

**KEYPROGRAMME INFORMATION**

<b>Originating institution(s)</b> Bournemouth University	<b>Faculty responsible for the programme</b> Faculty of Media and Communication
<b>Final award(s), title(s) and credits</b> MSc Artificial Intelligence for Media (180 credits / 90 ECTS credits Level 7)	
<b>Intermediate award(s), title(s) and credits</b> PG Diploma Artificial Intelligence for Media 120 Credits / 60 ECTS Credits Level 7 PG Certificate Artificial Intelligence for Media 60 Credits / 30 ECTS Credits Level 7	
<b>UCAS Programme Code(s) (where applicable and if known)</b>	<b>HECoS (Higher Education Classification of Subjects) Code and balanced or major/minor load.</b> 100368
<b>External reference points</b>  The revised UK Quality Code for Higher Education published May 2018 including: <ul style="list-style-type: none"> <li>- Expectations and practices for standards and for quality.</li> <li>- Advice and Guidance published in November 2018</li> </ul> QAA Subject Benchmark Statements <ul style="list-style-type: none"> <li>- QAA Art &amp; Design UG Benchmarks, 2016</li> <li>- QAA Computing UG Benchmarks, 2016</li> </ul> Creative Skillset <ul style="list-style-type: none"> <li>- National Occupational Standards for Animation 2013</li> <li>- The Core Skills of VFX Handbook</li> </ul>	
<b>Professional, Statutory and Regulatory Body (PSRB) links</b> None	
<b>Places of delivery</b> Bournemouth University	
<b>Mode(s) of delivery</b> Full Time	<b>Language of delivery</b> English
<b>Typical duration</b> 12 months (3 Semesters)	
<b>Date of first intake</b> September 2021	<b>Expected start dates</b> September
<b>Maximum student numbers</b> 20	<b>Placements</b> Masters Project (in S3) with optional placement with duration up to 3 month. It is the student's responsibility for arranging the placement, and it will need to be discussed with and approved by the course / unit leader
<b>Partner(s)</b> N/A	<b>Partnership model</b> N/A

## Programme Specification

<b>Date of this Programme Specification</b>
March 2021
<b>Version number</b>
V1.0-0921
<b>Approval, review or modification reference numbers</b>
E192003 EC2021 15, approved 05/03/2021
<b>Author</b>
Xiaosong Yang

## Programme Specification

### PROGRAMME STRUCTURE

Semester 1	Semester 2	Semester 3
Machine Learning for Media Production <b>20 Credits</b>	Media Data Analytics and Modelling <b>20 Credits</b>	Masters Project and Thesis <b>60 Credits</b>
Data Mining on Multimedia Data <b>20 Credits</b>	Group Project <b>20 Credits</b>	
Animation Software Engineering <b>20 Credits</b>	Master Class <b>20 Credits</b>	

Programme Award and Title: MSc Artificial Intelligence for Media								
Stage 1 /Level 7								
Unit Name	Core/Option	No. of Credits	Assessment Element Weightings			Expected Contact hours per unit	Unit Version No.	HECoS Code (plus balanced or major/ minor load)
			Exam 1	Cwk 1	Cwk 2			
Machine Learning for Media Production	Core	20	0	100	0	48	1.0	100368
Data Mining on Multimedia Data	Core	20	75	25	0	48	1.0	100368
Animation Software Engineering	Core	20	0	100	0	72	1.0	100368
Media Data Analytics and Modelling	Core	20	0	100	0	48	1.0	100368
Group Project  (Machine Learning for Media Production is a pre-requisite for this unit)	Core	20	0	100	0	40	1.0	100368

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Master Class	Core	20	0	100	0	20	1.0	100368
<b>Progression requirements:</b> Students are required to successfully complete 120 level 7 Credits to proceed to the Masters Project unit								
<b>Exit qualification:</b> PG Diploma Artificial Intelligence for Media requires 120 credits PG Cert Artificial Intelligence for Media requires 60 credits								

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Stage 2/Level 7								
Unit Name	Core/ Option	No. of Credits	Assessment Element Weightings			Expected Contact hours per unit	Unit Version No.	HECoS Code (plus balanced or major/ minor load)
			Exam 1	Cwk 1	Cwk 2			
MSc AIM master project  (Successful completion of taught units (120 credits of pathway) is a pre-requisite for students undertaking this unit)	Core	60	0	100		20	1.0	Major 100368 Minor 100359
<b>Exit qualification:</b> MSc Artificial Intelligence for Media requires 180 credits								

## Programme Specification

### AIMS OF THE DOCUMENT

The aims of this document are to:

- define the structure of the programme;
- specify the programme award titles;
- identify programme and level learning outcomes;
- articulate the regulations governing the awards defined within the document.

### AIMS OF THE PROGRAMME

The aim of the MSc Artificial Intelligence for Media Pathway is to enable students to become competent in the artificial intelligence aspects of media production and produce graduates with the range and depth of technical skills necessary to become future Technical Directors, Data Engineer or 3D Developer etc within the media industry. This is a technology centred degree focusing on applied AI practices used within the media industry, including big data, media data analytics and synthesis. The programme will equip our arts and media graduates with both theoretical knowledge and practical skills in cutting-edge ML technology and media production practices to enhance their market competitiveness.

The programme compliments the other Masters courses within the NCCA and MA and MSc students are encouraged to collaborate in integrated projects to promote an interdisciplinary environment, a common culture and emulate business practice.

The programme aims to develop in students:

- ◇ a knowledge and professional competence through the study and application of the theories, methods and practices of AI in media production
- ◇ a creative and innovative approach to the analysis and solution of problems in media productions
- ◇ an understanding of the inter-relation of aesthetic, perceptual and technical factors involved in the development of media productions
- ◇ an awareness of new application areas relating to the use of media productions
- ◇ an attitude of self-reliance and self-discipline in the subject area as well as a capacity to collaborate with other members of an interdisciplinary team

A further emphasis on the application of technical, mathematical and algorithmic skills is placed on the MSc programme where students are encouraged to develop AI tools to aid in the production of animation / games artefacts as well as transferable technical and programming skills which are applicable to other areas of the modern technical world.

### ALIGNMENT WITH THE UNIVERSITY'S STRATEGIC PLAN

With its fusion of Art, Science and technology the MSc Artificial Intelligence for Media is ideally suited to fulfil the Strategic Investment Area of Animation, Simulation & Visualisation as outlined by the BU2025 strategy.

The NCCA's world leading research and research staff deliver several units on the MSc and this feeds into the current curriculum ensuring current industry and research needs are met. Several MSc students have continued work started on the MSc course into PhD degrees.

A core theme within the MSc AIM is the application of Digital Technology as a transferable skill, whilst most of the teaching is focused on Computer Animation and Visual Effects these skills and engineering techniques are transferable to other industries within the technological sector.

The MSc AIM aims to become an inclusive programme with strong international reputation and positive gender balance for a predominantly technical programme.

## **Programme Specification**

The MSc AIM has enormous potential to pioneer a course framework which will change the face of the sector by injecting into it newly trained professionals with both the advanced skills and the diverse backgrounds to generate exciting innovations in the creative media industry.

### **LEARNING HOURS AND ASSESSMENT**

Bournemouth University taught programmes are composed of units of study, which are assigned a credit value indicating the amount of learning undertaken. The minimum credit value of a unit is normally 20 credits, above which credit values normally increase at 20-point intervals. 20 credits is the equivalent of 200 study hours required of the student, including lectures, seminars, assessment and independent study. 20 University credits are equivalent to 10 European Credit Transfer System (ECTS) credits.

The assessment workload for a unit should consider the total time devoted to study, including the assessment workload (i.e. formative and summative assessment) and the taught elements and independent study workload (i.e. lectures, seminars, preparatory work, practical activities, reading, critical reflection).

Assessment per 20 credit unit should normally consist of 3,000 words or equivalent. Dissertations and Level 7 Final Projects are distinct from other assessment types. The word count for these assignments is 5,000 words per 20 credits, recognising that undertaking an in-depth piece of original research as the capstone to a degree is pedagogically sound.

### **STAFF DELIVERING THE PROGRAMME**

Students will usually be taught by a combination of senior academic staff with others who have relevant expertise including – where appropriate according to the content of the unit – academic staff, qualified professional practitioners, demonstrators/technicians and research students.

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### INTENDED LEARNING OUTCOMES – AND HOW THE PROGRAMME ENABLES STUDENTS TO ACHIEVE AND DEMONSTRATE THE INTENDED LEARNING OUTCOMES

#### MSc ARTIFICIAL INTELLIGENCE for MEDIA INTENDED PROGRAMME OUTCOMES

<p><b>A: Subject knowledge and understanding</b></p> <p>This programme provides opportunities for students to develop and demonstrate knowledge and understanding of:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>A1</b> the languages used to discuss the moving image and art, science and technology;</p> <p><b>A2</b> the fundamentals of machine learning and data mining;</p> <p><b>A3</b> the techniques applicable to their own practice;</p> <p><b>A4</b> Mathematics and algorithms for AI;</p> <p><b>A5</b> Software development and engineering techniques for AI.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• seminars (A1 – A4);</li> <li>• independent research (A1-5).</li> </ul>
	<p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• MSc Project (A1-A5).</li> </ul>
<p><b>B: Intellectual skills</b></p> <p>This programme provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme outcomes:</p>
<p><b>B1</b> develop critical analysis of work in the field of media production;</p> <p><b>B2</b> contextualize personal practice critically, technically and historically;</p> <p><b>B3</b> select and evaluate the correct techniques / tools for the production of an asset / project</p> <p><b>B4</b> autonomously identify and solve media production problems by the application of data and software techniques and the synthesis of current research.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• seminars (B1 – B4);</li> <li>• directed reading (B1 – B4);</li> <li>• independent research (B4).</li> </ul>
	<p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• MSc Project (B1-B4).</li> </ul>
<p><b>C: Practical skills</b></p> <p>This programme provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>C1</b> become expert in the use of software and tools appropriate to their discipline;</p> <p><b>C2</b> demonstrate a mastery of computer programming languages and application programming interfaces for media production;</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• Practical assignments (C1 – C4);</li> </ul>



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<p><b>C3</b> identify and apply the correct techniques for media production and pipelines either individually or as a group;</p> <p><b>C4</b> To communicate effectively with artists in the development and application of media production tools and techniques;</p>	<p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• MSc Project (C1-C4).</li> </ul>
<p><b>D: Transferable skills</b></p> <p>This programme provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>D1</b> plan,organise and produce a project to a given time-scale;</p> <p><b>D2</b> work effectively as a member of a team communicating with peers, supervisors and others;</p> <p><b>D3</b> apply personally motivated research, independent learning and problem solving abilities required for continuing professional developm;</p> <p><b>D4</b> demonstrate the application of engineering principles to solve technical problems in a chosen field;</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• seminars (D1- D4);</li> <li>• directed reading (D1- D4).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• MSc project (D1- D4).</li> </ul>

## PG Dip INTENDED OUTCOMES

<p><b>A: Subject knowledge and understanding</b></p> <p>This Level provides opportunities for students to develop and demonstrate knowledge and understanding of:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>A1</b> the languages used to discuss the moving image and art, science and technology;</p> <p><b>A2</b> the fundamentals of machine learning and data mining;</p> <p><b>A3</b> the techniques applicable to their own practice;</p> <p><b>A4</b> Mathematics and algorithms for AI;</p> <p><b>A5</b> Software development and engineering techniques for AI.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• lectures (A1 – A5);</li> <li>• seminars (A1 – A4);</li> <li>• directed reading (A2, A4);</li> <li>• use of the VLE (A1);</li> <li>• independent research (A1-5).</li> </ul>

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	<p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• Exam (A2)</li> <li>• Practical assignments (A1-A5);</li> <li>• coursework essays (A4);</li> </ul>
<p><b>B: Intellectual skills</b></p> <p>This programme provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme outcomes:</p>
<p><b>B1</b> develop critical analysis of work in the field of media production;</p> <p><b>B2</b> contextualize personal practice critically, technically and historically;</p> <p><b>B3</b> select and evaluate the correct techniques / tools to produce an asset / project</p> <p><b>B4</b> autonomously identify and solve media production problems by the application of data and software techniques and the synthesis of current research.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• lectures (B1 - B4);</li> <li>• seminars (B1 – B4);</li> <li>• directed reading (B1 – B4);</li> <li>• use of the VLE (B1 – B3);</li> <li>• independent research (B4).</li> </ul>
	<p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• Practical Assignments (B1 – B4);</li> </ul>
<p><b>C: Practical skills</b></p> <p>This Level provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>C1</b> become expert in the use of software and tools appropriate to their discipline;</p> <p><b>C2</b> demonstrate a mastery of computer programming languages and application programming interfaces for media production;</p> <p><b>C3</b> identify and apply the correct techniques for media production and pipelines either individually or as a group;</p> <p><b>C4</b> To communicate effectively with artists in the development and application of media production tools and techniques;</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• lectures (C1 - C3);</li> <li>• Practical assignments (C1 – C2, C4);</li> <li>• independent research for empirical dissertation (C2 – C3);</li> <li>• group project ( C4).</li> </ul>
	<p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• Practical assignments (C1- C4);</li> </ul>

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<p><b>D: Transferable skills</b></p> <p>This Level provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>D1</b> plan, organise and produce a project to a given time-scale;</p> <p><b>D2</b> work effectively as a member of a team communicating with peers, supervisors and others;</p> <p><b>D3</b> apply personally motivated research, independent learning and problem solving abilities required for continuing professional develop;</p> <p><b>D4</b> demonstrate the application of engineering principles to solve technical problems in a chosen field;</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• lectures (D1 – D4);</li> <li>• seminars (D1- D4);</li> <li>• use of the VLE (D1 – D4);</li> <li>• directed reading (D1- D4).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• practical assignments (D1 – D4)</li> </ul>

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### ADMISSION REGULATIONS

The regulations for this programme are the University's Standard Postgraduate Admission Regulations <https://intranetsp.bournemouth.ac.uk/pandptest/3a-postgraduate-admissions-regulations.pdf>

with the following exceptions: Applicants whose mother tongue is not English must offer evidence of qualifications in written and spoken English. Acceptable qualifications are: IELTS (academic) 6.0 (with a minimum of 5.5 in each of four categories) or direct equivalent.

A portfolio of work demonstrating proficiency with one or more forms of media production is required to apply to this programme. Examples include animation production, film, sound engineering, television, print media, image work and affiliated disciplines. Also, the portfolio should include ideas how Artificial Intelligence or Machine Learning would be applicable in their media discipline. Demonstration of coding proficiency (through inclusion of source code repositories) is recommended but not essential.

### PROGRESSION ROUTES

#### Articulation & Internal Progression

Recognition arrangements provide formally approved entry or progression routes through which students are eligible to apply for a place on a programme leading to a BU award. Recognition does not guarantee entry onto the BU receiving programme only eligibility to apply. In some cases, additional entry criteria such as a Merit classification from the feeder programme may also apply. Please see the recognition register for a full list of approved Recognition arrangements and agreed entry criteria.

The expectation is that most graduates will continue into employment in appropriate roles relevant to their own media specialism. Graduates may be able to continue to study at a Doctoral level should they wish to further explore this subject.

### ASSESSMENT REGULATIONS

The regulations for this programme are the University's Standard Postgraduate Assessment Regulations.

<https://intranetsp.bournemouth.ac.uk/pandptest/6a-standard-assessment-regulations-postgraduate.pdf>

### WORK BASED LEARNING (WEL) AND PLACEMENT ELEMENTS

The placement is option during the master project in the semester 3 with duration up to 3 month. It is the student's responsibility for arranging the placement, and it will need to be discussed with and approved by the course / unit leader.



**A – Subject Knowledge and Understanding**

This programme provides opportunities for students to develop and demonstrate knowledge and understanding of:

1. the languages used to discuss the moving image and art, science and technology;
2. the fundamentals of machine learning and data mining;
3. the techniques applicable to their own practice;
4. Mathematics and algorithms for AI;
5. Software development and engineering techniques for AI.

**C – Subject-specific/Practical Skills**

This programme provides opportunities for students to:

1. become expert in the use of software and tools appropriate to their discipline;
2. demonstrate a mastery of computer programming languages and application programming interfaces for media production;
3. identify and apply the correct techniques for media production and pipelines either individually or as a group;
4. To communicate effectively with artists in the development and application of media production tools and techniques;

**B – Intellectual Skills**

This programme provides opportunities for students to:

1. develop critical analysis of work in the field of media production;
2. contextualize personal practice critically, technically and historically;
3. select and evaluate the correct techniques / tools for the production of an asset / project
4. autonomously identify and solve media production problems by the application of data and software techniques and the synthesis of current research.

**D – Transferable Skills**

This programme provides opportunities for students to:

1. plan, organise and produce a project to a given time-scale;
2. work effectively as a member of a team communicating with peers, supervisors and others;
3. apply personally motivated research, independent learning and problem solving abilities required for continuing professional develop;
4. demonstrate the application of engineering principles to solve technical problems in a chosen field;