#13

Emnekode / Course code	INFO135
Emnetittel / Course title	Advanced Programming (Vidarekommande programmering)
Semester	Spring 2021
Emneansvarlig / Course coordinator	Mehdi Elahi
Sist evaluert (semester / år) / Last evaluation (semester / year)	No evaluation yet

Hva er emnets undervisnings- og vurderingsform? / What are the teaching methods and forms of assessment used in the course?

The teaching included 16 frontal lectures, weekly group seminars (labs) with exercises, and 7 compulsory assignments. All of the lectures have been conducted digitally via Zoom, due to the Corona situation, and recorded and provided for the students. For seminars, some have been conducted digitally and some physically, whenever the regulations allowed.

While the initial plan has been similar to the plan of the last year, the course materials have been revised and improved considering the feedbacks received from previous students. This included extending the practical exercises within the lecture notes, providing more video items, adding more exercises during the seminars, as well as further improving the type and requirements of the compulsory assignments.

The final course assessment has been based on the written exam with the grading scale being A-F. In order for the students to be able to enroll in the exam, they have been required to pass a minimum of 5 compulsory assignments out of 7. The majority of the students (i.e., 159) passed the requirement and could take the exam. Due to the Corona situation, the exam has been conducted in the form of the home exam using the Inspera assessment system.

Oppfølging fra tidligere evalueringer / Follow up from previous evaluations

No previous evaluation has been made.

Sammendrag av studentene sin evaluering / Summarize the results from the student evaluation

Out of all students, only a few have responded to the course evaluation survey (i.e., 22 students). Most of the respondents have been either very satisfied or moderately satisfied. Few were less satisfied and provided comments for improvements, e.g., suggesting to consider teaching some of the topics (e.g., OOP) earlier in the course. While this sounds a good idea, the students are expected to have some previous knowledge on such topics (e.g., from INFO132). In terms of the course syllabus, the majority of respondents found the syllabus of the course up to date. The respondents further agreed that the workload of the course was neither too high nor too light. Correspondingly, the requirements for the course have not been perceived as too difficult or time-consuming for the students. With respect to the group seminars (labs), some of the respondents found the digital seminars (and perhaps the practiced exercises) interesting, while others found them less interesting than expected. They noted that the physical seminars could have been more beneficial for them in comparison to the digital seminars. This is somehow expected since a better interaction between the instructor and the students can happen. Similar responses have been provided in terms of relevance of the seminars. Some students have noted that receiving more feedback from TAs during the seminars would have helped them further in their learning. In summary, while further improvements are possible, the evaluation of the students still reflects an overall positive opinion towards different parts of the course, i.e., lecture notes, seminars, and assignments.

Emneansvarligs evaluering / The course coordinator's evalutaion

The course has been taught (digitally) without any major issue. On average, the attendance of students was higher at the beginning of the semester (~ 70%) in comparison to the end of the semester (~ 30%). A reason can be that the lectures were recorded and hence the students can watch them any time they prefer. Another reason can be that no attendance requirements have been applied due to the Corona situation.

INFO135 is a relatively demanding course and it covers a rather diverse range of topics, including data structures and

algorithms, complexity analysis, OOP, and thread programming. In preparation for the lectures and the corresponding group seminars, the primary focus was on practical exercises, given both during the class (in the form of quizzes) and in the group seminars (in the form of exercises). In doing so, a balance has been made in providing the underlying theory as well.

Moreover, several resources have been utilized, in addition to the main and recommended course book. This includes other top-rated books from highly reputed publishers of the field (e.g., Wiley publication). Before the semester, I contacted that publisher and obtained lots of learning materials specifically developed for the teachers which in the end were greatly helpful. In addition to that, relevant video items have been provided to the students, found to be interesting and beneficial by them.

Last opp karakterfordeling her (Du finner den i Inspera, alternativt kan du ta kontakt med administrativ kontaktperson) **Upload the grade distribution here (You'll find it in Inspera, you can also contact the administrative contact person)**	Grade Distribution - INFO135.pdf

Evt. kommentar til karakterfordeling / Comments on the grade distribution
The exam included 32 questions, made in different types, where the total points that could be obtained were 40. The grade distribution of the students reflects a relatively normal distribution with the peak on C grade:

A: 18.2%
B: 26.4%
C: 35.8%
D: 10.1%
E: 6.9%
F: 2.5%

Mål for neste evalueringsperiode - forbedringstiltak? / Goals for the next evalution period - what can be improved?
In summary, the course has been run well and I would not recommend a major revision in the teaching plan or syllabus. However, there is room for improvement. A potential improvement can be swapping some of the lectures that are taught at the end of the course with some of them that are taught in the middle of the course or even earlier. This can lead to some potential improvement in terms of distributing the difficult topics all over the course. Another change can be reducing the introductory lectures on Python data structures taught in the beginning, and instead, extending more the lectures on algorithms complexity analysis taught later.