

Course title: **New ways of teaching mathematics and physics – practical and cross-curricular approach**
Ljubljana 22nd – 26th August 2011

Program

Sunday 21st August

Arrival of the Participants for Teacher's Professional Development

All the sessions/meetings will be held in the room "Fizikalni laboratorij" at the first floor of the *Diocesan Classical Gymnasium* at *St. Stanislav's Institution*, Zavod sv. Stanislava, Štula 23, 1210 Ljubljana, Slovenia - EU

Monday 22nd August

Time	Approx.	Session	Theme	Presenter/Moderator
8-12	30 min	Presentation	Welcome, Introduction	Tine Golež, Simon Zell
	30 min	Discussion	Participants introduce themselves	
	40 min	Presentation	Calculus; from physics ...	Tine Golež
	15 min	Coffee (app. at 9:40)		
	120 min	Presentation	Calculus; from physics ... [see Wednesday at 14]	Tine Golež
12-13	Lunch			
13-20	420 min	Excursion (Workshop)	Measurements in real world – field work incorporated into science teaching (tourist) excursion	Gregor Bregar, Tine Golež

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Tuesday 23rd August

Time	Approx.	Session	Theme	Presenter/Moderator
8-12	45 min	Presentation	Technology, motivation, teaching	Damjan Kobal
	60 min	Workshop	Hands on simple techno-math ideas	Damjan Kobal
	15 min	Coffee		
	120 min	Workshop-CL	From real to virtual with GeoGebra	Damjan Kobal
12-13	Lunch			
13-15:15	60 min	Presentation	Interdisciplinary teaching involving geometry	Simon Zell
	15 min	Coffee		
	60 min	Presentation	Experiments and concept of variable	Simon Zell
15:15	Free			

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Wednesday 24th August: PARALLELE SESSIONS

MATH TEACHERS:

Time	Approx.	Session	Theme	Presenter/Moderator
8-12	60 min	Presentation	Interdisciplinary lessons between mathematics and biology	Simon Zell
	60 min	Presentation	Interdisciplinary lessons between mathematics and biology	Simon Zell
	15 min	Coffee		
	60 min	Workshop	Creating interdisciplinary lessons between math and science	Simon Zell
	45 min	workshop	Creating interdisciplinary lessons between math and science	Simon Zell

PHYSICS TEACHERS:

Time	Approx.	Session	Theme	Presenter/Moderator
8-12	60 min	Presentation	Advanced physics experiments for A-level students	Iztok Kukman, Gregor Bregar
	60 min	Workshop	Advanced physics experiments for A-level students	Iztok Kukman, Gregor Bregar
	15 min	Coffee		
	60 min	Workshop	Advanced physics experiments for A-level students	Iztok Kukman, Gregor Bregar
	45 min	Workshop	Advanced physics experiments for A-level students	Iztok Kukman, Gregor Bregar

ALL TOGETHER:

Time	Approx.	Session	Theme	Presenter/Moderator
12-13	Lunch			
13-15:30	150 min	Presentation, Workshop	... towards mathematics	Tine Golež

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Thursday 25th August

Time	Approx.	Session	Theme	Presenter/Moderator
8-12	105 min	Workshop-CL	Learning GeoGebra	Damjan Kobal
	15 min	Coffee		
	60 min	Workshop-CL	Teaching with GeoGebra	Damjan Kobal
	60 min	Workshop-CL	Teaching with GeoGebra	Damjan Kobal
12-13	Lunch			
13-15:30	45 min	Workshop	Lunar parallax – a student math-physics intercontinental project	Tine Golež
	15 min	Coffee		
	90 min	Workshop	Physics experiments prepared for 2nd and 3rd graders lab-work or Matura Math – final state prepared exam for all secondary school students	Gregor Bregar, Iztok Kukman
19-	Typical Slovenian dinner			

Friday 26th August

Time	Approx.	Session	Theme	Presenter/Moderator
8-12	50 min	Presentation	Modelling motion: the case of horizontal launch	Tine Golež
	40 min	Presentation	Modelling motion: the case of shooting in water	Tine Golež, Gregor Bregar
	15 min	Coffee		
	40 min	Presentation	Science and/or common sense	Damjan Kobal
	60 min	Discussion	Final discussion + evaluation	All
	35 min	Conclusion and farewell		

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