Intelligent Learning and Analysis Systems: Machine Learnig – Prof. Dr. Stefan Wrobel; Dr. Tamas Horvath

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Lecture Survey – Fachschaft Informatik

May 8, 2018

Turned in Questionnaires: 52

1 Lecture Evaluation

1.1 Please rate the lecture's concept.

| 1.1.1 How often did you attend the lecture? | | | | | |
|---|-----------|---------|-----|----------------|-----|
| Always – Never | 69% | 22% | 4% | 6% | 0% |
| Answers: 51 Mean: 1.5 Standard-Deviation: 0.8 | 1 | 2 | 3 | | 5 |
| 1.1.2 Did the lecture appear to be clearly str | uctured | to you? | | | |
| Yes – No | 12% | 45% | 22% | 12% | 10% |
| Answers: 51 Mean: 2.6 Standard-Deviation: 1.1 | 1 | 2 | 3 | 4 | 5 |
| 1.1.3 Have topics been illustrated by sensible | e example | es? | | | |
| Always – Never | 12% | 31% | 29% | 20% | 8% |
| Answers: 51 Mean: 2.8 Standard-Deviation: 1.1 | | 2 | 3 | 4 | 5 |
| 1.1.4 Were the slides/lecture notes helpful? | | | | | |
| Very helpful – Not helpful | 12% | 33% | 29% | 22% | 4% |
| Answers: 51 Mean: 2.7 Standard-Deviation: 1.0 | 1 | 2 | 3 | 4 | 5 |
| 1.1.5 Have the topics been explained extensi | vely enou | ıgh? | | | |
| Always – Never | 2% | 42% | 28% | 20% | 8% |
| Answers: 50 Mean: 2.9 Standard-Deviation: 1.0 | 1 | 2 | 3 | 4 | 5 |

2 Lecturer Evaluation

2.1 Please rate Prof. Dr. Stefan Wrobel.

| U U | | | | | | | | | | | |
|--|---------------------------------------|------------------------|------------------------|----------------------|--------------------|--|--|--|--|--|--|
| Everything – Nothing | 24% | 50% | 16% | 10% | 0% | | | | | | |
| Answers: 50 | | | | | | | | | | | |
| Mean: 2.1 | | | | | | | | | | | |
| Standard-Deviation: 0.9 | 1 | 2 | 3 | 4 | 5 | | | | | | |
| 2.1.2 Did the lecturer answer your questions profoundly? | | | | | | | | | | | |
| Always – Never | 33% | 37% | 20% | 11% | 0% | | | | | | |
| Answers: 46 | | | | | | | | | | | |
| Mean: 2.1 | | | | | | | | | | | |
| Standard-Deviation: 1.0 | 1 | 2 | 3 | 4 | 5 | | | | | | |
| 2.1.3 Was the lecturer available for question | e outsido | of the la | eturo? | | | | | | | | |
| 2.1.5 Was the lecturer available for question | la Outaide | or the let | coure: | | | | | | | | |
| Always – Never | 23% | 23% | 41% | 8% | 5% | | | | | | |
| Answers: 39 | | | | | | | | | | | |
| | | ſ | | | | | | | | | |
| Mean: 2.5 | | | | E | | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 | 1 | 2 | 3 | 4 | 5 | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 | 1 | 2 | 3 | 4 | 5 | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 2.1.4 Could you understand the lecturer acc | 1 nustically? | 2 | 3 | 4 | 5 | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 2.1.4 Could you understand the lecturer acc Very well – Not at all | 1 oustically? 55 % | 2 | 3 | 4 2 % | 5 | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 2.1.4 Could you understand the lecturer acc Very well – Not at all Answers: 51 | 1 oustically? 55 % | 2 | 3 | 4 2 % | 5 | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 2.1.4 Could you understand the lecturer acc Very well – Not at all Answers: 51 Mean: 1.6 | 1 oustically? 55% | 2 | 3 | 2 % | 2% | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 2.1.4 Could you understand the lecturer acc Very well – Not at all Answers: 51 Mean: 1.6 Standard-Deviation: 0.9 | 1 oustically? 55 % | 2 31% | 3 10 % | 2 % | 5 2 % | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 2.1.4 Could you understand the lecturer acc Very well – Not at all Answers: 51 Mean: 1.6 Standard-Deviation: 0.9 2.1.5 The speed of proceeding was | 1 oustically? 55 % | 2 31% | 3 10 % | 4 2 % | 5 | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 2.1.4 Could you understand the lecturer acc Very well – Not at all Answers: 51 Mean: 1.6 Standard-Deviation: 0.9 2.1.5 The speed of proceeding was Too fast – Too slow | 1 oustically? 55 % 1 12 % | 2 31 % 2 18 % | 3 10 % 3 61 % | 4 2 % 4 6 % | 5 2% 5 4% | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 2.1.4 Could you understand the lecturer acc Very well – Not at all Answers: 51 Mean: 1.6 Standard-Deviation: 0.9 2.1.5 The speed of proceeding was Too fast – Too slow Answers: 51 | 1 oustically? 55 % 1 12 % | 2 31 % 2 18 % | 3 10 % 3 61 % | 4 2 % 4 6 % | 5 2% 5 4% | | | | | | |
| Mean: 2.5 Standard-Deviation: 1.1 2.1.4 Could you understand the lecturer acc Very well – Not at all Answers: 51 Mean: 1.6 Standard-Deviation: 0.9 2.1.5 The speed of proceeding was Too fast – Too slow Answers: 51 Mean: 2.7 | 1 oustically? 55% | 2 31 % 2 18 % | 3 10 % 3 61 % | | 5 2% 5 4% | | | | | | |

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

2.2 Please rate Dr. Tamas Horvath.

| 2.2.1 How much of the content do you under | rstand du | ring the l | lecture? | | |
|---|------------|------------|----------|------|------|
| Everything – Nothing | 6% | 37% | 33% | 20% | 4% |
| Answers: 51 | Г | | | | |
| Mean: 2.8 | | | | | |
| Standard-Deviation: 1.0 | 1 | 2 | 3 | 4 | 5 |
| 2.2.2 Did the lecturer answer your questions | profound | lly? | | | |
| Always – Never | 26% | 40% | 21% | 11% | 2% |
| Answers 47 | _ | | | | |
| Mean: 2.2 | | | | | |
| Standard-Deviation: 1.0 | 1 | 2 | 3 | 4 | 5 |
| | - | - | 9 | - | 9 |
| 2.2.3 Was the lecturer available for question | s outside | of the lea | cture? | | |
| Always – Never | 32% | 22% | 34% | 10% | 2% |
| Answers: 41 | | _ | | | |
| Mean: 2.3 | | | | | |
| Standard-Deviation: 1.1 | 1 | 2 | 3 | 4 | 5 |
| 2.2.4 Could you understand the lecturer aco | ustically? | | | | |
| | 0C 07 | 00.07 | 0C 07 | 1007 | 4.07 |
| Very well – Not at all | 26 % | 28 % | 20 % | 10 % | 4 % |
| Answers: 50 | _ | | | | |
| Mean: 2.4 | | | | | |
| Standard-Deviation: 1.2 | 1 | 2 | 3 | 4 | 5 |
| | | | | | |
| 2.2.5 The speed of proceeding was | | | | | |
| Too fast – Too slow | 6% | 35% | 45% | 12% | 2% |
| Answers: 49 | _ | | | | |
| Mean: 2.7 | | | | | |
| Standard-Deviation: 0.8 | 1 | 2 | 3 | 4 | 5 |
| | | | | | |

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 | 30% | 44% | 16% | 10% | 0% |
|--------------------------|-----|-----|-----|-----|----|
| Answers: 50 Mean: 2.1 | | | | | |
| Standard-Deviation: 0.9 | 1 | 2 | 3 | 4 | 5 |

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

| Yes – No | 41% | 39% | 14% | 6% | 0% |
|--------------------------|-----|-----|-----|----|----|
| Answers: 51 Mean: 1.8 | | | | | |
| Standard-Deviation: 0.9 | 1 | 2 | 3 | 4 | 5 |

3.1.3 Do you think the obligatory course achievements are adequate?

| Yes – No | 31% | 29% | 18% | 18% | 4% |
|---|------------|---------|-----|-----|----|
| Answers: 51 Mean: 2.3 | | | | | |
| Standard-Deviation: 1.2 | 1 | 2 | 3 | 4 | 5 |
| 3.1.4 Did your interest in this module's fiel | d of study | change? | | | |
| Strongly inc. – Strongly dec. | 22% | 35% | 24% | 14% | 4% |
| Answers: 49 Mean: 2.4 | | | | | |
| Standard-Deviation: 1.1 | 1 | 2 | 3 | 4 | 5 |

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



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 | 12% | 26% | 39% | 18% | 6% |
|--------------------------|-----|-----|-----|-----|----|
| Answers: 51 Mean: 2.8 | | - | | | |
| Standard-Deviation: 1.0 | 1 | 2 | 3 | 4 | 5 |

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



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 | 80 % | 14% | 4% | 2% | 0% |
|--------------------------|------|-----|----|----|----|
| Answers: 51 Mean: 1.3 | | | | | |
| Standard-Deviation: 0.6 | 1 | 2 | 3 | 4 | 5 |

| 4.1.2 Have the exercise sheets been available | on time? | ? | | | |
|---|------------|-----------|------------|------------|--------|
| Always – Never | 82% | 14% | 2% | 2% | 0% |
| Answers: 49 | | | | | |
| Mean: 1.2 | | | | | |
| Standard-Deviation: 0.6 | 1 | 2 | 3 | 4 | 5 |
| 4.1.3 The difficulty of the exercise sheets var | ·ied | | | | |
| Not at all – Greatly | 0% | 26% | 47% | 22% | 6% |
| Answers: 51 Mosp: 2.1 | Г | | | | |
| Standard-Deviation: 0.8 | 1 | 2 | 3 | 4 | 5 |
| | | | , | | ů. |
| 4.1.4 Did the contents of the exercises match | n the curr | ent conte | ents of th | ne lecture | ? |
| Lecture far ahead – Lecture far behind | 0% | 14% | 78% | 6~% | 2% |
| Answers: 51 | | [| | | |
| Mean: 3.0 | | | | | |
| Standard-Deviation: 0.5 | 1 | 2 | 3 | 4 | 5 |
| 4.1.5 Judge the size of your exercise group! | | | | | |
| Too big – Too small | 6% | 12% | 76% | 6% | 0% |
| Answers: 51 | | [| | | |
| Mean: 2.8 | | | _ | | |
| Standard-Deviation: 0.6 | 1 | 2 | 3 | 4 | 1 5 |
| | | | | | |
| 4.1.6 Usually I thought the exercises were | | | | | |
| Too difficult – Very easy | 20% | 41% | 29% | 10% | 0% |
| Answers: 51 | | | | | |
| Mean: 2.3 | | | | | |
| Standard-Deviation: 0.9 | 1 | 2 | 3 | 4 | 5 |

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 | 74% | 19% | 2% | 2% | 2% |
|--------------------------|-----|-----|----|----|----|
| Answers: 47 Mean: 1.4 | | | | | |
| Standard-Deviation: 0.8 | 1 | 2 | 3 | 4 | 5 |

5.1.2 Could you understand your tutor's corrections and gradings?

| Always – Never | 58% | 26% | 10% | 6% | 0% |
|--------------------------|-----|-----|-----|----|----|
| Answers: 50 Mean: 1.6 | | | | | |
| Standard-Deviation: 0.9 | 1 | 2 | 3 | 4 | 5 |

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

| Always – Never | 48% | 28% | 18% | 4% | 2% |
|--------------------------|-----|-----|-----|----|----|
| Answers: 50 Mean: 1.8 | | | | | |
| Standard-Deviation: 1.0 | 1 | 2 | 3 | 4 | 5 |

5.1.4 Would you recommend visiting this exercise class?

Yes – No Answers: 50 Mean: 1.5

Standard-Deviation: 0.9



6 Comprehensive Rating

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



7 Free Text Comments

7.1 Which aspects of the course did you like?

examples, practiacal part

Interesting topic. Good lectures.

tutor

Anns, Kerel methods

most topics were quite interesting

Programming part and the topics which where teached to us.

Stefan Wrobel's explaination

slides could be organized well. I like prof-Tamas intutive examples

- programming exercises

- the exercise class was good and could clear many things up that were unclear in the lecture

excersise

svm Kernel methods COLT

Completeness of topics.

Strong theoretical background.

-Exercise sheets + Lecture uploads always an time - good professorts and tutors

Dr. Tamas Hovarth's part

Dr. Hovath did motivate the content of the lecture very well.

different lectures

I personaly like the part which were male about applied ML rather than theoretic part.

Neural nets

The professor is very knowledgable and to are the tutors.

Good exercises. Made us think and study and be aware of all the concepts.

Learning the subject as a whole man grod. As it was a totally new Subject to learn.

Nice & dedicated profs Arsine -> nice tutor

7.2 What could be improved?

more examples

Increase credit points of this module and include more topics/details.

It is distracting to have many different lecturers. They all have different styles and getting used to each style disrupts the flow of information.

realtion between topics slides cleariey

overall organization

Please hold the exercise in a class room, not in a lecture hall.

Exercise in a dedicated Room. Not tecer programming exercises directly after one another.

- More practical topics

- less theoretical topics

- More algorithms

Too many theoretical profs, sometimes more than 2 pages long, which didn't seuce for anything. More programming and practical skills.

tutor name should be slowin explaining

- more examples for the algorithm -> application of algorithms to small examples

- solutions for programming exercises

Exercise More programming part

Midterm exam should not be mandatory

- The lecture was at times too hard and proof-intensice (for my taste)

- There should habe been a preparation class for the midterm exam

Course could be much structured. At times it was very random

Could be structured a bit more to suite non-mathematicians.

No. of credit points should be increased The course is quite matematical. So, from industry point of view it should have less mathematical stuff

More practical assignments.

- Exercises were by for too theoretical

- often topics were not or later discussed in the lecture, that were on the exercise sheets.

- matching of exersise content to lecture content

- A lot more Math in ex. than lec.

tutorials at multiple times

More difficult homework easier midterm.

Our tutor sometimes seemed to struggle to present/explain the right solution for programming exercises, perhaps a ML would be helpfull.

The course should be well structured and given more practical examples.

More practical explanation of concepts, with examples, during the lecturer. Increase time for lectures.

Mathematical proofs are too much. And make us backheard

Make examples in slides

-Provide video/audio recording of lecture/exercise class -Provide printed solutions to students

7.3 You can leave remarks and further feedback here.

I found the lectures sympathic

Workload varid heavily throughout semester. Most exercise sheets weren't too hard, but especially the two programming exercises in the beginning were too much within two weeks. Grading of prog. ex. still not finished as of now Some times it was not exactly clear what was demanded in the exercises.

Exercise classy should be llittle more clear.

Tutor should be open to alternatic solution

please make the survey available online :)

I wish we had a lot more practical assignments instead of paper and percil calculations.

- I would have wanted more algorithmic/applicational exercise, exercises were too mathematical, too many proofs instead of applications

It would be better if the contents about decision tree can include more topics related its. e.g. random forest, boosting, bagging.

I had 2 tutors: name of tutor 1 seemed bored, no sample solutions, really useless + unjustified corrections name of tutor 2 well prepared, helpful, sample solutions, motivated

Maybe the lecturer has a solid background of the course but this does not necessoring mean that he can transfer the knowledge to the attendants.

The slides are very ambigous, needs to be more clear. The lectures needs to explain all concepts in detail and not just the overview . More practical examples and more relevant

exercise questions as well.

-Survey should be handed out to all students - not only to those that were in the last lecture (results heavily biased!)

-Challenging and pretty formal lecture; you should know linear algebra, analysis and stockastics pretty good

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 | ≈ 100 |
|---|---------------|
| Number of students in the lecture at the end of the semester | 81 |
| Number of students participating in the exercise classes at the beginning of the semester | ≈ 100 |
| Number of students participating in the exercise classes at the end of the semester | 70 |
| Number of students that have registered for the exam | ≈ 75 |

2 Exercise classes

| Number of exercise classes | 3 |
|--|--------------|
| Average number of students per exercise class at the end of the semester | ≈ 25 |

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

Assignment by the lecturer

3 Helpful stuff

The students were provided with a test exam. The students were provided with sample solutions for exercise tasks.

4 Free text comments

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

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

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

4.4 Further remarks