

CTE Course Description and Standards Crosswalk

Course Information	
Course Name	Food Science
Course Number	86460
Number of High School Credits	.5
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the EED-CTE system.)	Culinary Arts/Food Service,
Date of district Course Revision	October 2014
Career & Technical Student Organization (CTSO)	
CTSO embedded in this sequence	Skills USA
Occupational Standards	
Source of Occupational Standards	National Standards for Family & Consumer Sciences (NASAFACS)
Names/Numbers of Occupational Standards	
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	This course utilizes a science laboratory and the scientific methodology for understanding the impact of food on the human body. This is a laboratory course that uses experimental methods with tools for hands-on learning. This course would benefit students interested in careers in sports medicine, culinary arts, dietetics, and nutrition.
Instructional Topic Headings (please separate each heading by a semi-colon)	Safety Issues; Sensory Food Evaluation; Chemistry Properties of Food; Food Nutrient Fundamentals; Food Additives; Encourage Career and Technical Student Organization (CTSO) Involvement
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	
Course addresses:	
New Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Employability Standards	Yes
Employability Standards	
Source of Employability Standards	State of Alaska
Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	
Date of Current Agreement	
Postsecondary Institution Name	
Postsecondary Course Name	
Postsecondary Course Number	

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# of Postsecondary Credits	
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Additional CTE Course Information

Author	
Course developed by	Revised by C. Frey & J. Rice
Course adapted from	
Date of previous course revision	May 2007
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
Use scientific lab equipment in a safe and proper manner during food science experiments.	CAS 2.4.3	HT4,5 HT-RFB2	RST 9-10.3, RST 9-10.4, RST 9-10.6	AREI.1, NQ-1, NQ-2	B2,3,4	A2	Manage Health/ Safety Technical Skills	Skills USA Food Service
Describe sensory characteristics that affect food preparation.	CAS 3.4.1, CAS 3.5.1	HT RFB 3,6,7,8	RI.9-10.2, RI.9-10.4, W 9-10.4	NQ-3	B2	A2	Planning Technical Skills	Skills USA Food Service
Conduct a variety of laboratory experiments using the scientific method.	NASAFAC S9.2	HT RFB 3,6,7,8	RST.9-10.1, RST 9-10.2, RST 9-10.3, RST 9-10.6	NQ-3	B2,4	A2,6	Planning Health/ Safety Technical Skills	Skills USA Food Service
Compare general qualities of acids and bases in foods.	NASAFAC S 9.4	HT-RFB 8,10	RST 11-12.7, RST 11-12.8	NQ-1	B2	A2	Health/ Safety Technical Skills	Skills USA Illustrated Talk
Explain the difference between chemical and physical	NASAFAC	HT-RFB	RI.9-10.1,	NQ-3	B2	A2	Technical	Skills USA

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Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
properties.	S 9.4	8,10	RST.9-10.4				Skills	Illustrated Talk
Explain how different nutritional guidelines are formulated and used.	NASAFAC S 9.3	HT-RFB 8,10	RI.11-12.1, RST.9-10.2		B2	A2	Planning Technical Skills	Skills USA Applied Technology
Describe the process that takes place in each part of the digestive tract.	2.1.1, 2.1.2, 2.1.3, 2.1.4, 2.1.5	HT-RFB 8,10	RI.11-12.2, RST.9-10.3	A-REI.1	B2	A2	Technical Skills	Skills USA Illustrated Talk
Explain the purpose of metabolism and the conditions needed for it to occur.	NASAFAC S 9.4	HT-RFB 8,10	RST.9-10.6, RST.9-10.7, RST.11-12.1		B2	A2	Technical Skills	Skills USA Applied Technology
Describe and analyze the functions and properties of the 6 nutrients which are carbohydrates, fats, proteins, vitamins, minerals, and water.	NASAFAC S 9.3	HT-RFB 8,10	RI.9-10.2, RST.11-12.8	NQ.3	B2,4	A2	Technical Skills	Skills USA Applied Technology
Identify sources and symptoms of food borne illnesses.	3.1.1, 3.1.2, 3.1.3, 3.1.4, 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5, 3.2.6	HT-RFB 8,10	RST.11-12.7, RST.9-10.10		B1	A2, A6	Health/ Safety Technical Skills	Skills USA Illustrated Talk
Examine and understand the use of synthetic and natural food additives.	7.2.5	HT-RFB 8,10	RST.9-10.1, RST.9-10.2		B2	A2	Technical Skills	Skills USA Illustrated Talk
Investigate careers related to the field of food science.	NASAFAC S 8.2.1, 8.2.2, 8.2.3, 8.2.4, 8.2.5	HT-RFB 9,10	WHST 11-12.8		B2,3,4 D6 E7,8	A2,5 B1,3,4	Labor Work Habits	AKCIS Skills USA
Encourage participation in a CTSO.	NASAFAC S 9.5.1, 9.5.2, 9.5.3, 9.5.4, 9.5.5, 9.5.6	HT-RFB 9,10			D6 E7,8	A1,3,5 B1-5	Community Work Habits Technical Skills Technology	Skills USA Competitions

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Instructional Resources

List the major instructional resources used for this course: (websites, textbooks, essential equipment, reference materials, supplies)

Food Science, The Biochemistry of Food and Nutrition & Teacher Resource Guide, Mehas & Rodgers, McGraw Hill Glencoe

Food Science, The Biochemistry of Food and Nutrition, Lab Manual Teacher annotated Edition, Mehas & Rodgers, McGraw Hill Glencoe