

# Grades and credits

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## 1 ECTS credits

The European credit transfer and accreditation system (ECTS) was designed to facilitate student mobility between countries, as part of a standardization effort within the Bologna process [1]. This means that it is now simpler to go abroad for an exchange period, or to apply for admission in foreign universities, as results obtained at an institution can be transferred to another.

The principle of ECTS is based on an equivalence between 1 credit and 25 to 30 hours of study<sup>1</sup>, whether it is in class or at home. For example, a typical technical course at UTBM is 6 credits, which corresponds to an expected workload of 150 hours over a semester. Similarly, an academic year corresponds to 60 credits, so a 5-year degree from UTBM is 300 credits.

## 2 Letter grading scale

Another aspect of this system is the grading scale. Each country traditionally has a different grading scale: for example, in France, grades go from 0 (the worst) to 20/20 (the best), while in Germany, grades from 1 (the best) to 5 (the worst). Each country keeps its own system, but with the ECTS scale, the obtained grades are converted to a letter grade using a two-step process:

1. First, two groups are distinguished: students that pass, and students that fail. Students in the failing group are assigned either FX or F, based on the definitions given in Table 1.
2. Second, in the group of students that pass, students are ranked according to their final, numerical grade. A letter grade from A to E is then assigned according to their rank in the group, based on the distribution shown in Table 1.

Grade	Percentage	Definition
A	First 10%	Pass – outstanding performance without errors
B	Next 20%	Pass – above the average standard but with minor errors
C	Next 25%	Pass – generally sound work with some errors
D	Next 20%	Pass – fair but with significant shortcomings
E	Next 10%	Pass – performance meets the minimum criteria
FX	–	Fail – some more work required before the credit can be awarded
F	–	Fail – considerable further work is required

Table 1: Letter grades definition in the ECTS scheme.

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<sup>1</sup>For comparison, 1 North American credit = 2 ECTS credits.

Several comments can then be made:

- There is no target or limit on the number of passing and failing students. In other words, the ECTS scale has no impact on whether a student passes or fails.
- Passing letter grades are curved according to a normal distribution, as shown in Fig.1. The general idea is that it enables distinguishing the best students from the the weakest, whatever the grading habits of evaluators (for example, in France, 14/20 can be a very good grade to some and an average one for others). It also means that it is impossible that all students receive an A for the same course.
- There are however limits to this scale. It is not representative if there is a low number of students, as using a standard distribution is more realistic for a large number of samples. The same holds if the standard deviation of grades is low: if all numerical grades are similar, there could be only a small difference between an A and an E. As a consequence, if no ranking is possible or relevant, a simple pass or fail system can be used.
- At UTBM, students either receive all available credits for a course if they pass (whatever the letter grade), and no credit if they fail. However, a different number of credits could be given depending in the obtained letter grade.

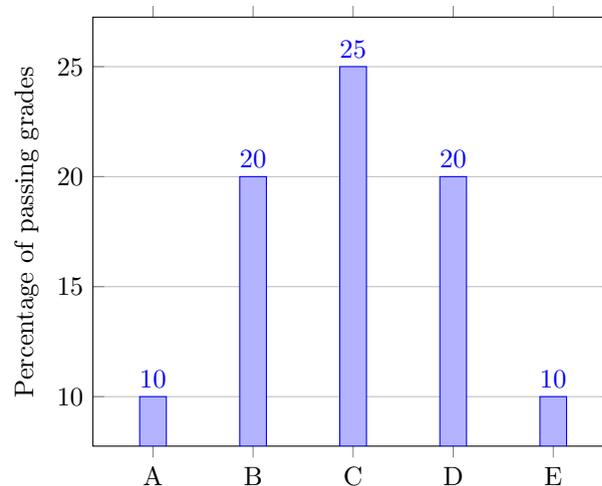


Figure 1: Distribution of passing letter grades in the ECTS scheme.

## References

- [1] European Union. *ECTS Users' Guide*. Document NC-05-14-068-EN-N, 2015.  
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