Nutrition Science Careers I builds on content and skills of Nutrition and Wellness and/or Food Science and prepares students for careers and higher education programs related to nutrition, dietetics, food science, food research and development including careers that focus on assisting individuals and families in managing their personal, family, and social needs regarding nutrition, diet, and foods. The course of study includes, but is not limited to: advanced topics and issues in nutrition; advanced food science topics and issues; food and nutrition for individuals and families with special needs and disadvantaging conditions; topics related to management of daily living needs of individuals and families; nutrition and foods in child care and convalescent care; topics and issues related to maintaining the food supply; topics related to cleaning and maintenance, purchasing, and food preparation; managing operations in food production, food science, or food research and development establishments; providing for the dietary needs of persons with special requirements; related research, development, and testing. Ethical, legal, and safety issues as well as helping processes and collaborative ways of working with others are to be addressed. Intensive laboratory experiences with industry applications are a required component of this course of study. Work-based experiences in nutrition science careers are strongly encouraged. This course provides the foundation for study in higher education that leads to related careers.

- DOE Code: 5457
- Recommended Grade Levels: 11-12
- Recommended Prerequisites: Nutrition and Wellness, Biochemistry of Foods
- Credits: 1-3 credit(s) per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and
- Core 40 with Technical Honors diplomas
- Science Credit??

Application of Content
Intensive laboratory applications are a component of this course and may be either school based or work based or a combination of the two. Work-based learning experiences should be in a closely related industry setting. Instructors shall have a standards-based training plan for students participating in work-based learning experiences

Career and Technical Student Organizations (CTSOs)
Career and Technical Student Organizations are considered a powerful instructional tool when integrated into Career and Technical Education programs. They enhance the knowledge and skills students learn in a course by allowing a student to participate in a unique program of career and leadership development. Students should be encouraged to participate in FCCLA and/or FFA, the CTSOs for the most closely related subject matter areas.

Content Standards

<table>
<thead>
<tr>
<th>Domain 1 – Principles of Nutrition</th>
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<tr>
<td><strong>Core Standard 1:</strong> Explain the principles of nutrition and their application</td>
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<tr>
<td>NSC-1.1 Assess the basic dietary needs for macro and micro nutrients and the function of each</td>
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Compare and contrast the wide variety of nutrition databases, calorie counters, USDA Dietary Guidelines, and food indexes including but not limited to: World Health Organization, USDA, FDA, Choose MyPlate, Supertracker, INFOODS, USDA National Nutrient Database.

NSC-1.3 Review basic physiological functions affected by nutrients, phytochemicals, and antioxidants and the consequence of deficiencies.

NSC-1.4 Recognize basic functions of life such as ingestion, digestion, absorption, metabolism, excretion, etc.

NSC-1.5 Review enzymes and chemicals that aid in basic life functions.

NSC-1.6 Analyze the nutrient/calorie needs at various stages of life: Infancy, childhood, adolescence, adulthood, and pregnancy/lactation, geriatric.

Domain 2 - Nutrition Screening and Assessment

Content Standard 2 - Apply the principles of nutrition screening and analysis of results.

NSC-2.1 Analyze the purpose, appropriateness, and types of nutrition screening as an epidemiological tool.

NSC-2.2 Evaluate the methodology and results of nutrition screening.

NSC-2.3 Prepare sample documentation related to nutrition screening.

NSC-2.4 Perform a nutrition assessment.

NSC-2.5 Collect data for nutrition assessments.

NSC-2.6 Compare and contrast nutrition assessments and the impact on policy, law, healthcare, insurance, and social factors.

NSC-2.7 Compare various nutrition status indicators including demographic data, nutrition screening surveillance systems, community health resources, public health programs and other relevant indicators.

Domain 3 - Nutrition Diagnosis

Core Standard 3 - Compare and contrast the relationship between nutrition diagnoses and medical diagnosis.

NSC-3.1 Explain how nutrition diagnosis relates to a medical diagnosis.

NSC-3.2 Analyze the steps and professionals involved in the process of nutrition and medical diagnosis.

NSC-3.3 Identify the etiological basis for common conditions in nutritional diagnosis including cause, risk factors, signs and symptoms.

Domain 4 - Nutrition Interventions

Core Standard 4 - Apply nutrition interventions in diverse settings and with diverse populations.

NSC-4.1 Identify nutrition care, nutrient needs for health promotion and disease prevention across the life span.

NSC-4.2 Create menus that promote a healthy lifestyle across the life span.

NSC-4.3 Explain the role of Medical Nutrition Therapy for treating medical conditions.

NSC-4.4 Compare and contrast energy/nutrient needs for various activity levels and conditions.

NSC-4.5 Develop and implement a personalized care plan.
| NSC-4.6 | Provide provisions in the care plan to accommodate for communication, counseling, discharge, and continuity of care |
| NSC-4.7 | Evaluate interventions for diverse populations |
| NSC-4.8 | Review community nutrition organizations and identify local initiatives for health promotion |

**Domain 5 - Nutrition Monitoring and Evaluation**

**Core Standard 5** - Perform nutrition monitoring progress and evaluation of outcome indicators

| NSC-5.1 | Define outcome indicators and levels of success |
| NSC-5.2 | Practice measuring indicators and evaluating medical success |
| NSC-5.3 | Practice determining continuation of care plan |

**Domain 6 - Education, Training, and Management**

**Core Standard 6** - Analyze education, training, and management initiatives in nutrition science careers

| NSC-6.1 | Define the components of an education plan |
| NSC-6.2 | Analyze food production and distribution practices in various settings |
| NSC-6.3 | Create a safety and sanitation training plan for a nutrition services setting |
| NSC-6.4 | Review protocols for purchasing food/supplies and vendor selection |