

COURSE CONTENT

Course Code	DF3001
Course Title	Cinematography for Visual Effects
Pre-requisites	DF2003 Cinematography I
No of AUs	3
Contact Hours	39 hours studio contact

Course Aims

Shooting visual effects has increasingly become a part of the skillset required of mainstream camera teams, no longer limited to specialised VFX Units.

This course aims to introduce you to the skills that you need to acquire to be able to shoot VFX elements competently. It will also enable you to participate in pre and post production discussions about workflows and strategy for cinematography, film-making, animation, and film directing.

These principles of VFX will inform any use of both physical and digital VFX in subsequent media courses, and are also relevant for those interested in supervising on-set visual effects.

Intended Learning Outcomes (ILO)

By the end of the course, you should be able to:

1. Describe how various techniques have evolved and developed within current and historical contexts.
2. Use and develop craft and skills to produce footage which can be integrated effectively with post-production.
3. Shoot sequences and experiment within a creative context using a range of core VFX systems.
4. Present, discuss and evaluate your research and practice in terms of the technical level achieved.
5. Collaborate and contribute to shooting exercises and critical discussions on the cinematography and workflow choices involved in producing a final artefact.

Course Content

On this course you will begin by looking at an overview of the last one hundred years of visual effects and by looking at how the simple early techniques developed and transitioned as film-making media evolved.

Through a series of background lectures, which will be followed up by practical classes you will focus on aspects of photographing material designed to integrate with visual effects methods used in post-production. You will learn to shoot composites with precision which will be coupled with gaining a critical understanding of the issues that can arise in post when integrating live action material.

There will also an opportunity to have hands on experience with motion control, time-lapse, and

stop motion. There will also be a session on operating for motion capture.

The final assignment will involve you producing a short piece of creative work showcasing the various cinematographic techniques applied to VFX.

Assessment (Includes both continuous and summative assessment).

Component	ILO Tested	Programme LO	Weighting	Team/ Individual
Continuous Assessment Practical exercises. Illustrated portfolio detailing technical learning.	1,2,3,4	N.A	40	Individual
Final Assessment: Short film showcasing a variety of cinematographic techniques applied to VFX. - Individual contribution 20% - Team contribution 20%	1,2,3,4	N.A	40	Team
Continuous Assessment: Participation	5	N.A	20	Individual
Total			100%	

Reading and References

1. Okun, Jeffrey A. & Zwerman, Susan (Editors). *The VES handbook of Visual Effects. 2nd Edition*. Focal Press, 2015
2. Goi, Michael (Editor). *American Cinematographer Manual Vol. 1 & 2: 10th Edition*. American Society of Cinematographers, 2016
3. Brown, Blain. *Cinematography Theory & Practice 3rd Edition*. Routledge, 2016

Recommended Software Apps:

1. David Eubank. *pCAM Pro*, Thin Man Inc. 2019
2. *Artemis*. Chemical Wedding, 2019

Course Policies and Student Responsibilities

(1) General

You are expected to complete all assigned readings, activities, assignments, attend all classes punctually and complete all scheduled assignments by due dates. You are expected to take responsibility to follow up with assignments and course related announcements. You are expected to participate in all project critiques, class discussions and activities.

(2) Punctuality

You are expected to be punctual for all classes. If you are more than 30 minutes late, you will be deemed as absent and will not be able to sign on the attendance register.

(3) Absenteeism

In-class activities make up a significant portion of your course grade. Absence from class without a valid reason will affect your participation grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies. There will be no make-up opportunities for in-class activities.

Academic Integrity

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the [academic integrity website](#) for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

Planned Weekly Schedule*

*Subject to adjustment by instructor according to the teaching situation, students' progress, public holidays and unforeseeable circumstances. A revised schedule will be issued to students at the start of the semester.

Week	Topic	Course LO	Readings/ Activities
1	Introduction to the Course Roadmap of the weeks ahead. Introduction to the assessments and required reading on this course Overview of history and present state of the industry.	1, 4	Introductory Lecture Lecture on History and evolution of visual effects.
2	Green Screen 1 Introduction to compositing with technical background. Shooting foreground elements	2, 3	Lecture: Compositing Overview Lighting the green screen Choice of appropriate Cameras and CODECS. Understanding issues and correcting problems. Matching lighting.

3	<p>Green Screen 2</p> <p>Shooting background plates</p>	2,3, 4	<p>Theory & Practice</p> <p>Lecture: Matching Perspectives Understanding issues and correcting common problems. Matching angles heights and perspectives. Shooting additional material for post-production.</p>
4	<p>Green Screen 3</p> <p>Movement, tracking & hands-on compositing</p>	2,3, 4	<p>Theory & Practice</p> <p>Lecture: Managing tracking & movement Practical session on advanced perspective matching with movement Hands on Compositing Final result</p>
5	<p>Introduction to Motion Control</p>	2,3, 4	<p>Theory & Practice</p> <p>Lecture: Why motion control? Practical Hands on session Understanding issues and correcting common problems.</p>
6	<p>Manipulating Time</p> <p>Time Lapse & Stop Motion</p>	2,3, 4	<p>Theory & Practice</p> <p>Lecture: Uses & techniques in Time lapse photography.</p> <p>Practical session – demonstration and practice.</p>
7	<p>Manipulating Time</p> <p>Shooting High Speed</p>	2,3, 4	<p>Theory & Practice</p> <p>Lecture: Uses, techniques and issues when shooting at high frame rates.</p> <p>Practical session – demonstration and practice.</p>
8	<p>Operating for Motion Capture</p>	2,3, 4	<p>Theory & Practice</p> <p>Hands on session demonstrating the application of cinematographic ideas to motion capture and CGI.</p>

9	Project Workshop & Shoot	1, 2, 3, 4, 5	Practical Shooting Exercise A creative brief will be set which will be realised using the VFX techniques taught in this course.
10	Project Workshop & Shoot	1, 2, 3, 4	Practical Shooting Exercise
11	Project Workshop & Shoot	1, 2, 3, 4	Practical Shooting Exercise
12	Post Production Tutorials	1, 2, 3, 4, 5	Editing and Post Workflow Lecture: VFX Post production workflow choices. Tutorials for work in progress.
13	Critique of Final Films with presentations Review of Presentations Feedback on the Course	1, 2, 3, 4, 5	Student Presentations of final assignment with critique, peer review. and feedback