



# UNIVERSITY OF NICOSIA ΠΑΝΕΠΙΣΤΗΜΙΟ ΛΕΥΚΩΣΙΑΣ

University of Nicosia, Cyprus

<b>Course Code</b> INT- 361	<b>Course Title</b> Digital Thinking II	<b>ECTS Credits</b> 4
<b>Department</b> Architecture	<b>Semester</b> Fall	<b>Prerequisites</b> INT 262
<b>Type of Course</b> Major Requirement	<b>Field</b> Architecture	<b>Language of Instruction</b> English
<b>Level of Course</b> 1 <sup>st</sup> Cycle	<b>Year of Study</b> 3rd	<b>Lecturer</b> Michalis Georgiou
<b>Mode of Delivery</b> Face- to- face	<b>Work Placement</b> N/A	<b>Co-requisites</b> INT-301/INT-311

## Objectives of the Course:

- To introduce and encourage practice in different kind of 3D modelling software
- To teach students various modelling techniques including transformation
- To teach digital fabrication techniques encouraging students to use 3d printing and milling machine
- The course is designed to teach students the advanced knowledge of computerized 3D design and to allow practice in different kinds of design on the computer
- To teach the student advanced capabilities of computerized design for drafting, design, visualization, analysis and modelling
- To teach the students how to follow all the procedures necessary to prepare a drawing from initial design creation through final plot output
- The course attempts to teach at various levels between 'how to' considerations of learning hardware and software, while exploring a deeper understanding of the technological implications on design and digital fabrication

## Learning Outcomes:

After completion of the course students are expected to be able to:

- Understand the basic principles of digital design
- Participate in network projects and individual work
- Experiment and understand the different principles of modelling such as
- Architectural modelling and free modellers
- Use and combine various CAD software according to individual projects and design outcomes
- Develop an ability to draw and express architectural conditions in that they satisfy both aesthetic and technical requirements

**Course Contents:**

Introduction to digital design  
 Introduction to CAD Modelling  
 3D Modelling and Architecture elements  
 NURBS and Curves in 3D  
 Import, Export. Create DWG/ DXF/ DGN/ IFC Bitmap.3ds/ STL/ IGS  
 Scripting  
 Introduction to Digital Fabrication

**Teaching Methods:**

Lectures, Computer Demonstrations, Workshops, Tutorials, Discussions, Presentations, Practical Exercises and Assignments

**Assessment Methods:**

Homework, Project, Mid-Term, Final Project, Presentation

**Required Textbooks:**

Authors	Title	Publisher	Year	ISBN
Demetris Economides, Odysseas Kontovourkis	Lecturer manual	Student Intranet	2008	

**Recommended Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
Leach Neil	Designing for a digital world	Wiley-Academy, Chichester	2002	0470844191
Lynn, G.	Animate form	Princeton Architectural Press	1999	1568980833