

INT422 - ADVANCED SPATIAL DESIGN APPLICATIONS

Course Title	ADVANCED SPATIAL DESIGN APPLICATIONS				
Course Code	INT422				
Course Type	Required				
Level	Bachelor				
Year / Semester	Year 4 / 2 nd Semester				
Teacher's Name	Dr Yiannis Toumazis / Constantinos Kounnis / Demetris Economides				
ECTS	6	Lectures p/w:	1	Labs p/w:	2
Course Purpose and Objectives	<p>The course aims to:</p> <ul style="list-style-type: none"> • To deal with advanced and more complex problems into the designing of collapsible and expandable three-dimensional forms and structures through the harmonious integration between the natural elements such as curves, textures, materials and the application of design in Micro-architecture and Micro-Design. • To employ new forms and innovative materials through the introduction to methods of studying and presenting design solution to problems that involve three-dimensional spaces, forms and structures. • To distinguish the concept, innovation and material difference between various three-dimensional works viewed in objective terms and experiment with new and advanced materials. • To support specific concepts and shelter design proposals through the acquired advanced sense of scaling volume and the ability to perceive and visualize solutions in three-dimensional context. • To attain and demonstrate awareness of the context for which a space is created and as a result to have the ability to be articulate and be critical about their designs. • To achieve/develop a critical and professional understanding for the methods and advanced material use of model and three-dimensional construction as well as the presentation and analysis of the functional aspects of the final outcome. 				
Learning Outcomes	<p>Students should be able to:</p> <ul style="list-style-type: none"> • Identify and explain the importance of international mobility and transition culture • Appreciate the notion of freedom of expression and of space. • Explore the idea of healthy living. • Explore different possibilities of 2D and 3D techniques and experimentation. 				

	<ul style="list-style-type: none"> • Comprehend Micro-Architecture and Macro-Design in relation to mobility and alternative lifestyle, free from constraints and habits. Notions of expandable and collapsible spaces. • Explore alternative design projects that provide protection and survival for the socially marginalized. • Comprehend the importance of new materials and mechanisms focusing on properties, innovations and applications. • Experiment with new materials focusing on production and possible uses. Transportation of units research. • Develop their research skills, analysis and synthesis of a concept. • Present and critically analyse evaluate complex design concepts and solutions to various design problems. 		
Prerequisites	INT321	Co-requisites:	-
Course Content	<p>Course Content (Syllabus): Introduction to methods of studying and presenting design concepts in three-dimensional form. Students concentrate on design solution to problems that involve making three-dimensional structures. Discussions about methods and materials will include everything from fibreglass to hubcaps; whatever conveys the designer. Exploration in advanced materials and methods of model construction. This project is a pilot study on a small house, product of a mass production line, that can be transferred from place to place (with the help of means like trucks, trains and ships), but that can also transform to change both its interior and exterior space in order to fulfil the user's needs. This house is addressed to a user, a modern nomad, who for either work related or personal reasons is forced to travel alone or with his/her family.</p> <p>Studio Work: Studio work is carried out involving the whole group and takes place within the whole spectrum of the duration of the course as this is allocated on the weekly schedule. Studio work also includes interim and final critiques.</p>		
Teaching Methodology	<p>The course is based on:</p> <ul style="list-style-type: none"> • Practical workshops • Exercises • Illustrated lectures, demonstrations and discussions on critical parts of the subject • Student centred practical work-Personal research • Realization and manipulation in project work 		

Bibliography / References	<ol style="list-style-type: none"> 1. Asquith Lindsay (Ed.), <i>Vernacular Architecture in the Twenty-First Century-Theory, Education and Practice</i>, London, New York, Taylor & Francis, 2006. 2. Siegal, Jennifer (Ed.), <i>More Mobile, Portable Architecture for Today</i>, Princeton, Princeton Architectural Press, 2008. 3. Kronenburg, Robert, <i>Portable Architecture, Design and Technology</i>, Zurich, Birkhäuser, 2008 4. Richardson Phyllis, <i>XS Future: New Ideas, Small Structures</i>, New York, Universe Publishing, 2009 5. Richardson Phyllis, <i>XS Green: Big Ideas Small Buildings</i>, London, Thames & Hudson, 2007. 6. Richard Horden, <i>Micro-Architecture: Lightweight, Mobile and Ecological Buildings for the Future</i>, London, Thames & Hudson, 2008. <p>Visual contemporary references in the form of online magazines www.dezeen.com, www.yatzer.com, www.designer.com, www.designboom.com, www.mocoloco.com, www.arcspace.com, www.archdaily.com</p>
Assessment	<ul style="list-style-type: none"> • Interim Critique 33% • Final Critique 33% • Final Assessment 34% Total: 100% <p><u>Note:</u> The assessment criteria for Interim/Final Critiques and the Final Assessment are: Design Intelligence 40%, Research and Methodology 20%, Experimentation and Analysis 20%, Time management and Presentation 20%</p>
Language	English