
Natural and artificial intelligence M366

Presentation pattern *February to October*

Module description

Don't expect a conventional computing module!

In M366, students will study topics at the one of the frontiers of research in computing, where ideas from biology are inspiring computer scientists to find new solutions to old problems – particularly in the quest to build truly intelligent computer systems. The first half of the module presents a survey of both traditional and modern approaches to artificial intelligence, bringing out the concepts that underlie them. In the second half, students explore in detail the theory and applications of two classes of system inspired by biology: neural networks and evolutionary computation.

The module uses NetLogo for certain basic programming exercises, and JNNS (a neural network simulator), but tutors and students are not required to have prior knowledge of these packages.

Person specification

The person specification for this module should be read in conjunction with the [generic person specification](#) for an associate lecturer at The Open University.

As well as meeting all the requirements set out in the generic person specification, you should have:

- a degree in computing or a related subject
- an understanding of how computer models are built and evaluated in a research or commercial context
- an interest in artificial intelligence and/or cognitive psychology
- the confidence to explain to students mathematical notations, such as are used in algebra, basic statistics, matrix arithmetic and probability.

Your application will also be considered if you have:

- good experience of developing AI systems, in a research or commercial context.

It would be an advantage to have:

- an interest in the philosophical ideas that underlie AI and related technologies
- experience of knowledge-based systems, genetic algorithms or neural networks
- the ability to help students with basic programming, and the use of a computer for running simulations, investigations, etc.

Module related details - a full explanation can be found on the website

Credits awarded to the student for the successful completion of a module:	30
Number of assignments submitted by the student:	4
Method of submission for assignments:	1a
Level of ICT requirements:	2
Number of students likely to be in a standard group:	20
Salary band:	3
Estimated number of hours per teaching week:	3.5