

Program for the CAS course on "Mechanical Engineering"

	25	26	27	28	29	30	31	1	2	3	4	5	6	7		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Mer	Thu	Fri	Sa	Su		
08:00		Opening														
08:30	Arrival day and registration	recap_D I (static, strength of materials)	Comp.Tools I (design)	welding I	steels & stainless steels I	forming	add. Manufacturing/powders II	Excursion	metrology II/uncertainty theory	mechanical testing	radiation damage to materials	The "typical" project (mangement)/system engineering	design to cost	Departure day		
09:30		recap_D II (dynamics&stability)	fabrication summary	CAD (lifecycle), Tolerances	standards/safety	non ferrous materials	vacuum		Targets/collimators I/materials	standards/safety	SC magnets	geodetic networks	large structures			
10:30		Coffee							Coffee							
11:00		recap_M I	Comp. Tools II (fabrication)	welding II	steels & stainless steels II/magnetic materials	add. Manufacturing/powders I	surface treatment&coating		composite materials	challenges of future accelerator projects (reliability)	non destructive testing	design principles	Cleanliness, contamination control in high tech industry			
12:00		metrology I	brazing	accelerator basics	cryogenics projects	plastics	NC magnets		Targets/collimators II/radiation	beam instrumentation	undulators	RF	accelerator technology highlights			
13:00		Lunch							Lunch							
14:30		mechanical measurements 0	Block A			Free	Block B		Block C		Free	Block D				
15:30		physical properties&testing 0														
16:30		Coffee							Coffee							
17:00		fabrication summary 0	Block A			Block B			Block C		Block D					
18:30	1S1M		Seminar I		Seminar II		Seminar III					Closing				
19:30	Dinner							cinema evening					gala dinner			

Afternoon Courses

- A.Cherif Metrology & Non Destructive Testing
- B.Guinchard Mechanical Measurements (strain gauges....)
- F. Carra Design/Calculation exercise
- M.Garlasche Fabrication Sequence

Design&Simulation	
Materials	
Fabrication	
Applications	
Metrology&alignment	