

Human Centered Health Solutions Certificate of Undergraduate Study Program Guide

Program Information

The Human Centered Health Solutions Certificate of Undergraduate Study (HCHS CUGS) will teach students how to take the complexity and limitations of human information processing into account when designing systems. They will gain an appreciation of the cognitive, physical, environmental, and social aspects in design, and understand the impact of cognitive biases. This will be attractive to Psychology students, Engineering students, Pre-Health students and to other students who are interested in learning how to improve productivity and effectiveness by designing systems, products, processes, and applications that are both usable and useful. It is extremely rare for undergraduates to gain exposure to and experience applying human factors research methods, meanwhile the demand for human factors expertise in healthcare is strong and growing each year. Graduates from this program will be attractive to employers in the healthcare sector and will have an advantage over peers in applying to graduate programs in Human Factors. The HCHS CUGS includes two 3-credit required courses and 6 credits of supervised research, where students work on an approved project.

Admission Requirements

- All students are able to participate, but they must have a minimum GPA of 3.0, or obtain faculty permission.
- Students must have completed the following prerequisites*:
 - 1) PSY 01107 Essentials of Psychology or PSY 01108 Essentials of Psychology for pre-health students or ENGR 01102 Freshman Engineering Clinic II or INTR 01265 Computers and Society or MCB 01102 Foundations in Biology for Biomedical Sciences II
 - 2) PSY 07301 Statistics in Psychology or STAT 02100 Elementary Statistics or MATH 01130 Calculus I or HES 00346 Introduction to Biomechanics.
 - 3) PSY 01327 Cognitive Psychology or Instructor Permission

*These are the same prerequisites for PSY 09400 Introduction to Human Factors, the first core course.

Program Requirements

The HCHS CUGS requires completion of a minimum of 12 credits of work distributed as follows:

- Core Courses 6 cr.
- Supervised Research in Human-Centered Design topic 6 cr.
 - Either: PSY 01426: Research Clinic in Psychology (3 s.h., taken twice), 6 s.h. in all
 - OR 3 semesters total of ENGR 01303: Junior Engineering Clinic, 2 s.h. AND ENGR 01403: Senior Engineering Clinic, 2 s.h., 6 s.h. in all
 - Engineering students must take 6 credits of Engineering Clinic [2 credits Junior Clinic (ENGR 01303) and 4 credits Senior Clinic (ENGR 01403), or 4 credits Junior Clinic (ENGR 01303) and 2 credits Senior Clinic (ENGR 01403)], Psychology students must take 6 credits of Research Clinic in Psychology (PSY 01426).
 - Only engineering students will take Engineering clinic (ENGR 01303 and ENGR 01403), there are no limitations upon advisor, only upon their project. All other students will take research in Psychology and be advised by a faculty member with HF expertise.

NOTE: Psychology majors can only apply the Introduction to Human Factors (PSY 09400) and Human Factors Methodology (PSY 09401) courses (6 cr.) to their major degree.

Core Courses – 6 s.h.

Course #	Course Name	Notes	Sem/Yr	Grade	Credits
PSY 09400	Introduction to Human Factors				3
PSY 09401	Human Factors Methodology				3
					Subtotal: 6 s.h.

Supervised Research Courses – 6 s.h.

Course #	Course Name	Notes	Credits/s semester	Total Credits
PSY 01426	Research Clinic in Psychology	Must take twice (2 semesters)	3	6
OR				
ENGR 01303 or 01403	Engineering Clinic (either Junior or Senior Clinic)	Must take 3 times (3 semesters, counting either Junior or Senior clinic two semesters, the other one semester)	2	6
				Subtotal: 6 s.h.