

Course Title	REAL ESTATE INFORMATION TECHNOLOGY				
Course Code	MRED 610				
Course Type	COMPULSORY				
Level	MASTER				
Year / Semester	YEAR 1/SEMESTER 2				
Teacher’s Name	STEFFEN HEINIG				
ECTS	6	Lectures / week	3	Laboratories / week	
Course Purpose and Objectives	The course consists of three main parts: Basic knowledge about GIS, the structure and use of the national real estate database, and different types of analyses where information from the real estate database are used in GIS to perform market analyses, real estate valuation and credit assessment. Topics covered in the first part of course are: raster- and vector data structures, expansion of the relational database structure to also handle geographical information, map projections, geographical reference systems and basic analyses in GIS. The second part of the course will cover different ways to model real estate information with focus on the national real estate database, and different standards for managing real estate information. Furthermore, legal and economical aspects of developing and managing a real estate database will also be covered. In the third and last part of the course, GIS will be used as a support tool in performing market analyses, real estate valuation and credit assessment.				
Learning Outcomes	<p>Upon the successful completion of the course, the students will:</p> <ul style="list-style-type: none">• Acquire an understanding of how the national real estate database is structured. This includes both the logical structure as well as economical and legal aspects on the managing of real estate information.• Be able to use information from the real estate database in different analyses. This also includes an ability to evaluate the quality of the information retrieved from the database.• Understand the basic principles and methods in GIS, such as raster and vector data structures, and be able to search for information in databases and perform basic analyses.• Be able to perform market analyses, real estate valuation and credit assessment, using the support of GIS. <p>Acquire an insight in how real estate information are managed in Cyprus and in other countries.</p>				
Prerequisites	NONE		Required		
Course Content	<ul style="list-style-type: none">• How Technology is Changing Real Estate• Emerging Models in Residential Real Estate Tech• Real Estate Portals and Online Advertising				

	<ul style="list-style-type: none"> • Deep Dive: Open-door and the Rise of iBuyers • Redefining the Rentals Market • Emerging Technology and Multifamily; Google's Role in Real Estate Tech • Deep Dive: Commercial Real Estate Software • How Technology is Impacting the Commercial Brokerage World • Big Data in Real Estate • New Technologies Impacting Real Estate • Residential intensification and housing demand. • How Disruptive technology is impacting the housing and property markets. • The contribution of GIS to understanding retail property. • Modelling uplift on future transport infrastructure • Commercial office property and spatial analysis <p>An agent-based model for high-density urban redevelopment under varied market and planning contexts.</p>
Teaching Methodology	In-class lectures and discussions. Presentations by students on various related topics and invitation of guest speakers. Hands-on exercises on GIS and other real estate related software.
Bibliography	Reed, R. and Pettit, C. (2019). Real Estate and GIS. Application of Mapping Technologies. Routledge.
Assessment	Class Participation: 10% Individual Case analysis: 10% Exam 1: 15% Group Project: 30% Final Exam: 35%
Language	ENGLISH