KSU Multicultural Engineering Program Partners with faculty to support broader impacts for research proposals

SHORT BIO:
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LaVerne Bitsie-Baldwin is the DOW Director for the Multicultural Engineering Program, the position was endowed by Dow Chemical corporation.

- Sr Personnel and Co-Author for the NSF funded KS LSAMP, 2013-2018, $2.5 million
- Co-PI for the K-State STEP grant, 2005-2009, $1.66 million
- Director for Engineering; Project IMPACT MAPS: Multicultural Academic Program Success, summer bridge program, 2007-2016, >$2 million from corporate sponsors
- Coordinate Scholarship programs; NACME Block Grant and Associate Scholars, 2005-2015, $81,000 annually; Koch IMPACT Scholars $30,000 annually, Cargill IMPACT Scholars $85,000 annually.
- 2014 Educator of the Year, INROADS Midwest Region, Inc.
- 2013 Commerce Bank Presidential Faculty Award for Distinguished Service to Underrepresented Students at Kansas State University, KSU
- NAMEPA 2010 Outstanding MEP Director Award; National Association for Multicultural Engineering Program Advocates

Established Programs in the College of Engineering can assist in Broadening Participation, Broader Impacts and increasing women and multicultural student engagement and participation.

- The KSU College of Engineering has increased the number of underrepresented minority (URM) students by 75.3%, growing from 267 students to 468 students between 2009 and 2015.
- 1/3 of the COE growth in between 2009-2015 is due to increased multicultural student enrollment. Total engineering enrollment at KSU increased from 3027 to 3650 students between 2009 and 2015 (21%). This increase in diverse engineering students and students overall makes it necessary for faculty to provide more opportunities to engage, support and retain our students.
- Definition: Underrepresented students in engineering are those who are women or self identify as African-American, Hispanic or Native American students.

KSU Multicultural Engineering Program
- KSU MEP director provides letters of support for proposals and will also write a paragraph for your use within your proposal about broader impacts.
- Faculty Research Presentations are always welcome on the agenda of the four student organizations that are housed in the MEP office. This can be presenting
your research or connecting with these organizations when bringing guests on campus, especially those guests who are themselves underrepresented faculty.
  o National Society of Black Engineers (NSBE)
  o Society of Hispanic Professional Engineers (SHPE)
  o American Indian Science & Engineering Society (AISES)
  o Society of Asian Scientist and Engineers (SASE)
• “Engineering a Dream” is a middle school (6, 7, 8th grade) event implemented in the spring by the combined efforts of four student organizations. (see above)
  o Faculty guidance in the fall semester is necessary for creating new projects to present the following spring.
• Nationally Disseminate UG and Graduate Research Opportunities through
  o National Association for MEP Directors listserv is available to recruit diverse undergraduate and graduate student participation in research programs.
  o KSU MEP Listserv has more than 400 multicultural engineering students on the KSU campus.
• Project IMPACT MAPS summer bridge program; MAPS hosts up to 30 students in Engineering, Agriculture and Business for 6 weeks in an academic program that includes cross disciplinary research on the Biofuels Industry.
  o Wednesday Lunches are an opportunity to connect with incoming freshmen and introduce research opportunities
  o MAPS seeks graduate assistants to participate in a biofuels and byproducts research panel and asks the students to describe the path they have taken to become a graduate student
  o Faculty/Grad assistants run MAPS students through exercises related to the biofuels industry (example: make biodiesel)
  o Faculty/Grad assistants critique and offer guidance in poster creation for the MAPS Biofuels Poster presentations
• Joint letters of support from supporting colleges – Agriculture and Engineering have collaborated in joint letters for faculty.

Kansas LSAMP
• Research Immersion – Pathways to STEM (RI-PS)
  o STEM faculty mentors are needed for an 8 week summer undergraduate research opportunity. LSAMP sponsors 11 students each of the five yeas of the program; summer 2014 to summer 2018.
• Developing Scholars Program is a University program established to support underrepresented and first generation students participate in undergraduate research.
  o STEM faculty mentors are needed for a fall/spring undergraduate research opportunity. LSAMP sponsors 5-7 students each of the five years of the program; Fall 2014 to Spring 2019
• KSU McNair Scholars include Junior and Senior students and prepare them for graduate study, taking the GRE and giving presentations at conferences.
  o STEM faculty mentors are needed for fall/spring UG research mentors.
• Faculty presentations are requested and will be advertised and disseminated to all STEM majors at KSU.