SWEN 223
Software Engineering Analysis

Introduction

Thomas Kühne
Victoria University of Wellington
Thomas.Kuehne@ecs.vuw.ac.nz, Ext. 5443, Room Cotton 233
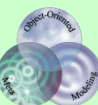
- Your Personal Goals

- Good Software
  - » important!

- Tackling Large Software Systems
  - » not easy to appreciate
    at the university level

Content

- Software Engineering
  - » focussing on products rather than processes

- Design Principles
  - » what factors contribute to good design?

- Unified Modeling Language
  - » diagram types and their use in the software development process
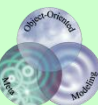 - » OCL (object constraint language)

Prerequisites & Restrictions

Prerequisites

- COMP 103
    - » good understanding of programming

- ENGR 110
    - » UML class diagrams
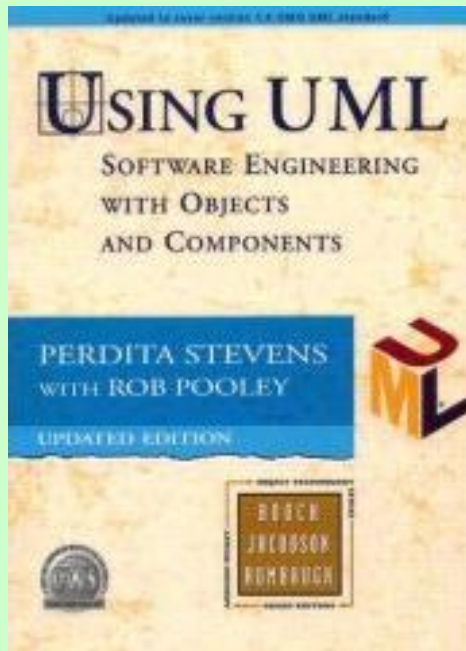   - » first conceptualisation experiences
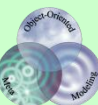
Restrictions

- INFO 332

Perdita Stevens
with Rob Pooley
*Using UML:
Software Engineering with
Objects and Components, 2/E*
Addison-Wesley, 2006.

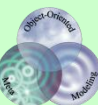- available from library and Vic Books

More Books

- Meyer, B.,
  Object-Oriented Software Construction, 2nd edition,
  Prentice Hall, ISBN 0136291554

- Booch G., Rumbaugh J., Jacobson I.,
  The Unified Modeling Language User Guide
  2nd edition, Addison-Wesley, ISBN 0321267974

  (Reference Manual, ISBN 0321245628)

- Warmer J., Kleppe A.,
  The Object Constraint Language, Addison-Wesley,
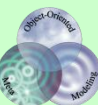 ISBN 0321179366

Timetable

- Lectures

  » Tue. 12:00-12:50, New Kirk, LT301

  » Thu. 12:00-12:50, Hugh Mackenzie, LT002

- Labs

  » Fri. 12:00-12:50, Cotton, CO 219

  » 18/03/2016—06/05/2015

Practical Work

- Assignments
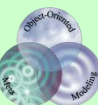 - » five UML diagrams
  - » lab hours alone will not be sufficient

> *Tell me and I'll forget;*
>
> *show me and I may remember;*
>
> *involve me and I'll understand.*
>
> — *Chinese Proverb*

- Project
  - » to be worked on in groups of five
  - » submit content proposal
  - » prepare 4-5 page report (shared grade) & presentation (individual grades)
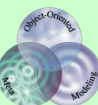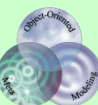
Assessment

- Project Grade composed of
  - » group report   60%   shared
  - » slides   35%   shared
  - » presentation   5%   individual

Assessment

- Final Grade composed of
  - » five marked assignments   15%   due dates on the web
  - » research project   15%   by 10/05/2016
  - » final examination (2 hours)   70%   in the exam period

- Overall an average grade of C- has to be achieved in order to pass the course
  - » despite the high weight of the exam, every assignment counts!

Requirements

- ## Mandatory Requirements
  - » three reasonable attempts (out of five)
    at the assignments

- ## Withdrawal Dates
  - » 11/03/2016, to obtain a refund of tuition fees
  - » 13/05/2016, to avoid being regarded as having
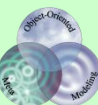   failed the course

    *StudyLink may have a different idea
    when a course has been failed*

Support

- Your student colleagues
  - » collaborate regarding research project
    and the principles of the assignment

- Forum
  - » ask and answer questions on the SWEN 223 forum

- Offices Hours
  - » Tue., 14:00-15:00, Cotton 233
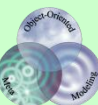 - » Thu., 14:00-15:00, Cotton 233
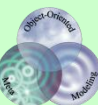
Feedback from 2015

- Appreciation of subject remains a challenge
  - » no programming in the large yet

- Positive
  - » assignments help
  - » tutors were very helpful
  - » presentations good for communication skills

Feedback from 2015

- Improvement suggestions
  - » higher assessment weight for assignments
    - ➜ Increased to 15%
  - » mid-term test
    - ➜ first year device (use assignments & previous exams)
  - » quicker feedback for assignments
    - ➜ no remote control for tutors ☹
    - ➜ assignments are quite separate

Feedback from 2015

- Improvement suggestions
  - » topics relevant to project positioned late in the course
    - → no good solution
    - → start on project early and then update