

# Oakland University School of Health Sciences Undergraduate Degree Programs

*A School of Health Sciences undergraduate degree prepares students to become leaders in health care, wellness, safety or clinical laboratory sciences*



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## Applied Health Sciences

The Bachelor of Science in Applied Health Sciences degree prepares students for a rewarding career in the medical field. Students in this major have completed the Associates degree from Macomb Community College (MCC) in:

- Respiratory Therapy**
- Health Information Technology**
- Surgical Technology**
- Physical Therapist Assistant Studies**
- Medical Assistant Studies**
- Occupational Therapy Assistant Studies**

Students will then complete the core Applied Health Sciences curriculum and any necessary general education courses at Oakland University. Students are advised to read carefully about their chosen concentration.

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## Health Sciences

A Bachelor of Science in Health Sciences degree combines liberal arts, basic science, social science, and health science courses for students who desire a generalized health science academic credential. Students choose one of five academic concentration areas to gain relevant knowledge and skills in specific health discipline. These concentration areas include Exercise Science, Integrative Holistic Medicine, Pre-Health Professional studies, Pre-Pharmacy, and Pre-Physical Therapy.

The **Exercise Science concentration** obtain all of the academic course prerequisites necessary to be considered for admission to the Master of Science in Exercise Science program.

The **Integrative Holistic Medicine concentration** prepares students for many traditional and non-traditional programs including the OU Graduate Certificate in Complementary Medicine and Wellness.

The **Pre-Health Professional concentration** incorporates basic science courses to prepare students for the graduate work in medicine, dentistry, public health and other professional fields.

The **Pre-Pharmacy concentration** prepares students for the application to the Doctor of Pharmacy program at Wayne State University.

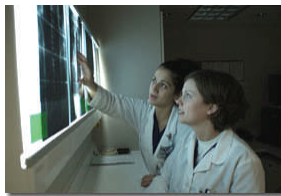
The **Pre-Physical Therapy concentration** prepares students to meet the traditional application requirements for the Doctor of Physical Therapy (DPT) program.

## Biomedical Diagnostic and Therapeutic Sciences

The Biomedical Diagnostic and Therapeutic Sciences (BDTS) program (formerly Medical Laboratory Sciences) is designed to prepare students for professional opportunities in a variety of settings. Graduates may find employment in hospital or commercial clinical laboratories, research laboratories or public health facilities. Positions within biomedical corporations, including research and development, quality assurance and sales or service may also be prospective sources of employment. Furthermore, because it meets basic academic requirements, the curriculum for biomedical sciences provides excellent preparation for entry into post-baccalaureate professional programs including medicine, dentistry and osteopathy. The biomedical sciences program at Oakland University addresses **six specializations**:

- **Cytotechnology:** Cytotechnologists are trained medical laboratory scientists who detect disease by light microscopic examination of cell samples from all areas of the human body. They are able to detect abnormal cells and provide preliminary diagnostic information.
- **Histotechnology:** Histotechnologists perform a variety of diagnostic and research procedures in the anatomic sciences. During the clinical internship students will learn histological techniques that involve processing, sectioning, and staining of tissue specimens that have been removed from humans or animals by biopsy, surgical procedures or autopsy.
- **Medical Laboratory Science (formerly Medical Technology):** Medical laboratory scientists perform diagnostic tests on all types of body tissues and fluids, from blood to urine samples, that afford important information to determine the presence, extent or absence of disease and provide data to evaluate the effectiveness of treatment.
- **Nuclear Medicine Technology:** Nuclear medicine technologists utilize small amounts of radioactive materials for diagnosis, therapy and research. Diagnosis can involve organ imaging using gamma counters to detect radioactive material administered to the patient or analysis of biologic specimens to detect levels of various substances. Therapeutic doses of radioactive materials are also given to patients to treat specific diseases.
- **Radiation Therapy:** Radiation therapists use ionizing radiation to treat disease, especially cancer. Radiation therapists have the technical skills to plan, deliver and record a prescribed course of radiation. Their primary responsibility is to implement treatment programs prescribed by a radiation oncologist.
- **Radiologic Technology (X-Ray):** Radiologic technologists conduct patient scans, evaluate images such as x-rays, or computer images. They explain the procedure to the patient and monitor and observe patients throughout the procedure.

Students may be admitted as Pre-Biomedical Diagnostic and Therapeutic Science majors directly from high school or by transfer from other colleges or universities. With the exception of Medical Laboratory Science, students earning the degree in Biomedical Diagnostic and Therapeutic Sciences will complete a hospital-based clinical specialization internship program as part of the undergraduate degree. Medical Laboratory Science students complete the clinical internship post graduation. **Acceptance into the internship programs is competitive and is based on grade point average, personal interview and letters of recommendation.** The application process for each of the specializations is unique. Students are advised to read carefully about their chosen specialization.



Did you know that Biomedical Diagnostic and Therapeutic Sciences is an excellent major for pre-med?



## Occupational Safety and Health

Occupational Safety and Health is a specified branch of the health professions focusing on the workplace environment and on the behaviors of workers. Protecting America's workers and the general public from injury and illness in today's age of technological advancement has become one of the most challenging and rewarding professions available. Occupational Safety and Health professionals strive to identify, evaluate, eliminate or control hazards which expose people, property or the environment to danger or harm.

This professional is concerned with prevention of injuries or occupational diseases that may occur with the interaction between the worker and the chemical, physical, biological, ergonomic, mechanical, electrical and other forces in the work environment. Graduates of the Bachelor of Science in Occupational Safety and Health program at OU will find employment opportunities within a wide variety of occupations that include: health care facilities; industrial firms; construction companies; insurance companies; professional associations; local, state, and federal government; and labor organizations. Oakland's proximity to many of the nation's leading industrial companies provides a wealth of experiential learning opportunities throughout the Occupational Safety and Health curriculum, particularly for internship placement. This degree also prepares students for the Master of Science in Safety Management at Oakland University.

## Wellness, Health Promotion and Injury Prevention

The Wellness, Health Promotion and Injury Prevention program prepares graduates to address growing societal needs for specialists in diverse allied health fields. Their professional skills are utilized in health enhancement, disease prevention, injury prevention, health education/promotion, health and fitness, corporate and worksite wellness, as well as human resource practice and management.

The curriculum is designed to provide students with a broad-based introduction to this emerging multi-disciplinary field of study and, in addition, provides a specialization within one of **eight focus areas** and concludes with an internship and senior culminating experience.

- The **additional major in Psychology** focuses on health psychology, behavior change and stress management.
- The **General Health Promotion** focus is concerned with behavioral change, coping and motivation. Students in this focus area can complete a minor in Psychology.
- The **Health Promotion Intervention** focus prepares students for work in managed care and human resource development. Students in this focus area can complete the Human Resource Development minor in Training and Development.
- The **Complementary Medicine** focus prepares students to consider various healing modalities, healing traditions and psychosocial applications.
- The **Injury Prevention** focus prepares students for jobs concerned with the prevention of unintentional and intentional injury, including occupational and ergonomic applications.
- The **Exercise Science** focus educates students in exercise physiology, kinesiology and physical activity across the lifespan. This focus allows students to obtain all the academic course prerequisites necessary for consideration for admission to the Master of Science in Exercise Science program.
- The **Pre-Health Professional** focus allows students to complete 32 credit hours of pre-approved coursework in preparation for entry to a recognized health profession program. Students are advised to contact the professional school that they are interested in attending to obtain program admission information before designing this focus course of study.
- The **Nutrition and Health** focus area enables the student to complete a 22 credit minor in Nutrition and Health. This area is good preparation for further study in the areas of nutrition and dietetics and will make an employee more marketable with the necessary skills to assist registered dietitians.



## Research



The Prevention Research Center brings experts from Oakland University and the community together to make a difference in people's lives. Its core mission is to promote community health through education, promotion and translational research. Translational research discovers which strategies work in the community: the community of youth, women, or senior citizens—all at high risk.

Oakland University's undergraduate students have the opportunity to work with faculty on research projects funded by the School of Health Sciences. Undergraduate research projects in the School of Health Sciences were initiated in 2006 and have continued yearly. Research funds now housed in the Prevention Research Center are used to support students' research activities in the form of hourly wages, the purchase of research supplies and materials and in providing travel monies for conference presentations.

## Human Health Building

**Advancing Knowledge and Improving Care**

The Human Health Building serves as another vital piece in Oakland University's efforts to help transform southeastern Michigan into a destination for health care training, research and treatment, boosting the state's economic and intellectual capital. This 161,000-square-foot structure will include classrooms, simulation labs, interactive media center, physical therapy facilities, on-site clinic, seminar rooms and distance learning labs. This unique educational environment will better prepares graduates to be ready to serve the community. To learn how you can support Oakland University's Human Health Building, please contact:

**Kelly Martzloff**

Director of Development , School of Health Sciences  
(248) 370-4313

## Minors

The School of Health Sciences offers four minors which are open to students in any undergraduate academic program at Oakland University. These minors include:

- Exercise Science
- Nutrition and Health
- Occupational Safety and Health
- Wellness, Health Promotion and Injury Prevention

## Additional Information

**Contact the School of Health Sciences Academic Advising Office**

Academic advisers are available to assist students with degree requirements, course scheduling, transfer course evaluation and health career choices. Freshmen and transfer student orientation advising is required for all entering students. Thereafter, students are encouraged to make appointments with an adviser regularly to monitor their progress. Further information is available on our web site: [www.oakland.edu/shs/advising](http://www.oakland.edu/shs/advising).

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