

Oklahoma ACS Family Night  
Friday 19 September 2014

# DEMONSTRATIONS OF EVERYDAY APPLICATIONS OF CHEMISTRY

Dr. John Fortman  
*Wright State University*



Live and videotaped chemical demonstrations will be used to illustrate the science behind many useful materials in everyday life. Various demonstrations relate to such things as metals, building materials, soaps and detergents, fuels and combustion, antifreeze, batteries and electronics, electricity and light, air pressure and valves, rubber, foam plastics, heat shrink plastics, foods, medicines, hot packs, cold packs, superabsorbent diapers, carbonated beverages, and weather prediction..

Oklahoma Baptist University, Shawnee, OK <http://www.okbu.edu>

**6:00 pm Social Hour & Picnic** Wood Science Building

lawn games[indoor/outdoor]—volleyball & croquet

**7:30 pm Presentation** Wood Science Building - large lecture hall



OBU map  
QR code

## Menu

Hamburgers & hotdogs  
potato chips  
pickles  
cookies  
soft drinks

## Cost

\$8 members  
\$5 students  
\$3 children under 12

## RSVP Deadline

Monday, Sep 15<sup>th</sup>, 5 pm  
Contact Nathan Malmberg  
405-585-4126

[nathan.malmberg@okbu.edu](mailto:nathan.malmberg@okbu.edu)

[indicate # of adults & # children]

## Dr. John Fortman Biographical Sketch

John Fortman received the 2007 Helen M. Free Award for Public Outreach. He is Professor Emeritus of Chemistry at Wright State University where he retired in 2001 after 36 years of teaching freshman and inorganic chemistry. In 1998 he was appointed the Robert J. Kegerreis Distinguished Professor of Teaching and won seven different teaching awards over the years at Wright State. In 1998 he received the CMA Catalyst Award for Outstanding Teaching of College Chemistry. Dr. Fortman received his B.S. from the University of Dayton in 1961 and his Ph.D. in physical inorganic chemistry from the University of Notre Dame in 1965. He has published over 50 papers in chemical education in addition to his research publications. With Ruben Battino he has produced a seven DVD set which contains ten hours of chemical demonstrations for use at middle school through college levels plus a live show and blooper outtakes. For over 30 years he has done chem demo outreach shows for middle and high school students in the Dayton area and continues to inspire and fascinate over 8000 students each year with at least 19 shows. He has done workshops on teaching and demonstrations around the country. He has designed

alternative courses for general chemistry, elementary chemistry and chemistry for elementary education majors. His course for non-science students was cited as a model in the 1990 AAAS report on "The Liberal Art of Science: Agenda for Action". The alternative general chemistry course was developed while he was a member of the General Chemistry Task Force of the ACS Division of Chemical Education and starts with organic and biochemistry moving through materials and finishing with energy while empathizing applications and bringing in only those principles that are needed as they are necessary. The course has been characterized as being taught inside-out, upside-down, and backwards. His interests in addition to demonstrations and course content and organization include the use of analogies and videotaped material. John has been an ACS member since 1962 and was Councilor for the Dayton Local Section from 1996 to 2004. Since he became an ACS Tour Speaker in 1991 he has given over 356 section talks, visiting 170 of the 190 different local sections while doing 76 tours including all 29 different tours at least once. He has presented in all 50 states and Puerto Rico.