



FALMOUTH
UNIVERSITY

Games Academy: BSc Computing for Games
Course Induction

Learning Outcomes

By the mid-session break, you should be able to:

- ▶ **Recognise who** your tutors are
- ▶ **Outline what** the Games Academy does
- ▶ **Explore** some of the kinds of question that excite game scholars
- ▶ **Explain** the key learning outcomes **and** career paths that the course caters to
- ▶ **Recall** the structure of the course
- ▶ **Describe** the first-year modules on which you are enrolled on

Learning Outcomes

Between the mid-session break and the end of the session, you should become able to:

- ▶ **Recall** the assignments for the first semester
- ▶ **Contrast** what is expected of students in the higher education context to the compulsory education context
- ▶ **Analyse how** to invest sufficient time in both course activities **as well as** self-regulated deliberate practice to achieve key goals

Your Tutors





Michael Scott working with Monica McGill at an ACM Working Group in Peru



THE UNIVERSITY of York

The games academics

Professor Peter Cowling | Dr Ed Powley | Daniel Whitehouse | Nick S...

With the games development industry in Britain contributing over £1.5 billion a year to the economy, it is vital that the industry is able to maintain its competitive advantage by drawing on some of the best and brightest brains in the country.

As a result, the quest for smarter Artificial Intelligence (AI) to create more intelligent games is seeing new partnerships form between university researchers and some of the most dynamic young companies in the market place.

Ed Powley presenting with Professor Cowling at The Royal Academy of Engineering's Summer Soirée



Al Parker performing in front of 13 screens and 13 P2 cameras



Other Members of Staff in the Games Academy

The Games Academy





World-Leading Research in
Digital Games and **Digital**
Games Technology



Hold more than 2
million of funds for
research in **Artifi-
cial Intelligence,
Procedural Con-
tent Generation,
and Transmedial
Aesthetics**

DIGRA 2015

DIGRA 2

KEYNOTES

Thursday, May 1

Friday, May 1

Saturday, May 2

Sunday,

KEYNOTES

Thursday, May 14

Friday, May 15

Saturday, May 16

Sunday, May 17

Tanya Krzywinska (Falmouth U)

The Gamification of the Ga

Astrid Esselink (Banger Universi

Videogames as Unnatural H

Karen Palmer (i-Interactive Fi

Is Hacking the Brain the Fa

Markus Rautzenberg (Freie U

Dealing with Uncertainty, U

Lead By World-Renowned
Researchers



**Lead By World-Renowned
Researchers**

Striving Towards a **First-Class**
Educational Provision that
Prepares Students for **Careers**
in the **Creative Industries**



TECH NATION 2016



From
**TECH
CITY**

@TechCityUK

In partnership with
Nesta...

@nesta_uk

Truro, Redruth & Camborne

Visit: techcityuk.com/technation



127%

GVA GROWTH
Growth in GVA
from 2010-2014



£31m

TOTAL GVA
Total output (good
or service) minus
value of inputs

TECH NATION 2016 IN NUMBERS

FROM
TECH CITY

IN PARTNERSHIP WITH
Nesta...

DIGITAL TECH ECONOMY

1.56m jobs¹

Job creation **2.8x** faster than the rest of the economy (2011-2014)



£50,000

Almost £50K average advertised salary²

36%

higher than the national advertised average²

41%

Digital Tech Economy jobs exist within traditionally non-digital industries¹

DIGITAL TECH INDUSTRIES

£161bn turnover³

32%

Grew 32% faster than the rest of the economy (2010-2014)³

58,000

Identified active digital tech businesses⁴

TOP SECTORS⁴

17% App & Software Development

12% Data Management & Analytics

11.5% Hardware, Devices & Open Source Hardware

DIGITAL TURNOVER TOTAL³

£62.4bn

READING & BRACKNELL

£10bn

BRISTOL & BATH

£8.2bn

MANCHESTER

£2.2bn

BIRMINGHAM

£1.8bn

DIGITAL TURNOVER GROWTH (2010-2014)³

SOUTHAMPTON

+180%

TRURO, REDRUTH & CAMBORNE

+153%

DUNDEE

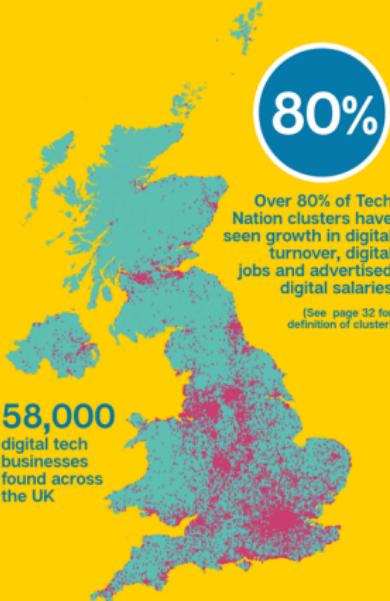
+129%

LONDON

+101%

BRISTOL & BATH

+53%



DIGITAL JOBS¹ TOTAL

LONDON

328,223

MANCHESTER

51,901

READING & BRACKNELL

40,440

BIRMINGHAM

36,768

BRISTOL & BATH

36,547

PRODUCTIVITY³ (SALES PER WORKER)

BRISTOL & BATH

£296,340

LONDON

£205,390

READING & BRACKNELL

£196,800

SOUTHAMPTON

£171,720

OXFORD

£170,460

DIGITAL SALARY² GROWTH (2012-2015)

LEEDS

+29%

NEWCASTLE & DURHAM

+27%

SUNDERLAND

+26%

EDINBURGH

+26%

SOUTHAMPTON

+25%



Undergraduate Courses in
Digital Games

A group of six students are gathered in a game development studio. In the foreground, a student wearing a VR headset sits on a red sofa, holding a controller. To their right, another student sits on the sofa holding a smartphone. In the background, three other students stand or sit, looking towards the camera. The wall behind them is covered with various game design documents, including a calendar, character sketches, and sections labeled "INTERFACE", "STYLE GUIDE", "MECHANICS", "RELATIONS", "UNITS", and "HOG BOARD".

Undergraduate Courses in Computing for Games



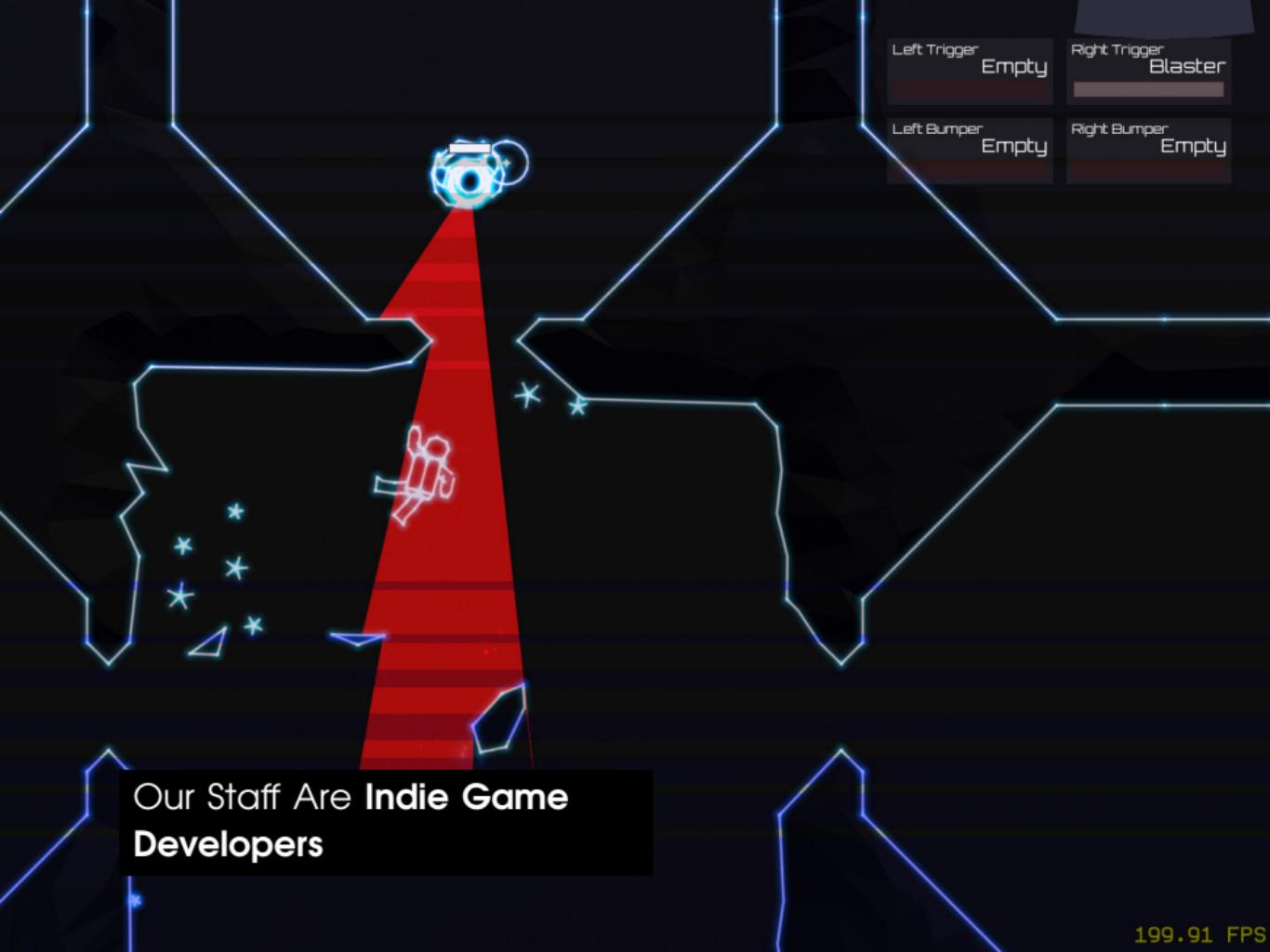
Postgraduate Courses in
Games Entrepreneurship



Distance-Learning Courses in
Creative App Development



A Innovative **Interdisciplinary**
Approach To Education



Left Trigger

Empty

Right Trigger

Blaster

Left Bumper

Empty

Right Bumper

Empty

Our Staff Are **Indie Game**
Developers

199.91 FPS



Our Staff Are **Indie Game Developers**

ROUND TABLE GAMES PRESENTS



We Work
Closely with
Cornwall's
Largest Game
Studios



WWW.RTGSTUDIO.CO.UK

COMING SOON



WWW.ANTIMATTERGAMES.COM

RISINGSTORM 2



We Work
Closely with
Cornwall's
Largest Game
Studios



We Attract **Industry Legends**
as Visiting Lecturers

The Meta-Game



The Games Meta-Game

Instructions:

- ▶ **Recognise who** your tutors are
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- ▶ Play for approximately 20 minutes

Careers in the Games Industry



Learning Objectives

The learning objectives of the course are:

- ▶ **Technical Development Practice:** leverage professional practices and technical skills to craft creative software

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The learning objectives of the course are:

- ▶ **Technical Development Practice:** leverage professional practices and technical skills to craft creative software
- ▶ **Communication:** communicate effectively with stakeholders in writing, verbally, and through adherence to standards and conventions in documentation
- ▶ **Critical Evaluation:** reflect critically on, and evaluate, the quality of working methods and solutions

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- ▶ **Enterprise & Innovation:** provide opportunities for enterprise through innovation, invention, and creativity

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The learning objectives of the course are:

- ▶ **Research:** engage in activities that may create new knowledge, present that knowledge in an academic format, and apply it to practice
- ▶ **Enterprise & Innovation:** provide opportunities for enterprise through innovation, invention, and creativity
- ▶ **Professionalism:** set goals, manage workloads to meet deadlines, work efficiently and effectively in teams, and accommodate change

Course Map



Course Map

YEAR 1

SEMESTER 1	SEMESTER 2
PRINCIPLES OF COMPUTING COMP110 Core 20 credits	GAME ARCHITECTURE COMP150 Core 20 credits
CREATIVE COMPUTING: TINKERING COMP120 Core 20 credits	CREATIVE COMPUTING: HACKING COMP140 Core 20 credits
GAME DEVELOPMENT PRACTICE COMP130 Core 20 credits	SOFTWARE ENGINEERING COMP160 Core 20 credits

Course Map

YEAR 2

SEMESTER 1	SEMESTER 2
INTERFACES & INTERACTION COMP210 Core 20 credits	ARTIFICIAL INTELLIGENCE COMP250 Core 20 Credits
GRAPHICS & SIMULATION COMP220 Core 20 credits	DISTRIBUTED SYSTEMS COMP260 Core 20 credits
GAME DEVELOPMENT I: PRE-PRODUCTION COMP230 Core 20 credits	GAME DEVELOPMENT I: PRODUCTION COMP240 Core 20 credits

Course Map

YEAR 3

SEMESTER 1	SEMESTER 2
LEGACY GAME SYSTEMS COMP310 Core 20 credits	ALGORITHMS & OPTIMISATION COMP340 Core 20 credits
GAME DEVELOPMENT II: PRE-PRODUCTION COMP320 Core 20 credits	GAME DEVELOPMENT II: PRODUCTION COMP350 Core 20 credits
RESEARCH PRACTICE COMP330 Core 20 credits	RESEARCH DISSERTATION COMP360 Core 20 credits

First Year Modules



COMP110: Principles of Computing

Return at 5 minutes past the hour.

COMP120: Tinkering

Return at 5 minutes past the hour.

COMP150: Game Dev Practice

Return at 5 minutes past the hour.

COMP130: Game Architecture

Return at 5 minutes past the hour.

COMP140: Hacking

Return at 5 minutes past the hour.

COMP160: Software Engineering

Return at 5 minutes past the hour.

Coffee Break



Coffee Break

Please return at 5 minutes past the hour.

Assignments



Assignment Structure

Each Semester, you will complete **six** assignment 'tracks':

- ▶ Collaborative Game Development Project
- ▶ Academic Essay
- ▶ 2x Small Programming Projects
- ▶ Small Portfolio Pieces and/or Worksheets
- ▶ Research Journal
- ▶ Continuing Personal Development Tasks and Reflective Report

Assignments

Live Demo

All assignment briefs can be found on:

learningspace.falmouth.ac.uk

Read them very carefully!

Time Management



Expectation

600-hours per semester. Including contact time.

Only 1/3 of is contact time.

40 hours per week. Over 15 weeks.

12 weeks of sessions.

Activity: Planning Your Time

Each Semester, you will complete **six** assignment ‘tracks’: