



Professors	Use of hardware: building CITIC (ICT's building)		Group 1: SageMath as a tool for mathematics education: building CITE III (Mathematics), classroom 11)		
	Tuesday, 2 November		Wednesday, 3 November	Thursday, 4 November	Friday, 5 November
	9:30 - 10:30	Session 1: Hybrid and Media Classrooms	Session 1: SageMath installation	Session 8: Graphics	Session 14: Practical cases
	10:30 - 11:30	Session 2: Uses	Session 2: Basic interaction with Sage and lists	Session 9: Practical cases	
	11:30 - 12:00	COFFEE BREAK			
	12:00 - 13:00	Session 3: Using Openboard (I)	Session 3: Programming	Session 10: Matrices and vectors	Session 15: Practical cases
	13:00 - 14:30	Session 5: Visit of UAL facilities	Session 4: Practical cases	Session 11: Practical cases	
	14:30 - 16:00	LUNCH			
	16:00 - 17:00	Session 4: Using Openboard (II)	Session 5: Arithmetic	Session 12: Equation solving	
	17:00 - 18:00	Session 7: Using Adobe Connect (I)	Session 6: Functions and calculus	Session 13: Practical cases	
18:00 - 19:00	Session 8: Using Adobe Connect (II)	Session 7: Practical cases			
19:00 - 19:30					



	Use of hardware: building CITIC (ICT's building)	Installation and maintenance of hardware: building CITIC (ICT's building)			
	Tuesday, 2 November	Wednesday, 3 November: Hybrid classroom	Thursday, 4 November: Media room (I)	Friday, 5 November: Media room (II)	
Technicians	9:30 - 10:30	Session 1: Hybrid and Media Classrooms	HC 1: Hybrid Classroom Technical Schema	MR 1: Media Room Technical Schema	MR 6: Media pill Chroma-Key editing (II)
	10:30 - 11:30	Session 2: Uses	HC 2: Devices	MR 2: Devices	MR 7: Video over Blockchain-Future is here
	11:30 - 12:00	COFFEE BREAK			
	12:00 - 13:00	Session 3: Using Openboard (I)	HC 3: Technical Area	MR 3: Editing with Opeshot	MR 8: Questions
	13:00 - 14:00	Session 5: visit UAL facilities	HC 4: OBS	MR 4: Media pill recording	
	14:00 - 14:30		HC 5: Main use cases	MR 5: Media pill Chroma-Key editing (I)	
	14:30 - 16:00	LUNCH			
	16:00 - 17:00	Session 4: Using Openboard (II)	HC 6: The NDI protocol		
	17:00 - 18:00	Session 7: Using Adobe Connect (I)	HC 7: Troubleshooting		
	18:00 -19:00	Session 8: Using Adobe Connect (II)			



		Group 2: GeoGebra as a tool for mathematics education: building CITE III (Mathematics), classroom 12)		
		Wednesday, 3 November	Thursday, 4 November	Friday, 5 November
Professors	9:30 - 10:30	Session 1: Introduction to GeoGebra	Session 8: Activity menus II	Session 14: Practical cases
	10:30 - 11:30	Session 2: General overview	Session 9: Randomized questions I	
	11:30 - 12:00	COFFEE BREAK		
	12:00 - 13:00	Session 3: Dynamic text messages	Session 10: Randomized questions II	Session 15: Practical cases
	13:00 - 14:30	Session 4: Using Conditionals	Session 11: Randomized questions III	
	14:30 - 16:00	LUNCH		
	16:00 - 17:00	Session 5: Using sliders	Session 12: Developing new tools	
	17:00 - 18:00	Session 6: Creating animations	Session 13: Practical cases	
	18:00 - 19:00	Session 7: Activity menus I		
	19:00 - 19:30			

		Group 3: R as a tool for mathematics education: building CITE III (Mathematics), classroom 17)		
		Wednesday, 3 November	Thursday, 4 November	Friday, 5 November
Professors	9:30 - 10:30	Session 1: Introduction to R: sources	Session 8: Graphics I: Formats and basic concepts	Session 14: Practical cases
	10:30 - 11:30	Session 2: Installation an basic concepts	Session 9: Graphics II: Graphical parameters	
	11:30 - 12:00	COFFEE BREAK		
	12:00 - 13:00	Session 3: Data structures in R	Session 10: Graphics III: Advanced graphics, ggplot2 package	Session 15: Practical cases
	13:00 - 14:30	Session 4: Importing data	Session 11: Rcommander: Installation and basics concepts	
	14:30 - 16:00	LUNCH		
	16:00 - 17:00	Session 5: Basic operations I	Session 12: R Commander funcionalities	
	17:00 - 18:00	Session 6: Basic operations II	Session 13: Practical cases	
	18:00 -19:00	Session 7: Building procedures		
	19:00 - 19:30			