# FUNDAMENTALS OF CLINICAL RESEARCH, GRADUATE/ PROFESSIONAL CERTIFICATE

To conduct patient-oriented clinical studies adequately, it is necessary to understand the principles of research design and statistical analysis. With increasing complexities in clinical research, it is imperative that clinical researchers receive a minimum training in clinical research methods. The objective of the certificate in the fundamentals of clinical research is to provide formalized training in clinical research methodology and a practicum in research design and statistical analysis in patient-oriented clinical research. Areas of study include: biostatistics, epidemiology, research ethics and the responsible conduct of research, and clinical trials design and implementation.

## **ADMISSIONS**

Applications to the certificate program are considered on a rolling basis. Students in graduate or professional school at the UW–Madison simply apply in time to register for the semester in which they want to start the certificate courses.

Submit the Graduate or Professional Certificate application (https://ictr.wisc.edu/documents/professional-certificate-in-the-fundamentals-of-clinical-research-application/).

All forms and materials can be emailed in PDF form (preferred), delivered, or mailed to:

Graduate Program Manager (see contact box for individual contact information)

studentinquiry@ictr.wisc.edu 2112 Health Sciences Learning Center 750 Highland Avenue

Madison, WI 53705

\*All Graduate School students must also utilize the Graduate Student Portal in MyUW to add, change, or discontinue any graduate/professional certificate. To apply to this certificate, log in to MyUW, click on Graduate Student Portal, and then click on Add/Change Programs. Select the information for the graduate/professional certificate for which you are applying.

# **REQUIREMENTS**

The Certificate Program in the Fundamentals of Clinical Research consists of five courses for a total of 12-15 credits.

Code Title Credits

#### **Required Courses**

Students complete the following courses.

B M I/STAT 542 Introduction to Clinical Trials I

POP HLTH/ Introduction to Epidemiology SOC 797

#### **Biostatistics Requirement**

Students complete 3-6 credits to fulfill this requirement. Course selections are listed below.

B M I/STAT 541 Introduction to Biostatistics

BMI 699 Independent Study <sup>1</sup>

B M I/ Introduction to Biostatistics for

POP HLTH 551 Population Health

& B M I/ and Regression Methods for

POP HLTH 552 Population Health

#### **Clinical Translational Science Requirement**

Students complete 3-credits to fulfill this requirement.

Course selections are listed below.

B M I 544 Introduction to Clinical and Healthcare Research II

B M I 773 Clinical Research Informatics
POP HLTH 709 Translational and Outcomes

Translational and Outcomes

Research in Health and Health Care

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The 1-credit B M I 699 is for students with instructor consent who have prior statistics (not biostatistics) coursework. Students who take this option must also complete an additional 2 credits. Consult with certificate program for course options.

Questions can be directed to the Graduate Program Manager, at studentinquiry@ictr.wisc.edu. (studentinquiry@ictr.wisc.edu)

## LEARNING OUTCOMES

- Determine when it is appropriate to use a patient-oriented research design to investigate a translational clinical problem.
- 2. Understand the principles of clinical research design and statistical analysis.
- 3. Understand the principles of multidisciplinary patient-oriented clinical research protocols.
- Apply and foster professional, ethical and responsible conduct of clinical research.