

School of Computing, Engineering & Digital Technologies

Computing & Games



Learning Resources & Facilities

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Introduction

The School of Computing, Engineering & Digital Technologies at Teesside University is a centre of excellence across engineering, computing, games and animation, media, communications and the digital arts.

Our specialist engineering, digital production facilities and specialist teaching studios cover a range of disciplines and are all at the forefront of digital and technological innovation.

Computing Laboratories and Studios

We have more than 30 networked laboratories and studios across various buildings (Athena, Europa, Mercuria, Parkside, Phoenix and Stephenson) equipped to industry standards and running the very latest industry software. Dedicated facilities are provided for specialist areas such as animation & visual effects, computer science, concept art, digital media, film & television, photography, music & performance, games design and programming, computer networks and post-production (a comprehensive list of all our teaching space/studios can be seen in Appendix 1).

Disclaimer

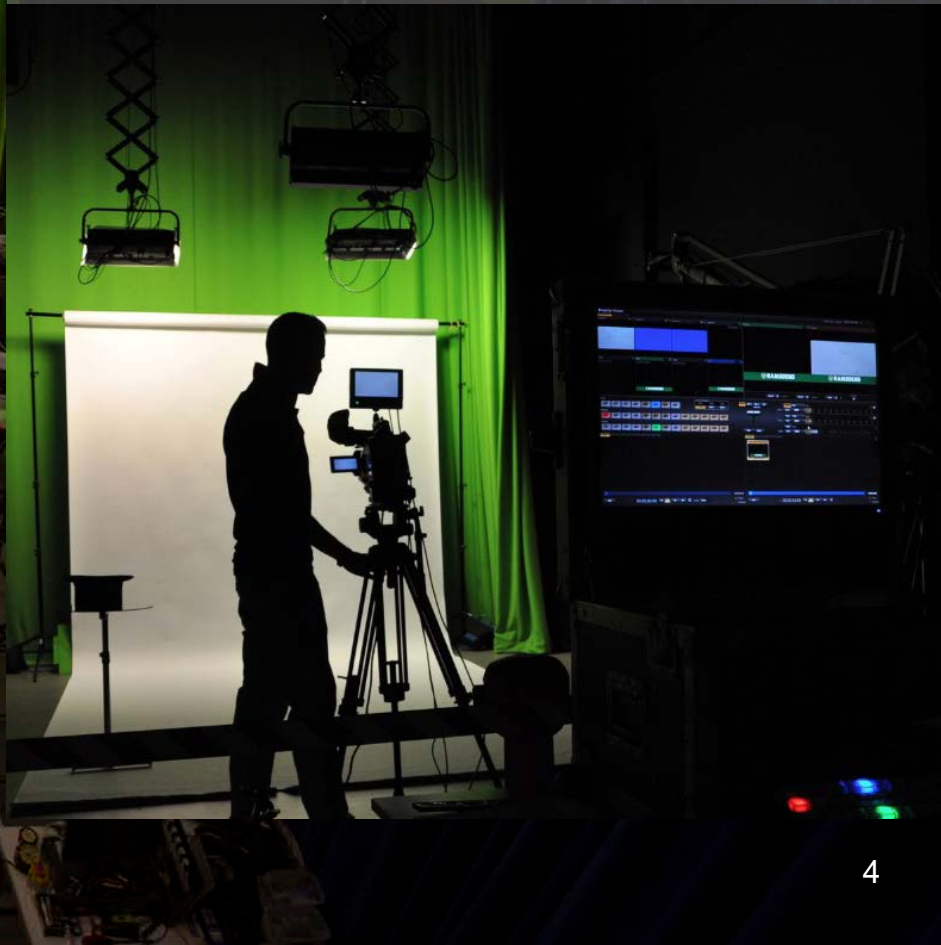
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Sound Stage & Recording Studios

Located in the Phoenix Building is our state-of-the-art two-storey soundstage measuring 8m x 6m as well as a professional Sound Recording Studio which are among the best in the UK.

We have a top class, track based computer controlled camera system which is capable of creating amazing visual effects – from simple crowd duplications, to highly detailed complex artificial live action sequences.





Recording Studios

Our Sound Recording facilities include the Avid DigiDesign 32 track mixing console and DigiDesign's award winning ProTools HDX software which is regularly used on music productions, movies, television dramas and features.



Games Corner

A number of games consoles are available in this area. The School of Computing, Engineering and Digital Technologies has procured a variety of computer games that students can sign out from the Media Centre (Aurora House) to test, evaluate or simply play in this lounge.





Games Programming Studios

Our Games Programming Studios create a place for students to work with dedicated workstations and dual monitors. It includes Microsoft Visual Studio and the Unity and Unreal engines, along with Xbox controllers and high performance graphics hardware to enable students to develop computer games for desktop PCs or mobile devices.



Concept Art Studio

The Concept Art Studio is a dedicated teaching space for our Concept Art students. The studio includes 24 student workstations and 1 tutor workstation each with a 22" WACOM Touch Cintiq and one standard 24" monitor. The students have access to a range of drawing software such as Clip Studio and Corel Painter as well as Adobe Photoshop CC.

Games Studios

There are six dedicated Games Studios in the Athena Building each housing 20 student workstations and 1 tutor workstation with dual widescreen monitors and drawing tablets. Some of the studios include games controllers. This provides students with a friendly open studio environment where they can work as individuals or in small teams. AV Facilities are available for peer presentation of work and students delivering group talks as part of team based modules such as the Journeyman Project.



Motion Capture Studio. Vicon Optical Camera System

The MoCap Studio is adjacent to the VR Studio. Here you will find some of the best motion capture equipment available in the UK.

Motion capture, or mocap, is a term used to describe the process of recording human movement for use in animations and games.

18 Infrared cameras fixed around the room capture the movement of reflective markers. These are accurate to approximately 2mm and can handle fast and complex movements. There are six suits of different sizes, and multiple-person capture is possible.

The system is not restricted to human subjects/actors. For example, the School has captured data from dogs.

The room also boasts a range of other devices such as laser scanners and a 3D printer.



Animation and Visual Effects [AVFX] Studios

Each studio has 20 student workstations and 1 tutor workstation, each with dual widescreen monitors and drawing tablets providing students with a dedicated and inspiring environment to produce 2D and 3D animation & VFX from the pre-production stage right through to post-production. Students have access to the latest versions of industry standard software such as Autodesk Maya, Nuke and Houdini. Pluralsight, an online learning support tool is also available.

The AVFX Suite also has a dedicated screening/meeting room for up to 12 people. Staff and students meet here to screen work and provide feedback on work in progress.

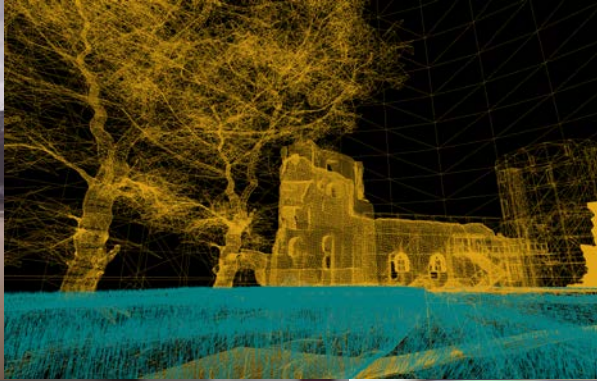
VR & Photogrammetry Studio

VR headsets provide an immersive view of a 3D environment or game.

The user can interact with the environment using game controllers, and can look around by moving their head. Sensors in the headset track their position and gaze direction, although movement is limited by trailing cables.

The VR Studio currently has eight HTC Vive headsets with the latest SDK available for student use. The studio also houses a photogrammetry suite for the high resolution photography of real life objects for use in virtual 3D spaces.





TUCan Studio

An innovative production studio bringing together multi-disciplinary groups of Teesside University staff, graduates and students together under one roof to work on commercial digital projects for our external partners.

Based in the School of Computing, Engineering & Digital Technologies, we have expertise spanning across numerous creative digital areas including animation, media production, software and web development, VR and augmented reality experiences.

Together we can work with you to develop new products, proof of concepts or cutting edge research whilst giving our talented students the opportunity to develop essential work ready skills.

Live projects undertaken by the studio include AR and VR app development, video production, 360 immersive production, web design and software development. The studio can be found online at www.tucanstudio.co.uk



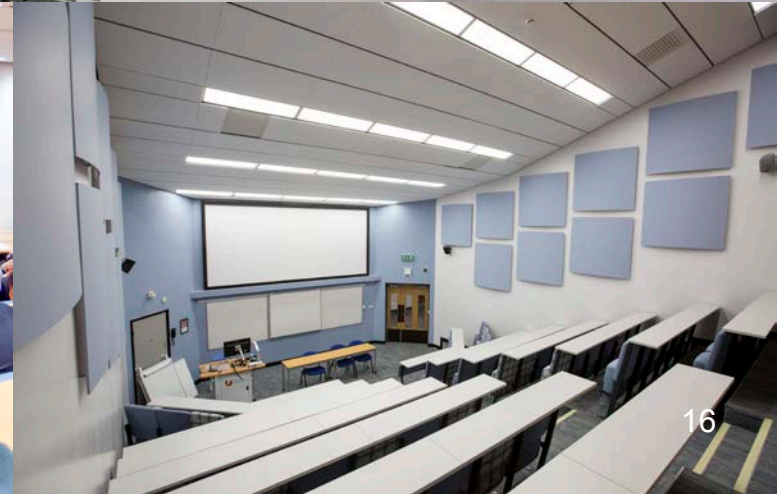
Lecture Theatres

The department has several large lecture theatres with capacities up to 300 for teaching and as a venue for annual events such as the Animex Conference.

Drawing Studios

Life drawing takes place in the airy, open plan Drawing Studio and consists of a mixture of male and female life models supported by a tutor.

Tables, easels, drying racks, drawing boards and A2 grey board and A3 cartridge paper are all readily available along with a range of art materials such as acrylic and watercolour paints, putty rubbers, graded drawing pencils, coloured pastel sticks, graphite sticks, charcoal and specialised animation drawing pencils. Still life objects are available for compositional drawing.





Final Year Studio

There is a dedicated computer studio for our final year students to use to aid them during their final and project year. This studio contains a mixture of platforms (Windows, Linux, Mac) and software from each of the studios across the school.

A complete list of software is available in the studio instructing which machine it is installed on.

Linux Labs

We have two Linux labs mainly used by the CS&IS department, here students have access to many open-source packages and development tools for various programming modules.

Web, Programming and Database Studios

These studios allow students to develop information system applications for Microsoft platforms, Web Application development and creation of rich internet applications. They include the latest Visual Studio and SQL Server software and a suite of software that is centred in the Open Source Development area.

Digital Media and Web Studio

A studio dedicated for the area of Digital Media and Web and is currently setup for a mixture of Android Software Development, Web App Production, and creative design. The area contains 20 student workstations and 1 tutor workstation, each with dual widescreen monitors and drawing tablets.

Digital Media Studio and Collaborative Learning Environment

A Digital Media and Web Studio that affords group working. Its software is primarily focused on design and creativity with breakout areas for group discussion. Students undertaking Computer Science modules also have access to this studio for group work, meetings and presentations.

Network Studios

Students can access our dedicated Networks Studios including a Hardware and Communications working area with Cisco Switches and Routers and a variety of wireless and other networking equipment. This area is behind a local firewall which allows students to configure servers and other hardware without exposing the whole university to potential security risks. The controlled environment enables Cybersecurity students to set-up test systems and conduct vulnerability assessments and penetration tests. The Network Studios also have a range of open source electronics prototyping platforms (Arduino and Netduino) for students to use with computing technology and embedded systems modules.

Freelance Area

Our Freelance area contains mainly Windows PCs with a small number of Apple iMAC's. Software available includes the Adobe and Autodesk suites. This area is also used for those students involved with the LEGO competitions.



Appendix One: Studios & Laboratories

Athena

AG.06	Convergent Newsroom (PC Lab)	A2.07	Concept Art
AG.09	Broadcast News Studio	A2.08	Games Studio
AG.10a	Sound Control (Connected to TV Control & Broadcast News Studio)	A2.09	Games Studio
AG.10b	TV Control (Connected to Sound Control & Broadcast News Studio)	A3.02	Linux Studio & Digital Media Programming & Database Studio
AG.11	Media Production Lab	A3.04	Stop Motion
AG.12	Athena Edit Lab	A3.05	Drawing Studio
A2.01	Comics	A3.07	Drawing Studio
A2.03	Stop Motion	A3.08	Digital Media Programming and Database Studio with Editshare.
A2.05	Games Studio	A3.09	Games Studio
A2.06	Games Studio	A3.10	Games Studio

Aurora

AU1.04	TUCan Studio
AU0.05	Aurora TV Studio

Stephenson

IC0.18:	Enterprise Laboratory.	IC1.01a	Animation and Visual Effects Studio + Games Studio
IC0.19:	Civil Engineering / Built Environment Laboratory.	IC1.01b	Animation and Visual Effects Studio
IC0.26 / 0.28,	Engineering Workshop and Foundry	IC1.01c	Animation and Visual Effects Studio
IC0.33:	Electro-technology Laboratory.	IC1.01d	Meeting Room (Screening room)
IC0.34:	Control Systems Laboratory	IC1.60	Motion Capture
IC0.35:	SCADA Laboratory	IC1.61	Virtual Reality
IC0.37A	Flight Simulation	IC1.63	Computer Laboratory
IC0.37B	Thermo-fluids Laboratory	IC1.65	Computer Laboratory
IC0.38	Mechanical Science Laboratory	IC1.69	Electronics and Communications Laboratory
IC0.39	SEM Laboratory	IC1.72	Computer Laboratory
IC0.42	Applied Materials Laboratory	IC1.73	Computer Laboratory
IC0.47A	Engineering Projects Laboratory (Formula Student, Electric Motorbike & Aerospace).	IC1.76	Computing Laboratory
IC0.47B	Power Engineering Laboratory	IC1.77	Digital Media Programming and Database Studio

Greig

G1.47	Meeting Room
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Europa

IT0.11	Final Year Studio	IT1.35	Freelance Studio
IT0.13	MAC Studio (Mobile Programming)	IT1.31	Digital Media Programming and Database Studio
IT0.15	Linux Studio	IT1.34	Collaborative Learning Environment Studio
IT0.31	Traditional Animation Studio	IT2.34	Networks Studio
IT1.08	Digital Media Programming and Database Studio	IT2.41	Networks Studio
IT1.10	Digital Media Programming and Database Studio	IT2.42	Networks Studio
IT1.11	Linux Studio	OL3	Concept Art Studio
IT1.30	Freelance Studio	OL8	Games Programming Studio
		OL9	Games Programming Studio

Mercuria

MC0.04	Hall
MC0.06	Dance Studio
MC0.10	Music Studio

Middlesbrough Tower

M8.04	Hydrogen Project / Research Laboratory
M10.08	Research Laboratory

Orion Building

CE0.01	Distillation Process Laboratory
CE0.02	Process Laboratory
CE0.03	Open Access Computer Laboratory
CE1.01	Distillation Column Laboratory
CE1.02	Oil and Gas Engineering Laboratory
CE1.03	Open Access Computer Laboratory
CE1.13	Computer Laboratory
CE1.20	Process Engineering Laboratory
CE2.01	Distillation Column Laboratory
CE2.02	Multi-phase Separation Laboratory.
CE2.03	Open Access Computer Laboratory

Phoenix

PG.07	Music Lab
PG.16	Sound Stage
P2.10	Postgraduate Studio – Concept Art
P2.11	Postgraduate Studio

Parkside West

PSW0.22	Dark Room
PSW0.13	Photography Studio 1
PSW0.14	Photography Studio 2

Waterhouse

W2.01	Performance Prep Space
W2.02	Performance for Live & Recorded Media Studio



Please contact the School of Computing, Engineering & Digital Technologies by emailing scedt-enquiries@tees.ac.uk.

