Field Trip to WIU Chemistry Department
By Courtney Torrance

At Western Illinois University we performed three separate labs. The first lab we were introduced to polymers and nylon 6-6 by Dr. Vinod and his helpers Bishnu and Adeola. A polymer is a very large molecule, or macromolecule, containing a large number of all the same or similar molecules bonded together. We were then introduced to nylon 6-6 which is an example of a polymer, and an expensive one at that. We made our own nylon 6-6 by adding the same amounts of two different monomers, hexamethylene diamine and adipolychloride. The result was a film which we picked up with tweezers, and then rolled on a stirring rod. The substance on the stirring rod was nylon!

For the second lab, we discussed essential oils and artificial additives to foods to make them taste the way they do. We learned that essential oils are expensive, so they aren't used in regular foods because they would make food super expensive. So, scientists make artificial flavorings and sweeteners in foods. We were given different samples on watch glasses, and we had to waft them to smell them, and guess what they were supposed to be. This was probably my favorite lab we did just because it was neat to see how the different artificial sweeteners and flavorings closely resembles the foods we're familiar with.

The final lab we did, we had to make our way upstairs. There, we were introduced to Dr. Soendergaard and her helper Kimberly. She introduced us to gel electrophoresis by first showing us how to use a microchannel pipette to suck up a DNA sample. Then, we put each sample into a small well inside a gel. Next we closed the lid and turned it on. While it was on she explained to us what happened. Once it was turned on, the DNA was pulled through the gel trying to get to the other end because it had a positive charge. DNA is negatively charged so it is attracted to the opposite end. By stretching the DNA we are able to tell how long it is, or how many base pairs there are. We had to wait roughly twenty minutes for the stretching of the DNA to occur. Then the gel was placed under a blacklight and we were able to see how far each DNA sequence went, and how long each DNA sequence was.