

# CLINICAL RESEARCH, MS

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**Degree:** Master of Science (MS)  
**Field of Study:** Clinical Research

## Program Overview

The Clinical Research Scholars Program (CRSP) is designed for individuals committed to a career in clinical investigation (either as a lead researcher or a non-clinician research team member) in an academic or related field. CRSP offers a Master of Science in Clinical Research degree through two pathways - Thesis Pathway or Capstone Pathway.

Training in both clinical research and career development provides CRSP Scholars with an educational experience that prepares them to identify a research question and critically evaluate relevant literature; transform the question into a feasible and valid study design; develop and execute the study protocol; and analyze and effectively communicate the findings.

## Faculty

The program resides in the School of Medicine's Department of Population and Quantitative Health Sciences (PQHS). The academic units involved include the Schools of Medicine, Nursing, Management, and Dental Medicine. The faculty is selected for their expertise and commitment to teaching and mentorship in clinical investigation. They are primarily drawn from the Departments of Medicine, Pediatrics, and PQHS from the School of Medicine.

**Important Note:** The program information contained on this page is current as of July 1st, 2023. For the most current information, we advise you to review the MS in Clinical Research Scholars program handbook.

## Graduate Policies

For graduate policies and procedures, please review the School of Graduate Studies section of the General Bulletin.

## Program Requirements

The Clinical Research Scholars Program (CRSP) is designed for individuals committed to a career in clinical investigation in an academic or related field.

CRSP offers a Master's Degree in Clinical Research through two pathways:

- Pathway #1 - Thesis
  - Curriculum was developed for those with an existing degree in medicine, dentistry, nursing, or an allied science such as pharmacy or biomedical engineering.
  - This pathway is to prepare a new generation of clinical investigators for leadership roles in academia, government, and industry.
- Pathway #2 - Capstone
  - Curriculum was created for individuals who may not become a lead clinical investigator, but who:

- desire strong preparation in clinical research methods and associated statistical approaches
- envision themselves playing a critical role on the clinical research team as a research assistant, study coordinator, or data manager
- See acquiring the clinical research skill set as a stepping stone for further graduate or professional education
- This pathway is to provide the student with fundamental knowledge and/or experience in important tasks related to the clinical research endeavor.

Training in both clinical research and career development provides CRSP Scholars with an educational experience that prepares them to identify a research question and critically evaluate relevant literature; transform the question into a feasible and valid study design; develop and execute the study protocol; and analyze and effectively communicate the findings.

The CRSP program consists of three parts:

- a. Formal didactic modular and semester-long coursework
- b. A seminar series that focuses on professional skills required for career development
- c. An intensive mentored experience centered on a specific clinical research problem (Thesis Pathway) or a Capstone project (Capstone Pathway)

It is expected that individuals so trained can master fully the challenges in clinical investigation of the next decade, particularly the new translational opportunities being developed. As such, they should be attractive candidates for positions in clinical science departments, research institutes, or industry.

## Curriculum for the Thesis Pathway

30 credit hours are required (of which 15 are core coursework; 9 of thesis research; and 6 of elective coursework) for completion of this Master of Science in Clinical Research degree.

### Core Courses and Thesis Requirement

Code	Title	Hours
CRSP 401	Introduction to Clinical Research Summer Series	3
PQHS 490	Epidemiology: Introduction to Theory and Methods	3
CRSP 412	Communication in Clinical Research - Grant Writing	1
CRSP 413	Communication in Clinical Research - Oral Presentation, Posters, and the Mass Media	1
CRSP 603	Research Ethics and Regulation <sup>a</sup>	1
CRSP 651	Thesis M.S.	9
CRSP 431	Statistical Methods I <sup>b</sup>	3
CRSP 432	Statistical Methods II <sup>c</sup>	3
Electives		6
<b>Total Hours</b>		<b>30</b>

- a 1 credit hour is required; students may take the 2 credit-hour option.
- b Or equivalent (e.g. NURS 630 Advanced Statistics: Linear Models)
- c Or equivalent (e.g. NURS 631 Advanced Statistics: Multivariate Analysis)

## Curriculum for the Capstone Pathway

30 credit hours are required (of which 12 are core coursework; 3 Capstone; and 15 are elective coursework) for completion of this Master of Science in Clinical Research degree.

### Core Courses and Capstone

Code	Title	Hours
CRSP 401	Introduction to Clinical Research Summer Series	3
PQHS 490	Epidemiology: Introduction to Theory and Methods	3
CRSP 413	Communication in Clinical Research - Oral Presentation, Posters, and the Mass Media	1
CRSP 603	Research Ethics and Regulation <sup>a</sup>	2
CRSP 650	Capstone Experience	3
CRSP 431	Statistical Methods I <sup>b</sup>	3
Electives		15
<b>Total Hours</b>		<b>30</b>

a 2 credit hours are required for the CRSP program.

b Or equivalent (e.g. NURS 630 Advanced Statistics: Linear Models)

Each scholar is encouraged to develop their own area of concentration based on personal interests and needs. Please consult with CRSP faculty and your Advisor on which electives will best suit your needs.

**Important Note:** The program information contained on this page is current as of July 1st, 2023. For the most current information, we advise you to review the MS in Clinical Research Scholars program handbook. You can find the most recent Program Handbook here.

## Sample Plan of Study

### Thesis Pathway

<b>First Year</b>		
<b>Summer</b>		<b>Hours</b>
CRSP 401	Introduction to Clinical Research Summer Series	3
<b>Hours</b>		<b>3</b>
<b>Fall</b>		
PQHS 490	Epidemiology: Introduction to Theory and Methods	3
CRSP 603	Research Ethics and Regulation	1
CRSP 431	Statistical Methods I	3
CRSP 413	Communication in Clinical Research - Oral Presentation, Posters, and the Mass Media	1
<b>Hours</b>		<b>8</b>
<b>Spring</b>		
CRSP 412	Communication in Clinical Research - Grant Writing	1
Elective		3
CRSP 432	Statistical Methods II	3
<b>Hours</b>		<b>7</b>
<b>Second Year</b>		
<b>Summer</b>		
CRSP 651	Thesis M.S.	3
<b>Hours</b>		<b>3</b>

### Fall

CRSP 651	Thesis M.S.	3
Elective		3
<b>Hours</b>		<b>6</b>

### Spring

CRSP 651	Thesis M.S.	3
<b>Hours</b>		<b>3</b>
<b>Total Hours</b>		<b>30</b>

## Capstone Pathway

### First Year

<b>Summer</b>		<b>Hours</b>
CRSP 401	Introduction to Clinical Research Summer Series	3
CRSP 406	Introduction to R Programming	3
<b>Hours</b>		<b>6</b>

### Fall

PQHS 490	Epidemiology: Introduction to Theory and Methods	3
CRSP 431	Statistical Methods I	3
CRSP 413	Communication in Clinical Research - Oral Presentation, Posters, and the Mass Media	1
CRSP 603	Research Ethics and Regulation	2
<b>Hours</b>		<b>9</b>

### Spring

Electives		9
<b>Hours</b>		<b>9</b>

### Second Year

<b>Summer</b>		
CRSP 650	Capstone Experience	3
Electives		3
<b>Hours</b>		<b>6</b>
<b>Total Hours</b>		<b>30</b>

## Dual Degree Options

- Clinical Research, MS/Medicine, MD