



# Course Introduction

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Software Project Management  
MSc in Computer Science  
University of Camerino

SPM

# Course Responsible, Lessons, Exams

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- Software Project Management
  - lessons:
    - Monday – from 11am to 1pm
    - Wednesday – from 9am to 11am
    - Thursday – from 9am to 11am
    - Friday – from 11am to 1pm
  - web: <http://didattica.cs.unicam.it/...>
- Exam dates:
  - Wednesday, February 2nd and 23rd, 2022 - at 9am
  - Wednesday, June 15th, 2022 - at 9am
  - Wednesday, July 13th, 2022 - at 9am
  - Wednesday, September 7th and 28th, 2022 - at 9am
  - Wednesday, February 1st and 22nd, 2023 - at 9am

# Course Organization

- SPM illustrates two quite orthogonal approaches to software project management and execution:
  - Project Management following “*Command and Control*” inspired approaches
  - Project Management following **Agile methodologies**

# Course Objectives

## Knowledge and Abilities

The course intends to provide to the students basic knowledge on the subject of project management in relation to the development of complex software systems. At the end of the course you should be able to **understand why making prediction on software development is so complex** and strategies for project planning, resource allocation executions, monitoring, etc.

At the same time at the end of the course you will have learned the principle of agile methodologies and you will be able to **apply SCRUM** to the development of a complex software system.

# Study material 1/2

- **Reference books** (theory):



**Bob Hughes, Mike Cotterell**  
*Software Project Management, 5th Ed.*  
McGraw-Hill, 2009



**Andrew Stellman and Jennifer Greene**  
*Learning Agile Understanding Scrum, XP, Lean, and Kanban*  
O'Reilly 2015.




**Mitch Lacey**  
*The SCRUM Field Guide 2<sup>nd</sup> Ed.*  
Pearson 2016.



**Robert K. Wysocki**  
*Effective Project Management 7<sup>th</sup> Ed.*  
John Wiley and Sons 2014.

# Study material 2/2

- **Additional textbooks:**

-  Roger Pressman and Bruce Maxim  
*Software Engineering a Practitioner's Approach 8<sup>th</sup> Ed.*  
McGraw-Hill 2015.

-  Ian Sommerville  
*Software Engineering 10<sup>th</sup> Ed.*  
Addison Wesley 2016.

- **PMI Certification**

-  *PMBOK Guide*

# Visual Paradigm



Visual Paradigm supports Università di Camerino with UML tools and ERD tools under the Visual Paradigm Academic Training Partner Program.

UNICAM students can download and install the enterprise version of Visual Paradigm at the following link:

- <https://ap.visual-paradigm.com/universita-di-camerino>

# Contents

- Software Development Processes
- Agile Project Management
  - Scrum
  - eXtreme Programming (XP)
  - *Lean*
  - *Kanban*
- Principles of Software Project Management
- Project and Programme Management
- Project Estimations and Planning (COCOMOII)
- Activity Management
- Risk Management
- Resource Allocation
- Project Execution and Monitoring



# Final Exam!!!

## 1. Group project (2-3 members – under “negotiation”)

- You will be asked to develop a project over the duration of the semester with intermediate checkpoints (meeting with the teachers/product owner). The group will have to use the typical practices of SCRUM.
- the project requires to deliver a working prototype that will be illustrated to the teacher. The date for the discussion meeting has to be agreed in advance, and one week before the meeting a report has to be delivered to the teacher, and the software released.

## 2. Written paper – date fixed for the exam

- The paper will include questions and exercises on the main topics of the course

The mark is structured according to a “50-50” schema considering respectively the project, and the written paper. For both papers the pass mark is fixed to 18. Students willing to improve their final mark can ask for an additional oral examination.

Any order to respect?

The project has to be delivered before any member can take part to the written paper.