Data Mining and Machine Learning Methods in Bioinformatics – Dr. Holger Fröhlich

Lecture Survey – Fachschaft Informatik

November 29, 2016
1 Lecture Evaluation

1.1 Please rate the lecture’s concept.

1.1.1 How often did you attend the lecture?

Always – Never

Answers: 14
Mean: 1.9
Standard-Deviation: 1.1

1.1.2 Did the lecture appear to be clearly structured to you?

Yes – No

Answers: 14
Mean: 1.8
Standard-Deviation: 0.9

1.1.3 Have topics been illustrated by sensible examples?

Always – Never

Answers: 14
Mean: 2.1
Standard-Deviation: 0.9

1.1.4 Were the slides/lecture notes helpful?

Very helpful – Not helpful

Answers: 14
Mean: 2.0
Standard-Deviation: 1.2

1.1.5 Have the topics been explained extensively enough?

Always – Never

Answers: 14
Mean: 2.4
Standard-Deviation: 0.8

2 Lecturer Evaluation

2.1 Please rate Dr. Holger Fröhlich.

2.1.1 How much of the content do you understand during the lecture?

Everything – Nothing

Answers: 14
Mean: 2.6
Standard-Deviation: 0.5
2.1.2 Did the lecturer answer your questions profoundly?

Always – Never
Answers: 13
Mean: 1.7
Standard-Diviation: 0.8

2.1.3 Was the lecturer available for questions outside of the lecture?

Always – Never
Answers: 11
Mean: 1.9
Standard-Diviation: 0.8

2.1.4 Could you understand the lecturer acoustically?

Very well – Not at all
Answers: 14
Mean: 1.6
Standard-Diviation: 0.7

2.1.5 The speed of proceeding was...

Too fast – Too slow
Answers: 14
Mean: 2.3
Standard-Diviation: 0.7

3 Module Evaluation

3.1 Please rate the module as a whole.

3.1.1 Did the course teach you helpful knowledge and abilities that will be useful in later work life?

Much – Nothing
Answers: 14
Mean: 1.7
Standard-Diviation: 1.0

3.1.2 Do the obligatory course achievements support successful completion of the module?

Yes – No
Answers: 14
Mean: 2.4
Standard-Diviation: 1.0
3.1.3 Do you think the obligatory course achievements are adequate?

Yes – No

Answers: 14
Mean: 2.3
Standard-Deviation: 1.0

3.1.4 Did your interest in this module’s field of study change?

Strongly inc. – Strongly dec.

Answers: 13
Mean: 2.5
Standard-Deviation: 1.3

3.1.5 Would you recommend taking this module to your best friend?

Yes – No

Answers: 14
Mean: 1.8
Standard-Deviation: 1.4

3.1.6 In relation to the number of credit points awarded, is the amount of work to be done justified?

Too high – Too low

Answers: 14
Mean: 3.0
Standard-Deviation: 0.5

3.2 How much time did you spend on this module every week, including lecture, exercises, exercise tasks . . . ?

<table>
<thead>
<tr>
<th>Time Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>[0,3) hours</td>
<td>0 %</td>
</tr>
<tr>
<td>[3,6) hours</td>
<td>40 %</td>
</tr>
<tr>
<td>[6,8) hours</td>
<td>27 %</td>
</tr>
<tr>
<td>[8,10) hours</td>
<td>13 %</td>
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<tr>
<td>[10,12) hours</td>
<td>7 %</td>
</tr>
<tr>
<td>[12,∞) hours</td>
<td>7 %</td>
</tr>
</tbody>
</table>

4 Exercise Evaluation

4.1 Please rate the quality of the exercises that accompanied the lecture.

4.1.1 How often did you attend the exercise class?

Always – Never

Answers: 14
Mean: 1.2
Standard-Deviation: 0.4
4.1.2 Have the exercise sheets been available on time?

| Always – Never | 71% | 29% | 0% | 0% | 0% |
| Answers: 14 | | | | | |
| Mean: 1.3 | | | | | |
| Standard-Deviation: 0.5 | | | | | |

4.1.3 The difficulty of the exercise sheets varied...

| Not at all – Greatly | 0% | 15% | 38% | 23% | 23% |
| Answers: 13 | | | | | |
| Mean: 3.5 | | | | | |
| Standard-Deviation: 1.0 | | | | | |

4.1.4 Did the contents of the exercises match the current contents of the lecture?

| Lecture far ahead – Lecture far behind | 14% | 14% | 64% | 7% | 0% |
| Answers: 14 | | | | | |
| Mean: 2.6 | | | | | |
| Standard-Deviation: 0.8 | | | | | |

4.1.5 Judge the size of your exercise group!

| Too big – Too small | 7% | 21% | 57% | 14% | 0% |
| Answers: 14 | | | | | |
| Mean: 2.8 | | | | | |
| Standard-Deviation: 0.8 | | | | | |

4.1.6 Usually I thought the exercises were...

| Too difficult – Very easy | 21% | 43% | 29% | 7% | 0% |
| Answers: 14 | | | | | |
| Mean: 2.2 | | | | | |
| Standard-Deviation: 0.9 | | | | | |

5 Exercise Class Evaluation

5.1 Please rate the exercise class you visited.

5.1.1 Has the tutor been available for questions outside of the tutorial?

| Always – Never | 50% | 50% | 0% | 0% | 0% |
| Answers: 14 | | | | | |
| Mean: 1.5 | | | | | |
| Standard-Deviation: 0.5 | | | | | |
5.1.2 Could you understand your tutor’s corrections and gradings?

Always – Never

Answers: 14
Mean: 2.2
Standard-Deviation: 1.3

5.1.3 Did the tutor manage to handle all the relevant content in the exercise class?

Always – Never

Answers: 14
Mean: 1.9
Standard-Deviation: 0.8

5.1.4 Would you recommend visiting this exercise class?

Yes – No

Answers: 14
Mean: 2.1
Standard-Deviation: 1.1

6 Comprehensive Rating

6.1 Please give an overall rating of the course on a scale from excellent (1) to very poor (6).

<table>
<thead>
<tr>
<th>Rating</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>excellent (1)</td>
<td>27%</td>
</tr>
<tr>
<td>good (2)</td>
<td>40%</td>
</tr>
<tr>
<td>satisfactory (3)</td>
<td>27%</td>
</tr>
<tr>
<td>adequate (4)</td>
<td>0%</td>
</tr>
<tr>
<td>poor (5)</td>
<td>0%</td>
</tr>
<tr>
<td>very poor (6)</td>
<td>0%</td>
</tr>
</tbody>
</table>

7 Free Text Comments

7.1 Which aspects of the course did you like?

- Statistical basics
- Nice way of teaching
- concepts + methods are well-explained.

Practical classes fit very good to the theoretical lectures

R language.
* statistical applications to Biology.

It covers many aspects of statistics.

the programming exercises after the lecture.

The practical sessions.
Sometimes the professor did a summary of the previous classes.

Content of the lecture is very relevant for up-to-date science.

The course is somewhat a practical course compared with other subjects.

This lecture dealt with various and helpful topics including basic statistics, clustering, and other data mining algorithms which can be applied to a variety of research fields.

- Discussed a lot of things
- Clear structure
- Repetition of statistics

7.2 What could be improved?

- Add some scenarios in slides related to each concept.
- Examples of algorithms codes.
- R programming need extra time or spend half an hour of exercise class for R.

Examples are sometimes difficult to follow.
Interpretation of the results

Some contents are difficult to understand.

Date of exam is too early.

- Course room wasn’t adequate (of the exercise)
  => difficult to see the whiteboard
- Tutor often times difficult to understand

I think could be good idea include another language (Python) as part of the exercises.
To have a textbook.

The exercises were too difficult for non-computer scientists; instead of learning machine learning one had to struggle with specificity of R. And because they are mandatory, it was demotivating: the whole day spend on solving particular task instead of learning machine learning and statistics themselves.

The structure of the slides & the exercises, because there is a difference between what is given and what is applied.

Lecture materials of statistics are nice. But others could be improved in my opinion. Especially, HMM material was most confusing for me.

- Exercises are focused too much on R. Less focus on R, so that the students have more time to concentrate on the concepts.

The room for the exercises was not good:
It was hard to see anything from the back.
Also the exercises could be better. I spend most of the time on google to find out how to work with R / the used dataset. If it was mentioned, it was right after we had to hand it in and already know how to work with it. This should be the other way around!
Also sometimes it was hard to understand what should be done.
7.3 You can leave remarks and further feedback here.

In all, it is a good lecture.
Lecturers’ Questionnaire

This part contains data provided by the lecturers.

1 Lecture metadata

| Number of students in the lecture at the beginning of the semester | 43 |
| Number of students in the lecture at the end of the semester | 36 |
| Number of students participating in the exercise classes at the beginning of the semester | 43 |
| Number of students participating in the exercise classes at the end of the semester | 36 |
| Number of students that have registered for the exam | 36 |

2 Exercise classes

| Number of exercise classes | 11 |
| Average number of students per exercise class at the end of the semester | 36 |

The students have been assigned to an exercise class in the following way:

By putting their name into list on paper.

3 Helpful stuff

There has been no test exam.

Sample solutions for exercise tasks have been distributed.

4 Free text comments

4.1 In your opinion, what aspects of the module worked well this semester?

- All students reached 50
- Students made a very interested impression during the lecture
- Lecture was well attended
- The vast majority of students passed the exam.

4.2 What would you change if you were to offer this module again and why?

- Short mini-exercises within tutorials ”specifically including theorical questions

4.3 In case there have been obligatory course achievements: Please judge on their effectivity regarding the learning success of the students.

- Exercises and tutorials were organized effectively to reach the minimum number of points from all exercises.
4.4 Further remarks

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