

# Applied Food Science - B.S.

## Curriculum

The Applied Food Science bachelor's degree program combines the strengths of culinary arts and food science to prepare students for careers working in food product research and development, quality assurance, production management, and food technologist positions. The program is open to individuals already holding an associate degree from Johnson & Wales University's College of Culinary Arts as well as graduates from other culinary arts and baking & pastry arts associate degree programs.

Upon completion of the program, graduates are expected to:

- Apply food chemistry and scientific principles to the innovation and development of food and food products.
- Demonstrate practical proficiency of applied food sciences in a food analysis laboratory.
- Apply principles of food technology and processing in food systems.
- Apply food safety and microbiological knowledge to identify and solve problems related to food and food products.
- Demonstrate effective oral and written communication skills.

Major curriculum classes are conducted in both academic and laboratory environments focusing on core competencies prescribed by the Institute of Food Technologists. These include food chemistry and analysis, food safety and microbiology, food processing and engineering, and applied food science. The student's experience is complemented by the university's Arts & Sciences Core Curriculum to provide breadth of learning through the natural sciences, social sciences and humanities.

All students interested in entering the Applied Food Science degree program must complete and submit an application to the program lead faculty member. While application typically takes place during the first year of study, students may apply at any point during their academic career at Johnson & Wales University. Selection is based on previous academic performance, industry experience and professional recommendations. Students must have a minimum GPA of 3.0.

## Applied Food Science

A four-year program leading to the bachelor of science degree for two-year baking & pastry arts or culinary arts program graduates

First two years:	61
in Baking & Pastry Arts	
OR	
in Culinary Arts	
Third and fourth years:	
<b>Major Courses</b>	
FSC3010	Food Quality Assurance 3
FSC3020	Food Chemistry 3
FSC3040	Food Ingredients & Formulations 3
FSC3050	Fermentation Science & Functional Foods 3
FSC3060	Principles of Food Microbiology 3
FSC3065	Principles of Food Microbiology Laboratory 1.5
FSC4010	Sensory Analysis 3
FSC4020	Principles of Food Processing 3
FSC4040	Product Research & Development 3
<b>Related Professional Studies</b>	
BIO2201	General Microbiology 3
BIO2206	General Microbiology Laboratory 1
CHM2040	Introduction to General and Organic Chemistry 3
<b>University Core Curriculum</b>	
Connecting	3
One course with the Connecting attribute (ECNG), at the 4000 level	
Experiencing	6
PHIL3240	Ethics: A Global Perspective
Additional course with the Experiencing attribute (EEXP) in a different discipline	
Measuring	3
MATH2001	Statistics I
Interacting	6
PSYC1001	Introductory Psychology
Additional course with the Interacting attribute (EINT) in a different discipline	
A&S Electives *	3

One course with the Arts & Sciences elective attribute (EASC)

<b>Free Electives #</b>	
9 credits selected from 1000-4999 numbered offerings within the university	9
<b>Total Credits</b>	<b>62.5</b>
<b>Four-Year Credit Total</b>	<b>123.5</b>

\*

Students should select SCI1015 as their associate degree's A&S elective as it is a prerequisite to some of the required courses in this program.

# 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.

In collaboration with academic colleges Study Abroad offer several options, direct enroll with international universities, domestic and digital options meet with a Study Abroad Advisor to learn more about how your major, minor, free electives, experiential learning and transferable courses would benefit by a Study Abroad program. There are many options for students during a semester, spring and/or summer breaks. Faculty-led, exchange, 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. 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!

## Admissions Requirements

### Undergraduate

Johnson & Wales University holistically reviews all elements of a student's application to identify those students most likely to succeed at the university.

For first-year applicants, a completed application and high school transcript(s) are required. For transfer applicants, a completed application and high school and/or college transcript(s) are required. Completion of optional materials is encouraged.

Successful candidates for first year admission have taken a high school, college preparatory academic program including English, mathematics, science, social science and foreign language. Admissions decisions may also consider individual experiences and particular circumstances unique to each student. Other considerations are made based upon recommendations, writing ability and extracurricular activities.

Visiting campus, both in-person or virtually, and interacting with admissions staff are all valuable ways of assuring that JWU is the right university for you.

## 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 Master of Arts in Teaching, Master of Education, Master 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 and 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.