

PDM Course Outline

Draft outline for Theory Lectures

Outcomes:

- To develop a significant understanding of the concepts, applications, and procedures involved in the controlling, protecting, and accessing product definition data.
- To understand and apply PDM technologies in a PLM environment.
- To develop hands-on experience in PDM from the end-user perspective, simulating the industrial environment.
- To develop hands-on experience in PDM from the product manager perspective, including product definition and project management.
- To develop familiarity in PDM from the IT administrator perspective, including infrastructure design and system implementation.
- To prepare for leadership responsibilities in industry through group tasks and responsibilities emphasizing teamwork, planning, and ethics applications in a project management environment.
- To develop necessary written and oral communication skills through course assignments and presentations.

Possible Prerequisites:

C&IT 272 Database Fundamentals (or similar)

C&IT 276 Systems Software and Networking (or similar)

Topics:

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| 1. File management | 1 lecture, .5 lab |
| 2. CAD file formats | 1 lecture, .5 lab |
| 3. Data, information, and knowledge in PLM | 1 lecture, .5 lab |
| 4. Establishing groups, permissions, and workflow | 1 lecture, .5 lab |
| 5. Product, part, and configuration management | 2 lectures, 1 lab |
| 6. Versioning of parts and product classification | 2 lectures, 1 lab |
| 7. CRM and PDM | 1 lecture, .5 lab |
| 8. Program and project management | 2 lectures, 1 lab |
| 9. Interchangeability and engineering change | 2 lectures, 1 lab |
| 10. Effectivity and action | 2 lectures, 1 lab |
| 11. Relational database design and implementation | 2 lectures, 1 lab |
| 12. Impact analysis | 2 lectures, 1 lab |
| 13. Version management | 2 lectures, 1 lab |
| 14. Design of business model | 2 lectures, 1 lab |
| 15. Interaction between PLM and ERP | 1 lecture, .5 lab |
| 16. PDM selection and benchmarking | 2 lectures, 1 lab |