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UNIVERSITÄT BERN

Vizerektorat Lehre, iLUB, Hochschulstrasse 6, 3012 Bern

Persönlich/Vertraulich Prof. Dr. Oscar Nierstrasz Institut für Informatik und angewandte Mathematik Neubrückstr. 10 3012 Bern

Vizerektorat Lehre Lehrveranstaltungsevaluation

Report of evaluation: HS18 Software Modeling and Analysis (422739)

Dear Mr./Mrs. Prof. Dr. Nierstrasz

Please find here the results of the evaluation of your course "Software Modeling and Analysis". Following the scanning of the questionnaires, this report was automatically generated and mailed to you.

The questionnaire used was appropriate to the course type Vorlesung. In the report, you first see the mean values of the most important dimensions:

- Conveying the course content

- Course materials to assist Learning
- Commitment of the lecturer
- Complexity and Scope
- Assessment of Individual Lectures

In the second part of the report, you see the answers to all the questions. The number of answers, the mean value and the values differing from it are also given.

Grade 1 on the left hand side equals the lowest grade given by the students, grade 5 or more on the right hand side the highest grade. In 'complexity and scope' grade 3 corresponds to 'exactly right' and is therefore the best grade. In the overall assessment of the course, grade 6 means the best result.

The free comments at the end of the questionnaire are only read by the lecturer him/herself and won't be evaluated statistically. Please don't pay much attention to negative statements of single persons. You are to look closely in case of frequent occurrence of similar comments.

Please briefly discuss the results with your students before the end of the semester. You will find a presentation template on the last pages of the report. By giving serious consideration to the feedback of the students, you can contribute to higher future response rate.

In case you wish to learn more about how to improve your teaching, you might want to discuss the results with the staff of the 'Hochschuldidaktik' (mail address: hd@zuw.unibe.ch). Please bring a copy of the report with you, since the staff of Hochschuldidaktik do not have access to evaluation results.

You might find guidelines, regulations, and information about the process under www.lehrveranstaltungsevaluation.unibe.ch (documents in German).

Should you need more information, you may also contact us by e-mail.

Yours sincerely

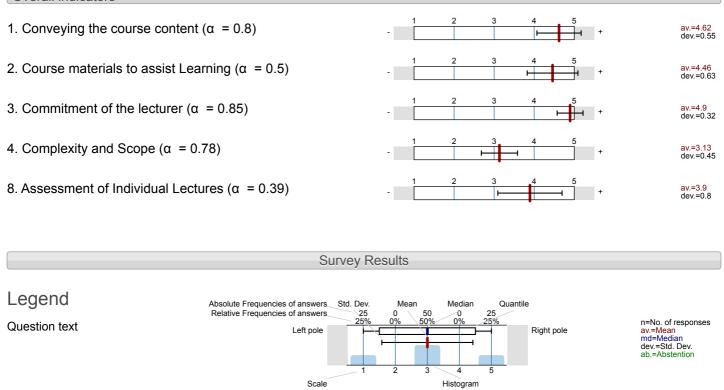
D. Wuillemin Evaluation office Vice-rectorate of teaching

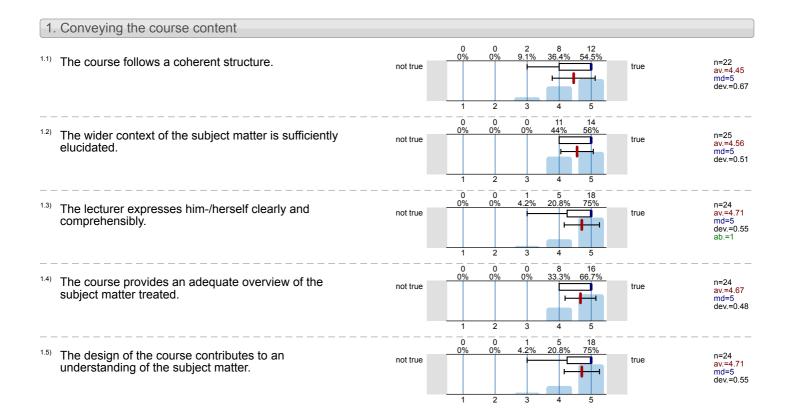
> Daniela Wuillemin Supportstelle für ICT-gestützte Lehre und Forschung (iLUB) Hochschulstrasse 6, 3012 Bern

Tel. +41 31 631 51 07 lehrevaluation@ilub.unibe.ch www.lehrveranstaltungsevaluation.unibe.ch

Prof. Dr. Oscar Nierstrasz HS18 Software Modeling and Analysis (422739) No. of responses = 25



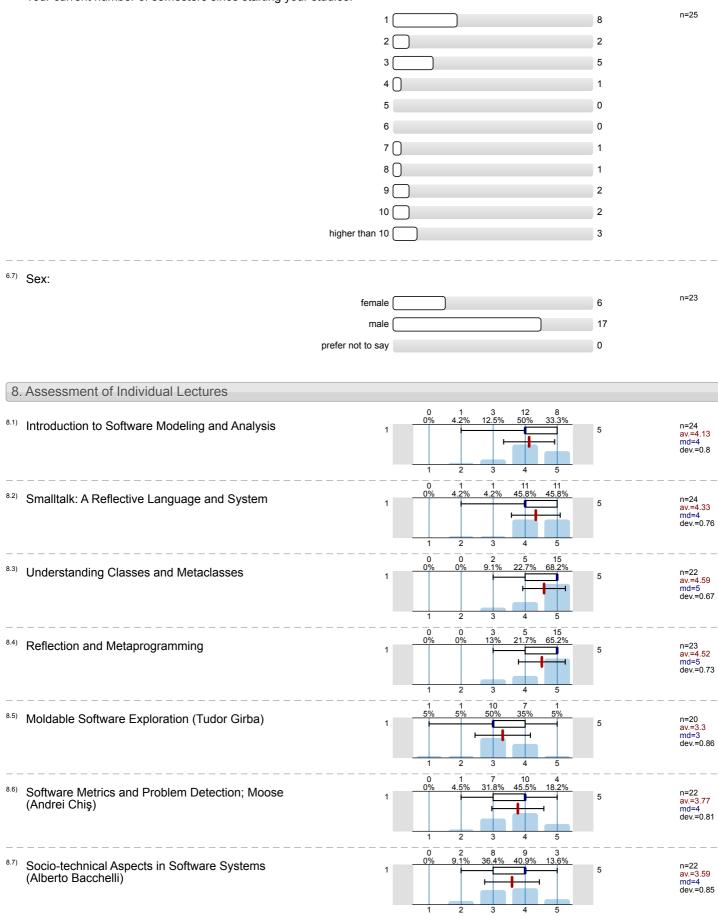


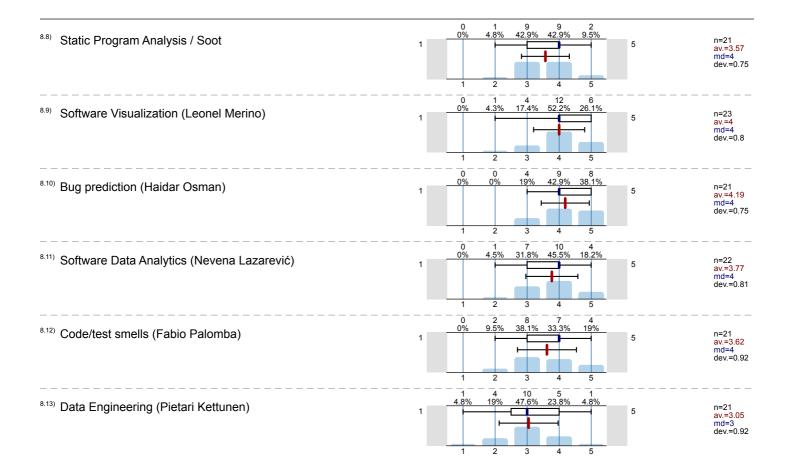


2. Course materials to assist Learning			
		0 0 1 8 16	
^{2.1)} There is overall enough material provided to assist the learning process (slides, coursematerial, hand-outs, etc.).	not true	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	n=25 av.=4.6 md=5 dev.=0.58
 ^{2.2)} The course materials (slides, course manuals,hand- outs, etc.) are overall of sufficient quality. 	not true		n=25 av.=4.32 md=4 dev.=0.69
3. Commitment of the lecturer			
^{3.1)} The lecturer takes students seriously.	not true	0 0 1 2 21 0% 0% 4.2% 8.3% 87.5% 1 2 3 4 5	n=24 av.=4.83 md=5 dev.=0.48 ab.=1
 ^{3.2)} The lecturer is friendly and respectful towards students. 	not true	0 0 0 1 23 0% 0% 0% 4.2% 95.8% true	n=24 av.=4.96 md=5 dev.=0.2 ab.=1
 ^{3.3)} The lecturer addresses questions and suggestions from students adequately. 	not true	1 2 3 4 5 0 0 0 2 23 0% 0% 0% 8% 92% true	n=25 av.=4.92 md=5 dev.=0.28
^{3.4)} The lecturer seems to care about his/her students' learning progress.	not true	1 2 3 4 5 0 0 0 3 22 0% 0% 0% 12% 88% 1 2 3 4 5	n=25 av.=4.88 md=5 dev.=0.33
4. Complexity and Scope			
^{4.1)} The degree of difficulty of the course is:	too low/narrow	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	n=25 av.=3.2 md=3 dev.=0.58
^{4.2)} The amount of content of the course is:	too low/narrow	0 1 16 6 1 0% 4.2% 66.7% 25% 4.2% too high / wide	n=24 av.=3.29 md=3 dev.=0.62
^{4.3)} The pace of the course is:	too low/narrow	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	n=25 av.=3.08 md=3 dev.=0.4
 ^{4.4)} The amount of knowledge presupposed by the course is: 	too low/narrow	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	n=24 av.=2.96 md=3 dev.=0.2
5. Overall Assessment		ı 2 3 4 3	
		0 0 0 19 5	
^{5.1)} How would you grade the course as a whole?	1=poor	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	n=24 av.=5.21 md=5 dev.=0.41

 How would you grade the lecturer with regard to the course has taught me: The course has taught me:	5.2)	How would you grade the lecturer with regard to subject expertise?	1=poor	0%	0 0%	0%	0 0% 4	3 21 12.5% 87.59 5 6	<u>%</u>	6=excellent	n=24 av.=5.88 md=6 dev.=0.34
Intercourse has ladging time. very life image: provide the second of the course of the	5.3)	How would you grade the lecturer with regard to teaching methods?	1=poor			0%	4.2%			6=excellent	av.=5.71 md=6
e.11 How many hours per week did you invest in preparation and revision for the course (on average)? 0* 0 m-24 0* 0 0 1 2 1 2 1 2 1 2 1 2 1 2 1 2 10	5.4)	The course has taught me:	very little		0%	-	F	╉╾┥		an awful lot	av.=4.08 md=4
0h 0 n=24 less than 2h 1 2 to 4h 15 4 to 6h 8 more than 6h 0 *** Was the topic of interest to you? n=25 slightly 2 quite a lot 11 *** Now many lectures did you miss? none none 8 n=25 1 · 2 12 12 *** 10 12 *** 10 12 *** 10 12 *** 10 12 *** 12 12 *** 10 12 *** 10 12 *** 10 12 *** 10 12 *** 10 12 *** 11 12 *** 11 12 *** 11 12 *** 11 12 *** 12 12 *** 12 12 *** 12<	6.	Socio-demographic Data and Background Variables									
0h 0 n=24 less than 2h 1 2 to 4h 15 4 to 6h 8 more than 6h 0 *** Was the topic of interest to you? n=25 slightly 2 quite a lot 11 *** Now many lectures did you miss? none none 8 n=25 1 · 2 12 12 *** 10 12 *** 10 12 *** 10 12 *** 10 12 *** 12 12 *** 10 12 *** 10 12 *** 10 12 *** 10 12 *** 10 12 *** 11 12 *** 11 12 *** 11 12 *** 11 12 *** 12 12 *** 12 12 *** 12<	6.1)	How many hours per week did you invest in proparation and ro	vicion f	or the or		(00.0	voroc	no)2			
Iess than 2h 1 2 to 4h 15 4 to 0h 8 more than 6h 0 62) Was the topic of interest to you? not at atl 0 aightly 2 12 guite a tot 11 12 6-3) How many lectures did you miss? none 8 n=25 1 - 2 12 12 12 avis the topic of interest in you miss? none 8 n=26 1 - 2 12 12 12 avis the topic of interest in you miss? 1 1 1 6-4) How many lectures did you miss? none 8 n=26 1 - 2 12 12 1 1 6-4) How missed more than 2 lectures, please give one reason: 1 1 1 6-4) If you missed more than 2 lectures, please give one reason: 1 1 1 6-5 1 1 1 1 6-6 1 1 1 1 6-7 1 1 1 1		now many nours per week did you invest in preparation and re			Juise	(on a	veraç	je):		0	n=24
2 to 4h 15 4 to 8h 8 more than 6h 0 8.3 Was the topic of interest to you? not at all 0 slightly 2 fairly 12 quite a lot 11 8.4 Interest 1 - 2 12 3 - 4 2 more than 4 3 8.4 If you missed more than 2 lectures, please give one reason: interest 0 n=64 If you missed more than 2 lectures, please give one reason: interest 0 n=64 other reasons 1 64 Allocation of the course in your study programme: more subject/ Major/Haupftach 23 n=74		less t		٦							
4 to 6h 6 more than 6h 0 62) Was the topic of interest to you? not at all 0 n=25 slightly 2 fairly 12 quite a lot 11 11 6.3) How many lectures did you miss? none 6 1 6.3) How many lectures did you miss? none 6 1 6.4) How many lectures, please give one than 4 12 12 12 3.4 2 12 12 12 6.4) If you missed more than 2 lectures, please give one reason: 1 1 1 6.4) If you missed more than 2 lectures, please give one reason: 1 1 1 6.4) If you missed more than 2 lectures, please give one reason: 1 1 1 6.4) If you missed more than 2 lectures, please give one reasons 1 1 1 6.5) Allocation of the course in your study programme: 1 1 1)							
nore than 6h 0 e.2) Was the topic of interest to you? not at all			_								
not at all 0 n ^{m25} slightly 2 fairy 12 quite a lot 11 63) How many lectures did you miss? none none 8 1-2 12 3-4 2 more than 4 3 64) If you missed more than 2 lectures, please give <u>one</u> reason: n ^{m6} course overlap 1 course overlap 1 other reasons 4					_					0	
not at all 0 n ^{m25} slightly 2 fairy 12 quite a lot 11 63) How many lectures did you miss? none none 8 1-2 12 3-4 2 more than 4 3 64) If you missed more than 2 lectures, please give <u>one</u> reason: n ^{m6} course overlap 1 course overlap 1 other reasons 4											
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quite a lot 11 6.3) How many lectures did you miss? none none 8 1 - 2 12 3 - 4 2 more than 4 3 6.4) If you missed more than 2 lectures, please give one reason: Iack of interest course overlap 1 course manual / required reading suffices for exam preparation 0 illness etc. 1 other reasons 4			slightly							2	
8.3) How many lectures did you miss? none 8 1-2 12 3-4 2 more than 4 3 8.4) If you missed more than 2 lectures, please give one reason: Iack of interest 0 n=6 course manual / required reading suffices for exam preparation 0 iiiness etc. 1 0 iiiness etc. 1 1 other reasons 4 8.5) Allocation of the course in your study programme: mono subject/ Major/Hauptfach 23 n=24 minor subject/ Nebenfach 1 1 1			fairly (12	
none 8 n=25 1 - 2 12 3 - 4 2 more than 4 3		qui	ite a lot							11	
none 8 n=25 1 - 2 12 3 - 4 2 more than 4 3											
 6.4) If you missed more than 2 lectures, please give one reason: 6.4) If you missed more than 2 lectures, please give one reason: 6.4) If you missed more than 2 lectures, please give one reason: 6.5) Allocation of the course in your study programme: 6.5) Allocation of the course in your study programme: 	6.3)	How many lectures did you miss?									
3 - 4 2 more than 4 3 ^{6.4}) If you missed more than 2 lectures, please give <u>one</u> reason: 0 lack of interest 0 course overlap 1 course manual / required reading suffices for exam preparation 0 illness etc. 1 other reasons 4			none 🤇							8	n=25
6.4) If you missed more than 2 lectures, please give <u>one</u> reason: 6.4) If you missed more than 2 lectures, please give <u>one</u> reason: lack of interest 0 course overlap 1 course manual / required reading suffices for exam preparation 0 illness etc. 1 other reasons 4			1 - 2 🗌							12	
6.4) If you missed more than 2 lectures, please give one reason: lack of interest 0 course overlap 1 course manual / required reading suffices for exam preparation 0 illness etc. 1 other reasons 4 6.5) Allocation of the course in your study programme: mono subject/ Major/Hauptfach 23 n=24 1			3 - 4 🤇							2	
lack of interest 0 n=6 course overlap 1 course manual / required reading suffices for exam preparation 0 illness etc. 1 other reasons 4		more	than 4							3	
lack of interest 0 n=6 course overlap 1 course manual / required reading suffices for exam preparation 0 illness etc. 1 other reasons 4											
6.5) Allocation of the course in your study programme: mono subject/ Major/Hauptfach 23 ^n=24	6.4)	If you missed more than 2 lectures, please give one reason:									
 course manual / required reading suffices for exam preparation illness etc. other reasons 4 6.5) Allocation of the course in your study programme: minor subject/ Major/Hauptfach 23 n=24 1 1 1		lack of i	nterest							0	n=6
6.5) Allocation of the course in your study programme: mono subject/ Major/Hauptfach 23 ⁿ⁼²⁴ minor subject/ Nebenfach 1		course	overlap (1	
other reasons 4 6.5) Allocation of the course in your study programme:		course manual / required reading suffices for exam prep	aration							0	
6.5) Allocation of the course in your study programme: mono subject/ Major/Hauptfach 23 n=24 minor subject/ Nebenfach 1		illne	ess etc.							1	
mono subject/ Major/Hauptfach 23 n=24 minor subject/ Nebenfach 1		other r	easons ()		4	
mono subject/ Major/Hauptfach 23 n=24 minor subject/ Nebenfach 1											
minor subject/ Nebenfach 1	6.5)	Allocation of the course in your study programme:									
		mono subject/ Major/Hau	uptfach							23	n=24
other 0		minor subject/ Neb	enfach)						1	
			other							0	

^{6.6)} Your current number of semesters since starting your studies:





Profile

Subunit:

Phil.-nat. Fakultät Prof. Dr. Oscar Nierstrasz Software Modeling and Analysis

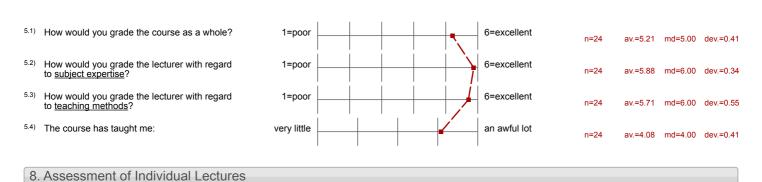
Name of the instructor: Name of the course: (Name of the survey)

Values used in the profile line: Mean

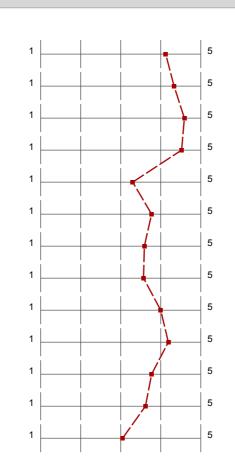
1. Conveying the course content

1.1)	The course follows a coherent structure.	not true			+ -	true	n=22	av.=4.45	md=5.00	dev.=0.67
1.2)	The wider context of the subject matter is sufficiently elucidated.	not true				true	n=25	av.=4.56	md=5.00	dev.=0.51
1.3)	The lecturer expresses him-/herself clearly and comprehensibly.	not true				true	n=24	av.=4.71	md=5.00	dev.=0.55
1.4)	The course provides an adequate overview of the subject matter treated.	not true				true	n=24	av.=4.67	md=5.00	dev.=0.48
1.5)	The design of the course contributes to an understanding of the subject matter.	not true				true	n=24	av.=4.71	md=5.00	dev.=0.55
2.	Course materials to assist Learnin	g								
2.1)	There is overall enough material provided to assist the learning process (slides, coursematerial, hand-outs, etc.).	not true			-	true	n=25	av.=4.60	md=5.00	dev.=0.58
2.2)	The course materials (slides, course manuals, hand-outs, etc.) are overall of sufficient quality.	not true				_ true	n=25	av.=4.32	md=4.00	dev.=0.69
3.	Commitment of the lecturer									
3.1)	The lecturer takes students seriously.	not true			+ •	true	n=24	av.=4.83	md=5.00	dev.=0.48
3.2)	The lecturer is friendly and respectful towards students.	not true				true	n=24	av.=4.96	md=5.00	dev.=0.20
3.3)	The lecturer addresses questions and suggestions from students adequately.	not true				true	n=25	av.=4.92	md=5.00	dev.=0.28
3.4)	The lecturer seems to care about his/her students' learning progress.	not true				, true	n=25	av.=4.88	md=5.00	dev.=0.33
4.	Complexity and Scope									
4.1)	The degree of difficulty of the course is:	too low/narrow		1		too high / wide	n=25	av.=3.20	md=3.00	dev.=0.58
4.2)	The amount of content of the course is:	too low/narrow		<u> </u>		too high / wide	n=24	av.=3.29	md=3.00	dev.=0.62
4.3)	The pace of the course is:	too low/narrow		ļ I		too high / wide	n=25	av.=3.08	md=3.00	dev.=0.40
4.4)	The amount of knowledge presupposed by the course is:	too low/narrow				too high / wide	n=24	av.=2.96	md=3.00	dev.=0.20

5. Overall Assessment



- 8.1) Introduction to Software Modeling and Analysis
- 8.2) Smalltalk: A Reflective Language and System
- 8.3) Understanding Classes and Metaclasses
- 8.4) Reflection and Metaprogramming
- ^{8.5)} Moldable Software Exploration (Tudor Girba)
- ^{8.6)} Software Metrics and Problem Detection; Moose (Andrei Chiş)
- ^{8.7)} Socio-technical Aspects in Software Systems (Alberto Bacchelli)
- 8.8) Static Program Analysis / Soot
- 8.9) Software Visualization (Leonel Merino)
- 8.10) Bug prediction (Haidar Osman)
- ^{8.11)} Software Data Analytics (Nevena Lazarević)
- 8.12) Code/test smells (Fabio Palomba)
- ^{8.13)} Data Engineering (Pietari Kettunen)

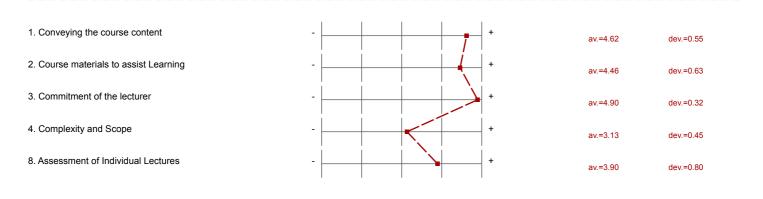


n=24	av.=4.13	md=4.00	dev.=0.80
n=24	av.=4.33	md=4.00	dev.=0.76
n=22	av.=4.59	md=5.00	dev.=0.67
n=23	av.=4.52	md=5.00	dev.=0.73
n=20	av.=3.30	md=3.00	dev.=0.86
n=22	av.=3.77	md=4.00	dev.=0.81
n=22	av.=3.59	md=4.00	dev.=0.85
n=21	av.=3.57	md=4.00	dev.=0.75
n=23	av.=4.00	md=4.00	dev.=0.80
n=21	av.=4.19	md=4.00	dev.=0.75
n=22	av.=3.77	md=4.00	dev.=0.81
n=21	av.=3.62	md=4.00	dev.=0.92
n=21	av.=3.05	md=3.00	dev.=0.92

Profile Line for Indicators

Subunit:

Name of the instructor: Name of the course: (Name of the survey) Phil.-nat. Fakultät Prof. Dr. Oscar Nierstrasz Software Modeling and Analysis



Comments Report

7. Comments

^{7.1)} What did you like about the course?

> I' have learnt many new things.

New typic in this master. Could being and benefit a lot of it. Mixed exposise with great lecturers. Interesting insights Pascula Feedbach is the greatest lever, got during my studies. K Good learning material (except for some guest lectures) and motivated/knowledgeble tending assistant

It had a lot of guist Lectures. This provided a more spreded view of the Richa

good combinities - Theory - Rochice + The Programming

The slides of Prof. Nieistraz are really good, also the lecture itself. The TA did a very good job, there are good feedbacks for us and the always answered the question in a grant speech quickly. I like the first four lectures due to the topic (inner working of phone), metaprogramming

A wide area is explored and give us a good overwide Dh the sof August subject with quite a lot of details. Any questions were always sufficiently answered. Lectures were youd. Assistants were youd. It shows a different view on coding The communication with lecturer and teaching assistants was excellent. Guest lectures is a very nice way to leaven from field proffessionals. Exercises are of high quality. Great for The course content

Practical session in a decent level

Even though it was too much, I like the content. Asisstant, Pascal, is very friendly and helpful.

Guest lectures, great assistants, engagement from the teaching staff

Guest Lectures

- Assignments were great - What you chould know part at the end of each slick dacks - Explenation slides - rient assistant work ! Exercises very well tytored & Thanks! Slides & Hidden Slides very expressive Clear atup, good pace

Nice assistant, funy, avistive, etc. 1 Liked the idea of the guest lecturer. The exercises where a typic antents, Topics, Guest Lectures, Prochical Ports Assistant!

^{7.2)} What did you not like about the course?

Sometimes I felt little complicated.

The quant of content is very nide. => link as thing courses but hand to leaving everything without open book : Missed a project (e.g. malysing a OSI application mayle in y Lab) Lots of guest lectures made the quality of the course inconsistent sometimes assignment tech too long to solve some slides from the quest lecture are normale (layout and content) A few lectures had avolapping topics the first half of the course was much better than the second half. (Both Lectures and assignments) That the exam is at the end of the semester. lot of Content, many topics

Some information missing from the slides, beginning a bit tough (laurning curve) - Some quest lectures were sometimes a bit too Aboused on rosearchers work e.g. the test smell lecture. Guest lectures rometimes reemed "isolated" without Small Talk ... ^{7.3)} Suggestions for improvements? Doing analysis of 4 OSS Project during the whole semester No "What are the differencesbed Ween ... "-questions for things that are very different.

no survey BEFORE dam ;-) More insight/ into different metapogramming capabilities 61 Invite only the best quest Lectures. less guest lectures Maybe some contents can be discarded.

- Would be nice to have these what you should know also for all guest lettures

Use Ruly, Pythin, or other

Software Modeling and Analysis

Responses = 25 questionnaires

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-					+	Ø	dev.
0%	20%	40%	60%	80%	100%	4.62	0.55
				Scale	e width: 5		
0%	20%	40%	60%	80%	100%	4.46	0.63
				Scale	e width: 5		
0%	20%	40%	60%	80%	100%	4.9	0.32
				Scale	e width: 5		
0%	20%	40%	60%	80%	100%	3.13	0.45
				Scale	e width: 5		
0%	20%	40%	60%	80%	100%	3.9	0.8
				Scale	e width: 5		
					Scale 0% 20% 40% 60% 80% Scale 0% 20% 40% 60% 80%	0% 20% 40% 60% 80% 100% 0% 20% 40% 60% 80% 100% 0% 20% 40% 60% 80% 100% 0% 20% 40% 60% 80% 100% 0% 20% 40% 60% 80% 100% 5cale width: 5 5cale width: 5 5cale width: 5 5cale width: 5 0% 20% 40% 60% 80% 100% 5cale width: 5 5cale width: 5 5cale width: 5 5cale width: 5	0% 20% 40% 60% 80% 100% 4.62 Scale width: 5 0% 20% 40% 60% 80% 100% 4.46 Scale width: 5 0% 20% 40% 60% 80% 100% 4.9 0% 20% 40% 60% 80% 100% 4.9 Scale width: 5 0% 20% 40% 60% 80% 100% 3.13 Scale width: 5 0% 20% 40% 60% 80% 100% 3.9 Scale width: 5 0% 20% 40% 60% 80% 100% 3.13 Scale width: 5 0% 20% 40% 60% 80% 100% 3.9

dev.=Std. Dev.