

# Culinary Science & Product Development - B.S.

## Curriculum

**Effective May 17, 2024 FYS1020 and CAR0010 will no longer be requirements in our undergraduate programs.**

The Culinary Science & Product Development bachelor's degree program integrates food science with culinary arts, preparing students for careers as research chefs and food technologists in product development labs, test kitchens and culinary centers.

Upon completion of the program, graduates are expected to:

- Apply the skills and techniques of culinary arts across a broad range of food products and flavor profiles.
- Design, execute, interpret and report on food science experiments while adhering to appropriate food safety guidelines.
- Use the food development process to create food products to meet the needs of consumers.
- Select appropriate food processing, food analysis and quality assurance techniques and equipment for the manufacturing of food products.

The Culinary Science & Product Development program begins with a focus on culinary or baking and pastry arts. Laboratory classes, offered throughout the program, provide students with an opportunity to continuously develop the craft. Credentialed faculty share professional expertise within state-of-the-art culinary and baking and pastry laboratories, providing an exceptional education for students. Students continue to develop their skills in a culinary or baking and pastry internship during their second year of study.

The program continues with foundational science courses that provide students with knowledge of science and the scientific method. The food product development process is introduced and reinforced in applied culinary science laboratories and the academic classroom. Topics in food regulations, labeling and food analysis prepare students for advanced coursework. Communication and presentation skills, important for succeeding in the product development industry, are stressed throughout the program and supported by an arts and sciences core curriculum.

The curriculum culminates with specifically designed culinary science courses that integrate culinary arts and basic sciences with applied food science coursework, which includes food ingredient technology, product design and development, and a required internship specific to food science, research and development or manufacturing, preparing students for careers within the profession.

## Culinary Science & Product Development

A four-year program leading to the bachelor of science degree

### Foundation Courses

Choose Culinary or Baking & Pastry Arts Foundation 18

### Culinary Arts

CUL1100	Introduction to Culinary Skills and Techniques	
CUL1210	Breakfast & Lunch Cafe	
CUL1320	Elements of a la Minute Cooking	
CUL1410	Contemporary Cooking & Leadership Functions	
CUL2710	Banquets and Catering	
CUL2810	Global à la Carte	

### Baking & Pastry Arts

BPA1701	Foundations of Baking and Pastry	
BPA1710	Principles of Cake Production and Design	
BPA1720	Plated Desserts	
BPA1730	Artisan Bread & Viennoiserie I	
BPA1740	Artisan Bread & Viennoiserie II	
BPA1750	Chocolate, Confections & Mignardise	

### Major Courses

CULS2010	Introduction to Food Product Development	3
CULS2210	Food Science	3
CULS3015	Food Ingredient Technology	3
CULS3025	Food Processing	3
CULS4035	Food Product Design and Development	3
ENG2010	Introduction to Technical Communication	3

### Applied/Experiential Learning

CFIT2799	College of Food Innovation & Technology Intermediate Internship <sup>lc</sup>	6
or CFIT2699	College of Food Innovation & Technology Intermediate Internship	

CFIT4799	College of Food Innovation & Technology Advanced Internship*	12
<b>Related Professional Studies</b>		
BIO2201 & BIO2206	General Microbiology and General Microbiology Laboratory	4
CAR0010	Career Management	1
CHM1000 & CHM1006	Foundations in Chemistry and Foundations in Chemistry Laboratory	4
FSM1165	The Food Safety Manager**	1
FSM2045	Introduction to Menu Planning and Cost Controls	3
FYS1020	First-Year Seminar	1
<b>A&amp;S Core Experience</b>		
Communications Foundation Courses 9		
ENG1020	Rhetoric & Composition I	
ENG1021	Rhetoric & Composition II	
ENG1030	Communication Skills	
Integrative Learning 6		
Two ILS courses, one at the 2000 level, one at the 4000 level		
Arts & Humanities 6		
HIST3020	A Multicultural History of America	
One course from ART, HUM, LIT, PHIL, or REL		
Mathematics 6		
MATH1020	Fundamentals of Algebra (or higher, based on student's placement)	
MATH2001	Statistics I	
Science 3		
SCI1050	Nutrition	
Social Sciences 6		
ECON1001	Macroeconomics	
One course from ANTH, GEND, LEAD, PSCI, PSYC, RES or SOC		
A&S Electives 6		
CHM2050	Introduction to Organic Chemistry	
SCI1015	Introduction to Life Science	
<b>Free Electives<sup>#</sup></b>		
12 credits selected from 1000-4999 numbered offerings within the university 12		
<b>Total Credits</b>		<b>122.0</b>

\* Students in the culinary science program must complete an internship in food science, research and development, or manufacturing.

\*\* Students must pass a national exam that is recognized by the Conference for Food Protection as a graduation requirement.

<sup>lc</sup>Typically, internships require a minimum of six credits. Students interested in a 9 or 12-credit internship can apply additional experiential learning and free elective credits, if available. Students are strongly encouraged to contact a faculty advisor before scheduling internship and free elective credits.

# In addition to classes, free elective credits may be applied to a number of options such as internship, study abroad, Directed Experiential Education courses and courses in a specialization or minor as relevant. For students who qualify for the J2 program, up to four graduate courses may apply. Students are strongly encouraged to contact a faculty advisor before scheduling free elective credits.

Note: Students must pass MATH0010 Pre-Algebra or have equivalent placement scores to enroll in required math courses.

Note: Students must pass ENG0001 Writing Workshop or have equivalent placement scores to enroll in ILS 2000-level courses.

In collaboration with academic colleges across all JWU campuses, JWU Global Study Abroad programs offer a variety of international, domestic, and digital options for major, minor, free electives, experiential learning, and transferable courses. There are many affordable options for students during a semester, winter session, spring and/or summer breaks. Faculty-led, exchange, affiliate, and direct-enroll programs range in duration from one week to a full semester or full year. Financial aid may be applied, and some partners offer external scholarships. Premiere programs do not qualify for JWU scholarships or grants; however federal aid is available. Visit the study abroad website for information, program descriptions and online applications. Where will you go? Wherever you decide, make the best of your educational journey!

## Accelerated Program Options

### J2 Program

The JWU J2 program allows qualified students enrolled in a matriculating undergraduate program to take graduate level courses at JWU. Students interested in pursuing this option should meet with their academic advisor to discuss their interest, qualifications, and plans. The undergraduate student may take up to four graduate courses (maximum 12 credits) and are limited to 6 credits a semester and 3 credits per session (Fall Session I and Fall Session II).

The completion of graduate credits to fulfill undergraduate program requirements does not guarantee acceptance into the graduate program after completion of the baccalaureate degree. Matriculating undergraduate students who wish to formally enroll in a graduate program, must fulfill all requirements for entrance into the intended graduate program and complete a graduate program application.

**Note:** Not all graduate courses are included as part of this policy. Courses offered as part of the Masters of Arts in Teaching, Masters of Education, Masters of Science in Physician Assistant Studies and doctoral courses are excluded from this policy and are restricted to program majors only. Additional courses and/or programs as determined by individual colleges may also have restricted access.

#### Eligibility Criteria:

To be eligible to enroll in graduate level courses (excludes: Masters of Arts in Teaching, Masters of Education, Masters of Science in Physician Assistant Studies, doctoral courses and other programs as outlined by the colleges).

Undergraduate students must meet the following criteria:

- Undergraduate cumulative GPA of 3.00 or higher
- Completed & registered undergraduate credits at least 90 credits
- Meet the individual course prerequisites

**Appeal to Eligibility Criteria:** College Dean or designee will receive a copy of the Petition Form, Student's GPS and email requesting appeal if the student requests to appeal the GPA or earned/registered credit criteria. College Dean / designee will review and determine approval.

These courses carry graduate credit and will replace undergraduate degree requirements when applicable, traditionally free-electives (maximum of 12 credits). The course will be applied to the undergraduate degree in the order in which they are taken (if required) and will also be applied towards both the students undergraduate and graduate GPA.

Students should maintain enrollment in at least 12 credits of undergraduate coursework to maintain full-time status; graduate course enrollment is not calculated into undergraduate full-time status. For students already attending full-time as undergraduates (12 credits or more) and paying the full-time tuition, the graduate credits will be included in full-time tuition fee. Students attending part-time (11 credits or less) will pay the cost per-credit undergraduate tuition for the graduate course.

Course registration will be based on space availability and students enrolled in graduate level courses will be required to maintain good academic standing at the undergraduate and graduate level.