

PART A: GENERAL INFORMATION

1. Module Title		Real-Time FX (EXCT4006)
2. School		Escape Studios
3. Level		4
4. Total Credits/ ECTS Value		15 credits (7.5 ECTS)
5. Total Synchronous Contact Hours		60
6. Programme(s) to which the Module Contributes		Technical Art for Games & VFX BSc (Hons) Technical Art for Games & VFX (Integrated Masters) MSci (Hon) Video Games Design BSc (Hons) Video Games Design (Integrated Masters) MSci (Hon) Character Creation for Animation, Games & VFX BSc (Hons) Character Creation for Animation, Games & VFX (Integrated Masters) MSci (Hon)
7. Related Modules	Pre-requisites	None
	Co-requisites	None
	Post-requisites	None
	Excluded Combinations	None
8. External Accrediting Body (If applicable)		N/A
9. Modes of Study		Full-time
10. Delivery Site(s)		Escape Studios, London

PART B: MODULE LEARNING OUTCOMES**11. Learning Outcomes**

On successfully completing the module students will be able to:

1. Demonstrate an understanding of the theory and role of FX in real-time graphics systems
2. Evaluate tools, techniques and approaches for generating real-time FX
3. Select and use appropriate tools and techniques for generating real-time FX to meet specific objectives
4. Deliver a project to meet a specific set of objectives within defined time and resource constraints
5. Communicate effectively in a technical and creative context

PART C: RATIONALE AND DELIVERY**12. Synopsis of the Curriculum**

- Introduction to Particles
- Simulations
- Material FX
- Materials
- culling / loading / memory
- Vertex animation
- Profiling
- Efficiency in Real-time
- In-engine Animation
- Reference use
- Overview of Simulation in the Entertainment Industries

13. Learning and Teaching Methods

The module follows the *Craft* module model, with practical tutor-lead sessions in studio being the primary mode of delivery. In these sessions students are introduced to theory in the context of exercises, building their knowledge and understanding alongside their intellectual and practical skills.

14. Contact Hours

Module Credit Value	Scheduled Learning Activities	Guided Independent Study	Total Learning Hours
15 credits	Skills sessions (36 hours), Studio time (24 hours)	Preparation for classes, guided research, assignment preparation and development (90 hours)	150 hours

15. Assessment Methods**Formative Assessment**

Formative assessment will be provided throughout the module, both in terms of feedback on work in progress during the contact hours.

Summative Assessment**Assignment 1: Project (75%)**

Approximately 3 - 4 weeks of development work

Assignment 2: Presentation (25%)

Approximately 10-15 minutes

Re-sits

Students who fail this Module will be permitted to submit revised assessment components in accordance with the Academic Regulations.

16. Map of Module Learning Outcomes to Learning, Teaching and Assessment Methods

Learning outcome	1	2	3	4	5
Learning/ teaching					
Skills Sessions	X	X	X		
Studio Time	X	X	X		
Self-Directed				X	X
Assessment method					
Project	X	X	X	X	X
Presentation			X		X

17. Indicative Reading List

This is an indicative list, correct at the time of publication. Reading lists will be published at least annually.

- Real Time Visual Effects for the Technical Artist 1st Edition, Chris Roda, CRC Press, (2022)
- The Complete Guide to Photorealism for Visual Effects, Visualization and Games: For Visual Effects, Visualization and Games 1st Edition, Eran Dinur, Routledge, (2021)

Electronic

- Unreal FX Library
https://dev.epicgames.com/community/learning?application=unreal_engine

18. Inclusive Module Design

We recognise and have incorporated the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with relevant policies and support services. Furthermore, the module design has sought to embed inclusive curriculum content.

Date of revision	July 2023
Version number	1
Effective from	Sept 2024