

COURSE ANALYSIS, postgraduate course

Third cycle courses, EECS School, KTH , from 2018

An asterix (*) denotes non-compulsory data.

Course data

Course name: Critical Perspectives on Data Science and Machine Learning

Course ID: FDT3303

Credits: 7.5

Credits per module: 7.5

Time period for course: HT2019

Teachers: Bob L. T. Sturm and invited guests

Examiner: Bob L. T. Sturm

Classroom hours: Twice a week for 2 hours

Nr of registered students: 22

Examination rate, in %: 100

Goals

Global course goals: This course prepares students for critical reflection upon developments in the disciplines of data science and machine learning, within both the commercial and academic spheres.

How the course design helps to fulfill these goals: The main content of the course is through the presentation of a series of articles (new and “classic”) that reflect upon research in data science and machine learning, and related disciplines, e.g., applied statistics. Individual students select and present a paper in depth, and lead discussion about the topics. There are also invited lecturers.

Pedagogical development - I

Changes made since previous time course was given: This is the first time the course has been offered.

Course evaluation; comments from students

Based on the anonymous questionnaire.

Evaluation response rate: 50%

Overall student view*: The course exposed students to perspectives they hadn't thought much about, and which will aid them in producing better research

Positive comments: Lectures and selected papers were interesting; diverse topics; interactive course was good; students came from many different disciplines, which added to the discussions

Negative comments: Sometimes discussions were boring; too many papers to read; some papers were too technical; several students were not engaged, using their laptops instead;

Pre-knowledge, comments*

Course design, comments*: add a lecture about machine learning; add another invited lecture; provide deeper feedback on annotations; students should write final reports using what they have learned in the course; lectures should be at least 30 minutes longer
Literature, comments: Perhaps add more recent papers; put the paper presentations online

Examination, comments

Particularly interesting* comments: Discussions of papers in smaller groups could be

better; the F0 room was better than the Fantum room; students should be able to suggest papers to read, or present their own work to receive critical feedback; describe how papers were selected for the course;

Course teacher's impressions from the evaluation

Comments: The last half of the last course was devoted to describing my observations of the course, and what worked and what didn't. Then I had the students attending complete a paper questionnaire, asking what they liked most about the course, what they liked least, and suggestions for how to make the 2020 edition better (summarised above).

Course teacher's summary

Overall view: This first offering of the course was successful in that all who were registered completed the requirements.

Positive comments: Every lecture was well attended, with at least 50% showing. The workload wasn't too large

Negative comments: Lectures in Fantum had less of a discussion feel, compared with those in F0, which has a round-table organization. There were too many people attending at times, which could lead to some disengagement. The workload was too little. The requirement of writing at least six annotations during course led to most annotations being completed within the first half of the course.

View on pre-knowledge*

View on course design*: The lecture time should be 3 hours, and the workload should be increased

View on course material: The invited lectures were very good, and I would like to increase their number next time.

View on examination: There was no examination.

Pedagogical development - II

Outcome of course changes made since last time course was given: N/A

Changes to be made before next time course is given:

Schedule lectures in F0.

Make lecture time 3 hours.

The breakdown of ECTS should be:

1. Write an annotation of at least 1 paper assigned each week of the course (1.5 ECTS)
2. As a pair, lead a discussion about a paper (1.5 ECTS)
3. As a pair, lead a discussion about another paper (1.5 ECTS)
4. Attend at least 6 sessions (0.5 ECTS)
5. Write a position paper in your domain of expertise relevant to a topic from the course (2 ECTS)

Annotations and in-class discussions will be peer reviewed, collected by teacher and distributed later. The final position paper will be graded by the lecturer.

Other

Comments*