University of St.Gallen

Course and Examination Fact Sheet: Spring Semester 2021

8,012: Methods: Managing Enterprise Architecture for Digital Transformation

ECTS credits: 3

Overview examination/s
(binding regulations see below)
Decentral - examination paper written at home (individual) (40%)
Examination time: term time
Decentral - Written examination (60%, 60 mins.)
Examination time: term time

Attached courses
Timetable -- Language -- Lecturer
8,012,1.00 Methods: Managing Enterprise Architecture for Digital Transformation -- Englisch -- Winter Robert , Haki Kazem

Course information

Course prerequisites

None.

This course is associated of the MBI profile «IT Management», but may (and probably should) be attended by students from other MBI profiles.

Learning objectives

- Students understand the fundamental problems of enterprise wide coordination in the context of information systems.
- Students know the conceptual principles, forms of implementation, benefits and challenges of architectural coordination.
- Students can analyze the coordinative challenges in practical application cases, assess possible solutions and make informed recommendations in the context of architectural coordination.

Course content

Generally, IT-supported business solutions are developed according to the specific requirements of an organization's units and thereby focus, for example, on specific function(s), product group(s), market(s), or geography/ies. Following the latter approach for a long period of time results in significant redundancies and / or inconsistencies, which in turn endanger the efficiency of the business processes and their underlying IT applications as well as their flexibility in dealing with ever-changing environmental conditions. In addressing this challenge, several approaches are brought to the fore such as IT architecture that only considers the IT components, business architecture that only concerns the business components, or data architecture that only interest in the data aspect. To account for a multi-aspect and comprehensive perspective, Enterprise Architecture Management (EAM) has been established as a management subdiscipline that covers the entirety of an organization's IT-supported business solutions (from all units of an organization) over their entire life cycle. EAM aims to systematically control the complexity of the whole system (i.e., the entirety of an organization's IT-supported business solutions), to eliminate inconsistencies among the system's individual constituents and to leverage synergies among them. In addition, EAM puts business innovation initiatives into a holistic perspective and integrates them appropriately into the system as a whole. In particular, for large-scale innovation or transformation initiatives such as Digital Transformation, EAM is of utmost importance to ensure that digital transformation activities are systematically executed, dependencies are considered and "the whole is more than the sum of its parts".

The course is closely informed by recent research discourses as well as by current case examples from practice.

Course structure

- EAM basic concepts and necessity
- EAM benefits and use
- Architecture complexity, transparency and simplification EAM processes, principles, planning and control
- EAM implementation: architecture models and meta models
- EAM's tools for architecture modeling and analysis
- EAM evolution: EAM maturity, current EAM developments in research and practice

Course literature

The presentations of the HSG lecturers and the guest lecturers will be made available; They are the most important basis for exam preparation.
In additions, we provide supplementary materials (articles, book chapters, white papers, etc.) for each lecture.

For the individual paper, specific materials will be provided.

Additional course information

In the case of Covid-related restrictions on physical meetings or on lecturer/guest availability, all the scheduled lectures will be made available online and offline (recorded) via StudyNet. In such conditions, all exam components will be conducted remotely.

Examination information

Examination sub part/s

1. Examination sub part (1/2)

Examination time and form
Decentral - examination paper written at home (individual) (40%)
Examination time: term time

Remark
Paper will have to be submitted after the break

Examination-aid rule
Term papers

Term papers must be written without anyone else's help and in accordance with the known quotation standards, and they must contain a declaration of authorship which is a published template in StudentWeb.

The documentation of sources (quotations, bibliography) has to be done throughout and consistently in accordance with the chosen citation standard such as APA or MLA.

For papers in law, the legal standard is recommended (by way of example, cf. FORSTMOSER, P., OGOREK R. et SCHINDLER B., Juristisches Arbeiten: Eine Anleitung für Studierende, newest edition respectively, or according to the recommendations of the Law School).

The indications of the sources of information taken over verbatim or in paraphrase (quotations) must be integrated into texts in accordance with the precepts of the applicable quotation standard, while informative and bibliographical notes must be added as footnotes (recommendations and standards can be found, for example, in METZGER, C., Lern- und Arbeitsstrategien, newest edition respectively.

For any work written at the HSG, the indication of the page numbers is mandatory independent of the chosen citation standard. Where there are no page numbers in sources, precise references must be provided in a different way: titles of chapters or sections, section numbers, acts, scenes, verses, etc.

Supplementary aids
Open Book

Examination languages
Question language: English

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Answer language: English

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2. Examination sub part (2/2)

Examination time and form
Decentral - Written examination (60%, 60 mins.)
Examination time: term time

Remark
Exam in the last session of course

Examination-aid rule
Open Book
Students are free to choose aids but will have to comply with the following restrictions:

- All the pocket calculators that are not of the Texas Instruments TI-30 series are explicitly inadmissible.
- In addition, any type of communication, as well as any electronic devices that can be programmed and are capable of communication such as electronic dictionaries, notebooks, tablets, mobile telephones and others, are inadmissible.
- Students are themselves responsible for the procurement of examination aids.

Supplementary aids
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Examination languages
Question language: English
Answer language: English

Examination content

In their term paper, students examine to what extent and in what respect a certain architecture management approach covers the practical cases and concepts presented in the course and which additions would be useful. The term paper has to be written in the first half of the semester and submitted after the semester break.

Examination relevant literature

Will be published together with the assignment. Furthermore, the slide sets and the supplementary articles that are made available on StudyNet are relevant for exam.

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Please note

Please note that only this fact sheet and the examination schedule published at the time of bidding are is binding and takes precedence over other information, such as information on StudyNet (Canvas), on lecturers' websites and information in lectures etc.

Any references and links to third-party content within the fact sheet are only of a supplementary, informative nature and lie outside the area of responsibility of the University of St.Gallen.

Documents and materials are only relevant for central examinations if they are available by the end of the lecture period (CW21) at the latest. In the case of centrally organised mid-term examinations, the documents and materials up to CW 12 are relevant for testing.

Binding nature of the fact sheets:

- Course information as well as examination date (organised centrally/decentrally) and form of examination: from bidding start in CW 04 (Thursday, 28 January 2021);
- Examination information (regulations on aids, examination contents, examination literature) for decentralised examinations: in CW 12 (Monday, 22 March 2021);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 12 (Monday, 22 March 2021);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the registration period in CW 14 (Thursday, 8 April 2021).