Human Systems Engineering (Aviation Human Factors), MS

Program Description

Degree Awarded: MS Human Systems Engineering (Aviation Human Factors)
The MS program in human systems engineering with a concentration in aviation human factors provides students with a deep understanding of the science of human performance and experience in the aerospace and aviation industries.

Students in this program participate in courses focusing on methods and tools in applied cognitive science, foundations of human systems engineering, uses of simulation, aviation physiology and crew resource management, among other topics. They gain understanding of cognitive science and human systems concepts and tools that enables them to effectively analyze, design and develop aerospace and aviation products, workspaces, operations and training programs.

At a Glance

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

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 (6 credit hours)**
AMT 533 Aviation Systems and Psychology (3)
AMT 565 Safety in Complex Systems (3)

**Electives and Research (6 or 12 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 12 credit hours of electives and research coursework.

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**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, aeronautical management, 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 the last 60 hours of their first bachelor's degree program, or applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

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 current residency.

Global Launch at ASU offers an online alternative to standardized testing for international students who are seeking admission to ASU but need proof of English proficiency:

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

Career Opportunities
Graduates of this program are prepared for management, research and training positions in aerospace and aircraft manufacturing, airlines, flight training and government.

Contact Information
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