

Fiscal Unit/Academic Org	Food Science & Technology - D1156
Administering College/Academic Group	Food, Agric & Environ Science
Co-administering College/Academic Group	
Semester Conversion Designation	Converted with minimal changes to program goals and/or curricular requirements (e.g., sub-plan/specialization name changes, changes in electives and/or prerequisites, minimal changes in overall structure of program, minimal or no changes in program goals or content)
Current Program/Plan Name	Food Processing Minor
Proposed Program/Plan Name	Food Processing Minor
Program/Plan Code Abbreviation	FDPROC-MN
Current Degree Title	

Credit Hour Explanation

Program credit hour requirements		A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3rds of current (Semester credit hours)	C) Number of credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total minimum credit hours required for completion of program		20	13.3	15	1.7
Required credit hours offered by the unit	Minimum	8	5.3	5	0.3
	Maximum	15	10.0	11	1.0
Required credit hours offered outside of the unit	Minimum	5	3.3	4	0.7
	Maximum	5	3.3	4	0.7
Required prerequisite credit hours not included above	Minimum	0	0.0	0	0.0
	Maximum	10	6.7	9	2.3

Program Learning Goals

Note: these are required for all undergraduate degree programs and majors now, and will be required for all graduate and professional degree programs in 2012. Nonetheless, all programs are encouraged to complete these now.

- Program Learning Goals**
- Will be able to integrate and apply food science principles (food chemistry, microbiology, engineering/processing, etc.) to problems in food processing and product design.
 - Will understand the current issues in food science and food laws and regulations

Assessment

Assessment plan includes student learning goals, how those goals are evaluated, and how the information collected is used to improve student learning. An assessment plan is required for undergraduate majors and degrees. Graduate and professional degree programs are encouraged to complete this now, but will not be required to do so until 2012.

Is this a degree program (undergraduate, graduate, or professional) or major proposal? No

Program Specializations/Sub-Plans

If you do not specify a program specialization/sub-plan it will be assumed you are submitting this program for all program specializations/sub-plans.

Pre-Major

Does this Program have a Pre-Major? No

Attachments

- food processing rev.pdf: Material required in 2

*(Letter from Program-offering Unit. Owner: Mangino, Michael E)***Comments****Workflow Information**

Status	User(s)	Date/Time	Step
Submitted	Mangino, Michael E	09/30/2010 10:56 AM	Submitted for Approval
Approved	Barringer, Sheryl Ann	09/30/2010 11:54 AM	Unit Approval
Revision Requested	Stokoe, Laurie Anne	10/07/2010 01:03 PM	College Approval
Submitted	Mangino, Michael E	11/29/2010 07:39 AM	Submitted for Approval
Approved	Barringer, Sheryl Ann	11/29/2010 08:10 AM	Unit Approval
Revision Requested	Stokoe, Laurie Anne	11/29/2010 03:24 PM	College Approval
Submitted	Mangino, Michael E	11/30/2010 09:39 AM	Submitted for Approval
Revision Requested	Barringer, Sheryl Ann	11/30/2010 09:41 AM	Unit Approval
Submitted	Mangino, Michael E	11/30/2010 10:08 AM	Submitted for Approval
Approved	Barringer, Sheryl Ann	11/30/2010 12:47 PM	Unit Approval
Approved	Stokoe, Laurie Anne	01/14/2011 04:22 PM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	02/01/2011 10:50 AM	ASCCAO Approval
Submitted	Mangino, Michael E	02/25/2011 09:11 AM	Submitted for Approval
Approved	Barringer, Sheryl Ann	02/25/2011 09:26 AM	Unit Approval
Approved	Pfister, Jill Ann	03/03/2011 07:30 AM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	03/03/2011 08:13 AM	ASCCAO Approval
Submitted	Mangino, Michael E	03/03/2011 08:20 AM	Submitted for Approval
Approved	Barringer, Sheryl Ann	03/03/2011 08:26 AM	Unit Approval
Approved	Pfister, Jill Ann	05/05/2011 08:30 AM	College Approval
Pending Approval	Nolen, Dawn Jenkins, Mary Ellen Bigler Meyers, Catherine Anne Vankeerbergen, Bernadette Chantal Hanlin, Deborah Kay	05/05/2011 08:30 AM	ASCCAO Approval

Letter from the Program-offering Unit

The Department of Food Science & Technology is submitting the following

BS in Food Science	Converted
BS in Ag – Food Business	Converted
BS in Culinary Science	New
Minor in Food Processing	Converted
Minor in Food Safety	Converted
MS in Food Science	Converted
PhD in Food Science	Converted

The faculty held numerous meetings as a whole and in subgroups during this process. A faculty member attended the UCAT session on semester conversion and chaired a conversion committee.

The committee started by examining the results of two recent reviews by two external groups, The National Institute of Food and Agriculture (NIFA) formerly Cooperative State Research, Education, and Extension Service (CSREES) and The Institute of Food Technologists. The later review required that we map learning outcomes with courses.

Using the material generated for and by these reviews the committee considered what outcomes were still appropriate for our programs and how to best insure that students achieve these outcomes. A set of learning outcomes were generated and discussed with faculty. The committee also examined the curricula of 15 other food science programs to examine their learning outcomes and the course work that was utilized to achieve them. A grid was developed to show courses that were required by all or nearly all programs and others that were unique.

This information was shared with the entire faculty and a list of ten courses were devised would serve as the basis for our programs. Committees of faculty who taught quarter equivalent courses, related courses or courses that were being combined were formed and charged with developing syllabi and learning outcomes for each of the ten courses. They were also asked to consider at what level the learning outcomes for the degree were being met by these courses.

All course committees presented their material to the semester committee in groups of related courses. This was so that all were aware of what others were accomplishing, so that expectations of related courses were known by those concerned and to allow discussion and suggestions for modification.

Modified syllabi were posted to a web site to allow all faculty easy access and the chance to provide feedback. After the original ten courses were redesigned the remaining support courses were also examined and converted to a semester format. A similar process was followed for our graduate degree programs

A new program is also proposed as a result of work of collaboration between our department and the Central Ohio Technical College (COTC). It proposes a two plus two program combining an Associate Degree in Culinary Science with two years of work in the Department of Food Science and Technology to yield a BS in Culinary Science. Graduates of two-year culinary programs not from COTC but with a two year culinary degree from a program approved the American Culinary Association would also be eligible to participate. They would probably have to complete an additional three or four science courses to meet all degree requirements.

The faculty of the department is excited about the revised programs and is confident that the better packaging of learning objectives and alignment of prerequisite courses that has resulted will make our degree offerings stronger.

Program Rationale Statement

This minor will make use of the revised courses on a semester basis. While we feel the content of the courses will be improved there were no changes made to the minor. It is a simple conversion of a minor on quarters to one on semesters.

List of Semester Courses

Required: 12 hours

FdSc&Te 2400 Intro to Food Processing	3
FdSc&Te 5330 Food Plant Operations	2
One from:	4
Microbiology 4090 Basic and Practical Microbiology	
Microbiology 5000 General Microbiology	
One from:	3
Fd Sc&Te 5420 Dairy Processing	
Fd Sc&Te 5430 Food Fermentations	
Fd Sc&Te 5410 Fruit & Vegetable Processing	
Fd Sc&Te 5400 Principles of Food Processing	
Anim Sci 4500 Meat Processing	
FA&B Eng 3481 Introduction to Food Process Engineering	

Electives: 3 hours from the following classes

(required and elective courses in the minor must total 15 -17 credit hours)

Fd Sc&Te 5310 Food Quality Assurance	3
Fd Sc&Te 5420 Dairy Processing	3
Fd Sc&Te 5430 Food Fermentations	3
Fd Sc&Te 5410 Fruit & Vegetable Processing	3
Fd Sc&Te 5400 Principles of Food Processing	3
Anim Sci 4500 Meat Processing	3
Fd Sc&Te 5710 Food Additives	2
Fd Sc&Te 5400 Principles of Food Processing	3
Fd Sc&Te 5536 Food Microbiology Lecture	2
Fd Sc&Te 5450 Food Packaging	2
FA&B Eng 3481 Introto Food Process Eng	3

Semester Advising Sheet(s)

Food Processing Minor (Fd Proc, 023)

College of Food, Agricultural,
and Environmental Sciences
The Ohio State University

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A minor in food processing is for students who wish to develop a better understanding of the fundamental principles of food processing for value addition, with a focus on plant operations. This minor will be especially helpful for those students who plan to work in the food industry. Topics covered include microbiology and engineering as food is processed and packaged.

The minor in Food Processing consists of 15-16 hours including 12-13 hours of required courses.

Required: 12 hours

FdSc&Te 2400 Intro to Food Processing	3
FdSc&Te 5330 Food Plant Operations	2
One from:	
Microbiology 4000 Basic and Practical Microbiology	4
Microbiology 4100 General Microbiology	5
One from:	3
Fd Sc&Te 5420 Dairy Processing	
Fd Sc&Te 5430 Food Fermentations	
Fd Sc&Te 5410 Fruit & Vegetable Processing	
Fd Sc&Te 5400 Principles of Food Processing	
Anim Sci 4500 Meat Processing	
FA&B Eng 3481 Intro to Food Process Eng	

Electives: 3 hours from the following classes

(required and elective courses in the minor must total 15 -17 credit hours)

Fd Sc&Te 5310 Food Quality Assurance	3
Fd Sc&Te 5420 Dairy Processing	3
Fd Sc&Te 5430 Food Fermentations	3
Fd Sc&Te 5410 Fruit & Vegetable Processing	3
Fd Sc&Te 5400 Principles of Food Processing	3
Anim Sci 4500 Meat Processing	3
Fd Sc&Te 5710 Food Additives	2
Fd Sc&Te 5536 Food Microbiology Lecture	2
Fd Sc&Te 5450 Food Packaging	2
FA&B Eng 3481 Intro to Food Process Eng	3

Restrictions and General Information

1. This minor is not available to students majoring in Food Science.
2. A minimum overall CPHR for courses comprising the minor shall be 2.0.
3. A minor should be declared at the time a student accumulates 60 hours.
4. A maximum of one course may overlap between the minor and the GE (Writing and Communication, Foreign Language, Literature, Visual and Performing Arts, Culture and Ideas, Historical Study, Quantitative Reasoning, Data Analysis, Natural Science, Social Science, Cross-Disciplinary Seminar, Service-Learning, Education Abroad)
5. Courses taken on a pass/non pass basis may not be applied to the minor.

The Ohio State University
College of Food, Agricultural, and Environmental Sciences
Approved by the College of Arts and Sciences

Food Processing Minor (FDPROC-MN)

Jeff Culbertson, Coordinating Adviser
233 Parker Bldg., 2015 Fyffe Ct.
Columbus, OH 43210
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<http://cfaes.osu.edu/current-students/academics-advising/minor-requirements>

A minor in food processing is for students who wish to develop a better understanding of the fundamental principles of food processing for value addition, with a focus on plant operations. This minor will be especially helpful for those students who plan to work in the food industry. Topics covered include microbiology and engineering as food is processed and packaged.

The minor in Food Processing consists of 20 credit hours of course work including 14-15 hours of required courses. The distribution is listed below. If you follow the guidelines on this sheet in completing the minor, you should file the Minor Program Form with your college or school counselor. Any variation from the program described on this sheet needs the approval of the coordinating advisor.

Required courses (14-15 credit hours)

Fd Sc&Te 401	3
Fd Sc&Te 648	3

One from:	5
Microbiology 509 (5)*	
Microbiology 520 (5)*	

* If Microbiology 509 or 520 is taken for major or GEC, then 5 additional elective credits must be taken.

One from:	3-4
Fd Sc&Te 610 (4), 611 (4), 613 (4), 630 (3)	
Anim Science 555.02 (4)	
FA&B Eng 481 (3)	

Electives (5-6 credit hours)

Fd Sc&Te 410 (3), 610 (4), 611 (4), 613 (4), 621 (3), 630 (3), 636.01 (3), 649 (3)
Anim Science 555.02 (4)
FA&B Eng 481 (3)

Food Processing Minor program guidelines

The following guidelines govern this minor.

Required for graduation No

Credit hours required a minimum of 20

Transfer credit hours allowed A maximum of 10

Overlap with the GEC If Microbiology 509 or 520 is taken for major or GEC, then 5 additional elective credits must be taken.

Overlap with the major Not allowed and

- The minor must be in a different subject than the major.
- The minor is not available to students majoring in agronomy, crop science, or landscape horticulture.
- The same courses cannot count on the minor and on the major.

Overlap between minors Each minor completed must contain 20 unique hours.

100-level course: For every five credit hours of 100-level course work on the minor, the minimum total required for the minor is increased by five.

Grades required

- Minimum C- for a course to be listed on the minor
- Minimum 2.00 cumulative point-hour ratio required for the minor.
- Course work graded Pass/Non-Pass cannot count on the minor.
- A minor should be declared at the time a student accumulates 90 hours.

Approval required The minor program description sheet indicates if the minor course work must be approved by:

- A college or school counselor

Filing the minor program form The minor program form must be filed at least by the time the graduation application is submitted to a college/school counselor.

Changing the minor Once the minor program is filed in the college office, any changes must be approved by:

- A college or school counselor

College of Arts and Sciences
Curriculum and Assessment Services
154 Denney Hall, 164 W. 17th Ave.
<http://artsandsciences.osu.edu>
DH 3/9/10
Update 8/27/10 DH

Transition Policy

Transition will not be difficult and can in most cases be handled by a course for course substitutions.

I recommend this program for approval and I am willing to provide additional information or answer question as needed.

Thanks

A handwritten signature in black ink, appearing to read "Mike Mangino". The signature is written in a cursive, flowing style.

Mike Mangino Professor Emeritus & Interim Chair