	Introduction to Artificial Intelligence	Contribution: 100% of course
Course Leader: Dr. Mohammad M. al-Rifaie	Coursework	Deadline Date: 13 <sup>th</sup> Dec 2023 23:30pm

This coursework should take an average student who is up-to-date with tutorial work approximately 50 hours

#### Learning Outcomes:

Learning outcomes

On successful completion of this course a student will be able to:

- 1 Demonstrate coherent understanding of the concepts and theoretical foundations of the AI methods introduced and their range of applicability to different real-world problems.
- 2 Identify and describe the different knowledge representation models, search algorithms, and the major approaches to machine learning introduced.
- 3 Demonstrate critical of awareness of key philosophical issues that underlie AI and ethical considerations.

Plagiarism is presenting somebody else's work as your own. It includes: copying information directly from the Web or books without referencing the material; submitting joint coursework as an individual effort; copying another student's coursework; stealing coursework from another student and submitting it as your own work. Suspected plagiarism will be investigated and if found to have occurred will be dealt with according to the procedures set down by the University. Please see your student handbook for further details of what is / isn't plagiarism.

All material copied or amended from any source (e.g. internet, books) must be referenced correctly according to the reference style you are using.

Your work will be submitted for plagiarism checking. Any attempt to bypass our plagiarism detection systems will be treated as a severe Assessment Offence.

- An electronic copy of your work for this coursework must be fully uploaded on the Deadline Date of **Wednesday 14/12/2022** using the link on the coursework Moodle page for COMP1827.
- For this coursework you must submit a single PDF document. In general, any text in the document must not be an image (i.e. must not be scanned) and would normally be generated from LaTeX.
- There are limits on the file size (see the relevant course Moodle page).
- Make sure that any files you upload are virus-free and not protected by a password or corrupted otherwise they will be treated as null submissions.
- Your work will not be printed in colour. Please ensure that any pages with colour are acceptable when printed in Black and White.
- You must NOT submit a paper copy of this coursework.
- All courseworks must be submitted as above. Under no circumstances can they be accepted by academic staff

The University website has details of the current Coursework Regulations, including details of penalties for late submission, procedures for Extenuating Circumstances, and penalties for Assessment Offences. See <a href="http://www2.gre.ac.uk/current-students/regs">http://www2.gre.ac.uk/current-students/regs</a>

## **Detailed Specification**

This document provides the detailed specification on the coursework assessment, along with explanation on how group and individual work should be arrange within the groups and by the individuals.

This coursework is a practical group project with

- research element and
- individual report.

Students are expected to work in groups of 3-4 people. Member of the groups should equally contribute to the group work and research. Students are responsible to find a topic relevant to AI (from the themes covered in the lectures) and/or its broad applications which should then be approved in the labs by the lecturers.

The coursework has a research part and an implementation part. Once a topic is chosen and approved, students within the group will investigate the topic from different perspective (e.g. different algorithms used to solve the problem / various problems dealt by the algorithm, and the background work done by other researchers, and so forth). These different perspectives constitute the individual reports which are submitted by each student within a group.

The result of the group work will be presented in group presentations which form 50% of the mark. The presentation mark is shared by the group members.

The individual reports will be marked individually based on their merit and ability to demonstrate a good level of understanding of the topic in research and implementation.

## Tasks allocations between group members

### **Group activities**

- Discussing and exploring relevant topics
- Being part of a group research
- Identifying areas of interest to be carried out and reported individually
- Continuing to inform group members of the progress and benefiting from each others findings
- Assessment: presentation (50% of the mark, equally distributed between group members)

#### **Individual activities**

- Conducting further research on the individual elements identified
- Working on the practical implementation of the proposed topic
- Use the peer feedback from group discussion to improve the work
- Assessment: Writing the individual report (2,500 words including references using the template provided), detailing the research and the implementation, submitting it individually (50% of the mark)

#### **Deliverables**

Report (2,500 words, including references, using the LaTeX template). The report is then submitted in pdf format.

Attend the group presentation where you will demonstrate the group work. Time slots for this demo will be supplied by your module leader.

### **Grading Criteria**

The coursework for COMP1827 will be assessed using the following grade bands.

Marks	Undergraduate Criteria
>=80%	Meets all criteria. Shows a significant amount of critical analysis and exhibits an excellent understanding of the relevant issues.
70-79%	Meets most of the criteria. Demonstrates clear awareness of relevant issues with a high standard of critical analysis.
60–69%	Meets most of the criteria. Demonstrates clear awareness of relevant issues with a high standard of critical analysis. An attempt has been made at analysis using appropriate frameworks but may include some errors.
50-59%	Some of the criteria present but is mainly factual and descriptive with little grasp of analysis.
40-49%	Some of the criteria present and establishes a few relevant points but superficial or confused exposition of issues.
<40%	Little or no evidence of given criteria and no grasp of analysis. Does not demonstrate self-direction, originality in problem solving or a critical self-evaluation of the coursework process.

#### **Assessment Criteria**

For group presentation:

- Understanding of the Problem Domain (30%)
- Development and Implementation of Ideas (50%)
- Conclusions and Critical Review (20%)

# For individual report:

- Understanding of the Problem Domain (30%)
- Development and Implementation of Ideas (50%)
- Conclusions and Critical Review (10%)
- Writing quality, and appropriate style referencing (10)