Semester description: 9th semester
Information Architecture, Aalborg

About the semester

School: Skolen for Communication, Art and Technology (CAT)
Study Board: Communication and Digital Media
Study   Regulations and curriculum for the Master's Programme in Information Architecture
regulation: september 2015:
                   http://www.fak.hum.aau.dk/digitalAssets/107/107898_ma_informationsarchitecture_2015_hum_aau.dk.pdf

Semester framework theme

The theme of the module is the practical reality of the information architects practice. The main component of the module is three cases work, or an internship in a company, where students work together or individual to solve real life cases, the aim is for students to develop practical and theoretical knowledge that will allow them to understand concrete work realities in the future.

The second most relevant aspect of this semester is a methodological course that will help the students to start their process of the master thesis.

Semester organisation and time schedule

The semester is composed

The 9th semester of the programme comprises a project module of 20 ECTS credits in "Information Architecture in Practice", a 5 ECTS credits study subject module "Research Methodology", and a 5 ECTS credits elective module (students may choose electives offered by the Study Board).

The semester is organized in a way that the student can build new knowledge based on the knowledge and experience from the last two semesters. The semester is based on active learning and learning by doing principles.

Semester coordinator and secretariat assistance

Module coordinator: Heilyn Camacho: hcamacho@hum.aau.dk
Secretary: Pia KnudsenT: (+45) 9940 7266 | Email: piak@hum.aau.dk

Information Architecture in Practice

Location
9th semester
Study board for Communication and Digital Media

Module coordinator:
Heilyn Camacho (hcamacho@hum.aau.dk)

Type
internship, Work experience, project module, course work, online activities

Language
English

Objectives
The module focuses on training the student's competence in user-driven design of content and structure in all kinds of information systems, irrespective of media, with a special focus on combining different cultural codes and media modalities. The student successively completes three design sequences of three to four weeks, followed by one week for reflection. In each reflection period a reflection report is produced. The design sequences are initiated by assignments set by external partners, who are subsequently presented with the results of the student's work. Their feedback supplements the academic supervision. In each design sequence the student must exploit the theoretical knowledge attained in the module Information Architecture, Rhetoric, and Persuasive Design. The module is evaluated through an individual oral test, which takes the three reflection reports as its point of departure.

The practice oriented project can be undertaken at a company or organisation. Alternatively, it can be carried out in relation to a research project at Aalborg University within Information Architecture and Persuasive Design.

Objectives:

In this module students will acquire:

Knowledge of:
- theory and methods of Information Architecture in practice with particular emphasis on the interface of theory and methods on the one hand and the cultural, organisational and/or technological complexity of the application area on the other hand
- the actual work situation towards which the programme is directed
- communication and collaboration practices within the field of informatics
- competence requirements of the discipline in work contexts.

Skills in:
- working in practice on the basis of informatics, including applying strategies and methods for user analysis, pilot studies, system development and system design
- assessing issues and solutions within the field of informatics in practice, on the basis of theories and methods for user analysis, pilot studies, system development or system design
- communicating knowledge within informatics to peers and laypeople
- managing themselves in work contexts with a view to identifying issues pertaining to skills and competences.

Competences in:
- taking an analytical, reflective and critical approach to the preconditions for user analysis, pilot studies, system development or system design in practice
- taking an analytical, reflective and critical approach to user analysis, pilot studies, system development or system design in practice
- engaging in disciplinary and interdisciplinary collaboration on user analysis, pilot studies, system development or system design in practice, with a professional approach

- identifying own learning needs and structuring own learning in relation to the subject area of user analysis, pilot studies, system development or system design in practice.

Academic content and basis

The module focuses on theoretical and methodological design, implementation, and/or evaluation of ICT system in practice with a particular focus on the organization that the student do their internships in. Through the module lectures and project advising will have focus on student design, implementation and/or evaluation of it product for specific organizational context based on theories and methods from the entire program.

Scope and expectations

The scope of this module is 20 ECTS – this includes practice oriented work placement and the production of a project report.

Module activities (course sessions etc.)

The main activities of the module are: cases, action learning sessions, lectures and online forums.

The cases

The module is organized around 3 cases; each case is focused on developing specific aspect of the practice of Information Architecture.

1. **Web information architecture**: this cases is focus on web design taking in consideration the organizational context. In this design the students must make an effort to link the design proposal with the organizational goals to achieve an information technology alignment.
2. **The design of an intranet**: The second case focus on the evaluation and redesign of an intranet.
3. **Evaluation – App**: the last case focus on evaluation of a product of information architecture. Students will evaluate the first draft of a mobile data collection tool for occupational therapists

The action learning sessions

This module demands that students reflect on the cases that they develop as well on the general practice of information architecture, action learning has been chosen as a method to facilitate reflection on action and reflection in action. An action learning session will be hold when the students are working on each case (reflection in action) and one at the end of each case (reflection on action). In total 6 action learning sessions will be hold during the module. Each session has duration of 2 hours. Those sessions would demand a higher level of critical thinking, students should reflect critical on theory and practice, the problems faced during the design, why did they faced that problems? and what did they learn for face similar challenges in the future?, among other things.

The online forums

The students would be divided in sub-groups of 2-3 members. Each group select a short article/news/topic about the current practice of information architecture, which should be posted in online forum. It could be new technologies, tools, trends and so on. Each group will be the moderator of a forum for one week on the topic that they have decided. The group will introduce the topic and ask some question to start the discussion. It is expected that the rest of the class will participate in the discussion. The aim is that the students can develop their discussion skills, also be able to develop sound arguments of different perspectives and points of view, furthermore, that they would get more engage with the current IA practice and communities.

The lectures

Students will have 5 lectures which are related to the cases:
The **first lecture** is about being reflective practitioner, this lecture aims to establish the theoretical base for the whole semester and introduce the students to the kind of reflection expected when working with each case. The **second lecture** is about the alignment of IT and business strategy. The **third lecture** will take the students through the analysis of different methods used in a design case and its arguments for the choice. The **fourth lecture** is about objective and design of an intranet within an organizational context. The **last lecture** is a combination of lecture and workshop. The students will be introduced to different examples of technology evaluation within the heath sector; the students should analyse each case and come up with the advantages and disadvantage for each example, furthermore, they should use the theory from 7th semester to identify the weakness of the application of the method and reflect about the best approach for their own case.

Literature

The literature has been divided in three types: literature to support the reflection and learning process of the students, literature that apply for all the three cases and specific literature for each case. Finally, because the nature of this model, there are several links with practical tools and blogs of IA experts.

1. Basic literature for the dynamic and overall aim of the module

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Revans, R. (1998). ABC of Action Learning (Review edited of 1983 edition ed.). London: Lemons & Crane.	155		
Schön, D. (1983). *The Reflective Practitioner : How professionals think in action* (New ed.). Aldershot: Arena. Chapter 2: From Technical Rationality to Reflection in Action	48		
Schön, D. (1983). *The Reflective Practitioner : How professionals think in action* (New ed.). Aldershot: Arena. Chapter 5The Structure of Reflection-in-Action.	39		

2. Literature for the overall module (covering the 3 cases)

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Hinton, A. (2014). *Understanding context: Environment, language, and information architecture.* O'Reilly Media	464		
Martin, Dmitriev, & Akeroyd. (2010). A resurgence of interest in Information Architecture. *International Journal of Information Management, 30*(1), 6-12.	7		
Rosenfeld, L., & Morville, Peter ; Arango, Jorge ; Morville, Peter. (2015). *Information architecture for the World Wide Web* (Fourth edition / Louis Rosenfeld, Peter Morville, Jorge Arango.. ed.).		400	
Preece, J., Sharp, Helen, & Rogers, Yvonne. (2015). *Interaction design : Beyond human-computer interaction* (4.th ed.). Hoboken NJ: John Wiley & Sons.		800	
Fleischmann, K. (2013). Information and Human Values. Synthesis Lectures on Information Concepts, Retrieval, and Services, November 2013, Vol. 5, No. 5 , Pages 1-99	99		
Yanki Lee (2008) Design participation tactics: the challenges and new roles for designers in the co-design process, CoDesign, 4:1, 31-50,	21		
Elizabeth B.-N. Sanders & Pieter Jan Stappers (2014) Probes, toolkits and prototypes: three approaches to making in codesigning, CoDesign, 10:1, 5-14.	11		

3. Literature for case 1: Web information architecture

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Sungin Lee Wonhong Jang Eunsol Lee Sam G. Oh , (2016),"Search engine optimization", Library Hi Tech, Vol. 34 Iss 2 pp. 197 - 206[SEP]	12		

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Lykke, M. (2009). Persuasive design strategies: means to improve the use of information organisation and search features in web site information architechture? ASIST Special Interest Group on Classification Research 20th Workshop. Vancouver.	10	
Cataldo, A., McQueen, R. and Hardings J (2012) Comparing Strategic IT Alignment versus Process IT Alignment in SMEs. Journal of Research and Practice in Information Technology, Vol. 44	15	
Carvalho, G. and Sousa, P. (2008). Business and Information Systems MisAligment Model (BISMAM): a holistic model leveraged on misalignment and Medical sciences approaches. Proceedings of the Third International Workshop on Business/IT Alignment and Interoperability (BUSITAL'08). France, June 16-17, 2008	16	
Zoltowski, C., Oakes, W., & Cardella, M. (2012). Students' Ways of Experiencing Human-Centered Design. *Journal of Engineering Education, 101*(1), 28-59.	31	
Steen, M. (2011). Tensions in human-centred design. *CoDesign, 7*(1), 45-60.	15	
Pruitt, J., & Adlin, T. (2006). Phase 2: Conception & gestation (Creating personas). In Pruitt, J., & Adlin, T. (Eds.), The persona lifecycle : Keeping people in mind throughout product design (pp. 162-272). Amsterdam: Elsevier.	100	
Maguire, M. (2001). Methods to support human-centred design. International journal of human-computer studies, 55(4), 587-634.	48	
Liem, A., & Sanders, E. B. N. (2013). Human-centred design workshops in collaborative strategic design projects: An educational and professional comparison. Design and Technology Education: an International Journal, 18(1).	18	
Bonnemaire, G., & Liem, A. (2011). The semantic debate in design theories applied to product identity creation. In DS 68- 2: Proceedings of the 18th International Conference on Engineering Design (ICED 11), Impacting Society through Engineering Design, Vol. 2: Design Theory and Research Methodology, Lyngby/Copenhagen, Denmark, 15.-19.08. 2011.	12	

4. Literature case 2: The practice of IA + Intranets

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Patrick Lo Allan Cho Man-hon Leung Dickson K.W. Chiu Eddie H.T. Ko Kevin K.W. Ho , (2016),"Use of smartphones by art and design students for accessing library services and learning", Library Hi Tech, Vol. 34 Iss 2 pp. 224 - 238	17		
Ding, W. & Lin, X. (2010). *Information Architecture: The Design and Integration of Information spaces.* San Rafael, Calif.: Morgan & Claypool Publishers. U.S. Ch 4 and 9		50	
Falaki, H. et al. (2010). Diversity in smartphone usage. *Proceedings of the 8th international conference on Mobile systems, applications, and services (Mobisys ´10).* New York: ACM. Pp. 179-194.		15	
Hoober, S. & Berkman, E. ((2011). *Designing Mobile Interfaces.* Sebastopol: O' Reilly. Ch. 1-2		96	
Nielsen, J. & Budiu, R. (2013). *Mobile Usability.* Berkeley: New Riders. Ch. 2-5		168	
Tossell, C. et al. (2012). Characterizing web use on		10	

smartphones. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '12)*. New York: ACM. Pp. 2769-2778.		
Ding, W. & Lin, X. (2009). Information Architecture: The Design and Integration of Information Spaces. Synthesis Lectures on Information Concepts, Retrieval, and Services. Gary Marchionini (Ed).	21	
Lalmas, M., O'Brien, H and Yom-Tov, E. (2014). Measuring user Engagement. Synthesis Lectures on Information Concepts, Retrieval, and Services, 2009. pp 81-102.	27	

5. Literature for case 3: Evaluation and Apps development

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Burfird, S. 2014. A Grounded Theory of the Practice of Web Information Architecture in Large Organization. Journal of the Association for Information Science and Technology. Vol. 65 (10). Page 2017-2034.	18		
Hinton, Andrew (2014). What we Make when we make information architecture. Page 103-117. In Resmini, A., & SpringerLink. (2014). *Reframing Information Architecture*. Human-Computer Interaction Series. Cham: Springer International Publishing.		15	
Burford, S., Given, L. and Hider, P. (2015). Fragmented Practice: Creating and Maintaining Information – Rich Websites in SMEs. Libres, Vol. 25, issue 1.		15	
itzpatrick, G., & Ellingsen, G. (2012). A Review of 25 Years of CSCW Research in Healthcare: Contributions, Challenges and Future Agendas. *Computer Supported Cooperative Work (CSCW)*, *22*(4–6), 609–665.	54		
Mirkovic, J., Kaufman, D. R., & Ruland, C. M. (2014). Supporting Cancer Patients in Illness Management: Usability Evaluation of a Mobile App. *JMIR mHealth and uHealth*, *2*(3), e33.	33		
Wac, K., Ickin, S., Hong, J.-H., Janowski, L., Fiedler, M., & Dey, A. K. (2011). Studying the Experience of Mobile Applications Used in Different Contexts of Daily Life. In *Proceedings of the First ACM SIGCOMM Workshop on Measurements Up the Stack* (pp. 7–12). New York: ACM	5		

Practical tools:
Prototype tools:
- http://usabilitygeek.com/6-prototyping-tools-ux-designer/

Design, user analysis and usability tools:
- http://www.servicedesigntools.org/
- http://tools.subtraction.com/
- http://www.creativeblog.com/web-design/10-web-design-tools-you-cant-live-without-51514957

Usability blog:
- http://usabilitygeek.com/

Trends
- http://s18512.p253.sites.pressdns.com/

Relevant blogs from Information architect experts

- Jorge Arango: https://jarango.com/
- Andrew Hinton: http://andrewhinton.com/
- Peter Morville http://semanticstudios.com/about/

- Institute of Information Architecture: http://www.iainstitute.org/

Intranet Information Architecture
- https://www.nngroup.com/articles/intranet-information-architecture-ia/ (special attention to the Intranet Information Architecture Design Methods and Case Studies report)
- https://axerosolutions.com/blogs/timeisenhauer/pulse/290/the-why-s-and-how-s-of-intranet-information-architecture
- https://www.nngroup.com/articles/intranet-design/
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Examination (Examination 4)

An internal oral examination in: "Information Architecture in Practice".

In the examination the students present their proposals for designs, taking point of departure in the three reflection reports prepared in the module. The examination is a conversation between the student(s) and the examiner and internal examiner based on a project report produced individually or in a group. To attend a group exam, all three cases must be solved as a group. All three cases must be covered in the project report. The project report/written work will be considered the shared responsibility of the group. Students will be examined and assessed on the basis of the entire project report, and one combined grade will be awarded each student for the project report and the oral performance.
The project report: total number of pages must be no less than 15 pages and no more than 20 pages per student in a project group, and 30 pages if written individually.
Duration of examination: 20 minutes per student and 10 minutes per group for assessment and announcement of result, although no longer than a total of two hours. 30 minutes in total for individual examinations.

Literature foundation: 2500 standard pages supervisor approved, self-selected literature related to the project. In case a large or several smaller products that the students have made or provided significant contributions to in the course of the internship is handed in along with the project, literature foundation is reduced by 50 % - i.e. to 1250 pages. **Because the modality of the course the literature foundation is of 1200 standard pages**.

Evaluation: Grading according to the 7-point scale.
At oral group examinations, the examination must be conducted in such a way that individual assessment of each individual student's performance is ensured.

Credits: 20 ECTS

The project report and the conversation must demonstrate that the student fulfils the objectives for the module stated above.

In the evaluation of the examination performance, the grade 12 will only be awarded to students who give an excellent performance and demonstrate that they have fulfilled the above objectives exhaustively or with only few insignificant omissions.

Any re-examinations will be held on the basis of the revised project report.

The module "Research Methodology"
5 ECTS

Location
9. Semester Information Architechture
Communication and Digital Media

Module coordinator

Type and language
Study subject module
Language: English

Objectives
In this module students will acquire:

Knowledge of:
- disciplinary paradigms and scientific methods
- the correlation between theory of science, scientific methods and choice of theory in scientific research studies.

Skills in:
- structuring subject specific research studies and research projects, including choice of research object, method and theory
- assessing the consequences of various methodological and theoretical approaches to subject specific studies and research projects.

Competences in:
- structuring subject specific studies and research projects in specific contexts in practice
- working independently and engaging in professional collaboration as regards the structuring of subject specific studies and research projects, with a professional approach.

Academic content and basis
To be completed soon

Examination (Examination 5):
An internal written examination in **"Research Methodology"**

The examination is a take-home assignment in which the student/s will explain the design of a large subject specific study within the disciplinary area of the programme, on the basis of the module, however the actual study will not be carried out. The student/s will choose the topic, and the submission deadline will be set by the Study Board.
The written assignment may be prepared in groups of up to three students. If the written assignment is prepared in a group, it must be stated which student is responsible for which part of the work. The written performance will be assessed, that is, each student will be assessed on the basis of the specific paragraphs written by that student. The written assignment paper must not exceed eight pages if written individually, ten pages if written in groups of two, and twelve pages if written in groups of three students.
Literature foundation: 500 standard pages supervisor approved, self-selected literature related to the project.

Evaluation: pass/fail
In the evaluation of the examination performance, the assessment of 'pass' will be awarded to students who demonstrate that they have fulfilled the above objectives to a satisfactory extent.
The assignment paper will be evaluated by the examiner; in case of a fail grade, the assignment paper will also be evaluated by another internal examiner.
The study elements on which the examination is based is equivalent to 5 ECTS.