



Managed by Fermi Research Alliance, LLC for the U.S. Department of Energy Office of Science

Engineering Training & Outreach

Lucy Nobrega

All Engineers Retreat

February 20, 2018

- **FOR YOU:** Professional development and training
- **FOR YOUR COLLEAGUES:** Developing our future workforce
- **FOR THE COMMUNITY:** Education outreach



Onsite and online workshops and seminars, including new on-demand leadership courses, 0.5 - 2.5 hours long

Course schedule

- Managing Within the Law – *Currently under revision*
- Diversity and Employment (half day) – June 6
- Behavioral Interviewing (full day) – Apr 19 / May 31
- Interaction Management (full days) – Apr 11, 18 & 25 / May 9, 16 & 23
- Performance Review Workshop (full day) – June 12 / July 11 / July 25 / Aug 15
- Fermilab Functions (half days) – Jan 31, Feb 6 & 8 (*Jan 31, Feb 6 & 8 are rescheduled for April 4, 10 & 12*) / Mar 7, 13 & 15

On Demand courses

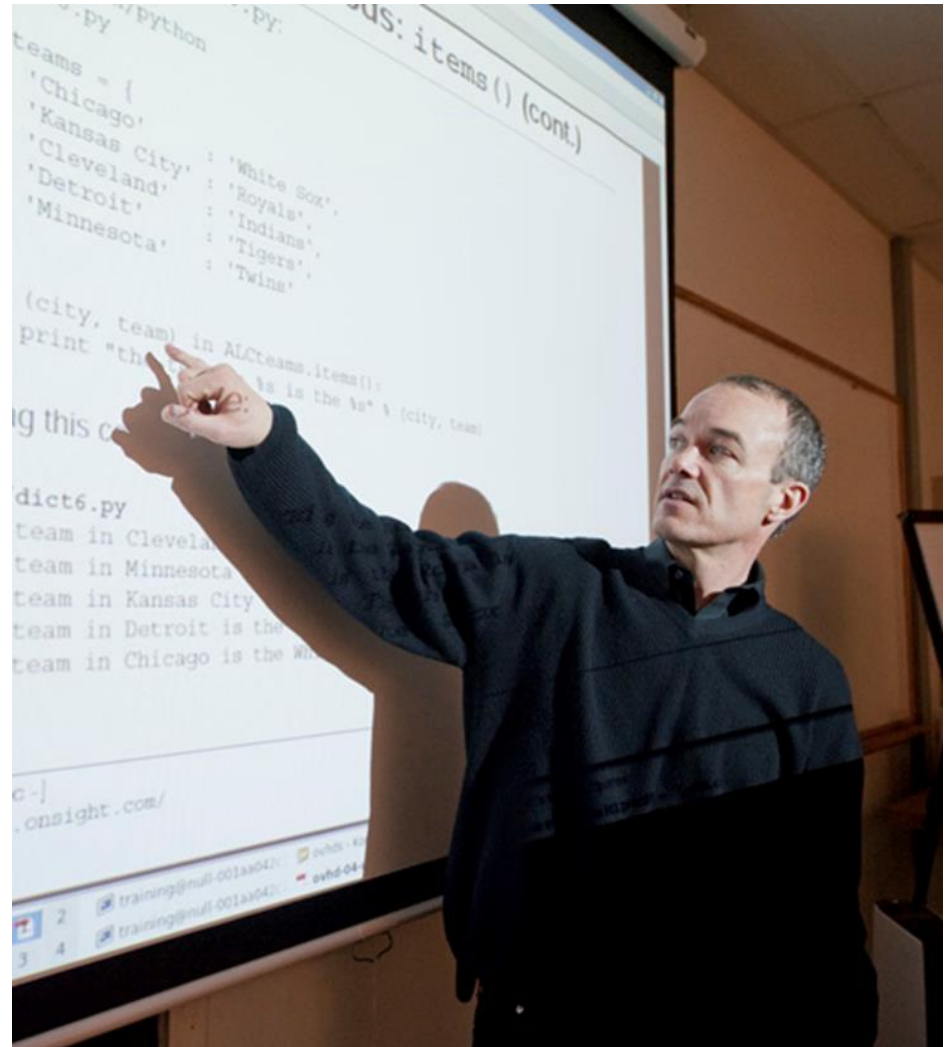
Our web-based curriculum reinforces competencies learned in the Interaction Management series of classroom courses and provides further practice to apply critical communication skills. The courses are 30 minutes to 2.5-hours in length and “on-demand” providing the flexibility to learn at your own pace.

- Communicating for Leadership Success – *New*
- Coaching for Peak Performance – *New*
- Addressing Poor Performance – *New*
- Setting Goals and Reviewing Results – *New*

Microcourses

- Strengthening Relationships – *New*
- Handling Common Coaching Challenges – *New*
- Handling Unacceptable Performance – *New*
- Zapp! Zone: Jane’s Dilemma – Interactive Key Principle Practice – *New*

- Specialized technical training arranged onsite on request: Vacuum Technology, GD&T, Welding and Brazing (Barb Brooks)
- USPAS (US Particle Accelerator School) college-accredited courses. Next session: Michigan State University, June 4-15. uspas.fnal.gov
- Other offsite workshops/courses coordinated through your department



Engineering Development & Training

<http://hr.fnal.gov/>

- The Tuition Assistance Program (TAP) currently has 50 employees enrolled.
- Changes to TAP, effective 1/1/2018:
 - Paid by centralized lab budget
 - Approvals for PhD, master's, and bachelor degrees increased to chief level; associate's approvals increased to division level.
 - Yearly maximum for tuition & fees. Book costs not reimbursed.
 - Bachelor's: maximum \$10,000 yearly
 - Master's and PhD: maximum \$13,000 yearly
 - Tuition and fees for associate degrees, certificate programs and individual courses still advanced 100%; books reimbursed 100%.
 - Employees who terminate employment within one year of completion required to reimburse all tuition and fees from final year of TAP participation.

Engineering Development & Training

<http://hr.fnal.gov/>



Mentoring program – currently 30 employees enrolled
(Holly Lett, <http://hr.fnal.gov/training/mentoring/>)

Developing our Future Workforce. Pipeline programs: mentor a student (Mario Lucero, Sandra Charles) <http://ed.fnal.gov/interns/programs/>

TARGET for high school students with aptitude and interest in physics, engineering, math, and computer science

Coop (Cara Brown)

SIST (Summer Internships in Science and Technology) for undergrads studying physics, engineering, math, and computer science

SULI (Science Undergraduate Laboratory Internship) for undergrads in science and engineering

Lee Teng Undergraduate Fellowship in Accelerator Science & Engineering

GEM – summer internships for graduate students in science or engineering

Internships for Italian Students (physics & engineering graduate students)

VetTech – summer internships for technicians who are veterans



Developing our Future Workforce. Diversity Outreach (Mario Lucero, Lucy Nobrega)



Education Outreach. K-12 & public outreach through Education Office

<http://ed.fnal.gov/home/volunteer.shtml>



- STEM Career Expo (every April at Fermilab)
- Family Open House
- Local STEM (Science, Technology, Engineering, & Math) events

Classroom presentations at local schools

- Charge! Electricity and Magnetism
- Cryogenics Show - Mr. Freeze
- Forces and Motion
- Light and Color
- Physics in the Real World
- Physics of Sports
- Space, Time and the Universe
- Engineering – Marshmallow Challenge





Light and Color



Physics of Sports



Forces and Motion



Engineering – Marshmallow Challenge

Education Outreach. K-12 & public outreach through Education Office

<http://ed.fnal.gov/home/volunteer.shtml>



- Mentor a teacher in a TRAC (Teacher Research Associates) summer internship
- Ask-An-Engineer: NEW! Just like Ask-A-Scientist. 1-4pm on the first Sunday of the month. Presentation, tour, Q&A.
- Help design and maintain equipment
- **Brown bag lunch Tuesday, February 27, One West**

Summary - Links and Contacts

- Engineering development & training, Tuition Assistance Program (TAP) - <http://hr.fnal.gov>
- Specialized training by request – Barb Brooks
- US Particle Accelerator School – uspas.fnal.gov
- Mentoring Program - Holly Lett, <http://hr.fnal.gov/training/mentoring/>
- Pipeline programs - <http://ed.fnal.gov/interns/programs/>
- Diversity outreach (Mario Lucero, Lucy Nobrega)
- Education outreach - <http://ed.fnal.gov/home/volunteer.shtml>, or **brown bag lunch Tuesday, February 27, One West**

“Every expert was once a beginner”

-Helen Hayes