

Co-funded by the
Erasmus+ Programme
of the European Union



Email MathICs : mathics@ual.es
www2.ual.es/MathICs/

University Ibn Tofail, from October 3 to 7

Training program on the use of ICT in mathematics teaching, funded by the European Union through the Erasmus+ CBHE project MathICs.

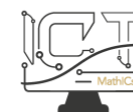
The call for applications is open until September 23 to all professors of mathematics and to all doctoral and master students in mathematics at the Ibn Tofail University of Kénitra.

Organizers: Prof. Brahim Fahid at brahim.fahid@uit.ac.ma.

Prof. Karima Selmaoui at karima_selmaoui@yahoo.fr.

Teaching staff				
Professor	Department	University	Country	Course
Fouad Bennis	Automatique et Robotique	École Centrale de Nantes	France	Pedagogical Approach to hybrid education
José Carmona Tapia	Mathematics	Universidad de Almería	Spain	GeoGebra as a support for Mathematics education
Luis Oyonarte Alcalá	Mathematics	Universidad de Almería	Spain	SageMath as a support for Mathematics education
Fernando Reche Lorite	Mathematics	Universidad de Almería	Spain	R as a support for Mathematics education

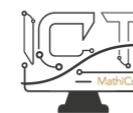




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PROGRAM

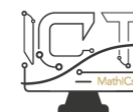
MONDAY, OCTOBER 3			
SOFTWARE			
	SageMath	GeoGebra	R
9:30 - 10:45	Lists, Tuples, Sets & Dictionaries	Introduction & General Overview	Data Structures
10:45 - 11:15	Coffee break		
11:15 - 12:30	Programming I	Dynamic Text Messages	Importing Data
LUNCH			
PEDAGOGICAL APPROACH			
14:30 - 15:45	Learning Theories I		
15:45 - 16:15	Coffee break		
16:15 - 17:30	Workshop on Learning Theories		



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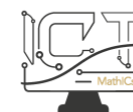
TUESDAY, OCTOBER 4			
PEDAGOGICAL APPROACH			
9:30 - 10:45	Learning Theories II		
10:45 - 11:15	Coffee break		
11:15 - 12:30	Workshop on Learning Theories		
LUNCH			
SOFTWARE			
	SageMath	GeoGebra	R
14:30 - 15:45	Programming II	Using Conditionals	Basic Operation I
15:45 - 16:15	Coffee break		
16:15 - 17:30	Programming III	Using Sliders	Basic Operation II



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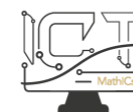
WEDNESDAY, OCTOBER 5			
PEDAGOGICAL APPROACH			
9:30 - 10:45	Instructional Design		
10:45 - 11:15	Coffee break		
11:15 - 12:30	Workshop on Instructional Design		
LUNCH			
SOFTWARE			
	SageMath	GeoGebra	R
14:30 - 15:45	Arithmetic & Number Theory I	Creating Animations	Building Procedures
15:45 - 16:15	Coffee break		
16:15 - 17:30	Arithmetic & Number Theory II	Activity Menus I	Graphics I



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THURSDAY, OCTOBER 6			
PEDAGOGICAL APPROACH			
9:30 - 10:45	Instructional Design		
10:45 - 11:15	Coffee break		
11:15 - 12:30	Workshop on Instructional Design		
LUNCH			
SOFTWARE			
	SageMath	GeoGebra	R
14:30 - 15:45	Functions & Calculus	Activity Menus II	Graphics II
15:45 - 16:15	Coffee break		
16:15 - 17:30	Graphics	Randomized Questions I	Graphics III



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PROGRAM

FRIDAY, OCTOBER 7			
SOFTWARE			
	SageMath	GeoGebra	R
9:30 - 10:45	Matrices & Vectors	Randomized Questions II	R Commander I
10:45 - 11:15	Coffee break		
11:15 - 12:30	Equation Solving	Developing New Tools	R Commander II
LUNCH			
PEDAGOGICAL APPROACH			
14:30 - 15:45	e-learning Design		
15:45 - 16:15	Coffee break		
16:15 - 17:30	Workshop on e-learning Design		