



## ***Advances of Software Engineering for Distributed Systems***

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## ***How to reach me?***



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## Organization of the Course

- **27 Lectures on**
  - *Tuesday 10-12 (G23)*
  - *Thursday 12-1pm (G23)*
- **3 Tutorials at the end of term**
- **Coursework: Group Project in Term 2**
- **Coursework mark is course mark!**
- **No written exam paper**



## Aims and Objectives

- **In the short run:**
  - *Provide Foundation for Group Project*
- **In the long run:**
  - *Achieve proficiency in modern software engineering notations, methods & tools*
    - *Formal Methods: Z and CSP*
    - *Unified Modeling Language*
    - *Use-case centred requirements elicitation*
    - *Object-oriented design for distributed systems*
- **Enable you to define an appropriate software process for a distributed development project**



## Outline of the Course

- *Introduction*
- *Software Process*
- *Requirements Analysis*
- *Intro to Formal Methods*
- *The Z Notation*
- *Process Algebras*
- *Design Model*
- *Distributed Objects*
- *Design Patterns*
- *Project Management*
- *CASE*
- *Object-Oriented Testing*



## Literature

- [JCJO92] *I. Jacobson, M.Christerson, P.Jonsson and G.Oevergaard: Object-Oriented Software Engineering - A Use Case Driven Approach, Addison-Wesley, 1992.*
- [Mul98] *P.-A. Muller. Instant UML. Wrox. 1998*
- [Booc94] *G.Booch: Object Oriented Analysis and Design with Applications, Benjamin/Cummings, 1994.*
- [RBPE+91] *J.Rumbaugh and M.Blaha and W.Premarlani and F.Eddy and W.Lorensen: Object-Oriented Modeling and Design, Prentice Hall.1991.*
- [Emm99] *Engineering Distributed Objects. Wiley. 1999. To appear. <http://www.cs.ucl.ac.uk/staff/emmerich/book>.*