

Clinical and Translational Science, Certificate

Requirements

The undergraduate Certificate in Clinical and Translational Science requires 16 s.h. of credit. Students must maintain a grade-point average of at least 3.00 in the certificate's core courses. Work for the certificate includes core courses and electives. Students must complete all coursework for the certificate within three years of entering the program.

The Certificate in Clinical and Translational Science requires the following coursework.

Core Courses

Course #	Title	Hours
All of these (10 s.h.):		
EPID:4400	Epidemiology I: Principles	3
STAT:3510/ IGPI:3510	Biostatistics (or an equivalent course)	3
URES:3001	Introduction to Translational Research (must take EPID:4400 before or at the same time as this course)	2
URES:3002	Practicum in Clinical and Translational Science (capstone course; must take URES:3001 before this course)	2

Electives

Students must earn a total of 6 s.h. in courses chosen from the following lists.

Creative Writing

Course #	Title	Hours
CNW:3664/ ENGL:3764	Writing About Science	3

Life Sciences

Course #	Title	Hours
BIOL:2254	Endocrinology	3
BIOL:2723	Cell Biology	3
BIOL:2753	Introduction to Neurobiology	3
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3253	Neurobiology I	4
BIOL:3713	Molecular Genetics	4
BIOL:4213/ GENE:4213/ IGPI:4213	Bioinformatics	2,4
BIOL:4333	Genes and Development	3
BMB:3110	Biochemistry	3
BMB:3120	Biochemistry and Molecular Biology I	3

BMB:3130	Biochemistry and Molecular Biology II	3
MICR:2157	General Microbiology	3
MICR:3147	Immunology and Human Disease	3

Global Health

Course #	Title	Hours
GHS:3010/ IGPI:3011	Social Science Approaches to Global Health (when topic is research design in global health)	3
GHS:3111/ SEES:3110	Geography of Health	3
GHS:3720	Contemporary Issues in Global Health	3

Health, Sport, and Human Physiology

Course #	Title	Hours
ACB:3110	Principles of Human Anatomy	3
HHP:2100	Human Anatomy	3
HHP:2130	Human Development Through the Life Span	3
HHP:2200	Physical Activity and Health	3
HHP:2310	Nutrition and Health	3
HHP:2400	Fundamentals of Human Physiology	3
HHP:3500	Human Physiology	3
HHP:3850/ GHS:3850	Promoting Health Globally	3
NURS:1030	Human Development and Behavior	3

Psychological and Brain Sciences

Course #	Title	Hours
PSY:2301	Introduction to Clinical Psychology	3
PSY:2401	Introduction to Developmental Science	3
PSY:2501	Introduction to Social Psychology	3
PSY:2601	Introduction to Cognitive Psychology	3
PSY:2701	Introduction to Behavioral Neuroscience	4

Public Health

Course #	Title	Hours
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
CPH:1400	Fundamentals of Public Health	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
CPH:3500/ GHS:3500	Global Public Health	3
HMP:4000	Introduction to the U.S. Health Care System	3
OEH:4240	Global Environmental Health	3

Admission

Admission to the certificate program is selective. Applicants must fulfill the following requirements by the end of the semester in which they apply:

- have a cumulative grade-point average of at least 3.00;
- have earned a minimum of 45 s.h. of college-level credit;
- have been engaged in mentored scientific research at the University of Iowa;
- have completed BIOL:1411 Foundations of Biology or BIOL:1141 Human Biology: Health Professions; and
- have completed MATH:1460 Calculus for the Biological Sciences or MATH:1550 Engineering Calculus I or MATH:1850 Calculus I.

Application

Interested students should apply through the certificate program's student application system. Applications are accepted on a rolling basis and are reviewed by the Certificate in Clinical and Translational Science steering committee. Students will receive an email after an admissions decision has been made. Consult the Undergraduate Certificate in Clinical and Translational Science website for more information.

Applications should include the following:

- a description of the student's undergraduate research (maximum of 1,000 words), including the approximate number of hours per week the student spends conducting this research and the name and email address of the student's research mentor;
- a personal statement outlining the student's professional and career goals;
- a copy of the student's grade report from MyUI; and
- a letter of recommendation from the student's research mentor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Clinical and Translational Science, Certificate

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Clinical and Translational Science certificate program through a selective process. Acceptance is not guaranteed.		
		Hours
		0
First Year		
Any Semester		
BIOL:1411 or BIOL:1141	Foundations of Biology or Human Biology: Health Professions	4

Certificate: calculus requirement (prerequisite for admission to Clinical and Translational Science certificate) ^{a, b}	4
Research: search for mentored scientific research opportunities ^c	
Hours	
8	

Second Year	
Any Semester	
Certificate: clinical and translational science elective course ^d	2 - 4
Admission Application: apply to the Clinical and Translational Science certificate program on the Early Scholars Certificate in Clinical and Translational Science website ^e	
Hours	
2-4	

Third Year	
Any Semester	
EPID:4400	Epidemiology I: Principles ^f 3
Certificate: clinical and translational science elective course ^d	2 - 4
Hours	
5-7	

Fourth Year	
Any Semester	
STAT:3510	Biostatistics ^f 3
URES:3001	Introduction to Translational Research ^f 2
URES:3002	Practicum in Clinical and Translational Science ^f 2
Certificate: clinical and translational science elective course, if needed ^d	2 - 4
Hours	
9-11	
Total Hours	
24-30	

a Choose from MATH:1460, MATH:1550, or MATH:1850.
 b Enrollment in math courses requires completion of a placement exam.
 c The Office of Undergraduate Research (OUR) maintains resources and position listings on their website.
 d Students must earn a total of 6 s.h. in elective courses for the certificate. See General Catalog for a list of approved courses.
 e Applicants must fulfill the following requirements by the end of the semester in which they apply: have a cumulative GPA of at least 3.00, have earned a minimum of 45 s.h. of college-level credit, have been engaged in mentored scientific research at the University of Iowa, have completed the necessary prerequisite courses.
 f Students must maintain a GPA of at least 3.00 in the certificate's core courses.