# Human Systems Engineering (User Experience Research), MS

ESHSEUERMS

## Program description

**Degree awarded: MS Human Systems Engineering (User Experience Research)**
The MS program in human systems engineering with a concentration in user experience research focuses on how to conduct human-centered and experimental research to produce products that are useful, usable, desirable, efficient, and easy to learn and remember. It focuses on the research, design and validation of system components an end user interacts with, including software user interfaces, documentation, help systems, user support, aesthetics and communication.

Students may complement their education with courses in graphic information technology, technical communications and entrepreneurship to strengthen their skills in information architecture, visual design and user interface prototyping. Additionally, hands-on user experience projects in these classes help students build portfolios necessary for entry-level positions.

## At a glance

- **College/School:** Ira A. Fulton Schools of Engineering
- **Location:** Polytechnic

## Accelerated program options

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an accelerated bachelor's plus master's degree with:

Human Systems Engineering (User Experience), BS

Technological Leadership, BS

Acceptance to the graduate program requires a separate application. Students typically receive approval to pursue the accelerated master's during the junior year of their bachelor's degree program. Interested students can learn about eligibility requirements and how to apply.

# Degree requirements

30 credit hours and a portfolio, or
30 credit hours and a thesis, or
30 credit hours including the required applied project course (HSE 593)

**Required Core (12 credit hours)**
HSE 520 Methods and Tools in Applied Cognitive Science (3)
HSE 530 Intermediate Statistics for Human Systems Engineering (3)
HSE 531 Data Analytics: Modeling Human Subjects Data (3)
HSE 542 Foundations of Human Systems Engineering (3)

**Concentration (9 credit hours)**
HSE 521 Methods and Tools in Human Systems Engineering (3)
HSE 525 Health and Human Systems Engineering (3)
TWC 511 Principles of Visual Communication (3)
TWC 514 Visualizing Data and Information (3)
TWC 544 User Experience (3)

**Electives or Research (3 or 9 credit hours)**

**Culminating Experience (0 or 6 credit hours)**
HSE 593 Applied Project (6) or
HSE 599 Thesis (6) or
portfolio (0)

**Additional Curriculum Information**
For electives and research coursework, enrollment in HSE 592 Research for three credit hours is required for students completing a thesis and optional for students completing the applied project or portfolio culminating experience. Students in all culminating experience options should contact the academic unit for an approved electives list.

Students completing a portfolio for the culminating experience must complete nine credit hours of electives or research coursework, while students completing an applied project or thesis must complete three credit hours of electives or research coursework.

# Admission requirements

Applicants must fulfill the requirements of both the Graduate College and the Ira A. Fulton Schools of Engineering.

Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree in engineering, user experience, psychology or a related field from a regionally accredited institution.

Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in their first bachelor's degree program or in the last 60 hours of their first bachelor's degree program; or a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in nine semester hours of graduate coursework from a U.S. institution; or a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable conferred master's degree program from a regionally-accredited college or university.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. curriculum vitae or professional resume
4. professional statement
5. research summary
6. three letters of recommendation
7. proof of English proficiency

**Additional Application Information**
An applicant whose native language is not English must provide proof of English proficiency regardless of their current residency.

Unofficial transcripts may be submitted at time of application. If admitted, applicants must then submit official transcripts to ASU Admission Services.

The letters of recommendation should be from college professors, employers in a human factors-related field or a combination of both academic and professional references.

# Tuition information

When it comes to paying for higher education, everyone's situation is different. Students can learn about ASU tuition and financial aid options to find out which will work best for them.

# Program learning outcomes

Program learning outcomes identify what a student will learn or be able to do upon completion of their program. This program has the following program outcomes:

- Apply the appropriate statistical analysis, address violations of assumptions (e.g., sphericity), & conduct analyses using SPSS to answer User Experience Research based questions.
- Apply the methods of human systems engineering create hypothesis or solve an applied problem related to User Experience Research.

- Conduct an independent evaluation to address problems in the space of human performance in User Experience Research.

# Career opportunities

This master's degree program prepares students for industry and government careers in positions such as:

- game designer
- human factors engineer
- human systems integrator
- information systems designer
- interface designer
- military scientist
- usability engineer
- user experience designer

Graduates of the Master of Science program in human systems engineering find employment in user experience design and user experience research at companies like Apple, Hulu, Slack, HP, GoDaddy and Intel.

# Contact information

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