Report of evaluation: FS16 Programming Languages (2720)

Dear Prof. Dr. Nierstrasz

Please find here the results of the evaluation of your course Programming Languages. Following the scanning of the questionnaires, this report was automatically generated and mailed to you.

The questionnaire used was PN-P1.V1. In the report, you first see the mean values of the following dimensions:

- Planning and Presentation (Skalenbreite: 4)
- Manners with Students (Skalenbreite: 4)
- Interest and Relevance (Skalenbreite: 4)
- Complexity and Scope (Skalenbreite: 5)
- Overall Assessment (Skalenbreite: 6)

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 equals the lowest grade given by the students, grade 4 or more the highest grade (unless a question is reversed). 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.

We hope that this report helps you to analyse your course. Please briefly discuss the results with your students before the end of the semester.

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.

Kind regards
Daniela Wuillemin
Vice-rectorate of quality
### Overall indicators

<table>
<thead>
<tr>
<th>Planning and Presentation (Skalenbreite: 4)</th>
<th>Overall Assessment (Skalenbreite: 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall indicators</td>
<td>Overall indicators</td>
</tr>
<tr>
<td>Planning and Presentation</td>
<td>Manners with Students</td>
</tr>
<tr>
<td>Planning and Presentation</td>
<td>Manners with Students</td>
</tr>
<tr>
<td>Overall Assessment</td>
<td>Overall Assessment</td>
</tr>
<tr>
<td>Overall Assessment</td>
<td>Overall Assessment</td>
</tr>
</tbody>
</table>

### Legend

<table>
<thead>
<tr>
<th>Question text</th>
<th>Right pole</th>
<th>Left pole</th>
<th>Scale</th>
<th>Histogram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute Frequencies of answers</td>
<td>Std. Dev.</td>
<td>Mean</td>
<td>Median</td>
<td>Quantile</td>
</tr>
<tr>
<td>Relative Frequencies of answers</td>
<td>n=No. of responses</td>
<td>av.=Mean</td>
<td>md=Median</td>
<td>dev.=Std. Dev.</td>
</tr>
<tr>
<td>ab.=Abstention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Planning and Presentation

1. The course follows a coherent structure.

   - **True**
   - n=32
   - av.=3.63
   - md=4
   - dev.=0.54

2. The wider context of the subject matter is sufficiently elucidated.

   - **True**
   - n=29
   - av.=3.38
   - md=3
   - dev.=0.68
   - ab.=1

3. The lecturer expresses him-/herself clearly and comprehensibly.

   - **True**
   - n=32
   - av.=3.94
   - md=4
   - dev.=0.25
   - ab.=1

4. The course provides an adequate overview of the subject matter treated.

   - **True**
   - n=32
   - av.=3.56
   - md=4
   - dev.=0.62

5. The design of the course contributes to an understanding of the subject matter.

   - **True**
   - n=32
   - av.=3.56
   - md=4
   - dev.=0.62

6. There is overall enough material provided to assist the learning process (slides, course material, hand-outs, etc.).

   - **True**
   - n=32
   - av.=3.69
   - md=4
   - dev.=0.54
7 The course materials (slides, course manuals, hand-outs, etc.) are overall of sufficient quality.

Manners with Students

8 The lecturer takes students seriously.

9 The lecturer is friendly and respectful towards students.

10 The lecturer addresses questions and suggestions from students adequately.

11 The lecturer seems to care about his/her students' progress.

Interest and Relevance

12 The lecturer succeeds in making the course interesting.

13 The course is probably very useful for my future professional life.

14 The applicability and relevance of the subject matter is sufficiently clarified by the lecturer.

15 The lecturer fosters my interest in the subject.

Complexity and Scope

16 The degree of complexity of the course is:

17 The scope of the course is:

18 The pace of the course is:
19 The amount of knowledge presupposed by the course is:

- far too high/narrow
- far too low/narrow

n=31
av.=2.97
md=3
dev.=0.55

Overall Assessment

20 How would you grade the course as a whole?

n=30
av.=5.2
md=5
dev.=0.66

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

n=30
av.=5.8
md=6
dev.=0.76

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

n=30
av.=5.63
md=6
dev.=0.56

23 The course has taught me

- very little
- little
- this or that
- a lot
- an awful lot

n=31
av.=3.77
md=4
dev.=0.72

Socio-demographic Data and Background Variables

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

- 0h
- less than 2h
- 2 to 4h
- 4 to 6h
- more than 6h

n=31

25 Was the topic of interest to you?

- not at all
- slightly
- fairly
- quite a lot

n=29

26 How many lectures did you miss?

- none
- 1 - 2
- 3 - 4
- more than 4

n=30
27 If you missed more than 2 lectures, please give one reason:

- lack of interest: 0
- course overlap: 0
- illness etc.: 0
- course manual/required reading suffices for exam preparation: 2
- other reasons: 4

28 Allocation of the course in your study programme:

- mono subject/Major/Hauptfach: 28
- Minor/Nebenfach: 2
- complementary or specialization course: 0

29 Your current number of semesters:

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

30 Sex

- female: 2
- male: 20
- n/a: 2

Open Questions

What did you like about the course?

The wide range of subjects
Theory as well as practical exercises

Very good lectures, interesting topics, good examples.

Presentation of not (yet) so popular languages and underlying concepts.

good slides and presentation style

New aspect of PL
New PL learned

Broad overview over many topics

The practical exercises.
The understandable introduction to λ-calculus
I got a nice overview about programming languages. I loved the practical demonstrations in class. Practical exercises were often fun and interesting.

The wide variety of programming paradigms improved my understanding of various language features. The lecturer was excellent and made sure the complex contents were understood well.

Everything, and I mean it.

Varied array of topics/language

Introduction to new paradigms and languages

Practical exercises to get familiar with new programming languages

The mix between "theoretical" lectures (e.g. Types, Semantics) and "practical" lectures (e.g. Stack-based/PostScript, Prototype/JavaScript).
The overview was eye-opening.

The notes in the slides are very helpful.

The way the professor explained some sometimes difficult subject in a very easy and interesting way.

The very well explained and hidden notes were a huge plus.

Content: Lots more to programming languages than what is popularly used.

What did you not like about the course?

Theoretical parts (Types) and semantics.
Subject is too broad, mostly scratching the surface of all paradigms.

The type lectures were a bit confusing, very, very hard to wrap my head around it. I have still not succeeded in that respect.

Seems to have stopped at year 2000. Should probably be called "history of programming languages." What about Python, Go, Erlang. Assistants did nothing!

Some exercises were somehow too difficult other too easy, so I was sometimes really insecure, if I understood them right (as they were too easy).

Theoretical questions were often extracted from the slides and sometimes very hard to answer.
Some concepts were a bit vague because of the high-level of the subject matter.

The exercises are not hard enough, and the course does not deserve the 5 ECTS in my opinion. We got no feedback for the exercise (only partly solutions).

Exam date, there is too much material to be prepared for the time we had in disposition. And we might get bad grades, most likely because we didn't learn too much but we had no time to.

Some subjects were not very deep.

The subject matter was enormous. A lot of abstract meanings for its volume.

more practical extra exercises
The overview about the whole semester was missing.

Suggestions for improvements?

Designing interfaces (GUI), explaining signals.

- Master solutions to all exercises
Answers to the exercises, explanations when we didn’t get all points

Take lecture more about types with more practical example, one that is revisited wherever a new aspect is revealed. Maybe drop Postscript?
Make handwritten homework and discuss after Fixed Points.

Would benefit immensely from repetition session with assistants to discuss the exercises!
Include references to modern languages!

It would be great to have such a course earlier. A Bachelor’s course about what the most useful programming languages at the time would be very useful.

The lecture to objects col types is, when you hear all this for the first time, too difficult. Without Sichonis, I wouldn’t have the possibility to tolerate it. Why not teach this subject in two weeks? Or give as homework the lecture of Sichonis.

Lecture 9 was way to theoretical and hard to understand.

Include some newer languages, if possible.

Make more exercises, or make them harder.
The students should be challenged, not bored.

Talk to the people responsible for exam dates and reconsider a "holiday" of just 2 weeks before the exams and would be extremely helpful.
Maybe lessen the subject matter.

More explanations or rules on the slides, + more definitions, maybe an appendix of other cool demos.

I’m not sure coding that much postscript is useful.
Maybe see more of Python, Ruby etc.

More functional programming, increasingly relevant in industry.

Assessment of Individual Lectures

8.1 Introduction

8.2 Stack-based Programming

- strongly disagree 0% 8% 20% 66.7% 26.7%
- strongly agree 1% 2% 3% 4% 43.8%

- strongly disagree 0% 3.1% 43.8% 56.7%
- strongly agree 1% 2% 3% 4% 53.8%

n=30, av=2.8, md=3, dev=0.55
n=32, av=3.5, md=4, dev=0.57
<table>
<thead>
<tr>
<th>Section</th>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
<th>n</th>
<th>Average</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.3 Functional Programming</td>
<td></td>
<td></td>
<td>31</td>
<td>3.42</td>
<td>4</td>
<td>0.76</td>
</tr>
<tr>
<td>8.4 Types and Polymorphism</td>
<td></td>
<td></td>
<td>31</td>
<td>3.16</td>
<td>3</td>
<td>0.52</td>
</tr>
<tr>
<td>8.5 Lambda Calculus</td>
<td></td>
<td></td>
<td>32</td>
<td>3.69</td>
<td>4</td>
<td>0.54</td>
</tr>
<tr>
<td>8.6 Fixed Points</td>
<td></td>
<td></td>
<td>31</td>
<td>3.42</td>
<td>4</td>
<td>0.72</td>
</tr>
<tr>
<td>8.7 Programming Language Semantics</td>
<td></td>
<td></td>
<td>32</td>
<td>2.97</td>
<td>3</td>
<td>0.59</td>
</tr>
<tr>
<td>8.8 Objects and Prototypes</td>
<td></td>
<td></td>
<td>32</td>
<td>3.22</td>
<td>3</td>
<td>0.66</td>
</tr>
<tr>
<td>8.9 Objects and Types</td>
<td></td>
<td></td>
<td>32</td>
<td>3.09</td>
<td>3</td>
<td>0.69</td>
</tr>
<tr>
<td>8.10 Logic Programming</td>
<td></td>
<td></td>
<td>31</td>
<td>3.32</td>
<td>4</td>
<td>0.83</td>
</tr>
<tr>
<td>8.11 Applications of Logic Programming</td>
<td></td>
<td></td>
<td>32</td>
<td>3.32</td>
<td>3</td>
<td>0.67</td>
</tr>
<tr>
<td>8.12 Visual Programming</td>
<td></td>
<td></td>
<td>31</td>
<td>2.32</td>
<td>2</td>
<td>0.75</td>
</tr>
</tbody>
</table>
### Profile

**Subunit:** Phil.-nat. Fakultät  
**Name of the instructor:** Prof. Dr. Oscar Marius Nierstrasz  
**Name of the course:** Programming Languages

Values used in the profile line: Mean

### Planning and Presentation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not True</th>
<th>True</th>
<th>n</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The course follows a coherent structure.</td>
<td>not true</td>
<td>true</td>
<td>32</td>
<td>3.63</td>
<td>4.00</td>
<td>0.61</td>
</tr>
<tr>
<td>2. The wider context of the subject matter is sufficiently elucidated.</td>
<td>not true</td>
<td>true</td>
<td>29</td>
<td>3.38</td>
<td>3.00</td>
<td>0.68</td>
</tr>
<tr>
<td>3. The lecturer expresses him-/herself clearly and comprehensibly.</td>
<td>not true</td>
<td>true</td>
<td>32</td>
<td>3.94</td>
<td>4.00</td>
<td>0.25</td>
</tr>
<tr>
<td>4. The course provides an adequate overview of the subject matter treated.</td>
<td>not true</td>
<td>true</td>
<td>32</td>
<td>3.56</td>
<td>4.00</td>
<td>0.62</td>
</tr>
<tr>
<td>5. The design of the course contributes to an understanding of the subject matter.</td>
<td>not true</td>
<td>true</td>
<td>32</td>
<td>3.56</td>
<td>4.00</td>
<td>0.50</td>
</tr>
<tr>
<td>6. There is overall enough material provided to assist the learning process (slides, course material, hand-outs, etc.).</td>
<td>not true</td>
<td>true</td>
<td>33</td>
<td>3.69</td>
<td>4.00</td>
<td>0.54</td>
</tr>
<tr>
<td>7. The course materials (slides, course manuals, hand-outs, etc.) are overall of sufficient quality.</td>
<td>not true</td>
<td>true</td>
<td>33</td>
<td>3.73</td>
<td>4.00</td>
<td>0.57</td>
</tr>
</tbody>
</table>

### Manners with Students

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not True</th>
<th>True</th>
<th>n</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. The lecturer takes students seriously.</td>
<td>not true</td>
<td>true</td>
<td>32</td>
<td>3.97</td>
<td>4.00</td>
<td>0.18</td>
</tr>
<tr>
<td>9. The lecturer is friendly and respectful towards students.</td>
<td>not true</td>
<td>true</td>
<td>31</td>
<td>3.97</td>
<td>4.00</td>
<td>0.18</td>
</tr>
<tr>
<td>10. The lecturer addresses questions and suggestions from students adequately.</td>
<td>not true</td>
<td>true</td>
<td>32</td>
<td>3.91</td>
<td>4.00</td>
<td>0.30</td>
</tr>
<tr>
<td>11. The lecturer seems to care about his/her students’ progress.</td>
<td>not true</td>
<td>true</td>
<td>32</td>
<td>3.91</td>
<td>4.00</td>
<td>0.30</td>
</tr>
</tbody>
</table>

### Interest and Relevance

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not True</th>
<th>True</th>
<th>n</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. The lecturer succeeds in making the course interesting.</td>
<td>not true</td>
<td>true</td>
<td>32</td>
<td>3.81</td>
<td>4.00</td>
<td>0.47</td>
</tr>
<tr>
<td>13. The course is probably very useful for my future professional life.</td>
<td>not true</td>
<td>true</td>
<td>33</td>
<td>3.08</td>
<td>3.00</td>
<td>0.72</td>
</tr>
<tr>
<td>14. The applicability and relevance of the subject matter is sufficiently clarified by the lecturer.</td>
<td>not true</td>
<td>true</td>
<td>32</td>
<td>3.09</td>
<td>3.00</td>
<td>0.73</td>
</tr>
<tr>
<td>15. The lecturer fosters my interest in the subject.</td>
<td>not true</td>
<td>true</td>
<td>32</td>
<td>3.83</td>
<td>4.00</td>
<td>0.55</td>
</tr>
</tbody>
</table>

### Complexity and Scope

<table>
<thead>
<tr>
<th>Statement</th>
<th>Far Too Low/Narrow</th>
<th>Far Too High/Wide</th>
<th>n</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. The degree of complexity of the course is:</td>
<td>far too low/narrow</td>
<td>far too high/wide</td>
<td>31</td>
<td>3.29</td>
<td>3.00</td>
<td>0.64</td>
</tr>
<tr>
<td>17. The scope of the course is:</td>
<td>far too low/narrow</td>
<td>far too high/wide</td>
<td>31</td>
<td>3.52</td>
<td>3.00</td>
<td>0.57</td>
</tr>
</tbody>
</table>
18 The pace of the course is:  
n=31  av.=3,35  md=3,00  dev.=0,66
19 The amount of knowledge presupposed by the course is:  
n=31  av.=2,97  md=3,00  dev.=0,55

Overall Assessment

20 How would you grade the course as a whole?  
n=30  av.=5,20  md=5,00  dev.=0,66
21 How would you grade the lecturer with regard to subject expertise?  
n=30  av.=5,80  md=6,00  dev.=0,76
22 How would you grade the lecturer with regard to teaching methods?  
n=30  av.=5,63  md=6,00  dev.=0,56

Assessment of Individual Lectures

8.1 Introduction  
n=30  av.=2,80  md=3,00  dev.=0,55
8.2 Stack-based Programming  
n=32  av.=3,50  md=4,00  dev.=0,57
8.3 Functional Programming  
n=31  av.=3,42  md=4,00  dev.=0,76
8.4 Types and Polymorphism  
n=31  av.=3,16  md=3,00  dev.=0,52
8.5 Lambda Calculus  
n=32  av.=3,69  md=4,00  dev.=0,54
8.6 Fixed Points  
n=31  av.=3,42  md=4,00  dev.=0,72
8.7 Programming Language Semantics  
n=32  av.=2,97  md=3,00  dev.=0,59
8.8 Objects and Prototypes  
n=32  av.=3,22  md=3,00  dev.=0,66
8.9 Objects and Types  
n=32  av.=3,09  md=3,00  dev.=0,69
8.10 Logic Programming  
n=31  av.=3,32  md=4,00  dev.=0,83
8.11 Applications of Logic Programming  
n=32  av.=3,00  md=3,00  dev.=0,67
8.12 Visual Programming  
n=31  av.=2,32  md=2,00  dev.=0,75
Profile

Subunit: Phil.-nat. Fakultät
Name of the instructor: Prof. Dr. Oscar Marius Nierstrasz
Name of the course: Programming Languages

Planning and Presentation (Skalenbreite: 4) -
Manners with Students (Skalenbreite: 4) -
Interest and Relevance (Skalenbreite: 4) -
Complexity and Scope (Skalenbreite: 5) -
Overall Assessment (Skalenbreite: 6) -

av.=3,64  dev.=0,54
av.=3,94  dev.=0,24
av.=3,40  dev.=0,62
av.=3,28  dev.=0,60
av.=5,54  dev.=0,66
Presentation template
Programming Languages
Prof. Dr. Oscar Marius Nierstrasz
No. of responses = 33

Planning and Presentation
(Skalenbreite: 4)
av.=3,64

Manners with Students
(Skalenbreite: 4)
av.=3,94

Interest and Relevance
(Skalenbreite: 4)
av.=3,4

Complexity and Scope
(Skalenbreite: 5)
av.=3,28

Overall Assessment (Skalenbreite: 6)
av.=5,54