Biomedical Sciences

Medical tests are critical to the accurate detection, diagnosis and treatment of diseases, and so are the scientists who analyze and interpret those tests in the lab. If you enjoy science and its practical application, particularly in health care or related research, a degree in biomedical sciences could be just what you want.

The Biomedical Sciences major offers submajors in the following areas: Biomedical Sciences, Cytotechnology, Medical Laboratory Science and Public Health Microbiology.

Medical laboratory testing plays a crucial role in the detection, diagnosis and treatment of disease.
**Laboratory-Based Programs**

**BIOMEDICAL SCIENCES**
A biomedical sciences background provides you with excellent preparation to go on to medical, dental, veterinary or pharmacy school, as well as find employment within biomedical research or pharmaceutical and biotechnology companies. This submajor is an academic, non-clinical submajor with a focus on research.

**CYTOTECHNOLOGY**
Cytotechnologists use high-tech methodology to study cells within the human body. You will prepare slides of body cells and microscopically examine them to detect changes caused by different disease processes, such as cancer. Spending a good deal of time in the laboratory with their microscopes, Cytotechnologists generally work alone or in small groups.

**MEDICAL LABORATORY SCIENCE**
Medical Laboratory Scientists perform essential laboratory testing critical to the detection, diagnosis and treatment of diseases. Professionals use microscopes, computers, complex laboratory equipment and instrumentation in their work. You will be trained in both the theoretical and practical aspects of clinical/laboratory medicine: chemistry, hematology, microbiology, immunology, blood banking, and molecular diagnostic techniques.

**PUBLIC HEALTH MICROBIOLOGY**
Public Health Microbiologists investigate the fascinating world of organisms too small to be seen with the naked eye. Using a microscope, they study living organisms and infectious agents and how they affect our lives, including those agents that pose a threat to public health. Microbiologists collaborate with other scientists and work in public health labs in almost every industry, from food to veterinary medicine to space research.

**WHERE YOU CAN WORK**
- Hospitals
- Medical laboratories
- Physician offices
- Blood Banks
- Research testing laboratories
- Pharmaceutical or biotechnology companies
- Health departments

**WHAT YOU CAN BE**
- Blood Bank Technologist
- Cytotechnologist
- Environmental Health Specialist
- Immunologist
- Medical Laboratory Scientist
- Microbiologist

**JOB OUTLOOK**
In Wisconsin, growth in the number of Medical Laboratory Scientists through 2016 is estimated to be 16.97%. MT median national salary for 2011: $58,120

Level of responsibility, years of experience and size of facility affects salary. In Wisconsin, 2014 wage levels for Medical Laboratory Scientists were reported to be: $56,750 (annual mean wage)

**YOU SHOULD ENJOY...**
- Chemistry, Human Anatomy and Physiology, Infectious Diseases,
  Pathophysiology, Biochemistry, Organic Chemistry, Microbiology,
  Instrumentation

**YEARS OF COLLEGE REQUIRED**
A Bachelor's Degree is required which takes 4-5 years depending on incoming proficiency in math and chemistry. The degree is followed by a National Certification Exam.