



## Department of Food Science & Technology

110 Parker Food Science Building  
2015 Fyffe Rd.  
Columbus, OH 43210

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<http://fst.osu.edu>

Friday, December 30, 2013

Vice Provost W. Randy Smith  
Council on Academic Affairs  
Office of Academic Affairs  
203 Bricker Hall  
190 North Oval Mall  
Columbus, OH 43210

*Dear Vice Provost W. Randy Smith;*

The Department of Food Science and Technology requests the approval of a Graduate Minor in Food Science and Technology. The FST faculty feel that this minor would be beneficial to students in various graduate programs at The Ohio State University. The follow proposal details the program, and advising and curriculum sheets have been attached for reference.

### Rationale:

Over half of the employees in food research positions in major food companies in the USA did not major in Food Science. Many of these employees come from engineering, biology, chemistry, and related fields, and then learn the intricacies of food science on the job. Based on past experience, graduate programs of particular relevance are OSUN (Interdisciplinary Ph.D. Program in Nutrition), Veterinary Public Health, FABE (Food, Agricultural and Biological Engineering), and Animal Science. Obtaining a graduate minor in Food Science would help these students be better prepared for their future careers.

### Administrative Arrangements and Support for the Proposed Minor:

The Academic Program Coordinator, currently Chelsea Dearth, will coordinate the minor. She will keep track of students in the program, ensure one of each student's committee members in his/her home department is in the FST department, and make sure their course programs are approved by the Graduate Studies Committee in a timely manner.

### Prospective Enrollment:

For the Autumn 2013 semester, a total of 81 students were enrolled in FST graduate program (MS and Ph.D.). Enrollment within the department is robust and has increased from previous years. It is anticipated that approximately 5 students at a time will be enrolled in the minor.

### Recruiting and Advertising the Minor:

The graduate minor will be publicized to students and departments in related science fields within OSU. Students in the following graduate programs will be specifically targeted: OSUN, Veterinary Public Health, FABE, and Animal Science. Information regarding the graduate minor will be posted on the department website and distributed by email. It will also be an advising option for students who are considering switching graduate programs, in cases where it may serve them best to have a Food Science and Technology minor rather than a Food Science and Technology degree.

We appreciate your consideration of this request. If any additional information is needed, please do not hesitate to contact me.

*Sincerely,*



**M. Monica Giusti, PhD**

Associate Professor and Graduate Studies Chair  
CFAES - Food Science and Technology Department  
614-247-8016 Office [giusti.6@osu.edu](mailto:giusti.6@osu.edu) [osu.edu](http://osu.edu)

## Department of Food Science and Technology

### Graduate Minor Procedures

#### General Criteria applicable to all graduate minors

All academic aspects of the graduate minor are subject to approval by each participating graduate program. Below are listed the general criteria applicable to all graduate minors. Students should consult the appropriate graduate studies committees for specific information regarding the graduate minor in which they are enrolling.

**Graduate Minors.** A Graduate Minor involves **one program outside a student's major graduate program**. A Graduate Minor requires a minimum of 10 hours of graduate-level course work in at least three courses. Twenty hours of graduate level courses is the maximum allowance for Graduate Minors. The student must receive a B or better (or S when applicable) in each course comprising the Graduate Minor. The completed Graduate Minor will appear on the student's transcript.

*(Graduate School Handbook, Section VIII.4)*

#### Operating Procedures

1. The student completes the Graduate Minor in Food Science and Technology Program Form (pages 2 and 3), including obtaining his/her advisor's signature. This form should be submitted as soon as possible, and no later than the end of the student's first year of graduate studies. The Program Form is then submitted to the chair of the minor program. This form serves as the application to enroll in the graduate minor.
2. The Graduate Studies Committee Chair of the Food Science and Technology graduate program (i.e. the minor program) sends a copy of the completed Graduate Minor Program Form to the Graduate School and to the Graduate Studies Committee Chair of the student's primary graduate program. The graduate program offering the minor keeps the original.
3. The Graduate Studies Committee will send the student an acknowledgement indicating whether or not the request is approved. The Graduate Studies Committee Chair of the minor program will send a copy of the letter to the Graduate School and the student's primary Graduate Studies Committee.
4. The student must adhere to the curriculum of the Graduate Minor Program as indicated on the approved Graduate Minor Program Form. If changes in the approved curriculum are necessary, the student must complete a new Graduate Minor Program Form following the above steps. *Departures from the approved Minor Program could lead the specialization not appearing on the student's transcript.*
5. Upon completion of the Graduate Minor Program, the student must submit the Graduate Minor Transcript Designation Form (page 3 of <http://www.gradsch.ohio-state.edu/Depo/PDF/GraduateMinorProgramForm.pdf>) to the Graduate Studies Committee Chair of the minor program. The completed form will be sent to the Graduate School for posting the minor on the transcript.

**Department of Food Science and Technology**  
**The Ohio State University**  
**Graduate Minor in Food Science and Technology**

**Program Form**

For enrollment into the program, please **print** and **complete** both pages of this form. Mail or deliver the form to:

Chelsea Dearth, Academic Program Coordinator  
 Department of Food Science and Technology  
 110 Parker Food Science Building  
 2015 Fyffe Rd., Columbus, OH 43210

**Student Contact Information**

\_\_\_\_\_  
 Student's Name

\_\_\_\_\_  
 Major Degree Program (e.g., PhD in Nutrition, PhD in Chemistry; MS in Microbiology, etc.)

\_\_\_\_\_  
 OSU ID Number or OSU Name.#

\_\_\_\_\_  
 Phone Number

\_\_\_\_\_  
 Email Address (osu.edu)

**FST Graduate Faculty Member**

One of the requirements for the Graduate Minor is that an FST graduate faculty member must serve as a member of the graduate advisory committee that is guiding the student's program. Please list and obtain the signature of the FST graduate faculty member who has been appointed or will be appointed on your committee.

\_\_\_\_\_  
 FST Graduate Faculty Member Name (Printed)

\_\_\_\_\_  
 FST Graduate Faculty Member Signature

\_\_\_\_\_  
 Date

**Signatures**

\_\_\_\_\_  
 Student Signature

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Major Advisor Signature

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Food Science and Technology Graduate Studies Chair

\_\_\_\_\_  
 Date

For questions about the program, contact Chelsea Dearth at 614-292-7749 or [fstgrad@osu.edu](mailto:fstgrad@osu.edu).

**Please complete and attach the second page of this form.**

## Department of Food Science and Technology

### Coursework

Below please list the courses you have taken or are planning to take for the Graduate Minor in Food Science and Technology. The attached Curriculum Sheet can be used a guide for developing your course plan.

1. This Graduate Minor **a minimum of 12 but no more than 20 credit hours** of graduate-level coursework in the Department of Food Science and Technology. At least 6 credit should be 6000 level or higher. The course list for the minor must be approved by the Graduate Studies Committee of the Department of Food Science and Technology.
2. A grade of B or better (or S when applicable) is required in each course comprising the Graduate Minor. The Graduate Minor will appear on the student's transcript. (*Graduate School Handbook*, Section VIII.4)

Department	Course #	Course Title	Credit Hours	Semester (taken or planned)	Grade												
<b>Required Food Microbiology Course(s)</b> (at least 3 credits)																	
<b>Required Food Chemistry Course(s)</b> (at least 3 credits)																	
<b>Required Food Processing Course(s)</b> (at least 3 credits)																	
<b>For office use only</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%; border: none;">_____</td> <td style="width: 30%; border: none;">_____</td> <td style="width: 40%; border: none;">_____ Original application</td> </tr> <tr> <td style="border: none;">Date Received</td> <td style="border: none;">Date Sent to Grad School/GSC</td> <td style="border: none;">_____ Updated application</td> </tr> <tr> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> <tr> <td style="border: none;">Graduate Studies Chair Signature</td> <td style="border: none;"></td> <td style="border: none;">Date</td> </tr> </table>					_____	_____	_____ Original application	Date Received	Date Sent to Grad School/GSC	_____ Updated application	_____	_____	_____	Graduate Studies Chair Signature		Date
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Date Received	Date Sent to Grad School/GSC	_____ Updated application															
_____	_____	_____															
Graduate Studies Chair Signature		Date															



**Graduate Minor in  
Food Science and Technology**  
Food, Agricultural, and Environmental Sciences  
Effective Spring 2014

**Dr. Monica Giusti, Coordinator**  
335 Parker Building  
2015 Fyffe Road  
614-247-8016  
[giusti.6@osu.edu](mailto:giusti.6@osu.edu)

**Purpose:** This graduate minor is designed to provide Masters and Doctoral students with knowledge and skills regarding food science and technology. Graduate students who plan to seek employment in food research and other food industry positions are ideal candidates. Topics covered include microbiology, food chemistry, and food processing.

**Requirements & Responsibilities:** Students are responsible for planning their program to achieve 12 credit hours. The course list for the minor must be approved by the Graduate Studies Committee of the Department of Food Science and Technology. One of the student's committee members in their home department must be an FST graduate faculty member. The FST graduate faculty member should be included on the Graduate Minor Program Form.

**Required Courses:** Select at least one course from each of the following three categories, keeping in mind that the minimum number of credit hours needed is 12. At least 6 credits should be 6000 level or higher.

			<b>Credit Hours</b>
<b>Food Microbiology:</b>			
FDSCTE	5536 (636.01)	Food Microbiology Lecture	3
FDSCTE	6320	Global Health and Environmental Microbiology	3
FDSCTE	7536 (736)	Advanced Food Microbiology I	2
FDSCTE	7546	Advanced Food Microbiology II	2
<b>Food Chemistry:</b>			
FDSCTE	7610 (833)	Instrumental Analysis I (7-week course)	3
FDSCTE	7611 (833)	Instrumental Analysis II (7-week course)	3
FDSCTE	7640 (822/823)	Food Carbohydrates and Proteins	3
FDSCTE	7650 (820/821)	Food Flavor and Lipids	4
<b>Food Processing:</b>			
FDSCTE	5400 (630)	Unit Operations in Food Process	3
FDSCTE	5410 (613)	Fruit and Vegetable Processing	3
FDSCTE	5420 (610)	Dairy Processing	3
FDSCTE	5430 (611)	Food Fermentation	3
FDSCTE	7430	Advanced Food Process Design	4

**General Information and Restrictions**

1. This graduate minor is available to Masters and Doctoral students in any graduate program except Food Science and Technology.
2. Students should declare the minor as soon as possible and within the first year in the student's home program.
3. Courses taken on a pass/non-pass basis may not be applied to the minor.
4. Students must receive a grade of B or better in each course comprising the Graduate Minor.
5. Additional information regarding graduate minor guidelines and responsibilities can be found in the Graduate School Handbook.



**Ph.D Program in Nutrition (OSUN)**

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1787 Neil Avenue  
Columbus, OH 43210-1295

Phone (614) 292-4485  
Fax (614) 292-8880  
[www.ehe.osu.edu/osun](http://www.ehe.osu.edu/osun)  
[osun@osu.edu](mailto:osun@osu.edu)

Date: September 6, 2013

To: Sheryl Barringer, Interim Chair of Food Science and Technology

From: Jeff Firkins, Director of OSUN

A handwritten signature in black ink that reads "Jeff Firkins".

Re: Graduate Minor in Food Science and Technology

Thank you for requesting feedback on your proposed minor. I have consulted with the Graduate Committee of OSUN (OSU's interdisciplinary doctoral program in nutrition), and we are pleased to support your department's proposed graduate minor.

The Graduate Minor of FST offers potential for some of our OSUN students who want more training and recognition for expertise in food microbiology, chemistry, or processing. Several OSUN faculty members have important teaching and research activities in these areas currently. Therefore, in both traditional and emerging scholarly areas, a Graduate Minor in FST augments OSUN's core objectives and is a logical and important move forward in our collective goals of training today's graduate students for tomorrow's competitive workforce.

Please contact me if you need more specific information. I look forward to cooperating more with you in the future.



**Department of Microbiology**

484 West 12<sup>th</sup> Avenue  
Columbus, OH 43210-1292

Phone (614) 292-2120

Fax (614) 292-8120

E-mail: [ibba.1@osu.edu](mailto:ibba.1@osu.edu)

<http://microbiology.osu.edu/faculty/ibba-michael>

September 3, 2013

Dr. Sheryl Barringer,  
Department of Food Science and Technology  
317 Parker Food Science and Technology Building  
2015 Fyffe Road  
CAMPUS November 21st 2008

Dear Dr. Barringer,

Thank you for your e-mail, and for the information describing the proposed Graduate Minor in Food Science. As you requested, I have reviewed the proposal, and faculty in our Department have previously discussed this proposal with Professor Denise Smith, former Chair of the Department of Food Science and Technology. From my perspective, and on behalf of the Department of Microbiology, I strongly endorse the implementation of this Graduate Minor. The Graduate Minor will offer an opportunity, and provide documented recognition for students who choose to extend and expand their graduate education. The graduate program in Microbiology is focused predominantly on Ph.D. training, and so few Microbiology graduate students are likely to pursue a Minor in Food Sciences, but I certainly support your efforts to establish this Minor, and so make this opportunity available to Microbiology graduate students.

Please let me know if I can provide any further information to help support the proposed Graduate Minor in Food Science.

Sincerely,

Michael Ibba  
Professor and Chair  
Department of Microbiology