Syllabus

Descrizione corso

Titolo insegnamento	PLM Product Life Cycle Management
Codice insegnamento	43019
Titolo aggiuntivo	
Settore Scientifico-Disciplinare	IIND-05/A
Lingua	Tedesco
Corso di Studio	Corso di laurea in Ingegneria Industriale Meccanica
Altri Corsi di Studio (mutuati)	
Docenti	dott. ing. Vittorio Franzellin, vittorio.franzellin@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/5189
Assistente	
Semestre	Secondo semestre
Anno/i di corso	Opt.
CFU	4
Ore didattica frontale	24
Ore di laboratorio	15
Ore di studio individuale	61
Ore di ricevimento previste	12
Sintesi contenuti	The course covers the following topics: - PLM processes and systems - Innovation Management - Product development - (Multi)Project management - CMS Content Management System An extensive course Teaser is available upon request to the Lecturer vittorio.franzellin@unibz.it
Argomenti	PLM Processes and Systems (Product Lifecycle Management)

dell'insegnamento	The course introduces Product Lifecycle Management (PLM) as a key approach for managing products throughout their entire lifecycle, from idea generation and design to production and end-of-life. Students learn the main PLM processes and the role of PLM systems in supporting collaboration between engineering, operations, and management. The integration of PLM with other enterprise systems (such as CAD and ERP) is also discussed. Innovation Management This module focuses on the fundamentals of Innovation Management in industrial and technological organizations. It covers different types of innovation and the main processes used to generate, evaluate, and implement new ideas. The relationship between innovation, company strategy, and competitive advantage is emphasized. Product Development The Product Development section examines the process of transforming market needs into successful products. Students are introduced to common product development models and methods, with attention to cross-functional collaboration, time-to-market, cost, quality, and performance considerations. (Multi)Project Management This part of the course introduces the principles of Project Management, with a focus on managing multiple projects at the same time. Key topics include planning, scheduling, resource allocation, risk management, and project prioritization. Traditional and agile approaches are compared. CMS – Content Management Systems The Content Management Systems (CMS) module explains the basic concepts behind systems used to create, manage, and

	publish digital content. Students learn how CMS support communication, documentation, and knowledge management within organizations.
Parole chiave	- PLM processes and systems - Innovation Management - Product development - (Multi)Project management - CMS Content Management System
Prerequisiti	No prerequisites.
Insegnamenti propedeutici	
Modalità di insegnamento	Frontal lectures, case study discussions and exercises. Materials will be provided by the lecturer.
Obbligo di frequenza	Course attendance is not compulsory. Where provided, participation in external activities is strongly recommended and may give the opportunity to receive bonus points in the final evaluation.
Obiettivi formativi specifici e risultati di apprendimento attesi	Under Product Lifecycle Management (PLM) refers to a strategic approach to the holistic management of information, processes and resources to support the product life cycle of products and services, from idea management to development to ramp up to series production, and the launch phase of sales and merchandising until the final call back or recycling of the product. PLM is more than a "pure" IT technology, namely an "integrated approach" of technologies, methods, processes and organizational structures. The aim of this course is to provide students with the basics of PLM through case studies and lessons learned from practice. After completing the course, students should: Knowledge and understanding (ILO 1) • Explain the PLM Essentials (Methods, Process, Technology) Applying knowledge and understanding (ILO 2) • Describe the Reasons Why of the modern PLM Solutions Making judgments (ILO 3) • Analyze and compare different solutions and requirements of the modern PLM processes and systems Communication skills (ILO 4)

	• Demonstrate relate Techniques and Methods Learning skills (ILO 5) • Report case study and lessons learned from practice.
Obiettivi formativi specifici e risultati di apprendimento attesi (ulteriori info.)	
Modalità di esame	- Formative assessment: Workshops Simulations: 4 hours; ILOs assessed: 1,2,3,4,5; Case studies discussion: part of the lecture techniques; ILOs assessed: 1,2,3,4,5. - Summative assessment: 100% Written: 3,0 hours; Nr. Lernergebnisse: 1,2,3,4,5.
Criteri di valutazione	Exam point structure: 10 Points Multiple Choice Questions: ILOs: 70 Points Theory Part 1,2,3,4,5 20 Points Exercise Part 1,2,3,4,5 100 Points Gesamte Prüfung 1,2,3,4,5
Bibliografia obbligatoria	Course Handbook (Theory and Exercises) provided by the lecturer (synchronously with the progress of the course).
Bibliografia facoltativa	No supplementary readings.
Altre informazioni	Software used: Laptops with MS Office (Word, Excel, PowerPoint).
Obiettivi di Sviluppo Sostenibile (SDGs)	Innovazione e infrastrutture, Buona occupazione e crescita economica