Welcome to the A.I. Programming module.

Please read this it has some useful information for you...

The A.I. Programming module is designed to give you a solid introduction to the types of code construction that is used to build (symbolic) Intelligent Systems. In the second part of the module we also introduce you some general problem solving strategies like search, planning, using rules and constraint propagation. We look at ways to write code to solve some types of puzzles and plan actions for agents situated in real or virtual environments.

Clojure

Throughout the module we use Clojure as our programming language. Clojure is a recent dialect Lisp which integrates with the Java Virtual Machine. Lisp (in all its flavours) is one of the most widely used AI languages, with good reason. It is higher level than most languages, it facilitates fast prototyping and has features that do not exist in most other languages (macros, a meta-object protocol, etc, etc). Lisp is probably quite different in style to most other languages you may know, it takes some time to learn so... we will not cover all aspects of the language.

Lectures

Lectures will explore features of AI problems and of Clojure. The example code used in lectures will often depend on questions and suggestions raised by students so lectures are not *scripted*. But... examples and code walk-throughs will be available for each lecture (even if they are not quite the same as those we end up with in the lectures). These can be found on the web site www.agent-domain.org by following the appropriate links to the lecture series. On this site you will also find information about the module, tutorial work and ICA specifications.

Tutorials

In tutorials you will work through AI programming problems, comparing different ways of constructing code to solve these problems. Much of the time you will work in small programming teams (3 people)

Software

We will use the Clojure plug-in for IntelliJ which is free to download, there are others.

Assessment

The module is assessed by course work, you will be organised into groups (with 3 or 4 members in each group) and each group will prepare solutions to 5 problems as the course progresses. Group work will include peer assessment. For more details about the assessment and for an explanation of how we operate peer assessment check the course work section of the lecture series at www.agent-domain.org.