



Enterprise and Business Process Modelling

Barbara Re

Contacts

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Who am I?

Education

- Bachelor and Master Degree in Computer Science
- PhD in Information Science and Complex System

Some Experiences

- I was visiting PhD at the Information School of University of Washington working with Dr. Hans J (Jochen) Scholl
- I was visiting Phd at the School of Business of University of Applied Sciences North-western Switzerland FHNW working with Prof. Knut Hinkelmann

Current Position

- Assistant Professor at University of Camerino

My Research Interests

- Applied Formal Methods
- Business Process Management: from Modelling to Analysis
- Process Aware Information Systems
- Methodologies and Technologies for Smart Government and Ambient Assisted Living development



<http://pros.unicam.it/>

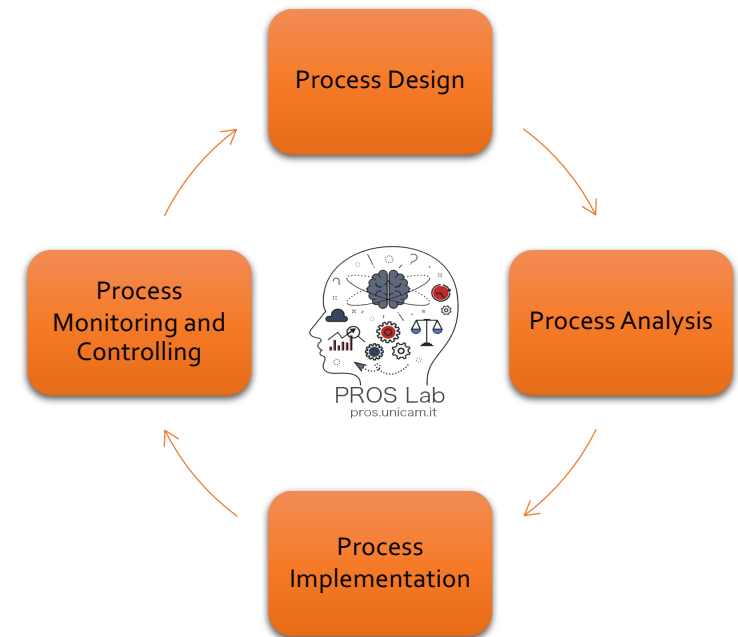
PROcesses and Services Lab

Research carried out within the PROS Lab deals with:

- The development of **languages** and **techniques** for the **modelling and analysis**
- The development of **process aware information systems** and **services oriented applications**

Our goal is to push the use of **formal methods** as methodological and automatic tools for the development of **high-quality software**

To make our tools usable by people not acquainted with the underlying mathematical foundations; **we aim at effective but disappearing formal methods**





What about you?



Enterprise and Business Process Modelling

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Course Objectives

- This course focuses on **modelling activity** that allows **abstracting** and **reasoning** on how an enterprise is organized and how the work is structured within complex organizations. In particular, **business process models** represent blueprints that can serve different purposes for a variety of stakeholder
 - **Business analysts** can use these models to better understand how the organization works
 - **Employees** playing a role in the process can use them to learn the tasks that they are supposed to perform
 - **Software analysts/developers** can refer to the models to understand the system-as-is before designing the system-to-be
- Given the variety of **stakeholders** that need to interpret these models, and considering the pivotal function that models play within organizations, models quality becomes fundamental

Learning Outcomes

- At the end of the course, the students will gain some familiarity with **enterprise** and **business process** terminology, with different **frameworks, models** and **languages** for the **representation** of enterprise and business processes
- Be able to model **business processes** in static and dynamic environment and to apply the most common techniques for **business process analysis**
- The students will also **experiment with some tools**

FOCUS

Different educational background and interests are in place



Consider information technology as a subordinate aspect in business process management

Consider business goal and organizational regulations as terms that do not deserve much thought, but require the appropriate level of abstraction

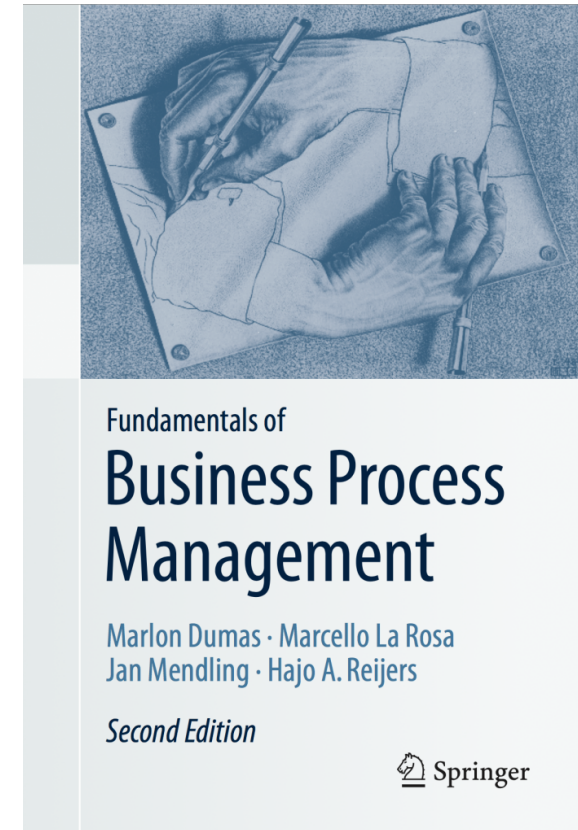
Syllabus

- **Introduction to Enterprise Architecture and Enterprise Modelling**
 - Enterprise Architecture Frameworks: Alter and Zachman
 - Modelling an Enterprise Architecture with ArchiMate
- **Introduction to Business Process Management**
 - Process Everywhere
 - Business Process Model and Instances
 - Business Process Life-Cycle
 - Classification of Business Process
- **Business Process Modelling**
 - Conceptual models and abstraction mechanisms
 - Business Process Modelling Notation 2.0 (collaboration and choreography diagram)
 - From basic elements to advance modelling of multi-instance and data
- **Business Process Analysis**
 - Process Model Formalization
 - Models Quality dimensions syntactic, semantic and pragmatic quality
 - Understandability Guidelines and Soundness
 - Compliance Rule Specification and Verification
 - Verification into practice

Reference books

- Dumas M, La Rosa M, Mendling J., Reijers H: Fundamentals of Business Process Management, [Springer](#) 2018.

<http://fundamentals-of-bpm.org/>



Further materials

- ArchiMate® specification an open group standard
<http://www.opengroup.org/>
- Business Process Model And Notation (BPMN) Version 2.0 -
<http://www.omg.org/spec/BPMN/2.0/>
- BPMN 2.0 by example - <http://www.omg.org/spec/BPMN/20100601/10-06-02.pdf>
- Research papers selected during the course (all of them are already/will be available on the web-site)

Tools

- ArchiMate® → <https://www.archimatetool.com/download/>
- Business Process Model And Notation (BPMN) → <https://bpmn.io/>
- Pros Tools → <http://pros.unicam.it/>

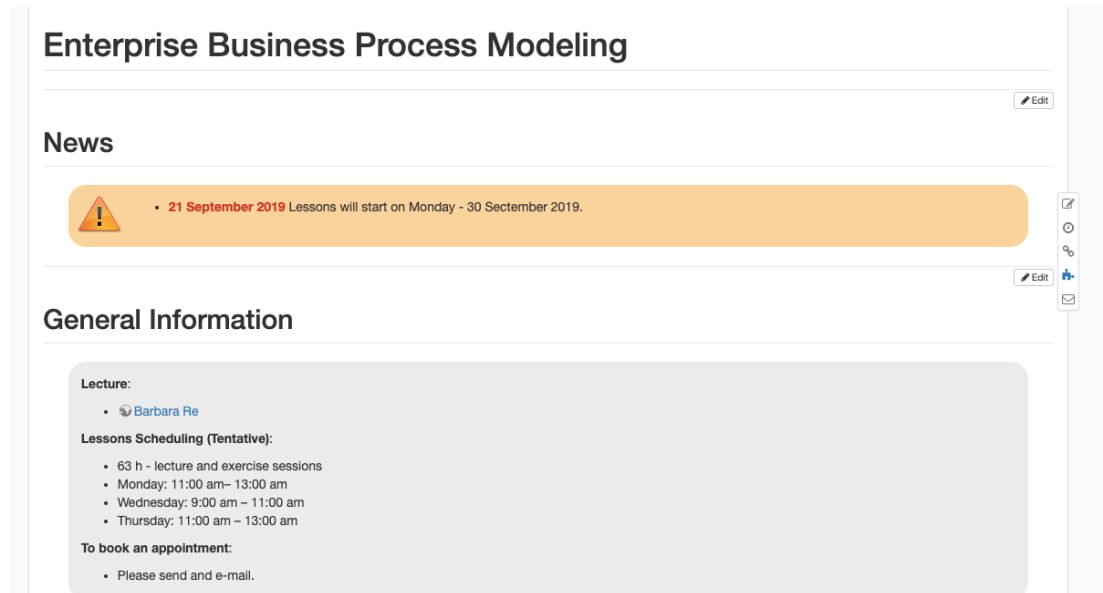
Teaching and Learning Methods

- 63 h - Lectures and class exercises
 - Monday: 11:00 am– 13:00 am
 - Wednesday: 9:00 am – 11:00 am
 - Thursday: 11:00 am – 13:00 am
- Private study: reading and exploring

WIKI CS

All Relevant Information Available on the Wiki CS

http://didattica.cs.unicam.it/doku.php?id=didattica:magistrale:ebpm:ay_1920:main#general_information



The screenshot shows a Wiki CS page titled "Enterprise Business Process Modeling". The page has a white background with a blue header bar. Below the title, there is a "News" section with a yellow warning banner that reads "21 September 2019 Lessons will start on Monday - 30 September 2019." Below the news section, there is a "General Information" section with a grey background. The "Lecture:" section lists "Barbara Re" as the lecturer. The "Lessons Scheduling (Tentative):" section lists the following sessions: "63 h - lecture and exercise sessions", "Monday: 11:00 am - 13:00 am", "Wednesday: 9:00 am - 11:00 am", and "Thursday: 11:00 am - 13:00 am". The "To book an appointment:" section lists "Please send an e-mail." The page also features an "Edit" button in the top right corner and a vertical toolbar on the right side.

Exams

- Writing Examination on the topics of the syllabus
 - Open or multiple-choice questions + Exercise
 - 2 h

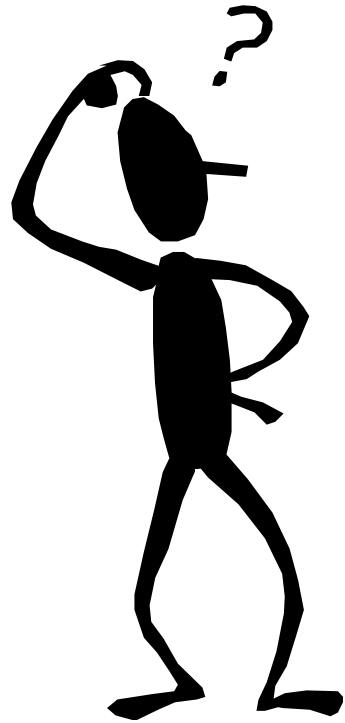
- **Dates** (<https://didattica.unicam.it/Home.do>)

Students Communications



Join our
Telegram
Channel

<https://t.me/essunicam>



Questions?