Report of evaluation: HS17 Einführung in Software Engineering (2420)

Dear Prof. Dr. Nierstrasz

Please find here the results of the evaluation of your course "Einführung in Software Engineering". 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.

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
Support Center for ICT-supported teaching (iLUB)
Conveying the course content (scale width = 5) \((\alpha = 0.87)\)

Course materials to assist Learning (scale width = 5) \((\alpha = 0.78)\)

Manners with Students (scale width = 5) \((\alpha = 0.87)\)

Complexity and Scope (exactly right = 3) \((\alpha = 0.66)\)

Overall Assessment (scale width = 6)
2.2) The course materials (slides, course manuals, handouts, etc.) are overall of sufficient quality.

3. Manners with Students

3.1) The lecturer takes students seriously.

3.2) The lecturer is friendly and respectful towards students.

3.3) The lecturer addresses questions and suggestions from students adequately.

3.4) The lecturer seems to care about his/her students’ learning success.

4. Complexity and Scope

4.1) The degree of difficulty of the course is:

4.2) The amount of content of the course is:

4.3) The pace of the course is:

4.4) The amount of knowledge presupposed by the course is:

5. Overall Assessment

5.1) How would you grade the course as a whole?

5.2) How would you grade the lecturer with regard to subject expertise?

5.3) How would you grade the lecturer with regard to teaching methods?
5.4) The course has taught me:

![Graph showing percentage of students' perceptions of the course](image)

- **Very little**: 0%
- **Not very much**: 0%
- **Somewhat**: 15%
- **Quite much**: 48.4%
- **Very much**: 11.1%
- **An awful lot**: 16.1%

\[ \frac{n}{31} = 4.19 \]
\[ \text{md} = 4 \]
\[ \text{dev} = 0.7 \]

6. Socio-demographic Data and Background Variables

6.1) How many hours per week did you invest in preparation and revision for the course (on average)?

<table>
<thead>
<tr>
<th>Hours</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>less than 2h</td>
<td>8</td>
</tr>
<tr>
<td>2 to 4h</td>
<td>9</td>
</tr>
<tr>
<td>4 to 6h</td>
<td>10</td>
</tr>
<tr>
<td>more than 6h</td>
<td>4</td>
</tr>
</tbody>
</table>

\[ n = 31 \]

6.2) Was the topic of interest to you?

<table>
<thead>
<tr>
<th>Interest Level</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all</td>
<td>0</td>
</tr>
<tr>
<td>slightly</td>
<td>1</td>
</tr>
<tr>
<td>fairly</td>
<td>15</td>
</tr>
<tr>
<td>quite a lot</td>
<td>14</td>
</tr>
</tbody>
</table>

\[ n = 30 \]

6.3) How many lectures did you miss?

<table>
<thead>
<tr>
<th>Number of Missed Lectures</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>8</td>
</tr>
<tr>
<td>1 - 2</td>
<td>15</td>
</tr>
<tr>
<td>3 - 4</td>
<td>5</td>
</tr>
<tr>
<td>more than 4</td>
<td>3</td>
</tr>
</tbody>
</table>

\[ n = 31 \]

6.4) If you missed more than 2 lectures, please give one reason:

- **Lack of interest**: 0
- **Course overlap**: 3
- **Course manual / required reading suffices for exam preparation**: 3
- **Illness etc.**: 0
- **Other reasons**: 7

\[ n = 13 \]

6.5) Allocation of the course in your study programme:

<table>
<thead>
<tr>
<th>Programme Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>mono subject/ Major/Hauptfach</td>
<td>21</td>
</tr>
<tr>
<td>minor subject/ Nebenfach</td>
<td>10</td>
</tr>
<tr>
<td>other</td>
<td>0</td>
</tr>
</tbody>
</table>

\[ n = 31 \]
6.6) Your current number of semesters since starting your studies:

- 1: 1
- 2: 1
- 3: 15
- 4: 1
- 5: 10
- 6: 1
- 7: 1
- 8: 0
- 9: 0
- 10: 0
- Higher than 10: 1

n=31

6.7) Sex:

- Female: 4
- Male: 21
- No answer: 0

n=25

8. Assessment of Individual Lectures

8.1) Introduction: The Software Lifecycle

- 5: 1
- 4: 5
- 3: 1
- 2: 0
- 1: 0

n=32
av.=3,81
md=4
dev.=0,9

8.2) Requirements Collection

- 5: 1
- 4: 5
- 3: 2
- 2: 0
- 1: 0

n=32
av.=4,16
md=4
dev.=0,72

8.3) Responsibility-Driven Design

- 5: 1
- 4: 5
- 3: 3
- 2: 3
- 1: 0

n=31
av.=4,03
md=4
dev.=0,75

8.4) Agile Practices in Industry

- 5: 1
- 4: 10
- 3: 9
- 2: 2
- 1: 0

n=30
av.=3,47
md=4
dev.=0,82

8.5) Modeling Objects and Classes

- 5: 1
- 4: 5
- 3: 3
- 2: 1
- 1: 0

n=31
av.=3,42
md=4
dev.=0,89

8.6) Modeling Behaviour

- 5: 1
- 4: 5
- 3: 3
- 2: 1
- 1: 0

n=31
av.=3,52
md=4
dev.=0,81

8.7) Software Testing

- 5: 1
- 4: 5
- 3: 3
- 2: 1
- 1: 0

n=28
av.=3,61
md=4
dev.=0,79
### 8.6 User Interface Design

- n=31
- av.=3.74
- md=4
- dev.=0.86

### 8.9 Software Quality

- n=31
- av.=3.81
- md=4
- dev.=0.98

### 8.10 Software Security

- n=29
- av.=3.38
- md=3
- dev.=0.94

### 8.11 Software Metrics

- n=30
- av.=3.77
- md=4
- dev.=0.97

### 8.12 Project Management

- n=29
- av.=3.86
- md=4
- dev.=0.79

### 8.13 Software Architecture

- n=30
- av.=3.8
- md=4
- dev.=0.89

### 8.14 SE in practice

- n=30
- av.=3.77
- md=4
- dev.=0.90
## Profile

**Subunit:** Phil.-nat. Fakultät  
**Name of the instructor:** Prof. Dr. Oscar Marius Nierstrasz  
**Name of the course:** Einführung in Software Engineering

Values used in the profile line: Mean

### 1. Conveying the course content

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
<th>n</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1) The course follows a coherent structure.</td>
<td>not true</td>
<td>31</td>
<td>4.23</td>
<td>4.00</td>
<td>0.80</td>
</tr>
<tr>
<td>1.2) The wider context of the subject matter is sufficiently elucidated.</td>
<td>not true</td>
<td>31</td>
<td>4.39</td>
<td>5.00</td>
<td>0.76</td>
</tr>
<tr>
<td>1.3) The lecturer expresses him-/herself clearly and comprehensibly.</td>
<td>not true</td>
<td>32</td>
<td>4.75</td>
<td>5.00</td>
<td>0.51</td>
</tr>
<tr>
<td>1.4) The course provides an adequate overview of the subject matter treated.</td>
<td>not true</td>
<td>32</td>
<td>4.28</td>
<td>4.00</td>
<td>0.77</td>
</tr>
<tr>
<td>1.5) The design of the course contributes to an understanding of the subject matter.</td>
<td>not true</td>
<td>32</td>
<td>4.13</td>
<td>4.00</td>
<td>0.75</td>
</tr>
</tbody>
</table>

### 2. Course materials to assist Learning

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
<th>n</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1) There is overall enough material provided to assist the learning process (slides, course material, hand-outs, etc.).</td>
<td>not true</td>
<td>30</td>
<td>4.40</td>
<td>5.00</td>
<td>0.77</td>
</tr>
<tr>
<td>2.2) The course materials (slides, course manuals, hand-outs, etc.) are overall of sufficient quality.</td>
<td>not true</td>
<td>32</td>
<td>4.34</td>
<td>4.00</td>
<td>0.65</td>
</tr>
</tbody>
</table>

### 3. Manners with Students

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
<th>n</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1) The lecturer takes students seriously.</td>
<td>not true</td>
<td>32</td>
<td>4.94</td>
<td>5.00</td>
<td>0.25</td>
</tr>
<tr>
<td>3.2) The lecturer is friendly and respectful towards students.</td>
<td>not true</td>
<td>31</td>
<td>4.94</td>
<td>5.00</td>
<td>0.25</td>
</tr>
<tr>
<td>3.3) The lecturer addresses questions and suggestions from students adequately.</td>
<td>not true</td>
<td>31</td>
<td>4.90</td>
<td>5.00</td>
<td>0.30</td>
</tr>
<tr>
<td>3.4) The lecturer seems to care about his/her students' learning success.</td>
<td>not true</td>
<td>32</td>
<td>4.75</td>
<td>5.00</td>
<td>0.51</td>
</tr>
</tbody>
</table>

### 4. Complexity and Scope

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
<th>n</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1) The degree of difficulty of the course is:</td>
<td>-</td>
<td>32</td>
<td>3.47</td>
<td>3.00</td>
<td>0.67</td>
</tr>
<tr>
<td>4.2) The amount of content of the course is:</td>
<td>-</td>
<td>32</td>
<td>3.59</td>
<td>4.00</td>
<td>0.56</td>
</tr>
<tr>
<td>4.3) The pace of the course is:</td>
<td>-</td>
<td>32</td>
<td>3.22</td>
<td>3.00</td>
<td>0.42</td>
</tr>
<tr>
<td>4.4) The amount of knowledge presupposed by the course is:</td>
<td>-</td>
<td>32</td>
<td>3.53</td>
<td>3.00</td>
<td>0.72</td>
</tr>
</tbody>
</table>
5. Overall Assessment

5.1) How would you grade the course as a whole?

1 2 3 4 5 6
n=30  av.=4,90  md=5,00  dev.=0,84

5.2) How would you grade the lecturer with regard to subject expertise?

1 2 3 4 5 6
n=32  av.=5,88  md=6,00  dev.=0,34

5.3) How would you grade the lecturer with regard to teaching methods?

1 2 3 4 5 6
n=31  av.=5,55  md=6,00  dev.=0,57

5.4) The course has taught me:

very little  somewhat  quite a bit  a good deal  an awful lot
n=31  av.=4,19  md=4,00  dev.=0,70

8. Assessment of Individual Lectures

8.1) Introduction: The Software Lifecycle

1 2 3 4 5
n=32  av.=3,81  md=4,00  dev.=0,90

8.2) Requirements Collection

1 2 3 4 5
n=32  av.=4,16  md=4,00  dev.=0,72

8.3) Responsibility-Driven Design

1 2 3 4 5
n=31  av.=4,03  md=4,00  dev.=0,75

8.4) Agile Practices in Industry

1 2 3 4 5
n=30  av.=3,47  md=4,00  dev.=0,82

8.5) Modeling Objects and Classes

1 2 3 4 5
n=31  av.=3,42  md=4,00  dev.=0,89

8.6) Modeling Behaviour

1 2 3 4 5
n=31  av.=3,52  md=4,00  dev.=0,81

8.7) Software Testing

1 2 3 4 5
n=28  av.=3,61  md=4,00  dev.=0,79

8.8) User Interface Design

1 2 3 4 5
n=31  av.=3,74  md=4,00  dev.=0,86

8.9) Software Quality

1 2 3 4 5
n=31  av.=3,81  md=4,00  dev.=0,98

8.10) Software Security

1 2 3 4 5
n=29  av.=3,38  md=3,00  dev.=0,94

8.11) Software Metrics

1 2 3 4 5
n=30  av.=3,77  md=4,00  dev.=0,97

8.12) Project Management

1 2 3 4 5
n=29  av.=3,86  md=4,00  dev.=0,79

8.13) Software Architecture

1 2 3 4 5
n=30  av.=3,80  md=4,00  dev.=0,89

8.14) SE in practice

1 2 3 4 5
n=30  av.=3,77  md=4,00  dev.=0,90
Profile Line for Indicators

Subunit: Phil.-nat. Fakultät
Name of the instructor: Prof. Dr. Oscar Marius Nierstrasz
Name of the course: Einführung in Software Engineering

Conveying the course content (scale width = 5) (α = 0.87)  av.=4.35  dev.=0.72
Course materials to assist Learning (scale width = 5) (α = 0.78)  av.=4.37  dev.=0.71
Manners with Students (scale width = 5) (α = 0.87)  av.=4.88  dev.=0.33
Complexity and Scope (exactly right = 3) (α = 0.66)  av.=3.45  dev.=0.59
Overall Assessment (scale width = 6)  av.=4.90  dev.=0.84
7. Comments

What did you like about the course?

- two more guest very interesting guest lectures
- good slides with notes and questions the kind you know

The guest lectures were awesome. I especially liked the one about project management.

- good structure, lots of examples

That you really learn the software development process, and get a feeling for it.

The topics learned in P2 get repeated and get discussed in more detail, I liked that.

- anecdotes, examples

the project
The lectures make the course interesting and enjoyable to follow.

It provided a good overview.

Working on one project for the whole semester was good.

The subject were presented near the practicals which will help a lot later.

Project

Prof. Norström makes his lectures very interesting with great slides and presentation style. I was able to apply knowledge I learned in the course at my job and to my side projects.

Guest lecture

The teaching of the Prof. is really nice.

the project

Closeness to practice, interesting topics.
What did you not like about the course?

The group project is way too difficult. There are no practice hours like in P2.

The knowledge requested for the project is pretty high, and the lectures did not actually help to solve the programming problems we encountered.

The exam is very theoretical and maybe an oral exam or only the validation of the project is enough.

There is an overlap with other computer science lectures, that’s a pity.
the project takes so much time, but only gives 40% to the end degree. And the final exam is not really about understanding.

The guest lectures often didn’t fit into the program of the course because they jumped through topics a lot which made it difficult to learn for the exam. Some guest lecturers were brilliant others were not quite that good. They often spoke of personal things that didn’t matter.

Too many different theories, abbreviations, etc.

It would be cool to have a podcast of the lectures such as in CN.
No idea what to learn for the exam.
- Too much info in the slides.

The project was hard and we had not enough material for it.

Guest lectures were a little all over the place.

7.3) Suggestions for improvements?

- Clearer guidelines for the exercises based on lectures.

Give us more guidance in the group project. Come on! Help us! Also, give us example exam-type questions to help us prepare.
more exercises, or a test exam so the students have an idea how the real exam would be.

Try to exclude all of the stuff already learned in P2. (I know this can be difficult :-)

Improve schedule

"Büchler, Züblin, Stutz, Autsch, En"

don't make an a final exam, only project
The slides of the guest lecture about practices in industry were hardly understandable without attending the lecture and writing down everything.

For the group project I would prefer the use of some other technologies rather than Spring and Java.

What to learn for the exam list:

Better preparation for the project would be nice.
### EvaSys Evaluation

**Responses = 32 questionnaires**

<table>
<thead>
<tr>
<th>Category</th>
<th>Scale width</th>
<th>Mean (Ø)</th>
<th>Std. Dev. (dev.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveying the course content</td>
<td>5</td>
<td>4.35</td>
<td>0.72</td>
</tr>
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<td>5</td>
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<td>5</td>
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<td>0.33</td>
</tr>
<tr>
<td>Complexity and Scope</td>
<td>5</td>
<td>3.45</td>
<td>0.59</td>
</tr>
<tr>
<td>Overall Assessment</td>
<td>6</td>
<td>4.9</td>
<td>0.84</td>
</tr>
</tbody>
</table>

*dev. = Std. Dev.*