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Lecture Plan

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Lecture Plan

- **Introduction:**

Lecture 1 : The Triptych & Inform. Docs. (I):

1. The Triptych Paradigm
2. Phases, Stages and Steps
3. Informative Documents (I)
   (a) Proj. Name & Date
   (b) Proj. Prtnrs. & Addr.
   (c) Current Situation
   (d) Needs & Ideas
   (e) Scope & Span
   (f) Assumps. & Depends.
   (g) Implicit/Deriv. Goals
   (h) Synopsis

9–58/692–727

Lecture 2 : Inform.Docs. (II) & Method.:

1. Informative Docs. (II)
   (i) SW Devt. Graphs
   (j) Resource Alloc.
   (k) Budget Estim.
   (l) Stds. Compliance
   (m) Contracts & Dsgn. Briefs
   (n) Logbook
2. Methodology

61–116/728–745

Lecture 3: Conceptual Framework (I):

1. Modelling and Analysis Docs.
2. Descrs., Prescrs., Specs.
3. Informal and Formal Devt.
4. Software

119–157

Lecture 4: Conceptual Framework (II):

5. Entities, Fcts., Evts., Behavs.
   160–193/770–818
6. Domain Modell. vs. OR
   194–200

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- **Domain Engineering:**

Lecture 5 : **Prelude Stages:**

1. The Domain Concept
2. Stages of Domain Eng.
3. Domain Stakeholders
4. Domain Acquisition
5. Domain Analysis and Concept Formation
6. Business Processes
7. Terminology

204–272/746–767

Lectures 6–8 : **Domain Modelling:**

1. **Lecture 6**:
   (a) Intrinsics
   (b) Support Technologies

   275–317/770–877
2. **Lecture 7**:
   (a) Management & Organ.
   (b) Rules & Regs.

   320–371/880–971
3. **Lecture 8**:
   (a) Scripts
   (b) Human Behaviour

   374–474/974–1094

Lecture 9 : **Postlude Stages:**

1. Verific.
2. Validation
3. Theory Formation
4. Domain Eng. Process Graph
5. Domain Eng. Docs.

477–485/1097–1101

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- **Requirements Engineering:**

Lecture 10 : **Prelude Stages**: The Reqs. Eng. Stages

488–522/1104–1140

Lectures 11-13 : **Requirements Modelling:**

Lecture 11 : **Domain Reqs. Modelling:**

1. Projection,
2. Instantiation,
3. Determination
4. Extension
5. Fitting
6. Composition

525–537/1143–1172

Lecture 12 : **Interface Reqs. Modelling:**

1. Shared Phenomena
2. Shared Entity Reqs.
3. Shared Function Reqs.
4. Shared Event Reqs.
5. Shared Behaviour Reqs.

540–566/1175–1185

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- **Continued: Main Stage: Requirements Modelling:**

Lecture 13 : Machine Reqs.:

1. Performance
2. Dependability
3. Maintainability
4. Platform
5. Documentability
6. Etcetera

569–603/1188–1219

Lecture 14 : Postlude Stages:

1. Verific., Valid.
2. Feasibility, Satisfiability
3. Reqs. Eng. Process Graph
4. Reqs. Eng. Docs.

606–618/1222–1227

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- **Software Design:**

  Lecture 15 : **Architectural Design**

  621–656/1230–1254

  Lecture 16 : **Component Design &c.**

  1. Component Design
  2. Software Design Process Graph
  3. Software Design Documents

  659–673/1255–1273

- **Summary:**

  Lecture 17 : **Review of Phases, Stages and Steps:**

  1. Domains, Requirements, Software Design
  2. Process Graphs
  3. Documents
  4. Process Assessment and Improvement

  676–680/676–680

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