

# Artificial Intelligence in Medicine

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The Graduate Certificate in AI in Medicine provides a unique credential that will help physicians, entrepreneurs, students, and scientists become knowledgeable about the growing and influential field of artificial intelligence in medicine. The certificate emphasizes the practical application and integration of artificial intelligence principles and tools to design and implement effective approaches for improving health of people through increased precision in predictive modeling, improved diagnostics and other advances.

Courses will apply toward the Masters of Healthcare Innovation. Certificates may be combined to obtain an Interdisciplinary Master's Degree.

Courses are held asynchronously with optional weekly synchronous sessions.

The Graduate Certificate in AI in Medicine is awarded by the University of Alabama at Birmingham Heersink School of Medicine.

## Admission Requirements:

Admission requirements include eligibility for admission to the UAB Graduate School. There is no GRE required. An admissions committee reviews applications and makes final decisions. Students may begin the program in the Fall or Spring semesters.

## Required Coursework:

### Graduate Certificate Artificial Intelligence in Medicine

Requirements	Hours
HCI 611 Foundations of Artificial Intelligence in Medicine	3
HCI 612 Applications of Artificial Intelligence in Medicine	3
HCI 613 Leadership and Ethics for Artificial Intelligence in Medicine	3
HCI 614 Integration of Artificial Intelligence into Clinical Workflow	3
HI 620 Security and Privacy in Health Care	3
<b>Total Hours</b>	<b>15</b>

## Courses

### HCI 611. Foundations of Artificial Intelligence in Medicine. 3 Hours.

This course introduces students to the fundamentals needed for implementing Artificial Intelligence (AI) in clinical settings. Introduction to AI, Introduction to Healthcare System and Clinical data and Introduction to tools and techniques used in AI.

### HCI 612. Applications of Artificial Intelligence in Medicine. 3 Hours.

This course introduces students to Applications of AI in medicine, Machine Learning- Applications of AI to EHR data, Deep Learning- Applications of AI to Medical Imaging data, and Natural Language Processing- Applications of AI to Clinical Documentation.

### HCI 613. Leadership and Ethics for Artificial Intelligence in Medicine. 3 Hours.

This course introduces students to leadership, ethical and strategic skills, responsible AI, AI strategy, people, organization, and implementation of AI in medicine.

### HCI 614. Integration of Artificial Intelligence into Clinical Workflow. 3 Hours.

This course introduces students to strategies and processes for integrating AI into existing clinical workflows. Using AI for Medical Diagnosis, Using AI for Medical Prognosis, and Using AI for Medical Treatment.

### HCI 641. Foundations of Digital Health. 3 Hours.

This course introduces students to the basic concepts needed for implementing digital health solutions in health care. Digital Health Concepts and Key Components, Digital Health Technologies, and Digitally Enabled Care Models.

### HCI 642. Leadership & Ethics for Digital Health. 3 Hours.

This course introduces students to leadership, ethical and strategic skills for digital health. Business and Commercialization Strategies, Ethics, Digital Health Technology Assessment.

### HCI 643. Special Topics for Digital Health. 3 Hours.

This course introduces students to special topics in digital health including blockchain in health care, mixed reality in health care and data science for digital health.