

## **COURSE DESCRIPTION**

### **Online PLM Certificate Course**

#### ***"Basics of PLM"***

The PLM Institute's Professional Online Certificate Course, *"Basics of PLM"*, is an eight-part course. Students can follow the course at their own speed, but the course must be completed within 2 months of its scheduled start date. The total student involvement for the course is about 35 hours.

#### **Course Level**

*"Basics of PLM"*, the first module in the PLM Institute's modular training program, is a "PLM 101" course.

#### **Course Objective**

*"Basics of PLM"* gives a general introduction to Product Lifecycle Management (PLM) from a multidisciplinary business perspective. It covers the main components of PLM, and will help those working with PLM in a company to understand the basics of PLM and why it's so important. Its objective is to allow them to participate more fully in a company's PLM Initiative and other PLM activities.

The course is built on the Instructor's experience of working in PLM activities with more than a hundred companies. Case studies and examples are given to help understanding.

The first two parts of the course address the What of PLM, and the Why of PLM. They introduce PLM, answering questions such as: "What's PLM?"; "Why PLM?"; "When did PLM appear" and "Where's PLM used?" The reasons for the emergence of PLM are reviewed, answering questions such as: "Why was PLM needed?" and "Why does it continue to be needed?" The transition path to PLM for individual companies is addressed.

The next five parts of the course address the Five Pillars of PLM: Business processes, Product data, PLM applications, Organisational Change Management, and Project Management. The role and importance of each of these in PLM is addressed. The current situation, typical issues and opportunities, and the resulting typical activities in a PLM Initiative are described.

The last part of the course addresses the PLM Initiative. It looks at the activities leading to the launch, and then the continuation, of a PLM Initiative. It describes the common building blocks of PLM Initiatives, and the very different PLM Initiatives to which they may lead.

Throughout the course, the Instructor shares his experience in many PLM Initiatives. Potential pitfalls are described. Success factors are identified. Guidelines are given. Top management's role is addressed.

#### **Course Outline**

- Part 1: General introduction to PLM
- Part 2: Overview of the PLM environment
- Part 3: Basics of business processes in PLM

- Part 4: Basics of product data in PLM
- Part 5: Basics of PLM applications
- Part 6: Basics of organisational change management in PLM
- Part 7: Basics of project management in PLM
- Part 8: The PLM Initiative

### **Effort**

The average expected effort for each of the 8 parts is about 4 hours.

- Approx. 2 hours "virtual class" (audio and/or video)
- Approx. 2 hours reading (course book and other)
- Approx. 15 minutes assessment (multiple choice and other)

In addition, the Instructor is available online to answer and discuss student's questions.

The total expected effort for the course is about 35 hours.

### **Course Delivery**

The course is delivered online, accessible 24/7, so students can choose when and where to participate. However, the course must be completed within 2 months of its scheduled start date.

### **Course Instructor**

The Instructor for this course is Dr John Stark, a world-renowned expert on PLM. The Course builds on his experience of working with more than a hundred companies, in many industries, in many areas of PLM, at all stages of the product lifecycle. He is the author of the reference PLM book: "*Product Lifecycle Management: 21st Century Paradigm for Product Realisation*", first published in 2004, and now in its third edition. According to Google Scholar, this is the most referenced PLM publication, cited more than 700 times. John Stark received his doctorate from Imperial College, London.

### **Course Participants**

The course is intended for two types of participant. First, those working in industry who have experience in some areas of PLM, and would like to expand their knowledge in other area of PLM. Second, those working in industry who have little or no experience of PLM, but are starting to work on PLM in their company, for example, in a PLM project or initiative.

### **Course Learning**

The targeted learning for each part is:

Part 1: General introduction to PLM

- A basic understanding of PLM, and of a PLM Initiative
- Understanding of the PLM Paradigm and its essential characteristics and concepts
- Understanding of the scope and meaning of PLM
- Knowledge about the problems that PLM addresses
- Knowledge about the operational and strategic benefits of PLM

Part 2: Overview of the PLM environment

- Understanding of the reasons why companies are interested in PLM
- Knowledge of the changes in the product-related environment that led to the emergence of PLM
- Knowledge of some of the product issues that occurred in that environment
- Knowledge of the product opportunities that are opening up in the early 21st Century
- Knowledge of some companies' experience of PLM

#### Part 3: Basics of business processes in PLM

- Understanding of what a business process is and why it's important in the context of PLM
- Knowledge of business processes and related activities in a PLM Initiative
- Understanding of some of the ways in which business processes are documented
- Ability to read and understand a simple business process map
- Knowledge of a typical company's issues and opportunities with business processes in the PLM environment
- Understanding of the activities of a typical business process improvement sub-project in a PLM Initiative
- Knowledge of lessons learned from some companies' experiences with business process improvement projects in PLM Initiatives

#### Part 4: Basics of product data in PLM

- Understanding of what product data is, and why it's important in the PLM environment
- Knowledge of how product data is modelled and documented
- Ability to read a simple product data model
- Knowledge of the current problems and future possibilities with product data in the PLM environment of a typical company
- Knowledge of the typical activities of a product data improvement sub-project in a PLM Initiative, and typical pitfalls of such projects
- Understanding of some companies' experience with product data improvement sub-projects in PLM Initiatives

#### Part 5: Basics of PLM applications

- Knowledge of applications in the PLM environment
- Ability to describe the issues and possibilities with PLM applications in a typical company
- Understanding of the activities of an application-related project in a PLM Initiative
- Knowledge of some companies' experience with application-related improvement sub-projects in PLM Initiatives

#### Part 6: Basics of organisational change management in PLM

- Understanding of what OCM is and why it's important in the context of PLM
- Ability to describe the typical OCM activities in a PLM Initiative
- Knowledge of lessons learned from some companies' experiences with OCM projects in PLM Initiatives

#### Part 7: Basics of project management in PLM

- Understanding of the importance of Project Management in the PLM world
- Ability to describe the typical Project Management activities in a PLM Initiative
- Knowledge of lessons learned from some companies' experiences with Project Management in PLM Initiatives

#### Part 8: The PLM Initiative

- Understanding of a PLM Initiative
- Ability to describe the typical activities in a PLM Initiative.
- Knowledge of lessons learned from some companies' experiences of PLM Initiatives.
- Ability to engage more fully in a company's PLM Initiative

#### **Course Book:**

*Product Lifecycle Management: 21st Century Paradigm for Product Realisation* (3rd Edition; Springer Publishing; Published 2015, ISBN 978-3-319-17439-6)

#### **Course Certificate:**

Participants successfully completing the course will receive a Course Certificate demonstrating that they have completed and passed the course.

#### **Course ID:**

PLM001: Basics of PLM

#### **More information:**

For more information, please contact the Course Instructor at [pdm@2pdm.com](mailto:pdm@2pdm.com)

#### **Answers to FAQs**

1. Students may join a course up to 2 weeks after its scheduled start date.
2. Students must complete the course within 2 months of its scheduled start date.