

BIOTECHNOLOGY AND MANAGEMENT PROGRAM

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The biotechnology and management program is designed for students who are interested in pursuing careers at the intersection of science and business. Through coursework and internships, students will be prepared for graduate work as well as entry into businesses focused on biotechnology and related areas.

Students accepted into the program select a major in life sciences and complete a minor in business administration, with additional coursework and a focus on entrepreneurship in life sciences. Students also will attend a focused speaker series and complete an internship in biotechnology.

Scholarships

Students selected for the biotechnology and management program must be admitted to the Honors Program and will receive the benefits associated with this program in addition to those in the biotechnology and management program. Scholarships are tied to Honors participation and will be renewed each semester if the student meets requirements as outlined in the *Biotechnology and Management Student Contract*.

Eligibility

Students apply to the biotechnology and management program during their senior year in high school through an application process separate from the CNU admission process. Applications for the biotechnology and management program will be reviewed for strength of high school curriculum, including core curriculum courses, as well as a high school grade point average of at least a 3.7 (on a 4.00 scale), and a minimum total score of 1310 on the SATs (with at least a 600 on the quantitative test) or a composite score of 28 on the ACT (at least 25 on the ACT quantitative).

At the end of each academic semester, students are reviewed for program continuation in accordance with the standards outlined in the program *Student Contract*. Students must maintain a minimum cumulative GPA of 3.30 to continue in the program.

Program Requirements:

1. Complete a major in one of the life sciences.
 Students in the biotechnology and management program select one of the following life sciences majors offered at CNU:
 - BS in biology with a major in cellular, molecular, and physiological biology
 - BS in biology with a major in environmental biology
 - BS in biology with a major in organismal biology
 - BS in chemistry with a major in biochemistry
 - BS in interdisciplinary studies, neuroscience major
2. BUSN 210 Introduction to Biotechnology and Management.
3. BTMG 010, 020, 030, 040 Biotechnology and Management Activities.
4. MATH 125 Elementary Statistics and MATH 140 Calculus or 148 Accelerated Calculus as pre-requisites to BUSN 231 Applied Business Statistics.
5. CPSC 215 Software for Business Applications as a pre- or co-requisite to BUSN 231.
6. BUSN 480 Internship as approved by the director.
7. The minor in business administration - students in the life sciences and management program complete the minor in business administration:
 - a. ACCT 200 (preferred) or ACCT 201, BUSN 231 each with a minimum grade of C;
 - b. ECON 201 and 202;
 - c. BUSN 303;
 - d. FINC 300;
 - e. BUSN 448 or 495, or BUSN 442 for biotechnology students only.
8. Students are strongly encouraged to take PHIL 207, Ethical Issues in Business, which satisfies the logical reasoning requirement of the liberal learning foundations, or PHIL 384 Medical Ethics which satisfies the area of inquiry western traditions requirement.

Four Year Plan of Study:

First Year:

- Speaker series: BTMG 010

Second Year:

- Speaker series: BTMG 020
- BUSN 210

Third Year:

- Speaker series: BTMG 030
- BUSN 480 (May be completed during the summer after the third year)

Fourth Year:

- Speaker series: BTMG 040
- BUSN 442

BUSN 480 Internship in Business-Biotechnology

Prerequisite: BSBA major or biotechnology and management program with at least junior standing or permission of the School of Business.

This is a hands-on course supervised by faculty. Local area organizations commit themselves to participate in a learning experience with the student. Presentations to faculty, outside organizations and students are given at the end of the term.

THE CURRICULUM IN BIOTECHNOLOGY AND MANAGEMENT

BTMG 010, 020, 030, 040 Biotechnology and Management Activities (0-0-1)

Students in the biotechnology and management program participate in major intellectual events focused on life sciences, management, and/or biotechnology. Students will also meet as specified by the Director of the Biotechnology and Management Program. This course is graded pass/fail.

BUSN 210 Introduction to Biotechnology and Management (3-3-0)*Spring.*

This course is focused on how biological and related sciences apply to industry and business. It introduces students to the biotech industry, including the players and their challenges in basic science, medical devices, pharmaceuticals, distribution and sources of capital. Students will learn about the biotech value chain which begins with science and innovation and ends with a health care solution delivered to a patient. Students will understand the business facets of this chain in development, manufacturing, distribution and employment.

BUSN 442 Luter Business Institute -Biotechnology (3-3-0)

Prerequisite: ENGL 223, and a minimum grade of C in BUSN 210 and BUSN 303.

This is a hands-on course in which teams of senior students in the biotechnology and management program, in concert with business majors, conduct a semester-long business internship/consulting project with an established or emerging biotechnology entity. Teams will consult with existing and proposed entities on biotechnology based opportunity identification and verification, market attractiveness, technology commercialization, product development, and deployment. Students will gain theoretical and practical knowledge as well as real-world exposure to the dynamic forces affecting biotechnological firms. Students will have an opportunity to develop and refine critical thinking and written and oral communication skills in their final consultation reports to the business client.