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Minnesota State University
Mankato

CYTOTECHNOLOGY *College of Science, Engineering & Technology*

CYTOTECHNOLOGY: WHAT IS IT?

Cytotechnology is a challenging and rewarding career recommended to individuals with interest and ability in science. Cytology is the study of the structure and the functions of cells. A cytotechnologist is an allied health professional who works with pathologists and is involved in the microscopic study of cells for evidence of disease, in particular for the diagnosis of cancer. However, many other conditions, such as viral and bacterial infections, are identified using cytological techniques as well. Cytotechnologists evaluate cell samples that have been shed normally, scraped from the body, or aspirated with a fine needle. The "Pap test," an evaluation of cells from the uterine cervix, is perhaps the best known test in this field. Cytotechnologists are trained to notice subtle changes in cells so they can accurately identify precancerous, malignant, and infectious conditions.

WHAT DEGREES AND PROGRAMS DO WE OFFER?

Minnesota State Mankato offers the Bachelor of Science (BS) degree in Biology with an emphasis in Cytotechnology.

CAREER OPPORTUNITIES AVAILABLE FOR STUDENTS COMPLETING THE PROGRAM

Career opportunities for cytotechnologists are excellent. A nationwide shortage of cytotechnologists currently exists. It is projected that over the next decade the shortage will worsen. Positions are available in diagnostic cytology as well as some positions in research, education, and administration. Cytotechnologists are employed in hospital laboratories, universities, and private laboratories. Opportunities for research and advancement are possible depending on where you are employed. Starting salaries for cytotechnologists begin at $50,000. Annual salaries range from $50,000 to $70,000.

EXAMINING THE QUALITY OF OUR PROGRAM

Accreditations

Our program is associated with the Mayo School of Health Sciences which is accredited by the Commission on Accreditation of Allied Health Education Programs.

Faculty

Our 21 tenured track biology faculty all have Ph.D.s.

Faculty grants and scholarly activity

All of our faculty are involved in scholarly activity.

STUDENT EXPERIENCE/PROGRAM REQUIREMENTS

Faculty/Student Ratio

The ratio varies, with 1:150 in lower level biology courses to 1:10 in upper level biology courses.

Unique program components and experiences

The four-year cytotechnology program curriculum consists of three years spent at the University completing required courses and electives. The fourth year is spent in professional education and experience at Mayo School of Health Sciences. Acceptance into an accredited program for the senior year is conducted on a competitive basis.

HOW DO I PREPARE FOR THIS PROGRAM?

It is necessary to meet the Minnesota State Mankato admission requirements. Students should have a high school background in biology, chemistry, and mathematics and should have shown aptitude in these areas.

FOR MORE INFORMATION PLEASE CONTACT

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800-627-3529 or 711(MRS/TTY)
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or

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You are encouraged to visit the campus.
To arrange for a visit, please call:
Office of Admissions: 507-389-1822
Toll-free: 800-722-0544

SAMPLE FOUR-YEAR CURRICULUM (BIOLOGY: CYTOTECHNOLOGY, BS)

First Year (Fall)	First Year (Spring)
BIOL 105 General Biology I (4) BIOL 220 Human Anatomy (4) MATH 112 College Algebra (4) ENG 101 Composition (4)	BIOL 106 General Biology II (4) CHEM 201 General Chemistry I (5) General Education Course (3) General Education Course (3)
Second Year (Fall)	**Second Year (Spring)**
BIOL 330 Principles of Human Physiology (4) CHEM 202 General Chemistry II (5) ENG 271W Technical Communication (4) General Education Course (2)	BIOL 270 General Microbiology (4) BIOL 211 Genetics (4) General Education Course, Writing Intensive (3) General Education Course (3)
Third Year (Fall)	**Third Year (Spring)**
CHEM 320 Cell Biology (4) CHEM 322 Organic Chemistry I (4) CHEM 323 Supplemental Organic Functional Group Chemistry (1) General Education Course (2) General Education Course (3)	BIOL 430 Hematology/Immunology (4) **OR** BIOL 424 Developmental Biology (3) **OR** BIOL 435 Histology (4) **OR** BIOL 479 Molecular Biology (4) CHEM 360 Principles of Biochemistry (4) **OR** CHEM 305 Analytical Chemistry (4) **OR** CHEM 324 Organic Chemistry II (3) **&** CHEM 325 Organic Chemistry II Lab (1) General Education Course, Gold or Purple (4) General Education Course, Purple (3-4)
Fourth Year (Fall)	**Fourth Year (Spring)**
BIOL 493 Internship I (1-12) BIOL 494 Internship II (1-12) Internship Credits Must Equal 16	BIOL 495 Internship III (1-12) BIOL 496 Internship IV (1-12) Internship Credits Must Equal 16

For additional information about course requirements, please visit http://www.mnsu.edu/supersite/academics/bulletins/

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