

# BACHELOR OF SCIENCE IN FOOD AND NUTRITION IN BUSINESS AND INDUSTRY (FOOD SCIENCE)

**Web Site:** <https://twu.edu/nutrition-food-sciences/undergraduate-programs/bs-in-food-and-nutrition-in-business-and-industry/>

The Bachelor of Science in Food and Nutrition in Business and Industry (Food Science) track provides students with coursework and experience that will make them more employable in the Food Production Industry. Graduates will be able to pursue employment in aspects of food or nutrition, particularly in quality control and quality assurance, food product development, food and nutrition management software, sales, marketing, or research.

## Marketable Skills

Defined by the Texas Higher Education Coordinating Board's 60x30 Strategic Plan (<https://reportcenter.highered.texas.gov/agency-publication/miscellaneous/theccb-60x30-strategic-plan/>) as, "Those skills valued by employers that can be applied in a variety of work settings, including interpersonal, cognitive, and applied skills areas. These skills can be either primary or complementary to a major and are acquired by students through education, including curricular, co-curricular, and extracurricular activities."

- Communication skills and adaptability - ability to work collaboratively as a part of a team to reach a common goal, including the development of new products.
- Sound grasp of core science relating to food, including Food Chemistry, Microbiology and Food Safety, and working knowledge of Food Engineering, Food Packaging, and Marketing.
- Math competence and ability to use in creating formulations from kitchen-developed recipes.
- Knowledge management with the ability to access, create, and store information for internal access while maintaining confidentiality.
- Culinary basics.
- Creativity and ideation training with the ability to use facts from accurate and untainted research to drive decision-making.
- Business acumen derived from introductory courses in Management, Marketing, and Consumer Behavior.
- Strategic agility and organizational skills allowing to creatively identify alternative paths in problem-solving.

## Admissions

All applicants must meet the general undergraduate admission requirements (<http://catalog.twu.edu/undergraduate/admission-information/>).

## Degree Requirements

**Total Semester Credit Hours (SCH):** 121

**Major:** 40 SCH **Required Minor:** 18 SCH

**Program Code:** ; **CIP Code:** 19.0501.00

## Texas Core Curriculum

Code	Title	SCHs
ENG 1013	Composition I	3
ENG 1023	Composition II	3
Mathematics		3
Life & Physical Sciences		6
Language, Philosophy, & Culture		3
Creative Arts		3
HIST 1013	History of the United States, 1492-1865	3
HIST 1023	History of the United States, 1865 to the Present	3
POLS 2013	U.S. National Government	3
POLS 2023	Texas Government	3
Social & Behavioral Sciences		3
CAO: Women's Studies		3
CAO: First Year Seminar, Wellness or Mathematics		3
<b>Total SCHs</b>		<b>42</b>

## Courses Required for Major

Code	Title	SCHs
NFS 1302 & NFS 1301	Food Preparation Principles and Food Preparation Principles Laboratory	3
NFS 2033 & NFS 2031	Food Microbiology and Food Microbiology Laboratory	4
NFS 2323	Introduction to Nutrition	3
NFS 2343	Nutritional Management for the Family and Child	3
NFS 3173	Culture and Food	3
NFS 3323 & NFS 3321	Food Science and Food Science Laboratory	4
NFS 3393	Principles of Culinary Science	3
NFS 4024	Food Product Development	4
NFS 4943	Trends and Controversies in Nutrition and Food Sciences	3
<b>Major courses for food science track</b>		
NFS 4123	Sensory Evaluation of Food	3
NFS 4503	Food Processing and Unit Operations	3
NFS 4903	Special Topics (Food Chemistry)	3
NFS 4903	Special Topics (Food Safety)	3
<b>Total SCHs</b>		<b>42</b>

## Departmental Requirements

Code	Title	SCHs
BIOL 1113 & BIOL 1111	Principles of Biology I and Principles of Biology I Laboratory (may be applied from core)	4
CHEM 1213 & CHEM 1211	Principles of Chemistry I and Principles of Chemistry Laboratory I (may be applied from core)	4
CHEM 1223 & CHEM 1221	Principles of Chemistry II and Principles of Chemistry Laboratory II (may be applied from core)	4

CHEM 3333 & CHEM 3331	Quantitative Chemical Analysis and Quantitative Chemical Analysis Laboratory	4
MATH 1303	College Algebra (may be applied from core)	3
MATH 1313	Trigonometry (may be applied from core)	3
MATH 2014	Calculus I (may be applied from core)	4
MATH 1703	Elementary Statistics I (may be applied from core)	3
MKT 3113	Principles of Marketing	3
MKT 4213	Consumer Behavior	3
SPCH 1013	Oral Communication	3
Electives		6
<b>Total SCHs</b>		<b>44</b>

## Recommended Plan of Study

### First Year

<b>Fall</b>		<b>TCCN</b>	<b>SCHs</b>
NFS 1302 & NFS 1301	Food Preparation Principles and Food Preparation Principles Laboratory		3
ENG 1013	Composition I	ENGL 1301	3
HIST 1013	History of the United States, 1492-1865	HIST 1301	3
MATH 1303	College Algebra	MATH 1314	3
UNIV 1231	Learning Frameworks: The First Year Experience	EDUC 1100, EDUC 1200, EDUC 1300	1
<b>SCHs</b>			<b>13</b>

### Spring

<b>Spring</b>		<b>TCCN</b>	
BIOL 1113 & BIOL 1111	Principles of Biology I and Principles of Biology I Laboratory	BIOL 1406 & BIOL 1106	4
HIST 1023	History of the United States, 1865 to the Present	HIST 1302	3
ENG 1023	Composition II	ENGL 1302	3
MATH 1313	Trigonometry	MATH 1316	3
<b>SCHs</b>			<b>13</b>

### Second Year

<b>Fall</b>		<b>TCCN</b>	
NFS 2323	Introduction to Nutrition	BIOL 1322	3
CHEM 1213 & CHEM 1211	Principles of Chemistry I and Principles of Chemistry Laboratory I		4
POLS 2013	U.S. National Government	GOVT 2305	3
SPCH 1013	Oral Communication	SPCH 1311	3
MATH 1703	Elementary Statistics I	MATH 1342	3
<b>SCHs</b>			<b>16</b>

### Spring

<b>Spring</b>		<b>TCCN</b>	
NFS 3173	Culture and Food		3
CHEM 1223 & CHEM 1221	Principles of Chemistry II and Principles of Chemistry Laboratory II		4
POLS 2023	Texas Government	GOVT 2306	3
Creative Arts Core			3

Multicultural Women's Studies		3
<b>SCHs</b>		<b>16</b>

### Third Year

<b>Fall</b>		<b>TCCN</b>	
NFS 2033 & NFS 2031	Food Microbiology and Food Microbiology Laboratory		4
NFS 2343	Nutritional Management for the Family and Child		3
MATH 2014	Calculus I	MATH 2413	4
NFS 3393	Principles of Culinary Science		3
MKT 3113	Principles of Marketing		3
<b>SCHs</b>			<b>17</b>

### Spring

<b>Spring</b>		<b>TCCN</b>	
MKT 4213	Consumer Behavior		3
NFS 3323 & NFS 3321	Food Science and Food Science Laboratory		4
CHEM 3333 & CHEM 3331	Quantitative Chemical Analysis and Quantitative Chemical Analysis Laboratory		4
Social/Behavioral Sciences Core			3
<b>SCHs</b>			<b>14</b>

### Fourth Year

<b>Fall</b>		<b>TCCN</b>	
NFS 4943	Trends and Controversies in Nutrition and Food Sciences		3
NFS 4503	Food Processing and Unit Operations		3
NFS 4903	Special Topics (Food Chemistry)		3
NFS 4903	Special Topics (Food Safety)		3
Elective			3
<b>SCHs</b>			<b>15</b>

### Spring

<b>Spring</b>		<b>TCCN</b>	
NFS 4024	Food Product Development		4
NFS 4123	Sensory Evaluation of Food Language, Philosophy, Culture Core		3
Elective			3
Elective			3
<b>SCHs</b>			<b>16</b>

<b>Total SCHs:</b>		<b>120</b>
--------------------	--	------------