

Physical Education/Graduation Requirement ..... 2 hours

Major Requirements ..... 65 hours

- OCTH412 Models of Practice (3 hrs)
- OCTH419 Programming I (6 hrs)
- OCTH420 Level I Fieldwork I (3 hrs)
- OCTH495 Neurological Foundations of Human Occupation (3 hrs)
- OCTH500 Philosophy of Occupational Therapy (3 hrs)
- OCTH502 Theory and Analysis of Occupation (3 hrs)
- OCTH516 Level I Community Fieldwork II (3 hrs)
- OCTH517 Level I Community Fieldwork III (3 hrs)
- OCTH519 Programming II (6 hrs)
- OCTH540 Research Methods I (3 hrs)
- OCTH588 Fieldwork Level II: Clinical Skills (6 hrs)
- OCTH589 Fieldwork Level II: Clinical Skills (6 hrs)
- OCTH600 Supervision and Professional Roles (3 hrs)
- OCTH619 Programming III (6 hrs)
- OCTH686 Culminating Project I (3 hrs)
- OCTH687 Culminating Project II (3 hrs)
- HLAD510 Medical Care Organization (3 hrs)

Minor Requirements ..... 0 hours

*No minor is required.*

University Elective Courses ..... 26 hours

*OCTH100 Orientation to Occupational Therapy, OCTH201 Exploring Occupational Performance in the Community and OCTH350 Exploring Occupational Performance in the Context of a Disability are strongly recommended. Please see an intent adviser for further recommended courses.*

Program Total ..... 152 hours

Note:

*\*This course satisfies both a general education and a major requirement.*

## MASTER OF SCIENCE IN CLINICAL RESEARCH ADMINISTRATION (CRAD)

In recent years, there has been tremendous growth in pharmaceutical and medical device research and development. This growth has been in the traditional pharmaceutical companies and in the emerging biotechnology industry. Many factors have fueled this expansion, including the emergence of new discovery and manufacturing technologies, new drug therapies, the Human Genome Project, high throughput screening and the need for new pharmaceuticals that has been generated by population growth and the aging of the "baby boom" generation. In 2004, a record \$45 billion was invested in pharmaceutical research in the United States. In order to conduct this growing clinical research enterprise, there needs to be an expanded and better qualified workforce. This workforce must possess the knowledge, skills, attitudes and abilities necessary to accomplish the tasks of coordinating and monitoring clinical studies as well as managing data and interfacing with the regulatory agencies. Eastern Michigan University developed one of the first academic programs designed to produce individuals credentialed to function in the area of Clinical Research Administration and is now a national leader in the area.

The mission of EMU's Clinical Research Administration Program is twofold: a) to provide an opportunity for professionals participating in the drug/device development process to increase their knowledge base as well as their research/creative skills. This should provide a pathway for upward mobility in their professional careers within the drug/device research and development industry. b) to provide an academic experience which includes both didactic information and hands-on preceptorships in order to provide qualified new personnel to the drug development industry.

Toward this end, EMU has developed two interlinked programs. The postbaccalaureate certificate in clinical research administration consists of four courses which provide information concerning the Drug Development Process, Good Clinical Practice (GCP), Federal Regulations and Guidelines (United States and international), Clinical Research Protocol development, implementation and monitoring. Courses are offered in a format which suits the non-

traditional student and allow the student with a full-time job to complete the courses while continuing to work. Upon satisfactory completion of the didactic component of the program, students may apply for admission into a hands-on preceptorship experience with contract research organizations, pharmaceutical firms and clinical facilities which collaborate with the Program.

The masters degree in clinical research administration is designed for individuals who are already employed in the industry and desire increased perspective, competency and a higher level of responsibility. The four required courses in the certificate program are supplemented with program electives, cognate electives and a project or thesis.

EMU's Clinical Research Administration program is fortunate to have the support and collaboration of the following organizations:

- Pfizer, Inc.
- STATPROBE, Inc.
- Consortium of Academic Programs in Clinical Research
- Oakwood Hospital
- Borgess Research Institute
- Providence Hospital
- University of Michigan Hospital
- William Beaumont Hospital
- University of Michigan Center for Clinical Investigation and Therapeutics
- St. Joseph's Mercy Hospital
- Karmanos Cancer Center
- Henry Ford Hospital

### Admission Requirements

1. Documentation that a Baccalaureate degree has been earned must be presented
2. Undergraduate GPA above 2.75
3. A degree in the health professions is suggested, although not required
4. The GRE is *not* required

One may apply for admission to the program by requesting an application from the Graduate School at Eastern Michigan University by calling 800.GO-TO-EMU, 734.487.3060 or via e-mail at [graduateadmissions@emich.edu](mailto:graduateadmissions@emich.edu)

Students may register for up to six graduate credits without being formally accepted into a graduate program. These credits may later apply to a degree or certificate once the student is accepted into the program. Students who wish to take courses in this manner should register as self-improvement students through Continuing Education.

Required Courses..... 13 hours

- CLRA510 Introduction to Drug Development (3 hrs)
- CLRA520 Clinical Study Management I (3 hrs)
- CLRA530 Clinical Study Management II (3 hrs)
- CLRA540 Advanced Topics in Clinical Research Administration (3 hrs)
- CLRA601 Graduate Seminar in Drug Development (1 hr)

Elective Courses..... 18 hours

*18 hours from the following:*

- CLSC432 Clinical Microbiology (3 hrs)
- CLSC501 Fundamentals of Epidemiology (3 hrs)
- CLRA550 Preceptorship in Drug Development (3 hrs)
- CLRA561 Legal Issues in Drug Development (2 hrs)
- CLRA571 Grants and Contracts Management for Research Administration (3 hrs)
- CLRA581 Regulatory Affairs in Drug Development (2 hrs)
- HLAD510 Health Care in the United States (3 hrs)
- HLAD511 Health Law (3 hrs)
- NURS500 Advanced Pathophysiology (3 hrs)
- CHEM411 Toxicology I (2 hrs)
- CHEM412 Toxicology II (2 hrs)
- CHEM414 Regulatory Toxicology (2 hrs)
- CHEM515 Industrial and Environmental Chemistry (3 hrs)
- CHEM555 Neurochemistry (3 hrs)
- CHEM571 Advanced Organic Chemistry (3 hrs)
- BIOL542 Molecular Genetics (3 hrs)
- OCTH540 Research Methods (3 hrs)

**Thesis or Project** .....3-9 hours  
*One course from the following:*  
 \*CLRA690/691/692 Thesis (1-3 hrs)  
 \*CLRA695 Special Project in Clinical Research Administration (3 hrs)

**Program Total** ..... 34-40 hours

*Note:*  
 \*Course may be repeated for credit.

## MASTER OF SCIENCE IN HUMAN NUTRITION — NUTRITION THERAPY

**Required Courses**..... 17 hours  
 DTC628 Medical Nutrition Therapy (3 hrs)  
 DTC500 Research Design & Methods (2 hrs)  
 DTC509 Nutrition Support (3 hrs)  
 DTC618 Advanced Topics in Nutrition (3 hrs)  
 DTC538 Outcomes Management (3 hrs)  
 DTC518 Interdisciplinary Team Functions (3 hrs)

**Supporting Courses** .....0-5 hours  
*Zero to five hours from the following:*  
 DTC608 Advanced Topics in Foods (3 hrs)  
 DTC659 Development of the Entrepreneurial Dietitian (3 hrs)  
 HRM680 Certified Hospitality Educator Course (CHE) (2 hrs)  
 DTC638 Cultural Nutrition and Nutritional Therapy (3 hrs)  
 DTC648 Methods and Strategies for Community-Based Nutrition Services (3 hrs)  
 DTC668 Proteins, Lipids, and Carbohydrates (3 hrs)  
 DTC669 Vitamins and Minerals (3 hrs)  
 DTC590/591/592 Special Topics (1/2/3 hrs)  
 DTC597/598/599 Independent Study (1/2/3 hrs)  
 DTC607 Colloquium (2 hrs)  
 DTC679/680/681 Special Topics (1/2/3 hrs)  
 DTC683 Workshop (2 hrs)  
 DTC686/687/688/689 Practicum (1/2/3/4 hrs)  
 DTC697/698/699 Independent Study (1/2/3 hrs)

**Culminating Experience** .....6 hours  
*Select from either option I or option II:*  
**Option I:** DTC691/692/690 Thesis I, II, III (2/3/1 hrs)  
**Option II:** DTC600/695/650 Research Project I, II, III (2/3/1 hrs)

**Cognate Courses (courses taken outside the department)** .....2-7 hours  
**Required Cognate Course**  
 EDPS621 Statistical Application of Educational Research (2 hrs)  
**Supporting Courses**  
*Additional courses selected in consultation with the graduate adviser.*  
**Deficiencies**  
*Courses determined in consultation with program adviser and completed prior to placement on planned program. Not counted in semester hours for master's degree but are additional hours required for deficient academic courses.*

**Program Total** .....30 hours

## MASTER OF SCIENCE IN HUMAN NUTRITION — AGING

**Required Courses**..... 13 hours  
 DTC658 Nutrition and Aging (3 hrs)  
 DTC500 Research Design & Methods (2 hrs)  
 DTC608 Advanced Topics in Foods (3 hrs)  
 DTC618 Advanced Topics in Nutrition (3 hrs)  
 DTC687 Practicum in Aging (2 hrs)

**Culminating Experience** ..... 6 hours  
*Select from either option I or option II:*  
**Option I:** DTC691/692/690 Thesis I, II, III (2/3/1 hrs)  
**Option II:** DTC600/695/650 Research Project I, II, III (2/3/1 hrs)

**Cognate Courses (courses taken outside the department)** ..... 12 hours  
**Required Cognate Courses**  
 EDPS621 Statistical Application of Educational Research (2 hrs)  
 BIOL511 The Biology of Aging (2 hrs)  
 GERT512 Applied Psychosocial Aspects of Aging (3 hrs)  
 SWRK553 Ethnicity and Gender Issues Among the Aged (2 hrs)  
 SWRK552 Policy Issues and Older People (3 hrs)

**Deficiencies**  
*Courses determined in consultation with program adviser and completed prior to placement on planned program. Not counted in semester hours for master's degree but are additional hours required for deficient academic courses.*

**Program Total** .....31 hours

## MASTER OF SCIENCE IN HUMAN NUTRITION — PREVENTION

**Required Courses**..... 17 hours  
 DTC638 Cultural Nutrition and Nutritional Therapy (3 hrs)  
 DTC500 Research Design & Methods (2 hrs)  
 DTC608 Advanced Topics in Foods (3 hrs)  
 DTC648 Methods and Strategies for Community-Based Nutrition Services (3 hrs)  
 DTC538 Outcomes Management (3 hrs)  
 DTC659 Development of the Entrepreneurial Dietitian (3 hrs)

**Supporting Courses** .....0-5 hours  
*Zero to five hours from the following:*  
 DTC509 Nutrition Support (3 hrs)  
 DTC518 Interdisciplinary Team Functions (3 hrs)  
 HRM680 Certified Hospitality Educator Course (CHE) (2 hrs)  
 DTC628 Medical Nutrition Therapy (3 hrs)  
 DTC618 Advanced Topics in Nutrition (3 hrs)  
 DTC668 Proteins, Lipids, and Carbohydrates (3 hrs)  
 DTC669 Vitamins and Minerals (3 hrs)  
 DTC590/591/592 Special Topics (1/2/3 hrs)  
 DTC597/598/599 Independent Study (1/2/3 hrs)  
 DTC607 Colloquium (2 hrs)  
 DTC679/680/681 Special Topics (1/2/3 hrs)  
 DTC683 Workshop (2 hrs)  
 DTC686/687/688/689 Practicum (1/2/3/4 hrs)  
 DTC697/698/699 Independent Study (1/2/3 hrs)

**Culminating Experience** .....6 hours  
*Select from either option I or option II:*  
**Option I:** DTC691/692/690 Thesis I, II, III (2/3/1 hrs)  
**Option II:** DTC600/695/650 Research Project I, II, III (2/3/1 hrs)

**Cognate Courses (courses taken outside the department)** .....2-7 hours  
**Required Cognate Course**  
 EDPS621 Statistical Application of Educational Research (2 hrs)  
**Supporting Courses**  
*Additional courses selected in consultation with the graduate adviser.*  
**Deficiencies**  
*Courses determined in consultation with program adviser and completed prior to placement on planned program. Not counted in semester hours for master's degree but are additional hours required for deficient academic courses.*

**Program Total** .....30 hours