Instituto de computação uff

Configuration Management Course Outline

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Why this course is in English?

- English is the official language of the scientific community worldwide
- Not practicing English makes it difficult to
  - Read papers
  - Write papers
  - Present our work at conferences
  - Understand and answer questions related to our work
- This is not an English course!
  - We will use English only as a communication tool

Language Skills	Explicit	Tacit
Input	Read	Listen
Output	Write	Speak

Introductions

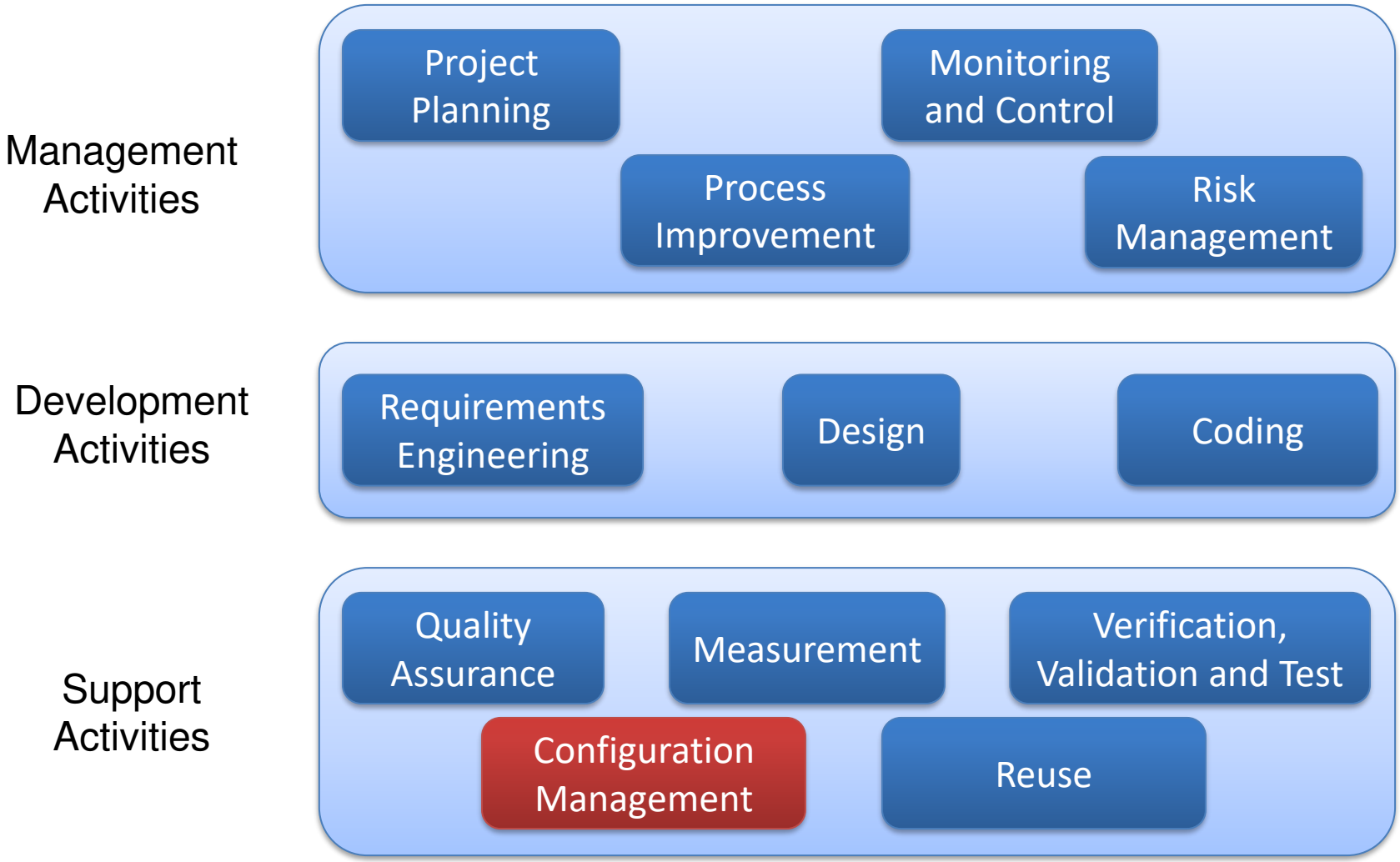
- Who am I?
  - Leonardo Murta
  - http://www.ic.uff.br/~leomurta
- Who are you?
  - Name? Level (BSc, MSc, DSc)?
  - Job? Internship?
  - Research Area? Thesis topic? Advisor?
  - Previous experience with Configuration Management?
  - What you expect for this course?

What is Configuration Management?

"CM is a discipline for **controlling the evolution** of software systems"

Susan Dart (1991)

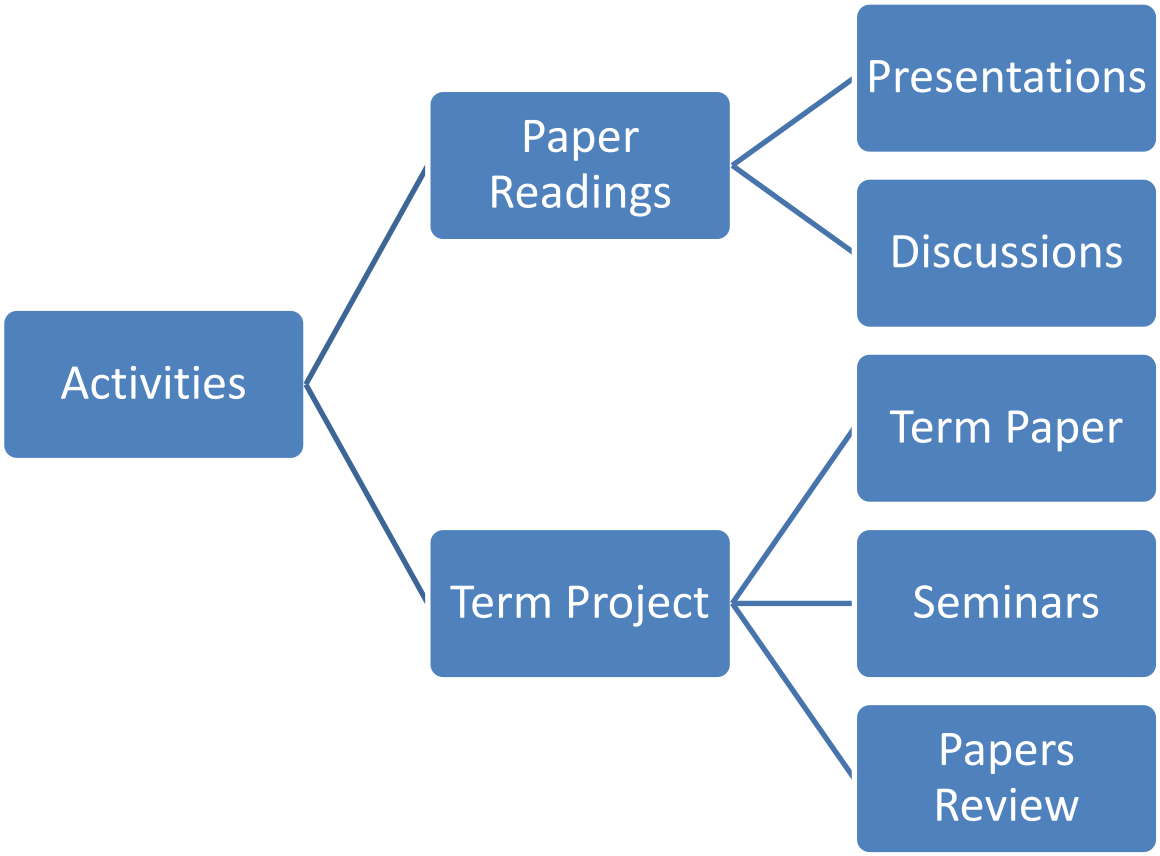
CM and Software Engineering



Groups

- Undergrad students **may** perform all activities in groups of two
  - Groups should be defined in the first weeks and keep the same until the end of the course
- Grad students should perform all activities individually

Course Dynamics



Course Dynamics

- Usual week
  - 9am to 11am: lecture (me)
  - 11am to 13am: paper presentation (you) and discussions (us)

- Seminar week
  - Presentations about the ongoing work of the term project
  - Three seminars during the course

Reading topics
(one or two papers per topic)

1. Introduction to CM
2. Introduction to Git
3. Git for Teams
4. Git Internals
5. Versioning
6. Diff
7. Merge
8. Branching
9. Repository Mining
10. Research vs. Practice

Paper Presentation / Discussions

- All students/groups should read all papers

- Each student/group will be in charge of presenting some papers
  - Send me ASAP five papers from the list (see site) sorted by preference
  - Around 30 minutes
  - Using slides

- The remaining students/groups are supposed to ask questions, provide comments, and answer questions about the paper being presented
  - Deepness of the questions
  - Quality of the discussion
  - Intensity of the interaction

Term Project

- Goal:
  - Apply CM over some other area
  - Apply some technique to support CM
  - Mine/Visualize CM repositories
  - Study some advanced CM technique
- Try to align the course project with your thesis theme
- It is important to define the term project theme in the first weeks
  - The first seminar will occur in less than a month!

Term Paper

- Types of projects
  - Theoretical: focus on related works and formal definitions
  - Implementation: focus on a tool and its evaluation
- Format:
  - 5 pages
  - ACM Style
- Content
  - Introduction: motivation and goal
  - Related work
  - Approach
  - Evaluation
  - Conclusion: contribution, limitation, and future work

Seminars

- 1st round
  - Context
  - Methodology
- 2nd round
  - Work progress
  - Partial results
- Final round
  - Final results
  - Experience report

Paper Reviews

- Papers will be submitted through a real conference management system, simulating a conference
- Each student will be a member of the program committee in this simulated conference, and will receive three papers to review
- All authors will receive three anonymous reviews of their papers by the end of the course
- The reviews will not influence the score of the term papers

Tentative Schedule

Data	Activity	Deliverable
14/03/2018	Lecture - **Course outline**	
21/03/2018	Lecture & Paper presentation (1st reading)	
28/03/2018	Lecture & Paper presentation (2nd reading)	
04/04/2018	Seminar (1st round)	
11/04/2018	Lecture & Paper presentation (3rd reading)	
18/04/2018	Lecture & Paper presentation (4th reading)	
25/04/2018	Lecture & Paper presentation (5th reading)	
02/05/2018	Lecture & Paper presentation (6th reading)	
09/05/2018	Seminar (2st round)	
16/05/2018	Lecture & Paper presentation (7th reading)	
23/05/2018	Lecture & Paper presentation (8th reading)	
30/05/2018	No class (**ICSE**)	
06/06/2018	Lecture & Paper presentation (9th reading)	
13/06/2018	Lecture & Paper presentation (10th reading)	
20/06/2018	Seminar (last round)	Term paper (submitted via **Easychair**)
27/06/2018	Supplementary test (undergrad only)	Reviews (submitted via **Easychair**)
04/07/2018	Grades review at room 528	

Grading

$$Score = \frac{2 \times Presentations + Discussions + 2 \times Term\ Paper + 2 \times Seminars + Reviews}{8}$$

Approved

Presence ≥ 75%
AND
Score ≥ 6

Supplementary Test

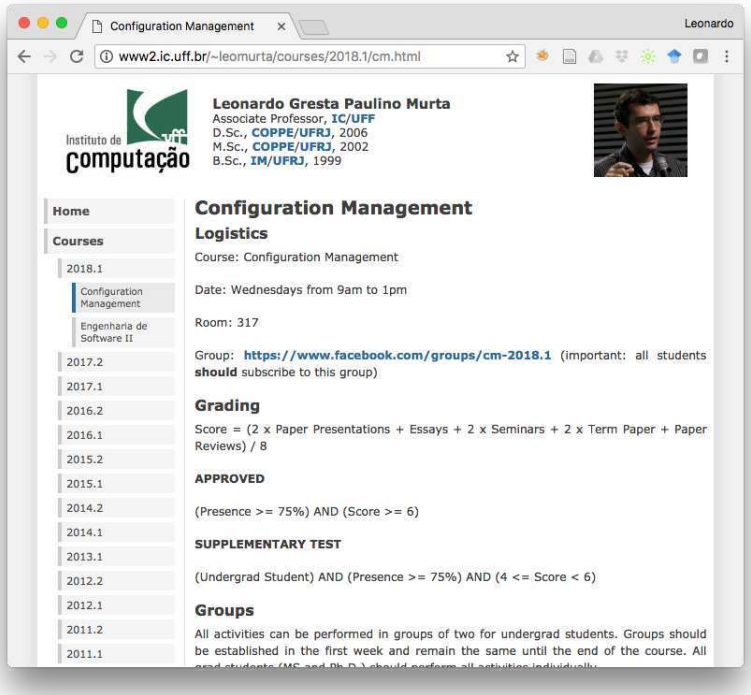
Undergrad Student
AND
Presence ≥ 75%
AND
4 ≤ *Score* < 6

Important research tools…

- http://scholar.google.com.br
- http://www.informatik.uni-trier.de/~ley/db
- http://www.scopus.com
- http://ieeexplore.ieee.org
- http://portal.acm.org
- http://citeseer.ist.psu.edu

- Reference management: http://www.zotero.org

Course homepage



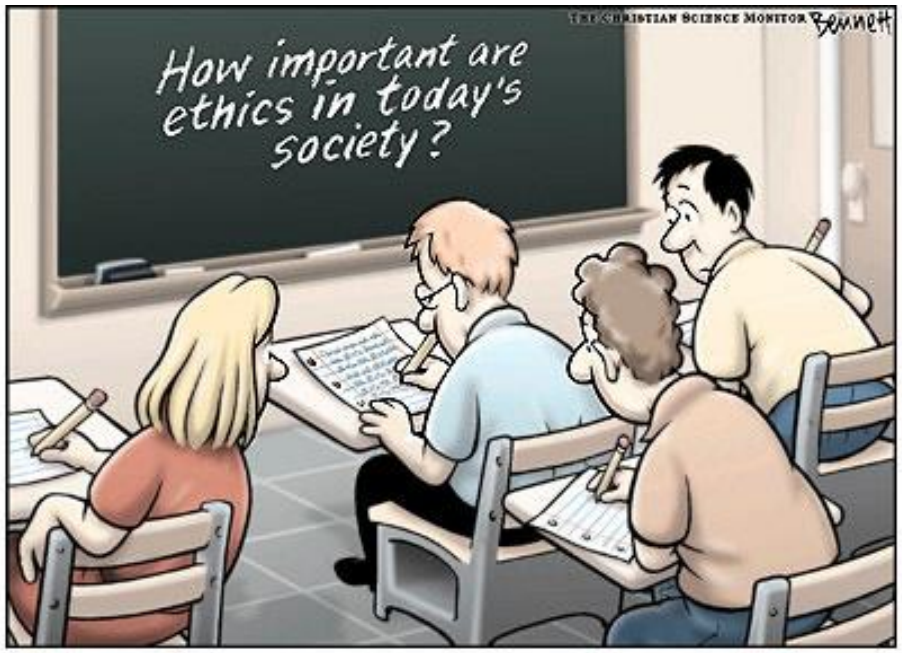
Read the course rules!!!

http://www.ic.uff.br/~leomurta

(hint: monitor changes with http://www.changedetection.com)

Important: subscribe to our group at Facebook!
(all readings are available in the group)

Fair Play!



http://www.claybennett.com/pages/ethics.html

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