

**OSH 442 Construction Safety (3)**

Construction safety practices and principles with an overview of program development, legislative issues and special concerns of the construction industry with respect to worker safety.

**OSH 443 Robotic and Automation System Safety Analysis (3)**

Information and issues related to worker safety in industrial environments where robots are used. The state-of-the-art of advanced automation will be surveyed, with emphasis on system safety and injury prevention features required to assure an adequate worker/robot interface.

Prerequisite: OSH 331 or instructor permission.

**OSH 444 Environmental Standards (3)**

Examines air, water, hazardous waste, pesticide and chemical regulatory standards. Topics will be analyzed in terms of standard development, enforcement at state and federal levels, and the validity of the standard's ability to protect health and the environment.

**OSH 445 Introduction to Ergonomics (3)**

Ergonomics and related change management concepts; anthropometry, biomechanics, metabolic energy expenditure, capabilities and limitations of workers; design and analysis of the workplace, hand tools, controls and products; application of the NIOSH lifting guidelines and other standards.

Prerequisite: BIO 104 or WHP 300 and WHP 305. Crosslisted with WHP 420.

**OSH 446 Industrial and Environmental Toxicology (3)**

Introduction to the basic concepts and techniques of toxicology, with special attention given to the industrial environment. Evaluation of the toxic effects of substances and toxic responses to various substances. Principles of toxicology applied to biological systems: exposure, biotransformations, mechanisms of toxicity, dose-response relationships and factors influencing toxicity. Identical with ENV 446. *Satisfies the university general education requirement for a writing intensive course in the major.* Prerequisite for writing intensive: completion of the university writing foundation requirement.

Prerequisite: an organic chemistry course.

**OSH 480 Special Topics in Occupational Safety and Health (2, 3, or 4)**

Instructor initiated research and investigation into current topics of special interest in the career field of occupational safety and health.

Prerequisite: program director permission.

**OSH 490 Directed Study and Research in Occupational Safety and Health (1, 2, 3 or 4)**

Student initiated and problem-oriented independent research and study focusing on occupational safety and health issues. May be repeated for additional credit. Graded S/U.

Prerequisite: program director permission.

**OSH 499 Occupational Safety and Health Internship (4)**

An experiential learning capstone in Occupational Safety and Health in close collaboration with professional health and safety practitioners to expose the intern to health and safety problem identification, evaluation, and control and to health and safety program planning and evaluation. May only be taken by students with major standing and minimum 2.0 GPA in all OSH courses. Graded S/U.

Prerequisite: program director permission.

## Physical Therapy

(See requirements for the B.S. in Health Sciences with a pre-physical therapy concentration)

Director: Kristine A. Thompson

**Associate professors:** *Jacqueline Drouin, John R. Krauss*

**Assistant professors:** *Douglas S. Creighton, Melodie Kondratek, Cathy A. Larson, Sara Maher, Marie-Eve Pepin, Susan E. Saliga*

**Special instructors:** *Christine Stiller, Kristine A. Thompson*

**Adjunct instructor:** *R. Elizabeth Black*

**Consulting professors:** *Olaf Evjenth, Beth Marcoux*

**Clinical assistant professors:** *Cathy A. Larson, Frederick D. Pociask, Gretchen D. Reeves, Bjorn W. Svendsen, Christopher Wilson*

**Senior clinical instructors:** *Sara Arena, David A. Tomsich*

**Clinical instructors:** *Henry D. Boutros, David Gilboe, Helene M. Grabam, Pamela S. Knickerbocker, Gregory Kopp, Kathleen Jakubiak Kovacek, Peter R. Kovacek, Jeffrey Placzek, Janet Siedel, Angela C. Strong, Kim Schwartz, Jody Tomasic*

See *Requirements for the B.S. degree with a major in health sciences and pre-physical therapy academic concentration. The pre-physical therapy focus is designed to prepare students for the traditional application requirements for the Oakland University Doctor of Physical Therapy (DPT).*

## Course Offerings

### **PT 302 Physical Therapy as a Profession (2)**

A course for students who are considering a career in physical therapy. Students will examine professional development, behavior and roles in physical therapy clinical, academic and research settings. The current practice of physical therapy in various settings is covered.  
Prerequisite: Junior standing.

### **PT 321 Basic Athletic Training (2)**

Course directed to competitive sports and the recognition and immediate care of athletic injuries. Evaluative and treatment procedures and techniques are presented and practiced. Identical with EXS 321.  
Prerequisite: BIO 205, BIO 207, EXS 350.

### **PT 490 Directed Study (1, 2, 3 or 4)**

Student initiated and problem-oriented directed study focusing on physical therapy issues. May be repeated for additional credit. Graded numerically or S/U.  
Prerequisite: program permission.

## Wellness, Health Promotion, and Injury Prevention (WHP) Program

**Director:** *Stafford C. Rorke*

**Associate professor:** *Stafford C. Rorke*

**Assistant professor:** *Patricia A. Wren*

**Clinical instructors:** *Teri Kolar, Terry Dibble, Lucille Sternburgh*

The wellness, health promotion, and injury prevention program prepares graduates to address growing societal needs for specialists in diverse allied health fields. Graduates find employment in a variety of commercial, industrial, government, hospital, community and non-profit organizations. Their