

AI in Health: Introduction to Key Concepts & Applications

This short course is taught by members of the AI in Global Health Research Group at the London School of Hygiene & Tropical Medicine.



Background

Recent advances in AI have the potential to transform both clinical medicine and public health.

However, their effective use requires healthcare professionals and stakeholders to understand the key principles of machine learning, computer vision, and large language models underlying these technologies as well as their strengths, limitations, and appropriateness for specific healthcare use cases. There is also a need to understand the current landscape of the regulatory, ethical, and challenges in implementing these technologies in the real world.

The course

Our AI in Health short course addresses these needs by equipping students to critically appraise and conceptualise AI applications in health, fostering informed decision-making in a rapidly evolving field.

This course aims to introduce students to key concepts and applications of AI in health. Specifically, it will equip students with knowledge and skills to critically appraise and plan AI-related health research.

Session content

Sessions will be split into the following themes:

- Overview of AI/ML in healthcare
- Traditional ML methods with a focus on supervised (regression/classification) and unsupervised (clustering, and dimensionality reduction) learning algorithms

- Modern ML methods with a focus on artificial neural networks, computer vision, and large language models
- Evaluation of AI/ML in health solutions considering model validation, effectiveness, cost-effectiveness, bias, and monitoring
- Ethical, regulatory, and trust issues surrounding the use of AI/ML in health
- Critical appraisal of AI/ML-related health research.

Who should apply?

The course has been designed for professionals with a health background (doctors, nurses, allied health professionals, epidemiologists, medical statisticians, or any healthcare researchers) with a strong interest in AI in healthcare.

No prior knowledge of AI/ML is expected.

Applicants should have a good command of English.

Key information



Course organisers:

Akshay Jagadeesh, Poppy Mallison & Sanjay Kinra



Fees for 2025:

£600



Contact email:

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Find out more and apply:

lshtm.ac.uk/study/courses/short-courses/AI-health

