

Food Science and Safety Scope and Sequence – Hybrid

Virtual Prior to CI

Day	Time	Discussion Items	Activity and Deliverables <i>*Check-Off Item</i>
Orientation	Virtual (Pre CI)	<ul style="list-style-type: none"> • General Session • Introduction of Host • Introduction of Lead Teachers • CASE Institute Expectations • ServSafe® Food Handler Certification 	<ul style="list-style-type: none"> • CASE Curriculum Access (MyCASE) • Google Classroom Access • ServSafe® Food Handler Certification Access
Pre-CI	Complete prior to CI		<ul style="list-style-type: none"> • ServSafe® Food Handler Certification* (complete before CI start)

In-Person

Day	Time	Discussion Items	Activity and Deliverables <i>*Check-Off Item</i>
Day 1 (In Person)	10:00 – 12:00	<ul style="list-style-type: none"> • Introduction Activity • Project 1.1.3 History of Food Science 	<ul style="list-style-type: none"> • Activity 1.1.1 Food and Your Senses • Activity 1.1.2 Food Science Notebooks (Part Two) • Activity 1.1.4 How Much Flour?
	12:00 – 12:45	Lunch and Host Logistics	

Day	Time	Discussion Items	Activity and Deliverables <i>*Check-Off Item</i>
	12:45 – 5:00	<ul style="list-style-type: none"> • Lesson 1.2 Food Handlers • Activity 1.2.2 Safety in the Kitchen • Lesson 2.1 Nutrient Analysis 	<ul style="list-style-type: none"> • Activity 1.2.1 Kitchen Investigators • Project 1.2.3 Personal Safety Protocols • Activity 1.2.4 Knife Safety • Activity 1.2.5 Controlling Pathogens* • Project 1.2.6 Operating Procedures* • Activity 2.1.1 Scientific Processes
	Homework:	Pre-read Teacher Notes for following day (Lessons 2.1–2.2)	
Day 2 (In Person)	8:00 – 12:00	<ul style="list-style-type: none"> • Check for Understanding • Lesson 2.2 Food Nutrients 	<ul style="list-style-type: none"> • Activity 2.1.2 Polarized Sugars (Part One, Demonstrate Part Two) • Project 2.1.3 Nutrient Investigation* • Activity 1.2.5 Controlling Pathogens (24 Hour Observations)* • Activity 2.2.1 Sticky Starches • Activity 2.2.2 Starch Properties • Activity 2.2.3 Monitoring Meat Fat
	12:00 – 1:00	Lunch	
	1:00 – 5:00	<ul style="list-style-type: none"> • Analysis Questions vs Conclusions • <i>Laboratory Notebook Evaluation Rubric</i> 	<ul style="list-style-type: none"> • Activity 2.2.3 Monitoring Meat Fat (continued) • Activity 2.2.4 Bonding Water • Activity 2.2.5 Water Weight • Activity 2.2.6 Emulsify • Activity 2.2.7 Protein Predicament*
	Homework:	Pre-read Teacher Notes for following day (Lessons 2.3, 2.4, 3.1, 3.3)	
Day 3 (In Person)	8:00 – 12:00	<ul style="list-style-type: none"> • Lesson 2.3 Factors of Change • Project 2.3.1 Let's Get Physical • Activity 2.3.2 Functional Properties • Spiraling and Scaffolding (APPs 2.3.4 & 2.3.6) • Lesson 2.4 pH of Foods • Activity 2.4.1 pH of the Pantry • Activity 2.4.2 pH Transformations 	<ul style="list-style-type: none"> • Activity 2.2.2 Starch Properties (Part Three) • Project 2.3.3 Ingredient Swap* • LabQuest Olympics • Activity 2.4.3 Agents of Change
	12:00 – 1:00	Lunch	

Day	Time	Discussion Items	Activity and Deliverables <i>*Check-Off Item</i>
	1:00 – 5:00	<ul style="list-style-type: none"> • Project 3.3.3 Foodborne Pathogens • Problem 4.1.4 Poultry Processing (planning) 	<ul style="list-style-type: none"> • Activity 3.1.1 Can I Spy? • Activity 3.1.2 Allergen Monitoring* • Activity 3.3.1 Mighty Microbes • Activity 1.2.5 Controlling Pathogens (48 Hour Observations)* • Project 3.3.2 Manipulating Microbes (Parts One and Two)
	Homework:	Pre-read Teacher Notes for following day (Lessons 4.1–4.2)	
Day 4 (In Person)	8:00 – 12:00	<ul style="list-style-type: none"> • Lesson 4.1 Processing • APP Modalities • <i>Unit Operations in Food Processing</i> presentation • <i>Guide to Assessing Problems</i> 	<ul style="list-style-type: none"> • Activity 3.3.4 Outbreak Investigation • Activity 4.1.1 Chemical Changes • Activity 4.1.2 Physical Changes (Part One) • Activity 4.1.3 Processing Commodities (Part One)*
	12:00 – 1:00	Lunch	
	1:00 – 5:00	<ul style="list-style-type: none"> • Lesson 4.2 Preservation • Activity 4.2.1 Fruit to Leather • Activity 4.2.2 Below Zero 	<ul style="list-style-type: none"> • Problem 4.1.4 Poultry Processing (continued) • Activity 4.2.3 Pasteurization Preservation (Teacher procedures) • Activity 4.2.4 pH for Preservation*
	Homework:	Pre-read Teacher Notes for following day (Lesson 4.3)	
Day 5 (In Person)	8:00 – 12:00	<ul style="list-style-type: none"> • Lesson 4.3 Quality and Safety • Activity 4.3.1 Regulating Food Products • Inspect Jars • Review Virtual PD 	<ul style="list-style-type: none"> • Activity 4.3.2 Making the Grade* • Activity 4.3.3 Autonomous Grading • Project 4.3.4 Identity Standards
	Homework:	Watch HACCP Training for the Food Industry on YouTube prior to virtual training	

Virtual

Day	Time	Discussion Items	Activity and Deliverables <i>*Check-Off Item</i>
Day 6 (Virtual)	9:00 – 11:00 Synchronous	<ul style="list-style-type: none"> • Lesson 3.2 HACCP • Project 3.2.1 HACCP by the Numbers • Activity 3.2.4 Hazard Analysis 	<ul style="list-style-type: none"> • Activity 3.2.2 It's the Principle • Activity 3.2.3 HACCP Team Assemble (Team)
	11:00 – 1:00 Asynchronous	<ul style="list-style-type: none"> • Lunch 	<ul style="list-style-type: none"> • Activity 3.2.4 Hazard Analysis (Part Two – Individually) • Activity 3.2.5 Limit and Monitor (Part One and Part Two – Individually) • HACCP Plan Template*
	1:00 – 3:00 Synchronous	<ul style="list-style-type: none"> • Lesson 5.1 Nutrition Labeling • Lesson 5.2 Security and Defense 	<ul style="list-style-type: none"> • Activity 5.1.1 Label Your Food* • Project 5.2.2 Defend Your Hamburger
	3:00-4:00 Asynchronous	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Activity 6.2.4 Retail Reconnaissance*
Day 7 (Virtual)	9:00 – 11:00 Synchronous	<ul style="list-style-type: none"> • Content Review - PPTs • Lesson 6.1 Consumer Preferences • Lesson 6.2 Protect to Sell 	<ul style="list-style-type: none"> • Project 6.1.3 Sensory Science* • Project 6.2.2 Snack Pack
	11:00 – 1:00 Asynchronous	<ul style="list-style-type: none"> • Lunch 	<ul style="list-style-type: none"> • Activity 6.2.3 Test the Jelly
	1:00 – 3:00 Synchronous	<ul style="list-style-type: none"> • Activity 6.2.3 Test the Jelly (review) • Lesson 7.1 Innovative Foods • Activity 7.1.2 Food Patents • Food Innovation Fair • FSS SAE for All Foundational Checksheet • Course Materials • AAFCS Pre-PAC Certification in Food Science Fundamentals Alignment • Course Review/Reflection 	<ul style="list-style-type: none"> • Activity 7.1.1 Product Innovation • End of CI Survey • FSS Certification