

Program for the CAS course on "Mechanical & Materials Engineering" June 2024

	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat			
08:00																	
08:30	Arrival day and registration	Opening F. Tecker / J.Visser / A.Bertarelli	Standards and Safety Luca Dassa (CERN)	Steels & Stainless Steels II Stefano Sgobba (CERN)	Visit DIFFER (all groups)	Beam Intercepting Devices Davide Reggiani (PSI)	Additive Manufacturing A. Astarita (Univ. of Naples)	Excursion	Welding I Joseph Mark Krumenacker (SLV)	Vacuum systems for Accelerators Vincent Baglin (CERN)	Free study time	Fabrication summary Said Atieh (CERN)	Detector Magnets and Structures Herman Ten Kate (ex-CERN)	Departure day			
09:30		Introd. to Mechanics and Structures I Martina Scapin (Polito)	Computational Tools I (design) Federico Carra (CERN)	Machining Julius Tschöepel (IPK)		NC magnets Stephane Sanfilippo (PSI)	Large structures for Fusion Technology Neil Mitchell (Gauss Fusion)		Introduction to Metrology Paul Shore (NPL - UK)	Forming Charbel Moussa (CEMEF)		Undulators Haimo Joehri (PSI)	Collider basics Hermann Schmickler (ex-CERN)				
10:30		Coffee				Coffee			Coffee			Coffee					
11:00		Introd. to Mechanics and Structures II Martina Scapin (Polito)	Computational Tools II (fabrication) Federico Carra (CERN)	Mechanical measurements Kurt Artoos (CERN)		SC magnets Stephane Sanfilippo (PSI)	Design for Additive Manufacturing A. Astarita (Univ. of Naples)		Vacuum brazing Serge Mathot (CERN)	Measurement Uncertainty Samanta Piano (Nottingham)		RF Applications Thomas Lucas (PSI)	Beam instrumentation Ray Veness (CERN)				
12:00		Introduction to Engineering Materials A. Arauzo (Univ. Zaragoza)	Non Destructive Testing Gonzalo Arnau (CERN)	Plastics and Composite Materials Ana Teresa Perez (CERN)		Cryostats and cryomodules Vittorio Parma (CERN)	Digital Twins for Accelerators and Detectors Oscar Sacristan (CERN)		Welding II Romain Gerard (CERN)	Surface Treatments & Coatings Mauro Taborelli (CERN)		RF Power and Couplers Eric Montesinos (CERN)	Alignment and Metrology Hélène Mainaud (CERN)				
13:00		Lunch							Lunch								
14:30		Introduction to Design for Accelerators Marc Timmins (CERN)	Mechanical Testing Klaus Peter Weiss (KIT)	Mech. Meas.(Group A) Design (Group B) NDT (Group C) Study time (Group D)		Mech. Meas.(Group D) Design (Group A) NDT (Group B) Study time (Group C)	Mech. Meas.(Group C) Design (Group D) NDT (Group A) Study time (Group B)		Mech. Meas.(Group B) Design (Group C) NDT (Group D) Study time (Group A)	Metrology (Gr. A) Fabrication (Group B) Visit VDL (Groups C & D)		Metrology (Gr. C) Fabrication (Group D) Visit VDL (Groups A & B)	Metrology (Gr. B) Fabrication (Group A) Visit IBS/Sioux (Groups C & D)		Metrology (Gr. D) Fabrication (Group C) Visit IBS/Sioux (Groups A & B)	Accelerator Technology Highlights Hermann Schmickler (ex-CERN)	
15:30		Physical properties & testing A. Arauzo (Univ. Zaragoza)	Steels & Stainless Steels I Stefano Sgobba (CERN)													Coffee	
16:00		Coffee			Coffee				Coffee			Coffee					
17:00		Sustainable and Affordable Design Wilfried van Kessel (VDL)	Non Ferrous Materials Ignacio Aviles (CERN)	Mech. Meas.(Group A) Design (Group B) NDT (Group C) Study time (Group D)	Mech. Meas.(Group D) Design (Group A) NDT (Group B) Study time (Group C)	Mech. Meas.(Group C) Design (Group D) NDT (Group A) Study time (Group B)	Mech. Meas.(Group B) Design (Group C) NDT (Group D) Study time (Group A)		Metrology (Gr. A) Fabrication (Group B) Visit VDL (Groups C & D)	Metrology (Gr. C) Fabrication (Group D) Visit VDL (Groups A & B)	Metrology (Gr. B) Fabrication (Group A) Visit IBS/Sioux (Groups C & D)	Metrology (Gr. D) Fabrication (Group C) Visit IBS/Sioux (Groups A & B)					
18:00		1S1M		Seminar I		Seminar II			Dinner								
18:30												cinema evening					
19:30												gala dinner					