



COURSE SYLLABUS

Enterprise Architecture and IT Architecture, 7.5 credits

Enterprise Architecture and IT Architecture, 7,5 högskolepoäng

Course Code:	JEAR27	Education Cycle:	Second-cycle level
Confirmed by:	Council for Undergraduate and Masters Education Nov 30, 2016	Disciplinary domain:	Technology
Valid From:	Jan 16, 2017	Subject group:	DT1
Version:	1	Specialised in:	A1N
Reg number:	IHH2016/4994-313	Main field of study:	Informatics

Intended Learning Outcomes (ILO)

After a successful course, the student shall be able to

Knowledge and understanding

1. describe enterprise architecture, information system architecture and technology architecture
2. explain and apply enterprise architecture management
3. “Identify and explain theories and research trends, relevant for enterprise architecture and IT architecture“

Skills and abilities

4. create a model of EA using modern standards and tools
5. create a high-level requirements specification and design description for an information system based on an EA model

Judgement and approach

6. analyze how EA and IT architecture can contribute to business and IT alignment

Contents

The course provides the knowledge and skills of applying a holistic and systemic perspective on enterprises and enterprise architecture (EA). In general, it will address EA in order to capture and structure relevant components for describing an enterprise, including its business and operation model, organizational structure, business processes, data, applications and technology - as well as the processes used for development of the EA as such. A number of architectural layers will be explained, e.g. the business architecture, the information architecture, the solution architecture, and the technology architecture. Enterprise Architecture Management (EAM) will be introduced as one of the key activities to keep the IT of an organization aligned with the business challenges and activities. Methods, standards and tools will be covered to construct and analyse conceptual enterprise models addressing various organizational design problems from different modelling perspectives. Examples of such perspectives are goals, processes, concepts, information, and enterprise information architecture. A connection will be established between IT architectures and services and cloud computing.

The topics covered in the course include:

- Enterprise architecture and enterprise architecture management
- Business and IT alignment
- Enterprise modelling, methods, languages and modelling processes
- EA standards such as TOGAF and ArchiMate
- Business model impact on enterprise architecture
- Design thinking for enterprise architectures
- Information system architecture and technology architecture
- IT architectures based on services and cloud computing
- EA as a tool to guide requirements specifications and design descriptions

Type of instruction

The teaching is conducted in English.

Prerequisites

The applicant must hold the minimum of a bachelor's degree (i.e the equivalent of 180 ECTS credits at an accredited university) with at least 60 ECTS credits in informatics, business administration, computer science, computer engineering, information engineering, or equivalent (or the equivalent).

Examination and grades

The course is graded A, B, C, D, E, FX or F.

The examination in this course consists of written assignments and a written exam.

ILOs 1 -6 are assessed through the written exam (40% 4.5 credits)

ILOs 4, 5, 6 are assessed through the assignments (60% 3 credits)

Registration of examination:

Name of the Test	Value	Grading
Written examination ¹	3 credits	A/B/C/D/E/FX/F
Assignments ¹	4.5 credits	A/B/C/D/E/FX/F

¹ Determines the final grade of the course, which is issued only when all course units have been passed.

Course evaluation

It is the responsibility of the examiner to ensure that each course is evaluated. At the outset of the course, evaluators must be identified (elected) among the students. The course evaluation is carried out continuously as well as at the end of the course. On the completion of the course the course evaluators and course examiner discuss the course evaluation and possible improvements. A summary report is created and archived. The reports are followed up by program directors and discussed in program groups and with relevant others (depending on issue e.g. Associate Dean of Education, Associate Dean of faculty, Director of PhD Candidates, Dean and Director of Studies). The next time the course runs, students should be informed of any measures taken to improve the course based on the previous course evaluation

Other information

Academic integrity

JIBS students are expected to maintain a strong academic integrity. This implies to behave within the boundaries of academic rules and expectations relating to all types of teaching and examination.

Copying someone else's work is a particularly serious offence and can lead to disciplinary action. When you copy someone else's work, you are plagiarizing. You must not copy sections of work (such as paragraphs, diagrams, tables and words) from any other person, including another student or any other author. Cutting and pasting is a clear example of plagiarism. There is a workshop and online resources to assist you in not plagiarizing called the Interactive Anti-Plagiarism Guide.

Other forms of breaking academic integrity include (but are not limited to) adding your name to a project you did not work on (or allowing someone to add their name), cheating on an examination, helping other students to cheat and submitting other students work as your own, and using non-allowed electronic equipment during an examination. All of these make you liable to disciplinary action.

Course literature

Modeling Enterprise Architecture With TOGAF by Philippe Desfray, Gilbert Raymond, Philippe Desfray, Morgan Kaufmann Publishers, 2014.

Additional literature will provide in the beginning of the course