

SPS 104: Product Lifecycle Management (PLM) in RMG

Course Objectives

By the end of the course, participants will:

- Understand the fundamentals of Product Lifecycle Management (PLM) and its significance in the fashion industry.
- Learn the stages of a product's lifecycle and how to optimize each stage for efficiency and sustainability.
- Explore PLM software solutions and how they are implemented in fashion businesses.
- Develop skills to streamline collaboration between design, development, production, and merchandising teams.
- Integrate sustainability and ethical practices within the product lifecycle.
- Apply PLM strategies to real-world case studies and projects.

Session No	Session Title	Detailed Topics	Key Learning Methods
1	Understanding PLM in Fashion	<ul style="list-style-type: none"> • Overview of PLM concepts and principles • Importance of PLM in the fashion industry • Key stages of the product lifecycle 	<ul style="list-style-type: none"> • Lecture • Discussion • Q&A
2	Fashion Industry Dynamics	<ul style="list-style-type: none"> • Overview of the fashion product development process • Trends influencing PLM adoption in fashion • Case studies of successful PLM implementation 	<ul style="list-style-type: none"> • Lecture • Discussion • Q&A
3	PLM Systems and Technologies	<ul style="list-style-type: none"> • Introduction to PLM software and platforms (e.g., Centric, Lectra) • Role of PLM in design, development, and production 	<ul style="list-style-type: none"> •
4	Data Management and Collaboration	<ul style="list-style-type: none"> • Managing product data and specifications • Collaboration between designers, manufacturers, and stakeholders 	<ul style="list-style-type: none"> •
5	PLM Integration with Other Systems	<ul style="list-style-type: none"> • Integration of PLM with ERP, CRM, and SCM systems • Benefits of seamless data flow across departments 	<ul style="list-style-type: none"> •

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6	Conceptualizing and Designing Products	<ul style="list-style-type: none"> • Using PLM tools for trend analysis and inspiration • Digital sketching and 3D design integration 	•
7	Prototyping and Sampling	<ul style="list-style-type: none"> • Utilizing PLM for material selection and sampling • Reducing prototyping time through virtual simulation 	
8	Costing and Time Management	<ul style="list-style-type: none"> • Role of PLM in cost estimation and budget management • Managing timelines and deadlines through PLM 	
9	Manufacturing and Sourcing	<ul style="list-style-type: none"> • Using PLM to streamline manufacturing processes • Supplier collaboration and compliance tracking 	
10	Inventory and Logistics	<ul style="list-style-type: none"> • Tracking inventory levels and logistics through PLM • Reducing waste with efficient PLM strategies 	•
11	Sustainability and Ethical Considerations	<ul style="list-style-type: none"> • Integrating sustainable practices into PLM workflows • Role of PLM in supporting ethical production 	•
12	Implementing a PLM System	<ul style="list-style-type: none"> • Steps to introduce PLM in a fashion business • Overcoming challenges and resistance 	•
13	Measuring Success and ROI	<ul style="list-style-type: none"> • Key performance indicators (KPIs) for PLM success • Continuous improvement using PLM data 	•
14	Emerging Technologies in PLM	<ul style="list-style-type: none"> • AI, IoT, and big data in PLM systems • Impact of digital transformation on the fashion industry 	•
15	PLM for Customization and Personalization	<ul style="list-style-type: none"> • Role of PLM in enabling made-to-order and bespoke fashion 	•

Session No	Session Title	Detailed Topics	Key Learning Methods
		<ul style="list-style-type: none"> Managing customer feedback and customization requests 	
16	Final Project	<ul style="list-style-type: none"> Group projects: Develop a PLM strategy for a mock fashion brand 	<ul style="list-style-type: none">
17	Presentation	<ul style="list-style-type: none"> Presentations and feedback from peers and instructors 	<ul style="list-style-type: none">

Assessment Methods:

- Quizzes and assignments (20%)
- Hands-on projects (40%)
- Capstone project and presentation (40%)