2024-25 Academic Year

LIFE SCIENCES>
BIOMEDICAL SCIENCE

The Biomedical Science program is an excellent route for students preparing for further study in the field of health - medicine, dentistry, nursing, physical or occupational therapy, medical laboratory science, mortuary science, respiratory therapy, and other allied health science fields. Biomedical scientists specialize in the research, identification, and treatment of human diseases. Proficiency and confidence with scientific tools, gained from WSC's outstanding lab facilities, are important as graduates will work with computers, automated equipment, microscopes, and other advanced laboratory instruments. Biomedical Science at Wayne State will set you up to pursue your passion in the health sciences, with excellent faculty, cutting-edge equipment, and personalized support.

fast facts

Hours:
55-56 hours for major
30 hours in general education

At least 120 hours are required for graduation from Wayne State College. You may add a second major, minor, or electives to help meet these requirements.

Degrees offered: B.A. or B.S.

Department: Life Sciences

School: Science, Health, and Criminal Justice

Internship: Encouraged but not required

Popular minors: Chemistry, Public and Global Health, Environmental Studies

focus on results

Skills Learned

- Evolutionary processes
- Biological systems and structures
- Research, data collection, and analysis
- Modern lab techniques
- Observation
- Critical thinking and problem-solving
- Communication

Possible Careers Fields

- Medicine
- Dentistry
- Allied health
- Science research
- Microbiology/virology
- Food safety
- Public health

Types of Employers

- Hospitals/clinics
- Research laboratories
- Food industry
- Pharmaceutical industry
- Medical research facilities
- Public health agencies

outside the classroom

Visit www.wsc.edu/clubs to learn more about clubs and organizations on campus.

Activities / Opportunities

- Conduct research projects
- Conferences and presentations
- Peer mentoring and tutoring
- Service-Learning
- Study Abroad

Clubs / Organizations

- Biology Club
- Health Science Club
- Pre-Physical Therapy Club

Sample program of study

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Every effort is made to ensure this information is current, but please be aware that some content may have changed. There is no substitute for developing a careful course registration plan in consultation with your advisor. The class sequence listed is suggested only. The final decision rests with the student and academic advisor.

Freshman - 1st semester

BIO 110 Biology Concepts (General Studies CAT 7) 4
CHE 106 General Chemistry I 4
ENG 102 Composition Skills (General Studies CAT 1) 3
General Studies 3

Freshman - 2nd semester

BIO 200 Zoology or BIO 210 Experimental Plant Science 4
CHE 107 General Chemistry II 4
General Studies 9

Sophomore - 1st semester

BIO 104 Environmental Concerns (recommended, but not required, to fulfill General Studies CAT 10) 3
BIO 320 Molecular Genetics 4
MAT 180 Applied Probability and Statistics (General Studies CAT 3) 3
General Studies 6

Sophomore - 2nd semester

BIO 200 Zoology or BIO 210 Experimental Plant Science 4
CHE 208 Intro to Organic Chemistry or CHE 314 Organic Chemistry I 4
Elective 6

Junior - 1st semester

PHY 201/321 General Physics I w/Lab 4
Biomedical Science concentration electives 6-8
*Electives 3

Junior - 2nd semester

BIO 301 Biology Seminar 1
BIO 370 Intro to Research 2
Biomedical Science concentration elective 3-4
*Electives 9

Senior - 1st semester

**BIO 397 Internship or BIO 465 Continuing Research 1
Biomedical Science concentration upper level electives 3-4
*Electives 8-9

Senior - 2nd semester

BIO 425 Evolution 3
**BIO 469 Senior Seminar or BIO 470 Research Project 1
Biomedical Science concentration elective 3-4
*Electives 6

Biomedical Science concentration electives:
A. Human Form and Function - Choose two or more classes from:

- BIO 330 Histology (3)
- BIO 340 Human Physiology (4)
- BIO 434 Advanced Cellular Biology (3)
- BIO 443 Advanced Human Anatomy (3)
- BIO 409 Comparative Anatomy and Embryology (4)

B. Disease - Choose two or more classes from:

- BIO 336 Cancer Biology (3)
- BIO 385 Microbiology (4)
- BIO 430 Parasitology (3)
- BIO 486 Immunology (3)

*Electives chosen need to ensure at least 40 credits of 300 or 400 level coursework in any area. Additional science courses are recommended.

**Students who do a research project will take BIO 465 and BIO 470. Students who do an internship will take BIO 397 and BIO 469.

biology faculty

Visit www.wsc.edu/life-sciences to learn more about the Department of Life Sciences.

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