

FOODS II – FOOD TECHNOLOGY

Course Number 7075

**Family and Consumer Sciences Education
Career and Technical Education
Industrial Technology & Human Services
Public School of North Carolina
State Board of Education
North Carolina Department of Public Instruction**

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**Family and Consumer Sciences Education
Career and Technical Education
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North Carolina Department of Public Instruction
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Unit A

Basic Food Technology Principles

INTRODUCTION TO 7075 Food II - FOOD TECHNOLOGY**Maximum Enrollment:** 20**Recommended Hours of Instruction:** 135-180 (1 credit)

Exploring the food industry from “the farm to the table” is a major emphasis of 7075 Food Technology. The student will examine production, processing, preparation, preservation, and packaging principles along the farm to table continuum. This course will integrate basic food science principles, government regulations, emerging trends, biotechnology, and career opportunities as it relates to the world of food technology. The student will begin to understand how food technology affects the food that they eat. Work-based learning strategies appropriate for this course include field trips, job shadowing, and internships. FCCLA leadership activities incorporated into all units will provide students with the opportunity to apply instructional competencies and workplace readiness skills to authentic experiences. **Required Prerequisite: Foods I – Fundamentals or Culinary Arts and Hospitality or Chemistry, or Physical Science.**

FAMILY AND CONSUMER SCIENCES EDUCATION
DRAFT COURSE BLUEPRINT for 7075 Food Technology
 (Recommended hours of instruction: 135-180 of hours)

Comp # Obj #	Unit Titles/Competency and Objective Statements (The learner will be able to.)	Local Use	Course Weight	RBT Designation	Integrated Skill Area	Core Supp
	Total Course Weight		100%			
A	BASIC FOOD TECHNOLOGY PRINCIPLES		20%			
FT01.00	Understand food analysis.		10%	B2	E,CS,H,M,SC	
FT01.01	<i>Understand objective methods in a food analysis laboratory.</i>		5%	B2	E,CS,H,M,SC	Core
FT01.02	<i>Understand subjective methods in a food analysis laboratory.</i>		5%	B2	E,CS,H,M,SC	Core
FT02.00	Understand the physical and chemical properties of food.		10%	B2	E,CS,H,M,SC	
FT02.01	<i>Understand changes to physical properties of food.</i>		5%	B2	E,CS,H,M,SC	Core
FT02.02	<i>Understand the changes to the chemical properties of food.</i>		5%	B2	E,CS,H,M,SC	Core
B	FOOD CONSTITUENTS		30%			
FT03.00	Understand the functions of food constituents.		24%	B2	E,CS,H,M,SC	
FT03.01	<i>Understand the functions of water in food.</i>		3%	B2	E,CS,H,M,SC	Core
FT03.02	<i>Understand the functions of nutrients in food.</i>		16%	B2	E,CS,H,M,SC	Core
FT03.03	<i>Understand the functions of enzymes and phytochemicals.</i>		5%	B2	E,CS,H,M,SC	Core
FT04.00	Understand food additives and food substitutes.		6%	B2	E,CS,H,M,SC	
FT04.01	<i>Classify food additives and food substitutes.</i>		3%	B2	E,CS,H,M,SC	Core
FT04.02	<i>Understand government regulations related to food additives and food substitutes.</i>		3%	B2	E,CS,H,M,SC	Core
C	FOOD MICROBIOLOGY AND FOOD SAFETY		20%			
FT05.00	Understand how microorganisms affect food quality and safety.		13%	B2	E,CS,H,M,SC	
FT05.01	<i>Understand microorganisms associated with food quality and safety.</i>		9%	B2	E,CS,H,M,SC	Core
FT05.02	<i>Understand fermentation and its influence on food quality and safety.</i>		4%	B2	E,CS,H,M,SC	Core
FT06.00	Understand non-microbial food hazards.		7%	B2	E,CS,H,M,SC	
FT06.01	<i>Classify non-microbial food hazards.</i>		3%	B2	E,CS,H,M,SC	Core
FT06.02	<i>Explain ways to control non-microbial food hazards.</i>		4%	B2	E,CS,H,M,SC	Core

Comp # Obj #	Unit Titles/Competency and Objective Statements (The learner will be able to:)	Local Use			Course Weight	RBT Designation	Integrated Skill Area	Core Supp
		3	4	5				
1							7	
D	FOOD PRODUCTION, BIOTECHNOLOGY, AND FOOD PROCESSING							
FT07.00	Understand food production systems.		30%		B2	CD,E,CS,H,M,SC		
FT07.01	Explain "farm to table" as related to food production.		3%		B2	CD,E,CS,H,M,SC	Core	
FT07.02	Compare organically-produced foods to conventionally-produced foods.		3%		B2	E,CS,H,M,SC	Core	
FT08.00	Understand the impact of biotechnology on the food industry.		7%		B2	E,CS,H,M,SC		
FT08.01	Explain how biotechnology affects the quality and safety of food.		4%		B2	E,CS,H,M,SC	Core	
FT08.02	Understand the ethical issues of biotechnology and its use in the food industry.		3%		B2	CD,E,CS,H,M,SC	Core	
FT09.00	Apply procedures to get a new food product to market.		17%		C3	E,CS,H,M,SC		
FT09.01	Explain the types of preservation methods used in food product development.		3%		B2	E,CS,H,M,SC	Core	
FT09.02	Classify food packaging procedures used in product development.		3%		B2	E,CS,H,M,SC	Core	
FT09.03	Implement steps to get a new food product to market.		11%		C3	E,CS,H,M,SC	Core	