

FABE 684 Food Extrusion Processing Syllabus Spring 2006

Week	Date	Topic	Reading Assignment
1	3/27	Introduction to extrusion:	TB: Chap 1
	3/29	Extrusion equipment and basic extrusion principles, Extruder types and their applications	TB: Chap 1
	3/30	Extruder components and their functions	TB: Chap 1
2	4/3	Extruder screw configurations	TB: Chap 2, 5
	4/5	Extruder die	Class notes
	4/6	Wyandot visit	
3	4/10	Extrusion raw materials	EC: Chap 2
	4/12	Effect of ingredients on extruder performance and product characteristics	
	4/13	Product development for high temperature extrusion	Tedley Pihl
4	4/17	Chemical and physicochemical changes during extrusion; starch modification, protein reactions	TB: Chap 7
	4/19	Extrusion and nutritional quality	EC: Chap 6
	4/20	Post extrusion operations, product quality	
5	4/24	Uses of extruders in Food Industry	TB: Chap 9
	4/26	Extruder selection	TB:Chap 8, EC:Chap 3
	4/27	Plant trip (TBD)	
6	5/1	Pre-conditioning	TB: Chap 6
	5/3	Mass and energy balances in extrusion	TB: Appendix
	5/4	Breakfast cereal extrusion	
7	5/8	Heat transfer	EC: Chap 4
	5/10	Flow behavior in the extruder	EC: Chap 4
	5/11	Petfood and fishfood extrusion	
8	5/15	Start-up and shut down	
	5/17	Extrusion automation and control	EC: Chap 5
	5/18	Snack food extrusion, Confectionery extrusion	
9	5/22	Scale-up	
	5/24	Extrusion economics	
	5/25	Plant trip (TBD)	
10	5/29	Memorial Day	No class
	5/31	Co-extrusion	
	6/1	Pasta extrusion, Texturized Vegetable protein	