

How do we design examination?

a. What do we demand for a passing grade?

In theory the answer is of course given by the learning outcomes in the syllabus. In practice however, the answer is usually given by a certain percentage of the maximal number of points on the written exam, typically 40 percent. The usual way of constructing an exam is to first set the limits, and then designing questions and assigning points such that a student who satisfies all the learning outcomes would reach the limit for passing the course. Some written exams are divided into two parts: "godkändtel" and "överbetygsdel". Some persons in the group thought it is wrong to have a written exam where it (at least in theory) is possible to get full point on the "överbetygsdel" but still not passing the course since the student does not get enough points on the "godkändtel" (although this probably very rarely occurs in practice). Other persons thought that this is fine since the "godkändtel" tests the width, and the "överbetygsdel" tests the depth.

b. How large are differences between different courses?

It is difficult to say how large the differences are, but it is clear that there are differences, and we also discussed differences between different programs (see below). We also discussed differences within a course, between different examination occasions. Some of us thought that it is fine with more difficult questions and lower passing percentage on the re-exams. The re-exams could then be viewed as an occasion for testing new questions.

c. Do we want consensus on demand for passing an exam?

We had some discussions about this: one person thought there should be a fixed limit of percentage of the maximal number of points on the written exam. This limit should be valid for all courses, and it should be (at least) 50 percent rather than the usual 40 percent. That would be more in line with systems in other countries, this person claimed, and letting the students pass without being able to answer even half of the questions correctly sends wrong signals. Other persons thought that the limit in percentage does not matter in practice, since it can be compensated by the level of difficulty of the questions.

d. Differences between math students, "civilingenjörer", "högskoleingenjörer" etc.?

There are such differences, and most of us thought this is fine. Some programs (in particular engineering math and engineering physics) have a better reputation than others, and they need to guard their reputation. Other persons in the group objected to this idea. If two courses have similar syllabuses and learning outcomes, then the exams should be equally difficult. In particular, treating different programs differently is not possible if the same course is simultaneously taken by two different programs (for example, one "civilingenjörsprogram" and one "högskoleingenjörsprogram").