

Genetics: Patterns of Inheritance	Stem Based Post-Secondary Lesson Plan
Objective	By the end of this lesson, students will understand certain aspects of patterns of inheritance. They will also be able to identify how certain types of diseases are passed on from one generation to another. Students will be able to apply their knowledge to create their own website.
Standards	B.1.21: Understand and explain that the information passed from parents to offspring is transmitted by means of genes which are coded in DNA molecules. B.1.29: understand that and explain how the actions of genes, patterns of inheritance, and the reproduction of cells and organisms account for the continuity of life, and give examples of how inherited characteristics can be observed at a molecular and whole-organism levels-in structure, chemistry, or behavior.(1)
Learning Environment	The learning environment will consist of a small lecture room on a college campus that can hold approximately 100 students.
Description of Students	Students will be college students that are pursuing a degree in some type of biological science.
Materials Used	Instructor: microphone, an overhead projector, overhead pens, and notes to keep on track Student: computer or pen and paper for taking notes, access to the internet
Procedure	<ol style="list-style-type: none"> 1. Students will arrive to class and turn in their homework from previous class into a box in front of class then take a seat. 2. Student will pull out the materials they will need to take notes. 3. During class, students will take notes and ask questions freely if needed. 4. Students will be assigned into groups and receive the topic for their website project. 5. Students are free to leave or ask more questions when the class is over.
Application	After lecture, students will be able to apply highlighted patterns of inheritance to complete the project they were given in class. They will read corresponding chapters from their textbook. Once they have gained enough knowledge about this particular subject, students will be placed in groups of 4 or 5. In these groups students conduct their own research on a specific topic from the lecture. They will then create a website that other students can view to help learn more about the other topics that were covered in class.
Evaluation	Students will be evaluated on their work and their group participation on this project that will be due within 2 weeks. Students will also be evaluated at end of Genetics portion of course by taking a test on this lesson as well as other genetics related lessons.

1. Standards from: <http://dc.doe.in.gov/Standards/AcademicStandards/StandardSearch.aspx>