

University of Nevada, Reno

Engineering week went great. For three days, all the engineering clubs at UNR set up tables to promote their individual disciplines as well engineering as a whole. Students from all fields were able to stop by and talk with us about engineering while enjoying a free barbecue. Members from our chapter talked to visiting students about the rewards of materials engineering and showed some simple demonstrations to illustrate topics relevant to the field. One of these demos explained the properties of memory alloys using a nitinol wire and boiling water. Another of our demonstrations introduced students to viscoelastic polymers. Our most popular demo was our ferrofluid demonstration. This demo showed how ferrofluids react to magnetic fields and discussed how similar materials are being studied for use in the transmissions and shock absorbers. We also invited visiting students to learn about heat treatment during a hands-on demo. For this demonstration, we gave each student two aluminum nails of identical dimensions and challenged them to bend each one. After easily bending the first nail, they were surprised to find that the second was impossible to deform by hand. The reason was quite simple; the two nails underwent different heat treatments and thus had different crystal structures. This showed the importance of both heat treatment and crystal structure.

We had great attendance during Engineer's Week and were able to promote the important work done by engineers. On the final day of Engineer's Week, the clubs joined together for an evening social. This gave us a chance to discuss ways to make next year's Engineer's Week even better.

Cameron Howard
Materials Advantage student program UNR chapter President

