

EICF Investment Casting Manufacturing Industry 4.0 control Course

PDCA	Day	Time	General topic	Particular topic	Lecturer
	Sunday 07/06/2026	19:00-20:00	Reception	Welcome to participants and presentation of the event	C. Olabe(EICF)/F.Santos(AZTERLAN)
PLAN	Monday 08/06/2026	8:00-9:30	Visit to AZTERLAN		F.Santos(AZTERLAN)
		9:30-10:15	Introduction	Variability vs investment casting processes(process control general view today)	F.Santos(AZTERLAN)
		10:15-11:00	Process and product design control	Digital audit(action plan)	F.Santos(AZTERLAN)
		11:00-11:15		Coffee break	
		11:00-12:00		Excercise digital audit	F.Santos(AZTERLAN)
		12:00-14:00	Filling and feeding system design	SysMOD/SUMA methodologies	A.Natxiondo(AZTERLAN)/ESI-GROUP /F.Santos(AZTERLAN)
		14:00-15:00		Lunch	
	Monday 08/06/2026	15:00-17:00		Exercises SysMOD and SUMA methodologies.	A.Natxiondo(AZTERLAN)/F.Santos(AZTERLAN)
DO	Tuesday 9/06/2026	8:00-10:00	Process control	Digitalization strategy of process control and control documents (X-R, working instruction, technical data sheet, purchase specifications).	F.Santos(AZTERLAN)/ MPI
		10:00-11:00		Excercises for good practices implementation	F.Santos(AZTERLAN)
		11:00-11:15		Coffee break	
		11:15-12:30		Digitalization strategy for productivity follow up (OEE, production capacity, priority in manufacturing) from excel to ICT tools	F.Santos(AZTERLAN)
		12:30-14:00		Excercises for good practices implementation	D.García(AZTERLAN)
		14:00-15:00		Lunch	
	Tuesday 09/06/2026	15:00-16:00		Digitalization strategy for purchase orders, customer orders, scheduling and delivery time control.	F.Santos/D.García(AZTERLAN)
	Tuesday 09/06/2026	16:00-17:00		Excercises for good practises implementation	F.Santos(AZTERLAN)
DO	Wednesday 10/06/2026	8:00-9:00	Process control	Data capture and preprocessing/sensors	J.Nieves(AZTERLAN)/ CONSARC
		9:00-10:00		Data storage and link	J.Nieves(AZTERLAN)
		10:00-11:00		Digital twins	J.Nieves(AZTERLAN)
		11:00-11:15		Coffee break	
		11:15-12:30		Model Predictive Controls (MPC)/Machine learning	J.Nieves(AZTERLAN)
		12:30-14:00		Orchestrator platform, modules integration	J.Nieves(AZTERLAN)
		14:00-15:00		Lunch	
	Wednesday 10/06/2026	15:00-17:00		Excercises data capture, procesing and analysis	J.Nieves(AZTERLAN)
CHECK	Thursday 11/06/2026	8:00-10:00	Product control	Destructive testing and their digitalization(microestructure, chemical analysis and mechanical tests)	F.Santos(AZTERLAN)
		10:00-11:00		Digitalization of non-destructive testing	F.Santos(AZTERLAN)/ XRIS
		11:00-11:15		Coffee break	
		11:15-12:30		Excercises of non-destructive and destructive testing processing	F.Santos(AZTERLAN)
		12:30-14:00		Simulation of heat treatments (heat treatment).TREAT methodology, DICTRA/PRISMA	F.Santos(AZTERLAN)
		14:00-15:00		Lunch	
	Thursday 11/06/2026	15:00-17:00		Excercises TREAT methodology/DICTRA/PRISMA	F.Santos(AZTERLAN)
ADJUST	Friday 12/06/2026	8:00-9:00	Management	KPI definition and follow up	F.Santos(AZTERLAN)
		9:00-11:00		Access to information/examples of deployed consults	F.Santos(AZTERLAN)/J.Nieves
		11:00-11:15		Coffee break	
		11:15-12:30	On going trends	Digitalization of expert knowledge(Generative AI)	J.Nieves(AZTERLAN)
		12:30-14:00		Conclusions over process control vs variability(what have we incorporated at tthe end)	J.Nieves(AZTERLAN)/F.Santos(AZTERLAN)
		14:00-15:00		Lunch	
	Friday 12/06/2026	15:00-17:00		Final exam	F.Santos(AZTERLAN)
		20:00-23:00		Final dinner	