



Food Science Option

Department of Food Science & Technology
at Oregon State University

“Food Scientists...Helping to Feed the World Through Science and Technology”

Have you ever wondered.....

How the flavor of a new food product is chosen?

If lowfat cookies taste the same as regular ones?

Why packaged ready to eat cut fruit stays crisp and does not turn brown?

..... ask a Food Scientist!

What does a food scientist do?

A food scientist studies the physical, microbiological, and chemical makeup of food. From the farm gate to market shelves, food scientists develop foods and beverages in response to society's needs and demands, working to make foods safer, nutritious, convenient, economical, and tasty. Food scientists look for better ways to select, preserve, process, and package food products including the ingredients that go into them. Food scientists continue to be in demand as the focus on food increases due to heightened awareness of diet, health, and food safety world wide.

Why choose a career as a Food Scientist?

- Food Scientists are in high demand.
- Generally more positions than there are graduates to fill them
- The food industry is the 2nd largest and most important economic activity in the world.
- Develop foods and beverages in response to society's needs and demands
- Energize your creative food ambitions
- As an applied science, you could see the product you worked on in the grocery store.
- It's fun! It's exciting! Food scientists never get bored. They may work in the lab, in a pilot plant, and travel to different processing facilities...sometimes around the world.

Where can I work?

- Analysis and testing labs
- Food processing facilities
- Ingredient manufacturers/suppliers
- Academia
- Self-employed/Consultant
- Government agencies (USDA/FDA)
- Research kitchens
- Quality assurance and quality control labs

What kind of jobs are available?

- Food Safety
- Product Development Scientist
- Processing Engineer
- Food Microbiologist
- Sensory Scientist
- Culinary Scientist
- Flavor Chemist
- Operations
- Marketing
- Regulatory Affairs
- Legal Affairs
- Government Relations
- Quality Assurance

What can I expect to Earn?

The median annual earnings of food scientists and technologists nationwide in May 2012 was \$64,140.* Depending on location, and size of the company, annual earnings range from \$37,740 to \$79,960. Median salaries for MS and PhD degrees are higher.

* Bureau of Labor Statistics

FOR MORE INFORMATION

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OSU food science graduates have been hired by...

- Del Monte
- Hershey's
- OR Dept. of Agriculture
- Tillamook Creamery
- US Food and Drug Administration
- Dreyers
- Kettle Foods
- Pepsico
- TreeTop
- And many other employers of local, national, and international prominence
- General Mills
- Kraft Foods
- Safeway
- Turtle Mountain
- Harry and David
- Kroger
- Starbucks
- United States Dept. of Agriculture

What do I need to study?

Food Science Major Core (104 Cr.) - Required for all options			Option: Food Science (con't)		
Supporting Courses (75 Cr.)			Food Science Option Required Courses (17 Cr.)		
Tech Wri, Science Wri, or Eng Comp <i>Select one of WR 327, 362, or 222</i>	WR* 327, 362, <u>or</u> 222	3	Sensory Evaluation of Food	FST 420	4
Public Speaking	COMM 111*	3	Food Analysis	FST 423	4
General Chemistry	CH* 231, 232, 233	4, 4, 4	Food Processing Calculations/Lab	FST 490/491	2, 1
General Chemistry Lab	CH* 261, 262, 263	1, 1, 1	Food Microbiology	MB 440	3
Organic Chemistry/Lab	CH 331, 332/337	4, 4, 4	<i>Complete three credits from among FST 210, 212-213, or ANS 251. One class not use here may be applied as a Food Science Option Elective below.</i>		
Quantitative Analysis	CH 324	4	Fruit and Vegetable Processing	FST 210 ^a	3
Principles of Biology	BI* 211, 212, 213	4, 4, 4	Dairy Processing/Lab	FST 212/213	2, 1
Elementary Biochemistry	BB 350	4	Animal Food Technology	ANS 251	3
General Microbiology/Lab	MB 302/303	3, 2	Food Science Option Elective Courses (9 Cr.)		
Intro to Statistical Methods	ST 351	4	Seminar - Leadership Academy	AG 407**	3
General Physics	PH 201	5	Food Science Orientation	FST 101	1
<i>Complete one pair: MTH 227/228 or MTH 251/252</i>			Intro. Wine, Beers and Spirits	FST 251	3
Calculus & Probability for Life Science	MTH 227*/228	4, 4	Food Sci & Tech in Western Culture	FST 260*	3
Differential/Integral Calculus	MTH 251*/252	4, 4	Wine in the Western World	FST 273*	3
<i>Depending on placement, some students may also need to complete some part of the progression: MTH 095, 111* and 112*</i>			Research	FST 401**	3
Core Food Science Courses (29 Cr.)			Internship	FST 410**	3
Food Safety and Sanitation	FST 360	3	Innovation and Food Prod. Dev.	FST 430	4
Industry Preparation/HACCP	FST 370	3	Brewing Science	FST 460	3
Communicating Food and Ferm Sci	FST 385 [^]	3	Wine Production Principles	FST 466	3
Senior Seminar	FST 407	1	Fermentation Microbiology	FST 479	3
Food Law	FST 421*	3	Topics in Fermentation	FST 480	1
Food Chemistry Fundamentals	FST 422	4	Food Microbiology Lab	MB 441	2
Food Systems Chemistry	FST 425	4	Food in Non-Western Culture	NUTR 216*	3
Intro to Food Engineering Principles	BEE 472	5	Toxic Substances in Food	TOX 429	3
Intro to Food Eng Process Design	BEE 473	3	Total Credits in Major		142
Option: Food Science (38 Cr.)			Preparatory Math		0-8
Additional Supporting Courses (12 Cr.)			Add'l. Bacc Core		21-24
Human Nutrition <i>NUTR 225 may be substituted, however NUTR 240 is preferred</i>	NUTR 240 <u>or</u> NUTR 225	3	Unrestricted Electives		6-21
General Physics	PH 202	5	Minimum 180 credits required for graduation		
Intro Statistical Methods	ST 352	4	<i>Degree requirements subject to change in accordance with OSU policies. Requests for exceptions to major requirements should be made in consultation with academic advisor to the FST Undergraduate Committee.</i>		
[^] Writing Intensive Course					
* Fulfills Bacc. Core requirements					
** Competitive selection, and/or dept pre-approval required					
^a Offered in alternate uneven years					