

Course title: **New ways of teaching mathematics and physics – practical and cross-curricular approach**
Ljubljana 19th – 23rd August 2013

Program

Sunday 18th August

Arrival of the Participants for Teacher's Professional Development

All the sessions/meetings will be held in the room "Učilnica Drago Marija Šijanča" at the ground floor of *St. Stanislav's Institution*, Zavod sv. Stanislava, Štula 23, 1210 Ljubljana, Slovenia – EU.

Monday 19th August

Time	Approx.	Session	Theme	Presenter/Moderator
8-12	30 min	Presentation	Welcome, Introduction	Tine Golež, Simon Zell
	30 min	Discussion	Participants introduce themselves	
	50 min	Presentation	Calculus; from physics ...	Tine Golež
	15 min	Coffee (app. at 9:50)		
	115 min	Presentation	Calculus; from physics ... [see Wednesday at 14]	Tine Golež
12-13	Lunch			
13.15-22.00	525 min	Excursion (Workshop)	Measurements in real world – field work incorporated into science teaching (tourist) excursion	Tine Golež, Simon Zell

Course title: **New ways of teaching mathematics and physics – practical and cross-curricular approach**
Ljubljana 19th – 23rd August 2013

Tuesday 20th 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			

[Some participants wanted to visit World famous Postojna Cave last year ... and we organized an additional excursion. That is the optional excursion paid by participants. The entrance ticket alone is 22,90 EUR. However, we can get a special offer: bus trip, Postojna cave, Postojna castle and dinner – all together for 45 EUR per participants. This excursion can be realised on Thursday (afternoon, 15 – 22).]

Course title: **New ways of teaching mathematics and physics – practical and cross-curricular approach**

Ljubljana 19th – 23rd August 2013

Wednesday 21st 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	Tine Golež
	60 min	Workshop	Advanced physics experiments for A-level students	Tine Golež
	15 min	Coffee		
	60 min	Workshop	Advanced physics experiments for A-level students	Tine Golež
	45 min	Workshop	Advanced physics experiments for A-level students	Tine Golež

ALL TOGETHER:

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

Course title: **New ways of teaching mathematics and physics – practical and cross-curricular approach**

Ljubljana 19th – 23rd August 2013

Thursday 22nd August

Time	Approx.	Session	Theme	Presenter/Moderator
8-12	110 min	Workshop-CL	Learning GeoGebra (All)	Damjan Kobal
	15 min	Coffee		
	115 min	Workshop-CL	Teaching with GeoGebra (Math)	Damjan Kobal
12-13	Lunch			
13-14:30	90 min	Workshop	Physics experiments prepared for 2nd and 3rd graders lab-work or Matura Math – state prepared final exam for all secondary school students (Parallele session for physics and math teachers)	Gregor Bregar, Tine Golež Gregor Pavlič
15 - 22	Excursion – <i>ad libitum</i> [See remark on Tuesday page.]			

Friday 23rd August

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