

Jennifer Andrew
jandrew@enr.ucsb.edu

Education:

Sept. 2002- Present: University of California-Santa Barbara Santa Barbara, CA
Graduate Student Researcher, working towards a Ph.D. in Materials Science and Engineering.
Current Research focuses on using solution chemistry synthesis techniques to create large quantities of surface-functionalized nanoparticles for use in real engineering applications.

Sept. 1998-June 2002: Northwestern University Evanston, IL
B.S. in Materials Science and Engineering June 2002. Graduated Cum Laude and with Department Honors.
Concentration in Italian Language and Culture.

Research Experience:

Winter 2001-Spring 2002: Atom Probe Imaging of Tungsten Disulfide Nanotubes Evanston, IL
Senior Project: Worked with Prof. David Seidman to mount Tungsten Disulfide Nanotubes for Atom Probe imaging to determine the relationship between band gap and impurities for a given tube diameter.

Spring 2001: Terminator Project Evanston, IL
Materials Science 390 Project: Worked with Caterpillar Tractors to create a patch material, which could be applied to a cracked panel of a tractor and would provide a clamping force in order to stop crack growth. Used ThermoCalc software program to determine appropriate ternary for the alloy using a NiTiAl shape memory alloy.

Winter 2001: Aerogel Project Evanston, IL
Materials Science 360: Used transmission electron microscopy (TEM) to obtain diffraction patterns and information about the pore size of an aerogel sample.

Fall 2000: Effects of Precipitation Hardening on Al 2024 Evanston, IL
Materials Science 332 Project: Mech. Behavior of Materials. Solutionizing and heat treated samples to determine how to optimize fracture properties.

Summer 2000: SURF Program Georgia Institute of Technology Atlanta, GA
NSF supported Summer Undergraduate Research Fellowship. Development of a Lead- free solder using electrically conductive adhesives.

Fall 1998: Northwestern University Evanston, IL
Materials Science Freshman Seminar. Used electron microscopy and x-ray diffraction techniques to determine the minerals and elements in water samples from various sources.

Other Relevant Experience:

June 2002- September 2002: Park Ranger Kings Canyon NP, CA
Campground Ranger: Duties performed included providing visitor information, trail duties, and campground fee collection and rule enforcement.

June 2001-September 2001: Yosemite Association Internship Yosemite, CA
Backcountry Ranger: Worked 480 Volunteer duties while performing backcountry patrols and visitor information. Consisted of issuing and checking permits and educating visitors on proper backcountry techniques.

Winter 2001- Spring 2002: Laboratory Teaching Assistant Evanston, IL
TA for Materials Science 210: Principles and Properties of Materials. Assisted with weekly lab demonstrations.
Received an award for teaching excellence as an undergraduate TA Spring 2002.

March 2001-June 2001: Undergraduate Research

Evanston, IL

Research and web design: Conducted literature research under Prof. Monica Olvera de la Cruz and also designed the research group's homepage.

January 2000-June 2001: NU Academic Technologies

Evanston, IL

Lab Consultant: Monitor public computer labs and assist and answer users' questions.

Awards:

2002-On the Spot Award for excellence in Park Ranger duties, Kings Canyon NP

2002-Graduated Cum Laude, Northwestern University

2002-Departmental Honors, Northwestern University, Materials Science and Engineering

2002-Teaching Excellence Award for Materials Science 201.

2001- Received MRS Grant for Materials Science Club at Northwestern University

1999-2002- Northwestern University Dean's List

Activities:

1998-2000: Member of Northwestern Varsity Cross Country team.

1999-Present: Materials Science Club, Vice President (2001-2002)

1998-Present: NU Outing Club, Climbing Director (2001--2002t)