

Jr High Summer Institute 2010

Week 1
July 5 - July 9, 2010

In Nursing, students will learn the importance of handwashing, how to start an IV, perform a physical assessment including vital signs, witness a birth and assess a newborn. Students will begin to understand the challenges of working in nanotechnology by first discovering the true scale of the nanometer, then they will investigate the hidden atomic forces of chocolate and use shape memory alloys to create a launcher for a balsa wood airplane. In the Biotechnology portion of class students will get a chance to work with their own DNA, do some crime scene investigating, sample the microbial environment and use a microscope.

Nursing & Science: Week 1 July 5th, 2010	Monday	Tuesday	Wednesday	Thursday	Friday	Instructor
8:00 - 9:00 a.m drop off	drop off	drop off	drop off	Drop off	drop off	Camp Counselor
9:00 - 10:45 (1 hour 45 min) Block A	Camp Closed for Independence Day	Introduction to the Nursing Lab and High Fidelity Human Patient Simulators What is a Nurse? Handwashing 101	Assessing a Patient How to start an IV (intravenous) via a virtual computer simulation	Be a Nurse Workshop Vital Signs and Human Patient Simulator Assessment (SimMan)	Noelle Gives Birth (Human Patient Simulator) Working in the Nursery: Assessing and Taking care of Babies (SimBabies)	Dr. Diane Morrey
10:45-11:05 (20 min) break	20 min Break	20 min Break	20 min Break	20 min Break	20 min Break	Camp Counselor
11:05 - 12:50 (1 hr 45 min) Block B	Camp Closed for Independence Day	Building in nanoscale	Investigating Chocolate: View the atomic forces in various chocolate samples	Introduction to Nitinol, a shape memory alloy	Design airplane launcher using Nitinol	Dr. Kathy Flynn
12:50 - 1:40 (50 min lunch)	50 min Lunch	50 min Lunch	50 min Lunch	50 min Lunch	50 min Lunch	Camp Counselor
1:40 - 3:25 (1 hr 45 min) Block C	Camp Closed for Independence Day	Lecture: Genetic Engineering Demo: pGLO Bacteria Name Writing Labs: Bacterial Transformation	Lecture: We are what we eat Demo: Enzymes Labs: Proteins, Fats & Carbs	Lecture: Water, the Universal Solvent Demo: Kool-Aid Ingredients, How do we "un-mix" them? Labs: Kool-Aid Science and DNA Spooling	Lecture: How to Catch a Thief Demo: Who-dun-it? Murder in the Classroom Labs: DNA Fingerprinting	Dr. Shane Ramey
3:30 Pick-UP	Pick Up	Pick Up	Pick Up	Pick Up	Pick Up	Camp Counselor