**Lesson Plan for Classroom for a taught lecture in Org. Chem.**

**STEM Teaching Learning Community–Spring 2014**

*By Diana Sepulveda-Camarena*

**Situational Factors:**

1. Specific context of teaching/learning situation

Number of students: 38

Level: Upper division level

Meetings: Two 1:15 sessions, course taught traditionally (in person)

2. General context of the learning situation

This class is a core-course for most STEM discipline majors as well as health-related ones. It therefore is a cornerstone in the students’ knowledge. Colleges and universities put a great emphasis on this class (?)

3. Nature of the subject

Although organic chemistry itself it’s a combination of practice and theory, the practice (laboratory) part is defined as a separate course. This specific class concerns only the theory. But I do extensively refer to the practice – Vitamin D, petroleum refining and Friedel Crafts, history, etc.

4. Characteristics of the learners

For the most part, the students in this class are either chemistry majors or are interested in biological areas and / or pursuing pre-medical degrees. All of students have already taken a semester of organic chemistry before this class (it is a requirement to register). With this said, their expectations are to get an A and second, to learn concepts that later on they will be related to their health/science – related careers. Since this is an honors class, students have an above average interest on being there. It is 60/40 CHEN+CHEM+BICH/outright pre meds (maybe 60/40 in their goals vs. majors)

5. Characteristics of the teacher

The current teacher for this class holds a Ph.D. degree and is an expert on teaching this subject. He has been doing so for a long time now and has actually received several teaching awards. One of his strengths is been available for students ALL the time (or almost), giving immediate feedback to any type of assessment in the class as well as keeping students motivated by presenting them with specific examples of the relevance of the topic just covered in class.

He likes to provide students with problem sets every week and holds help sessions twice a week for 4 hours each. This way, students can come and ask questions if they need to, in order to turn in their assignments on time. He is very clear from the beginning regarding the evaluation and class assessments.

**Learning Outcomes:**

At the end of the lecture students should be able to:

* Identify the amine functional group within an organic molecule
* Classify amines depending on their structural differences
* Give an example of a reaction that is used to synthesize amines
* Differentiate between the Hoffman and Curtius rearrangement reactions
* Predict the products of reactions involving diazotization
* Solve problem set #10

**Assessment:**

I prepared problem set #10 for this class. I am attaching a copy to this document.

**Learning Experiences/ Teaching Methods:**

I will utilize traditional lecturing (chalk talk) since the professor in charge of this class uses this method so I want to be consistent. However, I will incorporate couple of interactive questions with students that at the end I will request the answers for. As I also mentioned before, a problem set was given and usually students work in groups at a designated time in order to enhance collaborative learning.

**Reflection Preparation:**

Since I will ask students to submit the answer to those surprise questions during the lecture, I will be able to get an idea if they were paying attention.