

# 2IS55 Software evolution: Final evaluation

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This questionnaire is anonymous. Please answer questions on both sides of the page. Your feedback is much appreciated.

## 1. Background

- I am following:
  - BIS: 3
  - CSE: 4
  - ES: 5
  - Other : 1
- My bachelor degree is from
  - TU/e: 4
  - Dutch polytechnic school (HBO): 4
  - foreign university: 5
- I am
  - An exchange student: 2
  - Not an exchange student: 12

## 2. Please indicate whether you agree with the following statements:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The course contributes to knowledge and skills necessary for my future job as a software engineer.			4	9	1
The course is well aligned with my previous knowledge.	1	4	1	6	2
The course is well organized.			2	6	6
The lectures are interesting.			3	10	1
The assignments are well aligned with the topics covered during the lectures.		1	4	5	4
The assignments are formulated in a clear and concise way.		2	1	8	3
The assignments are challenging.			2	9	3
It is clear what criteria would be used when the assignment will be graded.	1	2	2	4	5
Feedback provided is adequate and helps me to realize how my work could be improved.		2	3	6	3
I like the combination of individual and group assignments.			5	9	

## 3. Please indicate whether you consider the assignments:

- Too easy
- easy
- corresponding to my level: 6.5

difficult: 6.5

too difficult: 1

4. How much time have you spent on the course so far? \_\_\_\_\_ hours, including the time spent on attending the lectures.

90

100

100

100

100

120-140

150

150

160

160

160

I consider this amount of time to be:

too low

low: 0.5

average: 5

high: 6.5

too high: 1

5. How would you evaluate (on the traditional 1-10 scale)

a. the course in general?

i. 6: 1

ii. 7: 2

iii. 7.5: 1

iv. 8: 9

v. 9: 1

b. the didactic skills of the lecturer?

i. 7: 2

ii. 8: 6

iii. 9: 6

c. the lectures?

i. 6: 1

ii. 7: 7

iii. 8: 4

iv. 9: 1

v. 10: 1

d. the assignments?

i. 5: 1

ii. 6: 1

iii. 6.5: 1

iv. 7: 6

v. 8: 5

6. Would you consider

a. Performing an individual assignment on a topic related to software evolution (Capita Selecta):

i. No: 6

ii. Yes: 3.5

iii. Maybe: 1.5

b. Following next year "Seminar Software Engineering and Technology"?

i. No: 5

ii. Yes: 4

iii. Maybe: 2

c. Conducting a graduation assignment a topic related to software evolution?

i. No: 8

ii. Yes: 2

iii. Maybe: 1

7. Which one of the following lectures was most useful for you? Why? Least useful? Why?

S-, P- and E-type systems. Lehman's laws of software evolution (+)	Software metrics (I). Metrics and scales, ?LOC, metrics aggregation (++++).
Requirements Evolution (+++)	Software metrics (II). Structure and modularity metrics for imperative and OO-programs (+++).
Architecture reconstruction (reverse engineering) of structural UML models (++-)	Software metrics (III). Package metrics, churn metrics and metrics for cost and time estimation (++++)
Architecture reconstruction (reverse engineering) of behavioural UML models (++-)	Tests. Introduction to reengineering (+).
Guest lecture: Revision control systems (++--)	Refactoring (+++).
Code duplication (+++).	Guest lecture: Model-driven engineering (-)
Advanced code duplication techniques. Program differencing (+)	DB migration (++)
What can we learn from the logs of version control systems? (++++)	Evolution to and in Aspect-Oriented Programming.

8. Which one of the following assignments was most useful for you? Why? Least useful? Why? How would you improve the assignment?

A1: S-, P- and E-type systems (++-).	A5: Cathedral and Bazaar (++++)
A2: Requirements Evolution (++++)	A6: Software metrics (+++)
A3: Architecture evolution (++-)	A7: Mining unit tests (+++)
A4: Code duplication (++++)	A8: Software engineering projects (+)

- Arch evolution: didn't get the expected idea of the assignment
- A1 was less useful because identification of types of systems does not have any direct implications.
- A1 interesting but not really useful.

- A5 is useful directly in practice
- A6: Clearer description and explanation of tools that have to be used.
- The most useful was assignment A4 about code duplication. It gave me more insight in how big software systems are developed over time.
- A7 was the least useful, although I learned to work with new tools, it didn't really provide me with new insights on the subject.

9. What are the positive aspects of this course?

- Content:
  - It gives a general overview of the software development and evolution.
  - General idea of software evolution acquired.
  - Broad overview of different subjects, lots of practical examples.
  - Interesting.
  - Appropriate subject
  - Variety of subjects.
  - It lets you look at software development in a different way.
  - Interesting
  - It is practical and useful. So, certainly you learn and get something useful from the course.
  - The course subjects are relevant for future work.
- Assessment
  - Manner of "examination"
  - Criteria are clear and given in advance.
  - No exam
  - Quick assignment reviews
  - Most assignments were fun to do (aggregating non-trivial data).
  - Lots of choice in project/tools
  - Learning and using different tools
  - Lots of practice related to the subjects.
  - Assignments involve experiments taking real software as study cases
  - You really learn to write solid reports, ie the feedback on the assignments is very useful.
- Lectures
  - Interactive lectures
- Organization
  - Workload well spread
  - good organization
  - Good structure
  - Workload is spread

10. What would you advise to improve?

- Lectures

- Some lectures were a little boring to follow because they contain a lot of theory at once.
  - Since the course is optional for ES, more ES applications should be analyzed.
- Lecture-assignment alignment
  - A better explanation of the assignments during the lectures.
  - Also some lectures were not contained in any assignment.
  - Also may be treating the basic use of tools that have to be used for assignments.
- Assignments
  - Feedback:
    - The assignment feedback should be improved.
    - Explicit feedback in assignment's grades.
    - Feedback with points per section: Sometimes I don't totally understand where I loosed points.
  - I think, the time spent for the course is pretty high especially for the student who has taken six subjects which by the way is normal to complete graduation in 2 years. So, if the assignments were reduced from 8 to 7, and all assignments would be done before June 1, it would be much helpful.
  - Sometimes, a very large amount of time is needed for actually obtaining data (due to for instance, problems with SVN repository).
  - More variation.
  - Since the course is optional for ES, more ES applications should be analyzed.
- General
  - Fine as is.
  - General advice of background needed to follow this course.
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Thank you!