

# Enterprise Architecture

AW 20140110 (v3)

Prof. Alain Wegmann

<http://lams.epfl.ch>

WWW:

<http://wiki.epfl.ch/lams-course-ea-paris-2014>

## Goal

The goal of this course is to:

- Operationalize Ross's advices and concepts (continuation of first lectures)
- Practice business and IT analysis and design using SEAM
- Understand the fundamental principles underlying business and IT analysis using SEAM principles as reference
- Have a knowledge of the main EA frameworks
- Some practice of Zachman, Urba-EA
- Practice the application of the fundamental principles to compare EA frameworks
- Practice of SEAM on EHL case study

## Before class readings:

### *Wednesday:*

Popescu G., Regev G., Gopal A., Tapandjieva G., Wegmann A.  
EPFL Ph.D. Hiring Process Description  
November 22, 2013  
PDF to be provided

### *Tuesday:*

Wegmann A.  
On the Systemic Enterprise Architecture Methodology  
Proceedings of the 5th International Conference on Enterprise  
Information Systems, p. 483-490 (2003)  
<http://infoscience.epfl.ch/record/89690?ln=en>

Zachman J.A.  
A framework for Information System Architecture  
IBM Systems Journal: Volume 26, Number 3, Page 276 (1987)  
<http://test.zachmaninternational.com/index.php/ea-articles/28-1987-ibm-systems-journal-a-framework-for-information-systems-architecture>

### *Friday:*

Wegmann A.  
Business and IT Alignment at the Ecole Hôtelière de Lausanne  
2010  
PDF to be provided

IT doesn't matter  
Nicolas G. Carr  
HBR 2003

## Lectures

### Wednesday January 8 (9h – 12h)

#### *Introduction and expectations*

#### *Topic:*

- Operationalization of Ross's framework (students recap)

#### *Practice:*

- Application to EPFL overall organization

#### *Reference:*

Ross J. W., Weill P., Robertson D.

Enterprise Architecture As Strategy: Creating a Foundation for Business Execution

Harvard Business Review Press (2006)

<http://www.amazon.com/Enterprise-Architecture-Strategy-Foundation-Execution/dp/1591398398>



### Wednesday January 8 (14h – 17h)

#### *Practice:*

- Modeling of PhD hiring process (as-is)
- As-is (behavior model)
- Issue identification
- Relation to Ross models
- Solution design

#### *Theory:*

- Business and IT alignment
- SEAM modeling principles (system, behavior and goal/belief models)

## **Thursday January 9 (9h – 12h)**

### *Practice:*

- Modeling of PhD hiring process (as-is)
- Issue identification (goal-belief)
- Solution design (to-be)
- Relations to Ross's model

### *Theory:*

- Systemic paradigm

### *Practice:*

- Explanation of SEAM using the systemic paradigm

## **Thursday January 9 (14h – 17h)**

### *Theory:*

- From business / IT alignment to enterprise architecture
- Zachman
- Urba-EA
- (TOGAF)

### *Practice:*

- Zachman model of PhD hiring process
- Urba-EA model of PhD hiring process

## **Friday January 10 (9h – 12h)**

### *Practice:*

- application to systemic paradigm to compare SEAM, Zachman, Urba-EA

### *Practice:*

- how to practically use the course's contents in your job

## **Friday January 12 (14h – 17h)**

### *Practice:*

- EHL case study & relation to IT doesn't matter paper

### *Course debrief*

**Post-class readings:**

Regev G., Bajic-Bizumic B., Golnam A., Popescu G.,  
Tapandjieva G., Saxena A.B., Wegmann A.  
Business and IT Design with SEAM: an Illustration with the PhD Hiring  
Process at École Polytechnique Fédérale de Lausanne  
BMSD 2014

**Exam**

Date and time official announcement by administration

Total 20 points.

These three days lecture will account for 12 points.

Two to three questions:

- one model to draw and analyze based on a small case (7 points)
- 5 QCM questions (3 points)
- 1 theory questions (2 points)

or

- one model to draw and analyze based on a small case (5 points)
- one model to draw and explain to represent your mission or thesis (4 points)
- 1 theory questions (3 points)

The 8 remaining points will provided by questions from Prof. Irina Rychkova

Closed book exam.

## References

Urba-EA:

Christophe Longépé

Le projet d'urbanisation du SI : Cas concret d'architecture d'entreprise

Dunod

[http://www.amazon.fr/Le-projet-durbanisation-darchitecture-dentreprise/dp/2100528831/ref=sr\\_1\\_1?ie=UTF8&qid=1389088484&sr=8-1&keywords=longépé](http://www.amazon.fr/Le-projet-durbanisation-darchitecture-dentreprise/dp/2100528831/ref=sr_1_1?ie=UTF8&qid=1389088484&sr=8-1&keywords=longépé)

TOGAF:

<http://www.opengroup.org/togaf/>

Archimate:

Mark Lankhorst

Enterprise Architecture at Work: Modelling, Communication and Analysis

Springer

[http://www.amazon.com/Enterprise-Architecture-Work-Communication-Engineering-ebook/dp/B00A9YH01Y/ref=sr\\_1\\_1?ie=UTF8&qid=1389088571&sr=8-1&keywords=lankhorst](http://www.amazon.com/Enterprise-Architecture-Work-Communication-Engineering-ebook/dp/B00A9YH01Y/ref=sr_1_1?ie=UTF8&qid=1389088571&sr=8-1&keywords=lankhorst)