



Biotechnology

Greenhouse Production, AAS

What is a Specialist Certificate?

The Biotechnology Associate in Applied Sciences (AAS) degree has four areas of concentration: Agronomy Concentration, Biomass Concentration, Animal Science Concentration and Greenhouse Production Concentration.

The Biotechnology—Greenhouse Production AAS degree is designed to prepare students to work in agricultural and horticultural laboratories, greenhouses and field sites. Technicians may work in the areas of laboratory research, product development, quality control, manufacturing and testing. Specific career opportunities could require skills related to genetic engineering of plants or microorganisms, plant breeding and propagation, plant tissue cloning and extraction and purification of commercially or medically important compounds from plant tissues. The degree is structured to allow students to develop marketable job skills while incorporating the requirements for an Associate in Applied Sciences degree. The program includes many hands-on and lab-based courses, which enable students to apply what they learn in biology, microbiology, horticulture, genetics, chemistry, statistics, and molecular biology. Specific skills such as written and oral communications, critical thinking, problem solving, computer skills and small group collaboration are an integral part of the program. Students participate in internships in cooperation with potential employers. Please check with the Biotechnology Program chairperson or an advisor for additional assistance.

Students start Fall or Spring semester.

biotech.dmacc.edu
800-362 2127

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Program Entry Requirements

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1. Complete an application for admission to the Biotechnology Program.
2. Satisfy the assessment requirement.
3. Attend any required information/registration session.
4. Must submit proof of one year of high school chemistry or Academic Achievement Chemistry I & II or successful completion of CHM 122.
5. Must submit proof of two years of high school algebra or MAT 063 & MAT 073.
6. Demonstrate satisfactory writing skills on college entrance or assessment exam.

Graduation Requirements

To earn a Biotechnology AAS degree, a student must be accepted into the Biotechnology Program, complete all coursework as prescribed and maintain a 2.0 grade point average.

To complete this program, you must meet the Diversity Requirement with a grade of “C” or higher. See the AAS section of the catalog for more information about which courses can count toward this requirement.

Requirements for the Greenhouse Production AAS Degree

SEMESTER 1

- ▶ SDV 108.....The College Experience Credits: 1
- ▶ ENG 105.....Composition I..... Credits: 3
- ▶ BIO 112.....General Biology I..... Credits: 4
- ▶ AGH 146Soil Science for Horticulture..... Credits: 3
- ▶ AGH 147.....Soil Fertility for Horticulture Credits: 1

Option 1—Select 1 course

- ▶ AGH 106Introduction to Horticulture Credits: 3
- ▶ AGH 221.....Principles of Horticulture Credits: 3
- ▶ BIO 135Introduction to Botany..... Credits: 4

SEMESTER 2

- ▶ BIO 113.....General Biology II..... Credits: 4
- ▶ AGH 132.....Introduction to Greenhouse..... Credits: 3
- ▶ AGH 233.....Plant Propagation I Credits: 3

Option 2—Select 1 course

- ▶ CHM 122*Intro to General Chemistry..... Credits: 4
- ▶ CHM 165General/Inorganic Chemistry I..... Credits: 4

SEMESTER 3

- ▶ MAT 157Statistics..... Credits: 4
- ▶ BIO 186.....Microbiology Credits: 4
- ▶ AGH 253Insects and Diseases Credits: 3

SEMESTER 4

- ▶ ENG 106Composition II..... Credits: 3
- ▶ BIO 146Genetics Credits: 3
- ▶ AGH 133.....Greenhouse Production I..... Credits: 3
- ▶ AGH 283.....Pesticide Application Certific Credits: 2

Option 3—Select 1 course

- ▶ CHM 132*Intro to Organic/Biochemistry Credits: 4
- ▶ CHM 175.....General/ Inorganic Chemistry II... Credits: 4

SEMESTER 5

- ▶ BIO 250Cell & Molecular Bio-Nucleic Acids..... Credits: 5
- ▶ BIO 251Cell & Molecular Bio-Proteins..... Credits: 5
- ▶ BIO 249Biotechnology Internship..... Credits: 2–3
- ▶ AAS Core Social and Behavioral Science/Humanities course..... Credits: 3

TOTAL CREDITS REQUIRED TO COMPLETE THIS AAS DEGREE 71

Note: Graduates of the Biotechnology—Greenhouse Production AAS degree also qualify to be awarded the Horticulture Greenhouse Production Certificate and the Biotechnology Laboratory Methods Certificate.

* Students planning to transfer to a four-year program after completion of this degree should take CHM 165 & 175 instead of CHM 122 & 132.

Biomass concentration option is also available in semesters with a student cohort large enough to offer the specialized courses.

For more information, contact

Julie González, Program Chair/Biology Instructor

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For more information about DMACC graduation rates, the median debt of students who completed the program and other important information, please visit our website at www.dmacc.edu/gainfulemployment.

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