MA Virtual Reality

Programme Specification 2019/20

Awarding Body	University of the Arts London
College	London College of Communication
School	University of the Arts London
Programme	Moving Image and Digital Arts (L060)
FHEQ Level	Level 7 Masters
Course Credits	180
Mode	Full Time
Duration of Course	1 year
Valid From	September 1st 2019
QAA Subject Benchmark	Art and Design
UAL Subject Classification	Animation, interactive film and sound
JACS Code	None
UCAS Code	N/A
PSRB	N/A
Work placement offered	N/A
Course Entry Requirements	Applicants will be considered for admission if they have achieved an educational level equivalent to an honours degree in either animation, illustration, visual communication, graphic design or closely related subject, and present a portfolio of moving-image work. However, we do not exclude candidates who have graduated from other less strongly aligned disciplines. This educational level may be demonstrated by: • Honours degree (named above); • Possession of equivalent qualifications; • Prior experiential learning, the outcome of which can be demonstrated to be equivalent to formal qualifications otherwise required; • Or a combination of formal qualifications and experiential learning which, taken together, can be

	demonstrated to be equivalent to formal qualifications otherwise required.
	APEL (Accreditation of Prior Learning)
	Applicants who do not meet these course entry requirements may still be considered in exceptional cases. The course team will consider each application that demonstrates additional strengths and alternative evidence. This might, for example, be demonstrated by:
	• Related academic or work experience • The quality of the personal statement • A strong academic or other professional reference • OR a combination of these factors
	Each application will be considered on its own merit but we cannot guarantee an offer in each case.
	Language requirements
	All classes are conducted in English. If English is not your first language, we strongly recommend you let us know your English language test score in your application. If you have booked a test or are awaiting your results, please indicate this in your application. When asked to upload a CV as part of your application, please include any information about your English test score.
	• IELTS 6.5 (or equivalent) is required, with a minimum of 5.5 in each of the four skills. • If your first language is not English, you can check you have achieved the correct IELTS level in English on the Language Requirements page. • For further details regarding international admissions and advice please visit the International Applications page.
Selection Criteria	Offers will be made based on the following selection criteria, which applicants are expected to demonstrate:

	- Sufficient prior knowledge and experience of and/or potential in games development, film, animation or VR practice to be able to successfully complete the programme of study, and have an academic or professional background in a relevant subject - Knowledge of visual culture and an ability to engage in critical discussion

Awards and Percentage of Scheduled Learning

Year 1

Percentage of Scheduled Learning	36
Awards	**Credits**
Postgraduate Certificate (Exit Only)	60
Postgraduate Diploma (Exit Only)	120

Course Aims and Outcomes

The Aims and Outcomes of this Course are as follows:

Aim/Outcome	Description
Aim	To provide a creative and intellectually challenging educational experience that will enable you to develop a range of transferable, conceptual, critical and vocational skills necessary to progress onto a successful career in a relevant profession or research degree in higher education.
Aim	To support you in the development of a flexible, inclusive and responsive approach to your studies encouraging independent thinking and the ability to see things differently.
Aim	To prepare you for employment in Virtual Reality-linked industries by enabling you to acquire a range of professional, entrepreneurial and transferable employability skills.
Aim	To enable you to acquire a range of creative practice and advanced technical skills necessary for employment in your area of specialism.
Aim	To develop an innovative attitude to creative practice that can anticipate future technological, international, economic and business challenges in the screen industries
Aim	To equip you with a comprehensive and critical understanding of the core principles and technology of virtual reality that underpin your creative projects.
Aim	To respond to the growth in working across disciplines that has occurred in the creative industries in order to develop practitioners who can work in dynamic interdisciplinary teams and contexts.
Aim	To locate Virtual Reality within a historical, cultural and critical context in order to facilitate a stimulating learning experience. This will develop a creative, innovative and critical approach to your studies and chosen specialism.
Outcome	Use a variety of cognitive, creative and practical skills to identify and critically investigate appropriate primary and secondary sources relevant to virtual reality (Enquiry);

Outcome	Examine and critically interpret research material and demonstrate this understanding in order to inform visual and written outcomes (Enquiry);
Outcome	Demonstrate an understanding of, and practically apply, contextual knowledge of virtual reality, its connected industries, and its wider areas of influence (Knowledge);
Outcome	Problem solve, take risks, challenge preconceptions, experiment and test ideas, materials and media to develop complex ideas and deliver immersive virtual reality experiences. (Enquiry);
Outcome	Demonstrate use of appropriate design, theoretical, technical and media skills to produce immersive product using virtual reality technologies (Realisation);
Outcome	Show clarity of purpose, appropriate selection of media, awareness of precedent and sensitivity to the needs of the audience in the production and presentation of ideas (Communication);
Outcome	Manage your learning through reflection, planning, self-direction, subject engagement, and commitment and be able to place your work in a professional context (Realisation);
Outcome	Work independently and collaboratively with your peers or with those from different disciplines (Process).

	Distinctive Features
1	1 Small unit based technical skill acquisition: Virtual Reality and the broader spectrum of Mixed Reality, which covers augmented reality are often perceived as technically complex and challenging, especially for those from a non-technical background. In order to fully appreciate and harness the power of VR and MR, students are guided through the acquisition of necessary related technical skills in small units, which will enable them to develop advanced skills in a short period of time and gain confidence over this domain at a technical level.
2	2 Psychological science research guided knowledge acquisition: This course presents students state-of-the-art VR and MR research, all supported by evidence from rigorous experimental studies from psychological science. Following this method, students will be able to develop their knowledge base not only knowing "how" but also "why", and thus can quickly adapt their understanding to the fast-changing future technical advances in this area.
3	3 Design with a multidisciplinary approach: Virtual Reality naturally stands between technology, science, and art, and this course encourages students to challenge themselves and grow in all these areas and associated disciplines to design VR and MR environments for a broad range of applications. This will require developing a command of VR and MR hardware and software technologies, a good understanding of psychology and human perception, as well as grasping essential design principles behind building believable and immersive VR and MR experiences tailored to a variety of subjects.
4	4 Positive social and cultural impact: As an immersive technology that truly appeals to one's heart, it has been well established that VR has the ability to build bridges between people from different social and cultural backgrounds - ethnicity, gender, body shape, sensory abilities (autism, dementia) can all be explored directly and reflected upon. More and more often VR is being recognised as a tool to reduce discrimination and raise awareness, and practitioners in VR will soon have the responsibility to contribute to this area. A wide range of related topics will be discussed in this course.
5	5 Enhancing our lives with Virtual Reality: One of the main areas where VR applications will certainly thrive is concerning people's well-being which can be greatly improved through this technology, and indeed most existing VR and MR applications before the rise of Oculus HMD are in the medical field: surgical training, psychotherapy for PTSD, and physical rehabilitations, just to name a few. Cheaper and more readily available VR and MR headsets, tracking devices, and advances in machine learning and AI will continue to lower barriers to entry in this area. Other fields benefitting from this are VR TV, VR cinema and VR social networks, which allow people to be part of a cross-media narrative as well as to

	expand and to enrich their experiences of media content. Again, this is something we will explore in this course.
6	6 Thought leader in Virtual Reality: Exposures to the state-of-the-art research, equipped with both technical skills and critical understanding of theoretical framework, and opportunities to work and learn with the best national and international VR and MR pioneer researchers and experts from industry in the UK, students graduated from this course will be in a perfect position to define the future trajectory of Virtual Reality.

Course Detail

Virtual Reality (VR) is quickly becoming a new major communication platforms with massive impact on immersive experience and moving image storytelling. This course will equip students with pre-existent and developed skills in filmmaking, 3D animation or interaction design with a firm foundation for a future as VR specialists.

The intent of MA Virtual Reality is to position our graduates at the cutting edge of developing new visual language and to become significant voices in this burgeoning new field with the capability to make a real world positive impact. The emphasis of the course will be on 3D 360-degree interactive media content creation over the creation of hardware technology, though computer application creation will also be encouraged.

It is the intent of the proposed MA Virtual Reality that it can allow people with developed knowledge in the fields of filmmaking, 3D animation and/or games to create truly immersive experiences. In so doing they will explore existing and possible worlds as well as connect with people's experiences beyond their own and in so doing be significantly socially and culturally impactful.

Given the range of forms in which VR is being used (entertainment, art, journalism, campaigns, education, training, science, medicine, design etc.) and the immense cross-over with so many creative subject areas currently being taught in the LCC Screen School, it is a both timely and creatively strong opportunity for both students and researchers to enter into this arena. Being that VR and AR live at the intersection of filmmaking, animation, games and creative computing, it makes sense for courses in this area to be launched within the new Moving Image and Digital Arts Programme in the LCC Screen School.

Course Units

MA Virtual Reality

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Term one (10 weeks) - this term students will focus on learning the concepts, basic technical skills, and the psychology of VR and elements of mixed reality. They will have the chance to explore their creativity by building different types of virtual worlds: photorealistic, fantasy, and abstract. They will be challenged to use VR and MR to build immersive experiences, and present their design using the language of VR, e.g. computer-generated VR content, 360-degree images.

1.1 Creative VR project portfolio [40 Credit]

◦Week by week, led by Lecturers, students will have hands on experiences creating VR /MR experiences by building their VR portfolio integrating different aspects of VR (VR content, VR interaction, 3D sound).

◦Examples include but not limited to: creating a simple immersive interaction, 3D navigation, 3D object selection, embodiment, 3D sound, 360-degree images.

◦Students will learn basic skills in a variety of VR workflows including 3D modelling and animation and 360 filmmaking.

1.2 Design Immersive Experience [20 Credit]

◦Develop critical understanding of the VR and MR technology, psychology, and applications.

◦Students are challenged to propose a VR or MR application, which answers a question, solves a problem. They will produce a design document with a 360-degree immersive media, and pitch their ideas to the class for feedback.

Term two and three (20 weeks) - we encourage students to really push the boundaries of VR. Students will create new VR applications that expand our notions of reality, presence and existence, and/or explore new methods to create Mixed Reality (MR). Students will

use learnt methods and techniques from term one to use VR or MR as a form of artistic expression.

2.2 Critical Practice and Exploration: Creating a New Experience in VR or MR [40 credit]

◦Engage in creating new experiences delivered via VR Headsets in both the space of 360 and model-based VR / MR. Students will have access to a variety of VR and MR-related equipment in creating realistic VR / MR content, enabling naturalistic real-time 3D user interaction, and also new conceptual/artistic expression experiences. They will develop VR

◦/ MR experiences that reflect the critical context set in term one and using the tools and techniques learnt to create alternative experiences beyond the conceptual limits of their physical and perceptual reality.

◦Students will have seminars to present and exchange their ideas with experts from the creative industry.

◦Examples of such new experiences include: being somewhere else (spaceship, underwater); exploring the relationship between mind and body (owning an arm three times longer, being in the body of a different gender); exploring how different senses can be exchanged (synaesthesia).

◦An alternative theme could be to create Mixed Reality (MR) experiences where virtual objects are integrated into our real world.

◦A technical programme, which ensures that students are able to explore various aspects of VR / MR, underpins this practice.

◦Students should also be led through the whole production pipeline: they will also practise pitching and promoting their work (they are encouraged to upload their VR experience to online platforms that support VR content, such as Steam VR, Oculus Store, etc.)

2.3 Collaborative Unit [20 credit] - students work with other students from around the college to develop a new experience in order to answer a question, solve a problem, or express ideas, emotions, or sensations.

Term Four (5+10 weeks)

3.1 Final Major Project + Thesis [60 credit] - students work on their individual projects with access to technical workshops. They are encouraged to work with an external

second supervisor from within academia (but a different discipline) or the industry (game, film, VR / MR firms in London).

Additionally, we aim to present students work at VR conferences and exhibitions in London March - May time, for instance: http://events.vr-intelligence.com/europe/ , http://vrworldevent.com/ . More up to date events here: https://www.digitalcatapultcentre.org.uk/events/

Learning and Teaching Methods

Students will be supported in the completion of projects through engagement in lectures, seminars, tutorials, and formative critiques. The development of their practice will be fostered through the completion of technical workshops and software training, individual research exercises, self-directed study, peer reviews, group and individual critiques.

Students will be expected to actively engage in project work and contribute with critical thinking on the issues at hand. The links with the industry will contribute directly to the teaching, learning and assessment of the course, through the delivery of specialist knowledge through e.g. workshops and seminars, working on client briefs and ensuring the contents are aligned to the current industry practices.

Assessment Methods

The course is assessed entirely through the completion and submission of coursework which, dependent on the nature of individual units can range from design portfolios and immersive media products through to written research project and thesis. Assessment methodologies present on the course include, but are not limited to:

1.   Submission of interactive and immersive artefacts and showreels;

2.   Review of written research and critical reports;

3.   Review of design development portfolios;

4.   Online repositories that document and record conducted research, e.g. blogs, wikis, etc.;

5.   Presentations and formal critiques;

6.   Evidence contribution and engagement to project work;

7.   Exhibition of project portfolios;

8.   Written thesis.

Throughout each of the units student development will be supported by the completion of formative assessment and feedback opportunities. This will vary by unit, but will predominantly be in the form of group critiques and tutor-led portfolio reviews.

Reference Points

The following reference points were used in designing the course:

UAL's Learning, Teaching and Enhancement Strategy - http://www.arts.ac.uk/about-ual/teaching-and-learning/about-the- exchange/teaching--learning-strategy/

The College and Screen School policies and initiatives - http://www.arts.ac.uk/lcc/about-lcc/screen-school/

FHEQ Level descriptors - http://www.qaa.ac.uk/en/Publications/Documents/qualifications-frameworks.pdf

UAL Creative Attributes Framework http://www.arts.ac.uk/about-ual/teaching-and-learning/careers-and- employability/creative-attributes-framework/

Course Diagram | MA Virtual Reality

	Autumn Term (Term 1 | 11 Weeks)	Spring Term (Term 2 | 10 weeks)	Summer Term (Term 3 | 15 weeks)	Undergraduate Summer Period (14 weeks)	Autumn Term (Term 4 | 10 weeks)

Weeks (Autumn Term 1): Week 0, week 1, week 2, week 3, week 4, week 5, week 6, week 7, week 8, week 9, Week 10, week 11

Weeks (Spring Term 2): week 12, week 13, week 14, week 15, week 16, week 17, week 18, week 19, week 20, week 21

Weeks (Summer Term 3): week 22, week 23, week 24, week 25, week 26, week 27, week 28, week 29, week 30, week 31, week 32, week 33, week 34, week 35, week 36

Weeks (Autumn Term 4): Week 37, Week 38, Week 39, Week 40, Week 41, Week 42, Week 43, Week 44, Week 45, Week 46, Week 47

- Freshers Week / Start of Undergraduate Year
- Christmas Break
- Easter Break
- Freshers week / Start of Undergraduate year

Unit 1 Creative VR Project Portfolio 40 Credit

Unit 2 Design Immersive Experience 20 credit

S (Christmas Break)
S (Christmas Break)

Unit 3 Critical Practice and Exploration 40 Credit

Unit 3 Critical Practice and Exploration 40 Credit — S

Unit 4 Collaborative Unit 20 Credit — S

PG Summer Break Independent Study / Writing Up Period

PG Overlap Period with new year intake

Unit 5 Final Project + Thesis 60 Credit

Unit 5 Final Project + Thesis 60 Credit — S

PG Shows

S = Summative Assessment Point (Your Assignment Brief will give you details on the deadline date, time and how to hand in your assignment)

Formative assessment points will be indicated by your tutor in your unit handbooks or assignment brief