

Module Details	
Module Title	Applied Artificial Intelligence and Data Analytics Capstone Dissertation
Module Code	MAL7504-E
Academic Year	2021/2
Credits	60
School	School of Management
FHEQ Level	FHEQ Level 7

Contact Hours	
Type	Hours
Independent Study	546
Laboratories	12
Project Supervision	18
Seminars	3
Online Seminar (Synchronous)	3
Online Lecture (Synchronous)	6
Tutorials	6
Online Tutorials (Synchronous)	6

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Non-Standard Academic Year
BDB	University of Bradford / Non-Standard Academic Year

Module Aims
The Applied Artificial Intelligence and Data Analytics Capstone Dissertation is driven by the student's aspirations and preferences and draws on and enhances the professional skills and knowledge developed by the student throughout the programme. The student must select relevant tools and techniques acquired throughout the programme and design and develop an AI solution or AI artefact in view of a practical problem or challenge by using either (1) a real-world data set or (2) a generated hypothetical data set.

Outline Syllabus
N/A

Learning Outcomes	
Outcome Number	Description
01	Demonstrate a comprehensive understanding of what kind of AI tools and techniques are required to be used in specific situations.
02	Demonstrate originality in the application of AI technologies for the development of a discipline-specific AI solution or artefact.
03	Demonstrate ability to present and communicate clearly, in writing, the outcomes of an AI project to a specialist and non-specialist audiences.
04	Demonstrate self-direction and originality in tackling and solving AI problems, and act autonomously in planning and implementing tasks at a professional level.

Learning, Teaching and Assessment Strategy
This is the final element of the Master's degree and students determine the specific applied area that they want to focus on for their capstone dissertation based on their aspirations and preferences. The dissertation draws on and enhances the professional skills and knowledge in artificial intelligence and data science developed by the student throughout the programme. Additionally, online lectures (synchronous and/or asynchronous), seminars (online and face-to-face), tutorials (online and face-to-face), and online lab sessions will be offered in order to advance students' knowledge and enhance their research methods skills and technical/digital skills, which are more specific to their own dissertation topics. A supervisor is allocated to each student who will mentor the students throughout the process of developing and completing their dissertation/project, supporting the independent study and learning of the student. As the capstone dissertation develops, students will gain both formative and summative feedback from a member of academic staff/supervisor on their capstone dissertation plans (research proposals). Further formative feedback is provided while developing the capstone dissertation until its completion. Students will be assessed based on (1) the capstone dissertation plan (identification and justification of selected practical problem/challenge and selected applied area, initial literature review, and proposed methodological approach, including the identification of sources of datasets, discussion of AI and DS oriented research methods intended to be applied, and relevant AI/DS software to be used) (which contributes 20% towards the final grade) and (2) the finalised capstone dissertation (which contributes 80% towards the final grade). Supplementary assessment for the 20% will be a reflective account up to 3000 equivalent words;

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Coursework - Written	Capstone Dissertation Plan (Research Proposal) (3000 words) ; SUPPLEMENTARY reflective Account up to 3000 equivalent w	20%
Summative	Dissertation or Project Report	Capstone dissertation (individual assessment) (12,000 words)	80%

Reading List

To access the reading list for this module, please visit <https://bradford.rl.talis.com/index.html>

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.

© University of Bradford 2021

<https://bradford.ac.uk>