MANY VOICES OUR MICHIGAN

Collaborations for Diversity, Access and Inclusion at the U-M

K-12 Outreach and Engagement Programs for "Growing STEM" & Beyond

Thursday, October 20, 2016 | 3:00 - 5:00 PM
Palmer Commons, Great Lakes South/Central
100 Washtenaw Ave., Ann Arbor, MI 48109

Sponsors: National Center for Institutional Diversity; College of Literature, Science, and the Arts; College of Engineering; Medical School, Center for Education Outreach; and the Office of the Vice Provost for Equity, Inclusion and Academic Affairs

POSTER SESSION

WELCOME REMARKS

Tabbye Chavous
Director, National Center for Institutional Diversity

FRAMING REMARKS

Angela D. Dillard
Associate Dean for Undergraduate Education,
College of Literature, Science, and the Arts

FEATURED SPEAKER

Robert Jagers
Director, Wolverine Pathways

CLOSING REMARKS

William Collins
Executive Director, Center for Educational Outreach

POSTER SESSION

POSTER ABSTRACTS

Michigan Architecture Prep

Milton Curry, Taubman College of Architecture and Urban Planning

The Michigan Architecture Prep Program, was created as a result of the University of Michigan's commitment to inspiring future designers and leaders in architecture. The Michigan Architecture Prep Program fosters a passion for design in high school students in Detroit. The architecture and design college preparatory program started January 2015.

It is comprised of 1) Studio Architecture - a one- semester college-level design studio course that introduces high school juniors to architecture, and 2) College Career Advancement - a series of modules designed to expose students to architecture offices and academic contexts as well as assist in the development of college application essays. Each student completes the course with a robust architecture portfolio, college application writing samples, and 1.5 high school elective credit that can be applied to mathematics and visual arts.

WISE K-12 Outreach and Engagement

Cinda Davis, Jamie Saville and Debbie Taylor, Women in Science and Engineering Program

Established in 1980, the goal of the Women in Science and Engineering Program (WISE) is to increase the number and academic success of girls and women who choose majors, advanced degrees, and careers in science, mathematics, and engineering. At the K-12 level, WISE offers several summer and academic year weekend programs to introduce students to the wide variety of STEM fields and connect them with other girls who have similar interests.

Over the past several years, our offerings have included the Girls in Science and Engineering camp (WISE-GISE); Robot-C for Girls; Computational Biology Camps; FIRST-LEGO League Teams; College/ Career presentations; and Girls Who Code workshops. Approximately 230 girls participate in their programs annually.

Since 2006, WISE has been entering the names of K-12 students in their programs into the generic prospect load. The vast majority of their students are in 6th, 7th, or 8th grade so there is a considerable lag time before the students are college age. Also because of the students' ages, these programs were never designed as "recruitment" programs for UM. Rather they were designed to introduce girls to science/engineering careers, introduce them to girls with similar interests, show them that women do STEM, and keep them in science and math courses in high school. Out of about 400 girls in WISE early programs (2006, 2008, and 2011), approximately 75% applied to Michigan and 40% enrolled.

Detroit Research Internship Summer Experience (D-RISE)

Callie Chappell, Department of Molecular, Cellular & Developmental Biology and Nicolai Lehnert, Department of Chemistry

In partnership with Cass Technical High School in Detroit, Dr. Nicolai Lehnert (University of Michigan) has formed the Detroit Research Internship Summer Experience (D-RISE) with the goal of increasing underrepresented minority participation in the sciences by motivating the participating students to attend college and work in STEM areas. This program aims to inspire students about science, increase participation in STEM fields, and advance long term development of a workforce skilled in interdisciplinary scholarship.

MREACH - Michigan Ross Enriching Academics in Collaboration with High Schools

Rhonda Todd, Ross School of Business

MREACH (Michigan Ross Enriching Academics in Collaboration with High Schools) provides academic preparation, career exploration, and hands-on business activities for students from groups that have been underrepresented in business school, including first-generation college-bound students and students from lower socioeconomic standing. The program welcomes students with a demonstrated strong academic background and high academic potential. Students from diverse backgrounds who are interested in studying business in college are encouraged to apply, though students from all backgrounds are welcome. MREACH brings high school students to Ross for a series of hands-on learning experiences. The program also offers insight into the college application and financial aid process. Sessions are held one Saturday per month from September to May at the University of Michigan's Ross School of Business in Ann Arbor. Program Benefits Mentorship program with current University of Michigan BBA and MBA students. Instruction from Ross School of Business faculty and students. Exposure to Fortune 500 companies through office visits and career exploration programming. Early access to resources and information that will help students with college applications, financial aid, scholarships and standardized test prep. Firsthand college experience through visits to the University of Michigan campus. Personal and professional development opportunities including resume building, business etiquette, interview preparation, and more.

UROP Transfer Initiatives: Engagement, Community Building and Pathways for Community College Students

Catalina Ormsby, Undergraduate Research Opportunity Program

Public universities in Michigan play a key role to develop and retain our high achieving students in the state, so it is vital to ensure that community college students view the University of Michigan as an option for future

studies. UROP houses two unique initiatives to engage community college students in research at UM, the Michigan Community College Summer Research Fellowship Program and Changing Gears. The programs are tailored for recruiting and retaining a diverse student population, including historically underrepresented students, first generation college students, veterans, women in science and students from socioeconomically disadvantaged backgrounds.

Some of the programming activities include hands-on research experience, mentoring by faculty sponsors, research seminars and skill building workshops connecting students to resources and building community. UROP has demonstrated that early engagement in research and intensive exposure to academic expectations and the culture of a research university facilitates the likelihood that students will transfer to institutions like the University of Michigan and have a more successful transition. UROP hopes that their model can be implemented in other higher education institutions as a tool to increase representation of underrepresented students on campus, ease the transition to 4-year institutions and increase the retention and graduation rates of transfer students.

GENESIS EnAct Program: Exploring Nursing as a Career for Underrepresented Students

Patricia Coleman-Burns and Lauren Clarkson, School of Nursing

The GENESIS EnAct (Exploring Nursing as a Career Tomorrow) Program works with students from 7th-11th grade who are from underrepresented (in nursing) backgrounds. Underrepresented groups include racial and ethnic groups, African Americans, Hispanic and Latino/a students, Asian, Native American, Native Alaskan/Hawaiian, Arab American and Muslim American students. EnAct also recruits 1st generation college going, low-income students from medically underserved areas, as well as students from rural backgrounds. Students are selected through an application and interview phase to participate in a two-week summer residential program that introduces college and life at U-M.

EnAct also brings students from across the country to U-M. EnAct creates an inclusive environment by creating opportunities for students to interact with people who have similar diverse backgrounds. Students are given the opportunity to tour the hospital, talk to nurses in panel sessions, and learn about topics related to health and social justice. They are also introduced to a rigorous college curriculum that focuses on STEM and the importance of an ongoing commitment to a college-prep program at their current schools. In 2016 EnAct students participated in a panel with Arab American nurses, a LGBTQ panel , and community service in Detroit. Many students have come through the EnAct pipeline and are now successful students in the School of Nursing here at U-M. These students often come back to GENESIS and work in the two-week summer program to share their experiences.

The Michigan Engineering Zone: Engaging Detroit's Youth in STEM

Jeanne P. Murabito and Julian E. Pate III, College of Engineering

The Michigan Engineering Zone (MEZ) Detroit is a response to the challenge of developing a workforce that can compete on the global stage where science, technology, engineering, and mathematics (STEM) are driving our economy. In collaboration with DPS (Detroit Public Schools) and FIRST (For Inspiration and Recognition of Science and Technology), the MEZ aims to encourage Detroit youth to pursue careers in engineering and technology by:

•Exposing middle and high school students to STEM through challenging and exciting hands-on experiences

•Providing training/mentoring to students by utilizing U-M College of Engineering students and alumni, as well as local professional engineers

•Encouraging camaraderie and teamwork among students with similar educational goals and aspirations

•Creating tailored information sessions for students and their parents addressing college opportunities (emphasizing the pursuit of science and engineering degrees), financial aid and scholarships, and the college application process

In January 2010, the of College of Engineering leased additional space within Orchestra Place, home of the Detroit Center, and transformed it to create a shared home for DPS FIRST teams. Nearly 175 high school students from 12 Detroit schools signed up for the robotics program at the beginning of the year. Over the course of six weeks, professional engineers, U-M engineering students, and other volunteers taught the students how to use computer-aided design, programming software, and machine tools to create robots. For the 2016 FRC season, the MEZ was home to 18 teams, more than 275 students and 36 teachers from 18 Detroit high schools.

Shepherding Young Scholars: Journey to College STEM

Hans Sowder and Gloria Thomas, Center for Engineering Diversity and Outreach

Gaining Early Awareness and Readiness for Undergraduate Programs, GEAR UP, is a federally funded program and the Center for Engineering Diversity and Outreach, is one of three STEM Providers for GEAR UP in the State of Michigan.

Starting with a summer residential program in 2014 with thousands of possible Michigan GEAR UP student participants (9th graders at the

time), 22 "GEAR UP STEM Scholars" (GUSS) have risen to the top over the past two years. As high school seniors they are prepared to apply for college with most pursuing a STEM degree.

Explore our journey. We exposed, engaged and shepherded GUSS and their parents through research-based programming focused on STEM, leadership development, and parent involvement. A major outcome is students have several colleges to which they will apply for early action and/or early decision this fall. Key factors in the creation of the journey include collaboration and reflection by the CEDO GEAR UP Team, first generation data analysis, and seeking feedback from our students and their families.

Bringing Arctic Snow Research into the General Chemistry Laboratory

Katheryn Kolesar and Stephen McNamara, Department of Chemistry

At the University of Michigan, an existing introductory general chemistry laboratory course was modified to incorporate an authentic research experience. In this course, Freshman and Sophomore students practiced general chemistry concepts and laboratory skills in the context of Arctic snow chemistry. In addition, the students were given the opportunity to get hands on research experience by individually performing ion chromatography analysis of Arctic snow samples. Special focus in the instruction of this course was given to: research methods, critical thinking, scientific literature, and presentation and writing skills. This course demonstrates successful integration of active research into an entry-level course, which we hope will lead to increased undergraduate student interest and engagement in chemistry.

Michigan Louis Stokes Alliance for Minority Participation (MI-LSAMP) Program Evaluation

Elias Samuels, Zheng Cui, Kolby Gadd, Sarah Beu, Fermando Ferquim, L. Joy Johnson
School of Education

This study provides evidence of impact of the Michigan Louis Stokes Alliance for Minority Participation (MI-LSAMP) program from 2010 to 2015. This program serves high school students starting the summer before they enrolled in college at five 4-year institutions: University of Michigan (U-M), Michigan State University (MSU), Michigan Technological University (MTU), Wayne State University (WSU), and Western Michigan University (WMU). Funded by the National Science Foundation, this program seeks to bolster underrepresented minorities (URM) presence in science, technology, engineering, and mathematics (STEM) fields through university acclimation programs and undergraduate research opportunities. This study examines the three primary program goals: increase the number of URM STEM graduates, increase the number of URM students pursuing advanced STEM degrees, and institutionalize

program best practices within the partner institutions.

Additionally, the study reflects on MI-LSAMP's impact on three mediating goals: academic integration, social integration, and professionalization. These goals are "mediating" in that the program seeks to foster academic and social integration as well as professionalization as a means to their three primary goals above. Site-level data reported to National Science Foundation, empirical analysis on student-level data, and annual program evaluation surveys all suggest that the MI-LSAMP program has achieved considerable progress toward its three specific goals. Overall, analysis of data from MI-LSAMP sites over the last five years demonstrates that the MI-LSAMP program is positively impacting the presence of underrepresented minorities in STEM fields. The most compelling evidence of program impact comes from self-reports from students on the effects of MI-LSAMP.

Telluride Association Sophomore Seminars

Susan Perreault, College of LSA

Founded in 1911, Telluride Association is a nonprofit organization that creates unique educational opportunities for young people based on intellectual inquiry, democratic self-government, and meaningful work. Telluride seeks out students with the desire and demonstrated potential to contribute to society, and helps them develop the skills, knowledge, and strength of character necessary to serve the world. The Telluride Association Sophomore Seminars (TASS) serve approximately 56 intellectually curious high school sophomores who participate in one of four challenging six-week college-level seminars at U-M or Cornell on topics related to critical Black and ethnic studies. University faculty create courses that explore the histories, politics and cultural experiences of people of African descent and other topics. Telluride covers all the program costs, including tuition, books, room and board, field trips, and facilities fees.

The daily three-hour seminars include discussions, small-group work, and faculty lectures. Students also practice public speaking, hear lectures from guest professors, and participate in writing workshops and cultural activities. Two college students are assigned to each program, working with them on their critical reading and writing skills and helping them create an intellectual and social community.

The Provost's Office and LSA each contribute financial and instructional support. LSA Student Recruitment encourages participants to apply and enroll, and attends the TASS reunion to assist them with the college application process. Those admitted to LSA are reviewed for scholarships and encouraged to apply to live in the Telluride House, providing free room and board. Many TASS alumni have enrolled at U-M.

The Summer Engineering Academy: Pathway to Engineering

Hans Sowder, Center for Engineering Diversity and Outreach

The Summer Engineering Academy at the College of Engineering is a collection of summertime programs for middle and high school students that introduce them to engineering disciplines through exciting real-world challenges.

Pathway to a Health Care Career : A Qualitative Study of Underrepresented Minority and First-Generation in College Pre-Med Students Undergraduate Experiences

Adrianne Haggins, Department of Emergency Medicine; Ebony White, School of Public Health and Helen Morgan, Department of Obstetrics and Gynecology

Objective: To explore formal and informal pre-med experiences of underrepresented minority (URM) and first-generation in college students and how their experiences influence persistence in the pre-med career path.

Methods: Semi-structured interviews of medical and pre-med students at the University of Michigan were conducted from 11/2015 to 05/2016 to elicit perceptions of: climate, course work, academic advising, research, mentorship, student organizations, and how these experiences affected their motivation to pursue a career in medicine path.

Results: Five University of Michigan medical students and 25 pre-med students (91% Ann Arbor and 9% Dearborn campus) were interviewed. We found that academic and non-academic factors positively influenced underrepresented and first-generation college students' interest and persistence in pre-med. Medical and pre-med students indicated that their persistence to pursue pre-med was related to positive interactions with peers and their research mentors/advisors, and informative shadowing experiences. Students reported strategies for success that reflected proactive help-seeking behaviors, positive interactions with mentors/advisors, opportunities to gain exposure to medicine, access to support networks, ability to channel social justice interests, tenacity/resilience, intrinsic motivation related to having a clear vision/insight into why they felt a career in medicine was an appropriate fit.

Conclusions: Developing a better understanding of the collegiate learning environment can illuminate factors promoting and precluding pre-med student achievement, particularly among at-risk student populations. These findings can inform the development of pre-medical undergraduate curriculum in targeted ways that promote inclusive strategies to improve URM and first-generation in college student persistence.

Supporting K-12 STEM Growth and Diversity Through FIRST Robotics

Alexandre Guiamet, FIRST Alumni and Mentors Network at Michigan

The FIRST Alumni and Mentors Network at Michigan (FAMNM) aims to create an on-campus community for students and faculty who support FIRST (For Inspiration and Recognition of Science and Technology) Robotics and its K-12 programs. FAMNM's mission is to inspire K-12 students to pursue STEM, business, & community outreach opportunities; to support Michigan FIRST teams, mentors, & volunteers; and to develop a professional network of FIRST supporters at the University of Michigan. To achieve this, FAMNM provides local FIRST teams with mentors, volunteers, and on-campus programming to further inspire the students, as well as connect with many of the FIRST alumni here at the university.

The unique structure and goals of FIRST allow for anyone to become involved regardless of their experience, and since its inception, FAMNM has worked with many area teams, supported volunteers at almost every in-state high school competition, and continued mentoring on an all-girl elementary robotics team. FAMNM most prominently hosts a FIRST Robotics season kickoff in January which brings over 700 high school students, parents, and mentors to campus to watch the international broadcast unveiling the year's new robotics challenge.

FAMNM's overarching motto is "putting students first", from the elementary to the collegiate level, to create an extensive FAMNMily network that promotes the University of Michigan to the diverse FIRST students and attract corporate opportunities to FIRST Alumni and supporters.

Earth Camp: A Multi-Summer Outreach Approach to Recruit Students to an Earth and Environmental Science Major

Jenna Munson, Department of Earth and Environmental Sciences

Earth Camp is an outreach program designed to educate and excite high school students about earth and environmental sciences through a variety of hands-on experiences and outdoor activities. The immediate goal of this program is to attract excellent students from diverse backgrounds to the Department of Earth and Environmental Sciences at the University of Michigan. A broader and longer-term goal is to diversify the geosciences workforce. Earth Camp is operated by the Dept. of Earth and Environmental Sciences at the University of Michigan (U-M). After four years of experience and optimization, we are expanding the scale and scope of Earth Camp in order to (i) entrain more students into the program and (ii) increase the rate of student recruitment into the geosciences. We are now offering Earth Camp as a multi-summer program for students, starting after their 9th grade year. The expansion will take Earth Camp from a one-week summer experience to a multi-summer program that brings students back for hands-on explorations of the natural world for

four subsequent summers. These summer experiences will take place in: Ann Arbor and Sleeping Bear Dunes focusing on water and energy; Wyoming at U-M's Camp Davis Field Station and Yellowstone; and the upper peninsula of Michigan.

We focus our recruitment efforts on 9th grade students who show exceptional interest and capability in the natural sciences and sufficient academic promise to be admitted to the University of Michigan.

In 2013, recruiting efforts were re-vamped to target low-income, first-generation college, and underrepresented minority students in grades 9-11. This effort was successful in increasing the number of underrepresented minority students participating in the program to 95%. 2016 was the first summer to bring the same group of students from 2015 back for a second Earth Camp summer experience. All 20 students from the 2015 cohort returned for a second, more intense summer experience. The results of this initial multi-summer engagement will help us determine the best practice for recruiting students who are underrepresented in the undergraduate earth science population.

University of Michigan College Advising Corps

Mollie Bush and Christopher Rutherford, Center for Educational Outreach

The goal of the Michigan College Advising Corps is to increase the number of low-income, first-generation, and underrepresented minorities entering and completing higher education in the state of Michigan. Following in the tradition of the AmeriCorps and Teach for America programs, the MCAC will recruit and train recent college graduates to work full-time as College Advisers in underserved high schools throughout Michigan for one or two years following graduation. This poster works to provide our mission, an overview of who we serve, testimonials from our College Advisers, and data regarding our impact within the state of Michigan.

Center for Educational Outreach Wolverine Express

Sheri Samaha, Center for Educational Outreach

Wolverine Express is an initiative organized by the Center for Educational Outreach (CEO) to promote pathways and access to higher education for youth across the state of Michigan. In this school visitation program, a diverse group of University of Michigan faculty and staff assemble as a team and travel via bus to visit select high schools located in under resourced areas.

While at the high schools, faculty and staff will participate in presentations designed to promote academic success and college aspiration while also sharing information about their U-M experiences. Faculty and staff who agree to participate in Wolverine Express commit at least a half-day for a given school visit, either morning or afternoon.

Wolverine Express will promote a positive message of college accessibility and academic achievement through aspiring high school students to consider the following:

• Why attending college is important
• Career field & major choices
• College pathways, including how to apply and financial support through academic and financial pursuits
• After each presentation, high school students will be able to identify reasons why attending college is important
• After each presentation, high school students will have a better understanding of the college-going process
• After each visit, faculty members involved with the project will have a greater understanding of issues plaguing underserved populations

Future U-Becoming College Ready
Zanib Sareini, Center for Educational Outreach

Future U is a middle school college access program that serves under-resourced communities. This year the Museum will partner with UM Center for Educational Outreach and the middle schools they serve in their Future U program (Garden City Middle School in Garden City, MI, and Clippert Academy and U-Prep in Detroit, MI) to bring even more science and college access to these students. The participants will receive a series of three classroom college readiness and science lessons, three Saturday cross-district visits and a culminating overnight campus visit in spring. Each meeting will highlight specific STEM careers, introduce them to the scientific method and the engineering design process, and work on small group projects. Throughout the program, students are encouraged to think about the steps they need to take now and in high school to prepare for college.

Ready Set Go Blue
Kathryn Zamarron, Center for Educational Outreach

Ready, Set, Go Blue! partners with one Erickson elementary school to serve each of its 4th thru 5th grade classes. The program consists of a series of 3 fun, engaging, and informative workshops that are approximately 45 minutes in length, offered twice a semester, facilitated by program staff and U-M students, and takes place in the classroom at the partner school. Included in the workshops are educational games, activities and discussions about various topics related to the goal setting, career explorations, and college going lessons.

MiBytes Computer Camp
Danielle Hicks, Electrical Engineering and Computer Science Department

MiBytes is a computer summer camp for high school students sponsored

and run by UM Computer Science and Engineering Division. The program is taught by UM faculty and there are usually three sessions that focus on a number of computer science topics including mobile app development, game design, robotics, and microcontrollers. The camps also include field trips to local tech companies, as well as the opportunity to talk to current computer science students about the field. Our goal for next year is to increase enrollment of women and minorities and provide more opportunities for high school students in Detroit.

Doctors of Tomorrow: Empowering High School Students in Detroit to Become Agents of Change in Their Community

Andrea Matthew and Lauren Phillips, Medical School

Doctors of Tomorrow (DoT), a partnership between the University of Michigan Medical School and Cass Technical High School in Detroit, is a pipeline program that works to inspire and prepare underrepresented students to pursue careers in medicine. Recognizing the need to educate DoT students about health disparities that disproportionately affect their own communities, an initiative called the Community Health Capstone Project was introduced to the program.

The goal of this initiative was to help students explore public health issues within their community and empower them to become agents of change. In Fall 2015, 34 DoT students were divided into the following groups: Inequity in Healthcare, Nutrition, Youth Violence, Obesity, and Hunger. Groups were paired with medical student mentors and community organizations in Detroit. Throughout the year, DoT students collaborated with these partners to research their topics, develop action plans, and execute solutions.

In Spring 2016, the groups successfully carried out interventions within the Cass Technical High School community, such as hosting a health fair, constructing a vertical garden, and leading an assembly on obesity. Students presented their work at an end-of-year poster symposium.

Through the Community Health Capstone Project, students gained a better understanding of health issues impacting their community and developed critical thinking skills that will help them address disparities both now and in their future careers. Looking ahead, DoT plans to gauge the effectiveness of the capstones through surveys and focus groups, strengthen relationships with community partners, and unite with other medical schools to develop similar programs.

River Residency

Jeanna Fox, Museum of Natural History

River Residency brings a dynamic water model into elementary classrooms across the state. During the programs; students participate

in hands-on demonstrations about the water cycle, conservation and preservation of waterways and about the scientific methods used in research with particular emphasis on stewardship.

Integrated Approach to Diversifying Health Science Professions

Brandon D. Lucas, Jazmine Wesley, LaRonda Chastang, Patti Andreski, Phyllis Blackman, R. Alexander Blackwood, and David Brown
University of Michigan Health System Office for Health Equity and Inclusion

An overarching goal of the Office for Health Equity and Inclusion (OHEI) is to recruit, educate, train, employ and retain highly qualified, diverse individuals to become leaders in educational, clinical and biomedical research programs. Our Leaders and Learners Pathway (LLP) programs engage learners throughout the entire academic pipeline by leveraging partnerships with K-12 institutions, student organizations and university units. The core pillars of our outcomes-driven programming are community building, mentoring, leadership and professional development.

A cornerstone of our K-12 outreach efforts is the Michigan Health Sciences Pre-College Exposure Academy (MHSPEA), a two-week summer residential program for high school students in the 10th and 11th grades. During the program, participants receive mentoring from UM students and engage in activities aimed at increasing college readiness and diversity/cultural awareness. To measure impact in these domains, correlated t-tests were performed for all respondents (n=43) who completed pre- and post-program assessments.

Through the use of the Miville-Guzman Universality-Diversity Scale, statistically significant increases ($p<0.015$) were found for diversity of contact and relativistic appreciation. Additionally, a statistically significant improvement in cultural awareness was ascertained through the use of the Cultural Competence Assessment. Lastly, improvements in college readiness were assessed using the College and Career Ready School Diagnostic (CCRSD). Statistically significant differences ($p<0.05$) in the mean scores were noted for the subdomains of goal-driven behaviors, self-monitoring and study skills. These findings indicate that programs such as MHSPEA are an effective approach to develop a diverse biomedical workforce that is positioned to realize health equity in our lifetime.

Michigan Math and Science Scholars

Kelli Szczepanski, Department of Mathematics

The Michigan Math and Science Scholars program is designed to offer a pre-college experience exposing students to a breadth of curricula offered at the University of Michigan while introducing high school students to

current developments and research in the sciences. The program is open to any high school rising sophomore, junior or, senior from around the world. MMSS offers three, two-week sessions, made up of 10-14 courses, with class sizes of 15-16 (approximately 500 students each summer). The courses represent numerous LSA departments including: Anthropology, Astronomy, Chemistry, Earth and Environmental Sciences, Mathematics, Paleontology, Physics, Psychology and Statistics.

The MMSS program emphasizes student enrichment and aims to increase the number of underrepresented students in the Math and Science fields. Currently, our program incorporates the vertical integration of faculty, graduate students, undergraduate students, and high school students.

The Douglass Houghton Scholars Program

Mark Conger, College of LSA

The Douglass Houghton Scholars Program is for LSA freshmen who are interested in majoring in math or science. The goal is to keep students in the pipeline to be STEM majors. Anyone may apply, but students from underrepresented groups are especially encouraged and recruited. 2015-2016 is the 10th year of the program.

Students in the program take the regular calculus courses (Math 115 and Math 116) as well as the DHSP workshop (Math 145 and 146). The workshop has no grades, homework, or exams, but attendance is mandatory. Int he workshop, students discover powerful and beautiful applications of calculus which for one reason or another don't fit well in the regular classes. All their work is done in groups at the board, and they are together for a full year, so they form a strong community around math.

Detroit Area Pre-College Engineering Program (DAPCEP)

Michelle Reaves, Detroit Area Pre-College Engineering Program

The mission of DAPCEP is to increase the number of historically underrepresented students who are motivated and prepared academically to pursue degrees leading to careers in science, technology, engineering, and mathematics (STEM) related fields through K-12 supplemental educational programming.

DIVERSITY, EQUITY & INCLUSION

OCTOBER EVENTS

OCTOBER 7 9:00 – 10:30 AM | Hussey Room, Michigan League

WHAT DOES IT TAKE? CULTIVATING INCLUSIVE AND EQUITABLE ENVIRONMENTS FOR FACULTY DIVERSITY

Dr. Samuel Museus, an associate professor at Indiana University-Bloomington and an internationally recognized expert in higher education, diversity and student success, will lead a discussion on ways institutions of higher education can develop inclusive and equitable environments for faculty diversity.

Sponsors: National Center for Institutional Diversity; the College of Literature, Science, and the Arts; Office of the Vice Provost for Equity, Inclusion and Academic Affairs; the Office of Health Equity and Inclusion; the ADVANCE Program; and the Women of Color in the Academy Project

OCTOBER 10 1:00 – 3:00 PM | Harlan Hatcher Graduate Library Gallery

THE INTERSECTION OF DISABILITY AND DIVERSITY

A panel discussion exploring the many aspects of diversity and its intersection with the broad spectrum of differences found in the disability community.

Sponsors: U-M Council for Disability Concerns; University Human Resources; U-M Health System; and University Health Service

OCTOBER 18 1:00 – 4:00 PM | Pendleton Room, Michigan Union

WE ARE ALL PART OF THE DIVERSITY PUZZLE: WHAT'S YOUR PIECE?

Join presenter Joe Gerstandt for an interactive discussion on the importance of individual/personal awareness, accountability and the competencies that support workplace diversity.

Sponsor: VOICES of the Staff Diversity, Equity and Inclusion team

OCTOBER 20 3:00 – 5:00 PM | Palmer Commons, Great Lakes South/Central

COLLABORATIONS FOR DIVERSITY, ACCESS AND INCLUSION AT U-M: K-12 OUTREACH AND ENGAGEMENT PROGRAMS FOR GROWING STEM AND BEYOND

This event will focus on ways campus units can better communicate and collaborate to grow, strengthen and diversify the pipeline, with an emphasis on K-12 outreach and engagement programs. The featured speaker will be Dr. Robert Jagers, associate professor of education and psychology and the director of U-M's Wolverine Pathways program.

Sponsors: National Center for Institutional Diversity; College of Literature, Science, and the Arts; College of Engineering; Medical School; Center for Educational Outreach; and the Office of the Vice Provost for Equity, Inclusion and Academic Affairs

OCTOBER 24 4:00 – 5:30 PM | Rogel Ballroom, Michigan Union

DR. BEVERLY DANIEL TATUM, PRESIDENT EMERITA, SPELMAN COLLEGE

A 2013 recipient of the Carnegie Academic Leadership Award, Dr. Beverly Daniel Tatum served as president of Spelman College from 2002 to 2015, a period of great innovation and growth for the college. Dr. Tatum is the author of numerous books, including *Why Are All the Black Kids Sitting Together in the Cafeteria? And Other Conversations About Race*.

Sponsors: National Center for Institutional Diversity; Program on Intergroup Relations; Difficult Dialogues National Research Center; Office of the Vice Provost for Equity, Inclusion and Academic Affairs; and Office of the President.

OCTOBER 24 7:00 PM | Michigan Theater

FILM SCREENING: LOVE, LIFE & LOSS

The U-M Men's Glee Club is the focus of this documentary about the club's effort to promote dialogues on race through art. Music is paired with the final words of seven unarmed black men who were killed..

Sponsors: Office of the Vice President for Global Communications; School of Music, Theatre & Dance; Men's Glee Club; Diversity, Equity & Inclusion, Arts & Culture

Learn more: **diversity.umich.edu**