How does handwriting or voice recognition work?
What is a neural network?

How are robots controlled?

What is a simulation? How do you write one, for example, a simulation of a city? How do you simulate physical and natural phenomena?

How do you reason about probability? What computational approaches can be used to address probabilistic or statistical questions?

All of these questions have to do with algorithms quite different from the standard algorithms course that focuses on discrete structures. Instead, these algorithms are all based on continuous structures, and represent in some sense the “other side of algorithms”.

COURSE INFORMATION:

When: 3.30-6pm, Fridays, Tompkins 201

What: Overview of structures in continuous mathematics from a computational viewpoint. Main topics include continuous structures, discrete and continuous simulation, computational modeling, optimization, neural networks, robot control algorithms. Prerequisites: CSci-1311, CSci-2113.


More info: http://www.seas.gwu.edu/~simhaweb/contalg/