

# Online Master of Applied Clinical and Preclinical Research (MACPR)

## Program Overview and Curriculum

For more information, please visit: [www.macpr.osu.edu](http://www.macpr.osu.edu)

### Program Highlights:

**100% ONLINE:** The **Master of Applied Clinical and Preclinical Research (MACPR)** program is offered 100% online in an asynchronous format through a collaboration of the OSU Colleges of Nursing, Pharmacy, and Medicine.

**MULTIDISCIPLINARY CURRICULUM:** The program offers a multidisciplinary curriculum, covering the theory and practice of research methods and statistics, the ethics of human subject and animal research, the science of pharmacology and medical product regulation, and the business of research operations and management. Graduates will have acquired the skills and knowledge required to conduct, manage, and regulate clinical trials as identified by the [Join Task Force \(JTF\) for Clinical Trial Competency](#).

**SPECIALIZATIONS:** Two interdisciplinary specializations are offered:

1. **Clinical Research Management** (directed by the College of Nursing)
2. **Regulatory Affairs** (directed by the College of Pharmacy)

**WHO SHOULD APPLY?** Designed for applicants with any undergraduate degree, this program is particularly well suited for graduates with a degree in the biological/life sciences or pharmaceutical sciences, health care professionals, and those with graduate degrees in the biomedical sciences seeking to diversify their training. There are no course prerequisites for admission.

**CAREER OPPORTUNITIES:** The program prepares students to excel as effective administrators, regulatory compliance specialists, and research team members in clinical and preclinical research. Graduates are prepared for rewarding careers as clinical research coordinator and managers, clinical research associates (monitors), project and data managers, clinical research trainers, regulatory compliance officers, institutional review board specialists, research quality analysts, and many other positions.

**FINAL MASTER'S ASSESSMENT:** As a final master's activity, all students compile an ePortfolio of work showcasing their achievements in each of the eight Join Task Force Clinical Trial Competency Domains. The MACPR degree does not require thesis or a comprehensive master's exam.

### Program of Study:

The MACPR curriculum consists of 36 credits organized into three curricular areas:

1. **Core coursework** (21 credits minimum), aligns with the JTF for Clinical Trial Competencies for conducting clinical research
2. **Specialization coursework** (12 credits)
3. **Capstone** (3 credits minimum), in the form of a clinical research practicum or project

### Contact:

For information please contact:

Nikki Herbert, MA  
Manager of Online Graduate Programs  
760 Kinnear Road, Room 211  
Columbus, OH 43212  
Phone 614-688-3663  
Email [herbert.1865@osu.edu](mailto:herbert.1865@osu.edu)

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## Coursework Requirements:

| <b>Core Courses</b> (21 credits required)  |  |
|--|--|
| Pharmacy 5010  | Fundamentals of Pharmacology ( <i>for students without prior pharmacology coursework</i> )   |
| Nursing/Pharmacy 7770:   | Fundamentals of Medical Product Development and Regulation   |
| Nursing 7781:  | Responsible Conduct of Research  |
| Nursing/Pharmacy 7782:   | Clinical Research Design and Methods   |
| Nursing/Pharmacy 7405:   | Clinical Research Study and Site Management  |
| Nursing/Pharmacy 7482:   | Principles of Quality Management for Medical Product Development   |
| Pharmacy 7784  | Data Analysis and Interpretation for Clinical and Preclinical Research ( <i>biostatistics</i> )  |
| <b>Specialization Courses</b> (additional 12 credits required)   |  |
| <b>Clinical Research Management</b>  | <b>Regulatory Affairs</b>  |
| Nursing 7404: Project Management for Healthcare and Clinical Research  | Pharmacy 7460: Regulatory Strategy and Clinical Trial Reporting  |
| Nursing 7481: Data Management and Informatics in Clinical Research   | Pharmacy 7572: Global Regulation of Medical Products   |
| Select two: <ul style="list-style-type: none"> <li>Nursing 7402: Economic Evaluation of Healthcare Interventions</li> <li>Pharmacy 7570: Pharmaceutical Safety &amp; Risk Management</li> <li>Pharmacy 5005: Fundamentals to Pathophysiology</li> <li>CBG/Pharmacy 5700: Introduction to Personalized Therapeutics and Pharmacogenomics</li> </ul> | Pharmacy 7570: Pharmaceutical Safety & Risk Management<br>Select one: <ul style="list-style-type: none"> <li>Nursing 7481: Data Management and Informatics in Clinical Research</li> <li>Pharmacy 7580: Principles of Safety Pharmacology</li> </ul> |
| <b>Capstone</b> (Practicum/Project) (3 credits required)   |  |
| Nursing/Pharmacy 7599: Capstone  |  |