

Introduction to Culinary Arts Management

Safety, Recipes and Certification

— SECOND EDITION —

Updated
for the 2022
FDA Food Code



Visit the following websites to learn more about this book:



[amazon.com](https://www.amazon.com)

[Google books](https://books.google.com)

[BARNES & NOBLE](https://www.barnesandnoble.com)

Table of Contents

1 A WORLD OF FOOD 1

Introduction.....	1
Key Terms.....	1
Objectives.....	1
ROOTS OF THE MODERN RESTAURANT	3
Global Roots	3
Western Roots	4
A CAREER IN FOOD	6
Primary Employment.....	6
Secondary Employment	7
Temporary Employment.....	7
Food-related Employment.....	8
A MULTITUDE OF ROLES.....	8
Host.....	9
Server.....	9
Foodservice Manager	10
Bus Staff	10
Cook (Chef).....	11
Prep Cook.....	12
Classic Kitchen Brigade.....	12
Dishwasher	13
Bartender.....	13
SKILLS REQUIRED	14
Communication Skills.....	14
Customer-service Skills.....	14
Physical Strength	15
Physical Stamina	15
THE ANATOMY OF A RESTAURANT .	16
Entrance (Host Stand).....	16
Waiting Area	16
Hosting Stand.....	16
Front-of-house (Dining Areas).....	17
Back-of-house	18
Summary & Workbook.....	22
Review Questions.....	23

2 HANDLING FOOD SAFELY .. 25

Introduction.....	25
Key Terms.....	25
Objectives.....	25
WHY IT MATTERS	27
PERSONAL HYGIENE	27
HANDWASHING.....	28

Where to Wash Hands	28
When to Wash Hands	30
Hand Antiseptics	30
Manager's Responsibility	31

READY-TO-EAT (RTE) FOODS	32
-----------------------------------	----

PROTECTIVE COVERINGS	33
Single-use Gloves.....	33
Hair Restraints.....	34

PERSONAL EATING AND DRINKING	35
Contained Beverages.....	35
Eating and Tasting Food	35

STAFF HEALTH- RELATED ISSUES	36
Highly Susceptible Population	36
Exclusion and Restriction	37
Manager's Responsibility	37
Summary & Workbook.....	38
Review Questions.....	39

3 BAD BUGS 41

Introduction.....	41
Key Terms.....	41
Objectives.....	41

INTRODUCTION	44
--------------------	----

LIVING ORGANISMS.....	45
Bacteria.....	45
FAT TOM.....	46
Fungi.....	49
Mushrooms.....	50
Mold	50
Yeasts	52
Parasites.....	53

NON-LIVING ENTITIES.....	54
Viruses.....	54
Norovirus	55
Spores	56
Toxins	57

BAD BUG SYMPTOMS	57
Summary.....	60
The Student's Workbook.....	60
Review Questions.....	61

4 FOOD HAZARDS & ALLERGENS 63

Introduction.....	63
Key Terms.....	63
Objectives.....	63
INTRODUCTION.....	65
Types of Contaminants.....	65
Sources of Contaminants.....	66
PHYSICAL HAZARDS.....	66
Materials of Concern.....	66
Preventative Measures.....	67
CHEMICAL HAZARDS.....	68
Materials of Concern.....	68
Preventative Measures.....	71
ALLERGEN HAZARDS.....	71
The Big 9 – Major Food Allergens ..	72
Prevention and Cross-Contact	73
Menus	73
Service	74
Preparation	74
Symptoms of Food Allergies.....	75
Food Allergen Labeling	76
Gluten	76
Manager’s Responsibility	76
CROSS-CONTAMINATION.....	77
Associated Bad Bugs.....	78
Manager’s Responsibility	79
Preventative Measures.....	79
Color-coded Cutting Boards.....	80
When to Clean and Sanitize.....	80
INTENTIONAL	
CONTAMINATION.....	81
Preventative Measures.....	81
Manager’s Responsibility	83
Summary & Workbook.....	84
Review Questions.....	85

5 TCS FOODS & CONTROLS .. 87

Introduction.....	87
Key Terms.....	87
Objectives.....	87
FOOD SAFETY CONTROLS.....	89
The Flow of Food	90
TIME/TEMPERATURE	
CONTROL FOR SAFETY.....	91
Which Foods are TCS Foods?	92
MONITORING	
TEMPERATURE.....	94
Types of Thermometers.....	95

Thermometer Calibration.....	98
When to Measure Food Temperature	99

MONITORING TIME.....	100
Reheating Temperature Log.....	101
Cooling Temperature Log.....	101
Refrigeration Temperature Log.....	102
Food Temperature Log.....	102
Manager’s Responsibility	103
Summary & Workbook.....	104
Review Questions.....	105

6 SOURCES & RECEIVING .. 107

Introduction.....	107
Key Terms.....	107
Objectives.....	107
FOOD SOURCES.....	109
U.S. Food Law Requirements.....	109
FDA Food Code Requirements.....	110
Inspection and Grading	111
Use-by Dates.....	112
Recalls and Public & Health Alerts ..	112
Recall Websites.....	113
Recall Classifications	113
RECEIVING.....	114
Key Drop Delivery.....	115
Packaging.....	115
Labeling	116
Temperature.....	116
Eggs	117
Milk	118
Ice	118
Molluscan Shellfish	119
Finfish	120
INSPECTIONS.....	120
Checking Temperatures	120
Inspecting for Quality	121
Health Inspector Visit – Receiving	124
RECEIVING CHECKLIST.....	125
Summary & Workbook.....	126
Review Questions.....	127

7 STORAGE..... 129

Introduction.....	129
Key Terms.....	129
Objectives.....	129
TYPES OF STORAGE.....	131
Dry Storage	131
Refrigerated Storage.....	132
Frozen Storage.....	132
Garbage Storage	133

PREVENTING		
CONTAMINATION	133	
Food Storage Requirements	134	
Food Separation Requirements	135	
Vertical Storage Order	135	
Two Contrasting Examples	137	
Poisonous or Toxic Chemicals	138	
Cleaning	138	
PRODUCT CONTROLS	139	
Containers	139	
Labeling	139	
For Use On-site	140	
For Retail Sale	140	
Date Marking	141	
Date Marking Systems	141	
Combining Ingredients	142	
Product Rotation	142	
Contaminated or Expired Food	143	
STORAGE GUIDELINES BY PRODUCT ..	144	
Meat	144	
Poultry	145	
Fish	146	
Molluscan Shellfish	147	
Eggs	148	
Fresh Produce	149	
Canned Goods	150	
Dry Foods	150	
ROP Food	151	
UHT and Aseptically Packaged Food..	151	
Summary & Workbook	152	
Review Questions	153	
8 FOOD PREPARATION	155	
Introduction	155	
Key Terms	155	
Objectives	155	
PREPARATION	157	
Additives	158	
Thawing	159	
TCS Foods	160	
Plant Foods (Fruits & Vegetables)	165	
Ice	166	
Fresh Juice	167	
Variances	168	
COOKING	168	
Best Practices	169	
Time and Temperature	170	
Roasts	171	
Raw or Undercooked	172	
Microwave Cooking	173	
Partial Cooking	174	
SAFETY REQUIREMENTS	174	
Consumer Advisories	174	
Highly Susceptible Populations	176	
Children's Menus	176	
POST-COOKING	177	
Cooling	177	
Reheating	180	
FOOD DONATION	181	
Summary & Workbook	182	
Review Questions	183	
9 FOOD SERVICE	185	
Introduction	185	
Key Terms	185	
Objectives	185	
HOLDING FOOD	187	
Hot Holding for Service	188	
Cold Holding for Service	189	
Time as a Public Health Control	190	
SERVING FOOD	192	
Tableware	192	
Preset Tableware	194	
Refills, Returns, and Re-Service	195	
Self-Service Areas	195	
OFF-SITE SERVICE	197	
Transportation	197	
Catering	198	
Temporary Food Establishment	199	
Mobile Units	200	
Vending Machines	200	
Summary & Workbook	202	
Review Questions	203	
10 CLEANING & SANITIZING ..	205	
Introduction	205	
Key Terms	205	
Objectives	205	
CLEANING EQUIPMENT & UTENSILS ..	207	
Objective	208	
Frequency	208	
Methods	209	
Types of Cleaners	210	
SANITIZING EQUIPMENT & UTENSILS .	211	
Objective	211	
Frequency	211	
Methods	211	
WAREWASHING	214	
Dishwashing Machine	215	
Dishwashing Manually	216	
PROTECTION OF CLEAN ITEMS	217	
Drying	217	
Lubricating and Reassembling	218	
Storing	218	

CLEANING THE FACILITY	218
Wiping Cloths	219
Clean-up of Illness Events.....	219
Custodian Supplies	220
CLEANING SCHEDULE	220
Summary & Workbook.....	222
Review Questions.....	223

11 FACILITY & EQUIPMENT 225

Introduction.....	225
Key Terms.....	225
Objectives.....	225
PHYSICAL FACILITIES	227
Architectural Design Process	227
Construction Requirements	231
BUILDING SYSTEMS (MEP).....	233
Water	233
Plumbing	234
HVAC	237
Electrical	237
FOODSERVICE EQUIPMENT	239
Standards.....	239
Summary & Workbook.....	242
Review Questions.....	243

12 PEST CONTROL..... 245

Introduction.....	245
Key Terms.....	245
Objectives.....	245
TYPES OF PESTS & RODENTS.....	247
Rodents	247
Flies	248
Cockroaches	248
Insects.....	249
Service Animals.....	250
Aquariums.....	250
TAKING PRECAUTIONS.....	250
Exterior Areas.....	251
Interior Areas.....	252
INTEGRATED PEST MANAGEMENT (IPM) PROGRAM.....	253
POISONOUS OR TOXIC MATERIALS. 254	
Summary & Workbook.....	256
Review Questions.....	257

13 MANAGEMENT SYSTEMS & CRISIS PLANNING .. 259

Introduction.....	259
Key Terms.....	259
Objectives.....	259

PROGRAMS TO MANAGE FOOD SAFETY. 261	
PERSON IN CHARGE (PIC)	262
Becoming a PIC and Duties.....	262
PIC Responsibilities	263
ACTIVE MANAGERIAL CONTROL ..	265
HAZARD ANALYSIS CRITICAL CONTROL	
POINT (HACCP) PROGRAM.....	266
Prerequisite Programs.....	266
HACCP Principles.....	267
HACPP Essentials	272
CRISIS PREPAREDNESS	273
Crisis Management Plan	274
Ceasing Operations and Reporting ..	275
Resumption of Operations.....	275
Power Outage.....	276
Water Service Interruption	277
Sewage Backup.....	277
Flooding.....	278
Fire Event.....	279
Summary & Workbook.....	280
Review Questions.....	281

14 REGULATIONS, INSPECTIONS, & STAFF TRAINING 283

Introduction.....	283
Key Terms.....	283
Objectives.....	283
REGULATIONS.....	285
Food and Drug Administration (FDA) .	285
U.S. Department of Agriculture (USDA). 286	
Centers for Disease Control (CDC) ...	286
Local, State, Tribal, & Federal Regulators ..	287
INSPECTIONS.....	288
Frequency of Inspections.....	289
Inspection Authority	290
Inspection Report	290
Time Frame for Correction.....	291
Ceasing Operations.....	292
STAFF TRAINING	293
Assessment.....	293
Training Program	294
Corrective Action	294
Food Allergy Awareness	295
Retraining.....	295
Training Records	295
Training by Example	295
Summary & Workbook.....	296
Review Questions.....	297

INDEX 299