

Applied Food Science, Innovation & Technology - B.S.

Effective Fall 2020, Johnson & Wales University will complete its transition from a term calendar to a semester calendar. Starting with the 2020–21 catalog, all programs will represent course requirements in semester credit hours rather than quarter credit hours. Students who started on terms and will finish their degree requirements on semesters should consult with their assigned academic counselor in Student Academic Services or faculty advisor on semester transition academic planning.

The Applied Food Science, Innovation & Technology 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 and 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, Innovation & Technology 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, Innovation & Technology

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: 90-96
in Baking & Pastry Arts

OR

in Culinary Arts
Third and fourth years:

Major Courses

| | | |
|---------|--|------|
| FSC3010 | Food Quality Assurance | 4.5 |
| FSC3020 | Food Chemistry | 4.5 |
| FSC3040 | Food Ingredients & Formulations | 4.5 |
| FSC3050 | Fermentation Science & Functional Foods | 4.5 |
| FSC3060 | Principles of Food Microbiology | 4.5 |
| FSC3065 | Principles of Food Microbiology Laboratory | 2.25 |
| FSC4010 | Sensory Analysis | 4.5 |
| FSC4020 | Principles of Food Processing | 4.5 |
| FSC4040 | Product Research & Development | 4.5 |

Related Professional Studies

| | | |
|---------|---|-----|
| CAR0010 | Career Management | 1 |
| CHM2040 | Introduction to General and Organic Chemistry | 4.5 |
| SCI2120 | Introduction to Microbiology | 4.5 |

A&S Core Experience

| | | |
|---|------------------------------|-----|
| Integrative Learning | | 4.5 |
| One ILS course at the 4000 level | | |
| Arts and Humanities | | 9 |
| PHIL3240 | Ethics: A Global Perspective | |
| One course from ART, HIST, HUM#, LIT or REL | | |

| | | |
|--|-------------------------|---------------|
| Mathematics | | 4.5 |
| MATH2001 | Statistics | |
| Social Sciences | | 9 |
| PSYC1001 | Introductory Psychology | |
| One course from ANTH [°] , ECON, LEAD, PSCI or SOC | | |
| A&S Electives | | 4.5 |
| One course with an EASC attribute at 3000 level or higher. | | |
| Free Electives [#] | | |
| 13.5 credits selected from 1000-4999 numbered offerings within the university. | | 13.5 |
| Total Credits | | 93.25 |
| Four-Year Credit Total | | 183.25-189.25 |

Visit Courses by Subject Code for a listing of all campus courses.

‡HUM courses are not offered in North Miami or Online.

^BIO courses are not offered in North Miami, Charlotte or Online.

¶CAD courses are only offered in Providence.

±CHM courses are not offered in North Miami or Online.

°PHY courses are not offered in Charlotte.

°°ANTH courses are not offered in North Miami or Charlotte.

In addition to classes, free elective credit can be applied to a number of options such as Directed Experiential Education (DEE), Internship, Minor or Study Abroad. For Accelerated Master's program students, up to three graduate-level courses may apply. Students are strongly encouraged to contact an adviser before scheduling free elective credits.

Students who graduate with a bachelor's degree must leave Johnson & Wales University with effective writing skills to fulfill the graduation writing requirement. These writing skills will be assessed at the completion of ENG1021 Advanced Composition and Communication. Students who have met the requirement of ENG1021 Advanced Composition and Communication or ENG1027 Honors Advanced Composition and Communications: Civic Discourse outside of Johnson & Wales University must fulfill the graduation writing requirement through successful completion of ENG0001 Writing Workshop.

In collaboration with academic colleges across all JWU campuses, JWU Study Abroad programs offer a variety of international options for major, minor, Arts & Sciences, and elective credit at many price points for students during the academic year and summer. Faculty-led, exchange, affiliate, and direct-enroll programs range in duration from one week to a full semester. Financial aid is applicable and scholarships are available. Visit the study abroad website for information, program descriptions and online applications.