

## Statement of Purpose for University Admission

Growing up, I always loved math and sciences. I was that weird kid that liked calculus and algebra, and I thought that chemistry was fun. And because I excelled in those things, my Aunt Gin always told me: "Kinsey, the best way to use those interests and apply them to a career, is to pursue a profession in the healthcare field." So by the end of high school and throughout my college education at University of California Santa Theresa I took coursework intended to prepare myself for paramedical profession. After working for several years for California Fidelity, an insurance company, where I was a medical claims investigator, I realized that Aunt Gin was wrong assuming that calculus and algebra was my calling. Suddenly one day after seeing blue cabbage turning red in lemon sauce, I realized that it was the chemistry rather than actuarial tables that was my calling and life-long desire.

Thirty years old, I moved from California to the Midwest to finish my undergraduate degree as a bachelor of science in Professional Chemistry and I enrolled in University of North Indiana (UNI). I am currently second semester Chemistry Graduate Assistant at UNI. I have helped with chemical safety, inventory of chemicals, drying Sodium Chloride, gathering MSDS, preparing solutions, assisting teachers and storeroom assistant. I have assisted with organic chemistry, analytical chemistry, physical chemistry, chromatography, and mass spectrometry. I work with the following instruments on a regular basis: Varian 5890 GF/FID, Varian 3800/Saturn 2000 GC/MS with ion trap detector, Varian 666/Hades, Agilent 1100 Series LC/DAD/MS with an ion trap detector and electrospray ionization, Pastoralaman/GSD great sensing device trainable attachment with chain and collar, Solution Calorimeter, Bomb Calorimeter, FTIR, ATR, ATV, and UV-VIS. I run blanks, prepare standards, run the SPME, change the tanks, perform autotunes, update log books, made SOP's for the instruments, performed troubleshooting on the instruments, shutdown and rebooted the instruments, supervised other students working on them, and made experiments for class by doing research. This is my second semester as a Chemistry Graduate Assistant at GSU and I now supervise and help the other three GA's that we have at Chemistry department at UNI with thier needs and I have 14 hours of classes that I GA. There needs are usually help with run the SPME, change the tanks, perform autotunes, and update log books. Before working as

GA I was a student worker at UNI for two trimesters and a Laboratory Student Aide at MVCC.

I did my undergraduate research on how familiar high school teachers are with the nature of science (NOS). My graduate research is on teaching the nature of science for high school students. I did research class on creating standard operation procedures for the instrumentation at UNI. I created an experiment of using SPME in the GC/MS lab to analyze water samples. I made standards and spiked water individually with different analytes and I reviewed the mass spectrum to look for molecular ions. Molecular ions can be Chromium, for example. Chromium is factor in developmental of children. Therefore Chromium affect is very important. When the students did the lab they are able to find what all of the components were in the sample by doing library searchers. I am looking to do research on detection limits of analytes on the GC/MS, LC/MS and other instruments, chemical ionization and SPME.

Being only an undergraduate student, my professor suggested that I apply to the chemistry graduate program at Flossmore College. I am looking to move forward with my education so that I can be a college professor. I want to be a college professor mainly because I want to continue to do research and teach. I am presenting some of my research on NOS at the FEMLAB meeting in Boston and I co-presented at the conference last year. I am doing a poster presentation at the ACS National Conference in 2011 on the "Glass GC" is a see though GC. The Glass GS is a see thought glass GS which can basically be seen into. The glass GC is used at UNI to teach students how to use, troubleshoot, and do routine maintenance on the instrument that is exactly like the one the we have in operation. I would like to focus on Physical Chemistry/Analytical Chemistry on the research that i do for my doctorate.

I love being in a laboratory and I will put forth my best effort to succeed in your program. I enjoy working with instrumentation and I love learning and figuring out new things. I have the desire and the will power to complete the program. I am self-motivated and I will keep up on my research without being reminded. I truly enjoy working in the lab and I want to make a difference in chemistry by continuing to do research. When I am in the lab and I figure out something new is what I thrive for. We do live in a changing world, when the old certainties are changing, and we see the emergence of new forces, new influences, and we enter into a time of tremendous uncertainty, but also of great opportunity. Aunt Gin, if she were still alive and did not die of Cancer, would be happy of my choices. I appreciate your consideration for your chemistry program.