Description: Intelligent Agent Technology

Subject  Cat-nbr  Class  Term  Mode  Units  Campus
CSC     3405     30377  1, 2004  EXT  1.00  TW MBA

Academic group: FOSCI
Academic org: FOS003
Student contribution band: 2
ASCED code: 020119

STAFFING
Examiner: Peter Cattell
Moderator: Zhongwei Zhang

OTHER-REQUISITES
Recommended Pre-requisite: MAT1101

RATIONALE
Modern approaches to Artificial Intelligence include studies of intelligent agents. Artificial Intelligence now has found applications in many industrial, scientific and business areas. Knowledge of Artificial Intelligence is important to computer programmers and information scientists. Prolog is used in this course. Prolog not only assists students to become familiar with the style of AI languages but also allows them to develop practical application programs.

SYNOPSIS
This course covers the basics of Prolog programming including recursions, list processing, control, input/output and built-in predicates. Prolog is then used in typical artificial intelligence applications including intelligent agent technology, state space search and expert systems. This course is not offered at Wide Bay in odd years.

OBJECTIVES
On successful completion of this course students will be able to:
- demonstrate basic knowledge of Intelligent Agent Technology;
- write programs in Prolog;
- develop simple AI applications using Prolog.
TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prolog Programming</td>
<td>40.00</td>
</tr>
<tr>
<td>2. Intelligent Agents</td>
<td>20.00</td>
</tr>
<tr>
<td>3. Intelligent Agent Systems</td>
<td>20.00</td>
</tr>
<tr>
<td>4. Knowledge-based Systems</td>
<td>15.00</td>
</tr>
<tr>
<td>5. AI Survey</td>
<td>5.00</td>
</tr>
</tbody>
</table>

TEXT and MATERIALS required to be PURCHASED or ACCESSED:

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at http://bookshop.usq.edu.au click 'Semester', then enter your 'Course Code' (no spaces).


REFERENCE MATERIALS:

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.


STUDENT WORKLOAD REQUIREMENTS:

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>40.00</td>
</tr>
<tr>
<td>Directed Study</td>
<td>52.00</td>
</tr>
<tr>
<td>Examinations</td>
<td>2.00</td>
</tr>
<tr>
<td>Private Study</td>
<td>70.00</td>
</tr>
</tbody>
</table>

ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks out of</th>
<th>Wtg(%)</th>
<th>Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>10.00</td>
<td>10.00</td>
<td>16 Apr 2004</td>
</tr>
<tr>
<td>ASSIGNMENT 2</td>
<td>20.00</td>
<td>20.00</td>
<td>28 May 2004</td>
</tr>
<tr>
<td>2 HR CLOSED EXAMINATION</td>
<td>70.00</td>
<td>70.00</td>
<td>END S1</td>
</tr>
</tbody>
</table>

NOTES:

1. Examination dates will be available during the semester. Please refer to the examination timetable when published.

IMPORTANT ASSESSMENT INFORMATION

1. Attendance requirements:
   There are no attendance requirements for this course. However, it is the students' responsibility to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.

2. Requirements for students to complete each assessment item satisfactorily:
   To complete each of the assessment items satisfactorily, students must obtain at least 50% of the marks available for each assessment item.

3. Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval then a penalty of 10% of the total marks gained by the student for the assignment will apply for each working day late.

4. Requirements for student to be awarded a passing grade in the course:
   Not applicable.

5. Method used to combine assessment results to attain final grade:
   Final grades for students will be determined by the addition of the marks obtained in each assessment item, weighted as in the Assessment Details.

6. Examination information:
   In a Closed Examination, candidates are allowed to bring only writing and drawing instruments into the examination.

7. Examination period when Deferred/Supplementary examinations will be held:
Students who obtain an overall passing mark, but who do not perform satisfactorily in an examination, may, at the discretion of the Examiner, be granted a supplementary examination. Students will be granted a deferred examination only if they perform satisfactorily in all other assessment items. Any Deferred or Supplementary examinations for this course will be held during the examination period at the end of the semester of the next offering of this course.

8 University Regulations:
Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL http://www.usq.edu.au/corporateservices/calendar/part5.htm or in the current USQ Handbook.

ASSESSMENT NOTES

9 The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner.

10 Student may be required to provide a copy of assignments submitted for assessment purposes. Such copies should be despatched to the USQ within 24 hours of receipt of a request to do so.

11 The examiner of a course may grant an extension of the due date of an assignment in extenuating circumstances.

12 Students will require access to a web browser, to e-mail and internet access to USQConnect for this course.