



MALMÖ HÖGSKOLA

Malmö University

**Programmering med C#, grundkurs
Programming Using C#, Basic Course**

Exercise - Grade Calculator **Optional – not to be submitted**

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Exercise – Grade Calculator

1. Objectives

- 1.1. To implement encapsulation being one of the essential concepts of OOP.
- 1.2. To begin using constructors and the `get`- and `set` properties.

2. Description

Malmö University has to adapt ECTS (European Credit Transfer System) starting from the fall semester 2007. As there are no clear rules, a course coordinator has decided to apply a criterion given in the table below in an examination where a student can achieve a maximum of 60 points.

Points	ECTS Grade
51 – 60	A
41 – 50	B
30 – 40	C
21-29	D
11-20	E
< 11	F

Write a program that lets a teacher input the points from the examination for each student and then calculates an alphabetic grade 'A' to 'F' according to the above table.

3. Instructions

- 2.1. Write a class **GradeCalc.cs** with methods that carry out all operations related to the grading.
- 2.2. All fields (attributes) should be declared as `private`. Access to data is to be done by `public get` and `set` properties.
- 2.3. The user's input must be validated before a calculation takes place.

4. Solution

- 2.4. A suggested solution is given via the platform as a complete Visual Studio.NET project.

Good Luck!

Programming is fun. Never give up. Ask for help!

Farid Naisan, Course Coordinator and Instructor