Traditional points-based grading systems can leave both instructors and students with a muddled understanding of student performance. Most importantly, point totals don’t indicate mastery of the key learning objectives in a class. Most instructors have experience with students who manage a passing grade without mastering important ideas, while others work hard but barely pass. In addition, it is difficult to assign meaningful point values to student participation in an active learning classroom.

Standards-based grading helps to address each of these issues: Students earn grades by demonstrating mastery of a set of standards, which correspond to the major learning objectives of the class. A major advantage of this system is that it shows everyone involved what objectives a student has achieved, and what requires more work.

We will describe the advantages and disadvantages of standards-based grading, reflect on its use in a senior-level coding theory class, and give suggestions and describe pitfalls for instructors considering its use. (Received August 22, 2013)