drying of vegetable products, dairy, meat and fruit products. Stabilization of products.
8-9	Freezing processes of food.
10--11	Baking, Extrusion and Frying
12-13	Emulsification of food
14-15	Packaging of Food
16	Final exam