Course Code	Course Title	ECTS Credits
MULT-270	Art and Math	6
Department	**Semester**	**Prerequisites**
Design & Multimedia	Fall, Spring	MULT-260
Type of Course	**Field**	**Language of Instruction**
Requirement	Applied Multimedia	English
Level of Course	**Year of Study**	**Lecturer(s)**
1st Cycle	2nd – 4th	Elizabeth Hoak-Doering
Mode of Delivery	**Work Placement**	**Co-Requisites**
face-to-face	N/A	None

Objectives of the Course:

The main objectives of the course are to:
- make students aware of the mathematical underpinnings of multimedia practice
- thoroughly explore conceptual ramifications of time, as it affects density, quality and clarity of expression in time-based media
- discuss and practice visualization of sound, image and text over time
- introduce and practice iterative process
- induce creative ideation using known software
- discuss contemporary art that features multimedia practices
- apply iterative process in practical expression of abstract / cross-sensory ideas
- self-criticize and employ constructive criticism to generate 'next-step' thought-process

Learning Outcomes:

After completion of the course students are expected to be able to:
1. Recall and articulate an informed opinion on modern and contemporary arts applications of time-based media. Relate various modes of dissemination commonly used in multimedia presentations. Show a specific awareness of proportional and stochastic processes as part of applied multimedia practice.
2. Identify the variables inherent in a complex theme, topic or subject, and discuss possible time-based media and software routes for experimentation and investigation.
3. Experiment, through iterations, with the differing perceptual properties of time, proportional and quantitative relationships of visual, acoustic and textual information over time. Illustrate each iteration. Make choices that reflect an expressive advantage in a multimedia project.
4. Use constructive self-criticism and outside critical input, generate constructive criticism for others. Simplify overly complex approaches to problem-solving and question or suggest alternative possibilities. Use diagrams to proceed to successive experimental levels.
5. Propose and test alternative modes of expression, given a known set of intellectual, aesthetic and software-derived limitations. Maximize viewer | listener understanding.
6. Explain and defend a presentation, justifying the cohesiveness of theme and use of time-based media.

Course Contents:

1. number, proportion,time
2. practitioner examples: acoustics, visual, moving text
3. time-based maps
4. iterative processes
5. planning content over time

Learning Activities and Teaching Methods:

Lectures, Lab Presentations, Lab Tutorials, Practical Exercises and Assignments.

Assessment Methods:

Cumulative Review, Final Project, Homework, Midterm, Research

Recommended Reading:

Authors	Title	Publisher	Year	ISBN
Bull and Back, eds.	The Auditory Culture Reader (Sensory Formations)	Berg Publishers	2004	9781859736180
Hickey	Air Guitar, Essays on Art and Democracy	Art Issues Press	1997	0963726455
	Artforum magazine		monthly	
Edward Tufte	the Visual Display of Quantitative Information	Graphics Press	2001	0-9613921-4-2
Morris Kline	Mathematics for the Non mathematician	Dover	1976	0-486-24823-2
Morris Kline	Mathematics in Western Culture	Penguin Books	1953	0-14-013703-3
Matila Ghyka	The Geometry of Art and Life	Dover	1977	0-486-23542-4
Harrison & Wood, eds.	ART in THEORY 1900 – 2000 An Anthology of Changing Ideas	Blackwell	2000	0631227083
Barthes, Roland	Camera Lucida	Vintage	1981	0099225417
Sontag, Susan	On Photography	Anchor Books	1973	0312420099
Hewett, I., et al.	Iannis Xenakis: Architect, Composer, Visionary 2010	Drawing Center NY	2010	0942324579
Matossian, N.	XENAKIS	Taplinger	1991	9963642225