**CSE 210: Programming with Classes**

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**Inheritance – Articulate**

**Instructions**

What is inheritance and why is it important?

Your response must:

Explain the meaning of Inheritance

Highlight a benefit of Inheritance

Provide an application of Inheritance

Use a code example of Inheritance from the program you wrote

Thoroughly explain these concepts (this likely cannot be done in less than 100 words)

Inheritance follows the same idea that people inherit certain characteristics from their parents, in programming it would be the same thing, when you have a main code with several classes and a second part of the code where several classes from the main code will be used you can use the inheritance capability that gets the classes used even if you don't write the code. One of the advantages of using inheritance in code is that you can write fewer lines of code, with more organized code, an example of code using inheritance is the one below:

**// a regular class called Person**

**public class Person**

**{**

**public string GetName()**

**{**

**return "Joseph";**

**}**

**}**

**// a class that inherits from Person**

**public class Student : Person**

**{**

**public string GetNumber()**

**{**

**return "0123456789";**

**}**

**}**

**// the student instance automatically has the GetName() method!**

**Student student = new Student();**

**string name = student.GetName();**

**Console.WriteLine(name);**

Output:

**Joseph**