Programme Specification

Awarding Institution:
University of London (Interim Exit Awards made by Goldsmiths' College)
Teaching Institution: Goldsmiths, University of London
Final Award:
Programme Name:
MA Virtual and Augmented Reality (3D Graphics and User Experience) Internship Pathway
MSc Virtual and Augmented Reality (Programming and Computer Science) Internship Pathway
MA Virtual and Augmented Reality (3D Graphics and User Experience) Research Pathway
MSc Virtual and Augmented Reality (Programming and Computer Science) Research Pathway
Total credit value for programme: 180
Name of Interim Exit Award(s):
Postgraduate Certificate in Virtual and Augmented Reality (3D Graphics and User Experience)
Postgraduate Certificate in Virtual and Augmented Reality (Programming and Computer Science)
Postgraduate Diploma in Virtual and Augmented Reality (3D Graphics and User Experience)
Postgraduate Diploma in Virtual and Augmented Reality (Programming and Computer Science)
Duration of Programme: 1 year full-time or 2-3 years part-time
UCAS Code(s): Not applicable
HECoS Code(s): (100363) Computer Animation and Visual Effects
QAA Benchmark Group: Computing
FHEQ Level of Award: 7
Programme accredited by: Not applicable
Date Programme Specification last updated/approved: April 2023
Home Department: Computing
Department(s) which will also be involved in teaching part of the programme:
Not applicable

Immersive experiences, including Virtual and Augmented Reality are the most exciting new media to emerge in the 21st century. Virtual Reality (VR) is a medium unlike any other, it completely immerses you in a new world that can feel as real as the physical world around you. No other medium can create an experience like it, and most people who have tried it will know that it is the medium of the future.

Augmented Reality (AR) integrates these kind of immersive 3D environments with the real world allowing our real world interactions to be enhanced with digital content. Together VR and AR are parts of a continuum of experience, Mixed Reality (or MR), that combines real and virtual in many different ways to create a huge range of immersive experiences, that are unlike anything that has been previously possible.

Virtual and Augmented Reality are rapidly developing media: the basic grammar has yet to be established and there are still very few experienced content creators. If you enter VR, AR and MR now, you have the opportunity to pioneer and shape a medium that is likely to have a major impact on the 21st Century.

While mass market VR and AR are relatively new as media, they build on a long tradition of technology research. Content creators who don't know the results of this research are likely to make basic mistakes. Goldsmiths staff have decades of experience researching in VR/AR and know the technology well. They are also world experts in the psychology of the VR/AR experience. VR/AR is so different from other media because it creates the illusion of presence or being in another place. Understanding how that illusion works is vital to creating great VR/AR experiences.

This masters programme will give you a strong technical background in the skills needed for VR and AR development, with two strands, one focusing on 3D Graphics and User Experience Engineering and the other on Computer Science and Programming. This will be combined with a deep understanding of the medium from an artistic and psychological point of view.

You will study topics such as presence, immersive user experience design, virtual characters, social VR, photogrammetry, 3D interaction, machine vision, mixed reality and augmented reality. You will have the opportunity to meet world class VR developers from London and beyond in our regular seminar series and get a start on your career in VR with our work placement programme.

Virtual and Augmented Reality is being used in games, film, medicine, journalism, advertising, education, engineering and many other industries. Your expertise in the medium will open up jobs in this area and many more. We have strong links with industry, including regular industry talks and demo days in which industry representatives visit to see

MA, MSc

In addition to the learning outcomes above, students who successfully complete the MA or MSc will be able to:

Transferable skills (Elements)

Code	Learning outcome	Taught by the following module(s)
D4	Plan and execute a substantial project under expert supervision.	Final Project in Virtual and Augmented Reality (either pathway).
D5	Manage their time and other resources within the context of a substantial independent project.	Final Project in Virtual and Augmented Reality (either pathway).
D6	Present their own work in writing to the standard of published academic research.	Final Project in Virtual and Augmented Reality (either pathway).

Subject specific skills and professional behaviours and attitudes

Code	Learning outcome	Taught by the following module(s)
C8	**MSc (Programming and Computer Science pathway) only**: Design and program a Virtual or Augmented Reality software system to a professional standard.	Research or Internship Project in Virtual and Augmented Reality (

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Pathway in Programming and Computer Science (Research)

Module Name	Module Code	Credits	Level	Module Type	Term
Virtual Reality	TBC	15	7	Compulsory	2
Augmented Reality	TBC	15	7	Compulsory	1
Advanced Topics in Virtual and Augmented Reality	TBC	15	7	Compulsory	2
Games Programming 1	TBC	15	7	Compulsory	1
Mathematics for Games and V&AR	TBC	15	7	Compulsory	1
Optional modules to the value of 45 credits	Various	45	7	Optional	1 & 2
Research Project in Virtual and Augmented Reality - Research (Programming and Computer Science Pathway)	TBC	60	7	Compulsory	3

Part-time mode

Academic Year of Study 1

Part time students will be given some flexibility in their choice of modules, but it will be recommended that in their first year they take the following compulsory modules:

- Virtual Reality (15 credits)
- Augmented Reality (15 credits)
- Introduction to Programming for Games (15 credits)
- Option Module (15 credits)

Academic Year of Study 2 (and 3)

Part time students will be given some flexibility in their choice of modules, but it will be recommended that in their second year they take the following compulsory modules:

- Advanced Topics in Virtual and Augmented Reality (15 credits)
- Pathway specific skills modules (15 credits)
- Option Modules (30 credits)
- Final Project (60 credits)

Students doing the 2-year part-time mode will do the Final Project (60 credits) in their final year.

Support for learning and wellbeing is provided in a number of ways by departments and College support services who work collaboratively to ensure students get the right help to reach their best potential both academically and personally.

All students are allocated a Personal Tutor (one in each department for joint programmes) who has overall responsibility for their individual progress and welfare. Personal Tutors meet with their student at least three a year either face-to-face, as part of a group and/or electronically. The first meeting normally takes place within the first few weeks of the autumn term. Personal Tutors are also available to students throughout the year of study. These meetings aim to discuss progress on modules, discussion of the academic discipline and reports from previous years if available (for continuing students). This provides an opportunity for progress, attendance and assessment marks to be reviewed and an informed discussion to take place about how to strengthen individual learning and success.

All students also have access to a Senior Tutor to enable them to speak to an experienced academic member of staff about any issues which are negatively impacting their academic study and which are beyond the normal scope of issues handled by Programme Convenors and Personal Tutors.

Students are provided with information about learning resources, the Library and information available on Learn.gold (VLE) so that they have access to department/ programme handbooks, programme information and support related information and guidance.s17 renBT/F1 12 Tf1 0 0 1 168.33 412.88 Tm0.125 0.12214(d)-6( )7(a)-6(n)-6(d)-6(ys)7(t)7(h)s

Taught sessions and lectures provide overviews of themes, which students are encouraged to complement with intensive reading for presentation and discussion with peers at seminars.iprovide-ysm6(e)-6(t)7( )7(t)7(b6(n)-6(ce)-6(.E))]TJET6(t)7(h)-6( )721(e)-6(s)7(p)-6(ro)]TJETQ0

arrangements are in place. Opportunities are provided for students to review their support arrangements should their circumstances change. The Disability and Wellbeing Services maintain caseloads of students and provide on-going support.

The Careers Service provides central support for skills enhancement, running The Gold Award scheme and other co-curricular activities that are accredited via the Higher Education Achievement Report (HEAR

- Virtual and Augmented Reality creator associated with more traditional platforms, for example creating VR experiences linked to film, television or games.
- Designer of Virtual or Mixed Reality tools for education, for example medical training.

Not applicable.