Welcome to our first report!

The mission of our unit is to lead large-scale, multi-institutional efforts in developing and implementing programs designed to improve access to higher education and science, technology, engineering and mathematics (STEM) education and related areas locally, nationally and internationally. In this publication, we highlight some of the projects and initiatives that we have implemented to fulfill this mission.

Our office continues to engage cross-disciplinary teams of faculty and staff across Auburn University colleges and schools, and to create innovative projects and initiatives that seamlessly integrate the three land-grant functions—instruction, research and public engagement. We aim to address issues of access to higher education, academic performance of at-risk students in STEM and related areas, and to ensure that students who aspire to a STEM career remain and succeed in STEM disciplines.

As you read this publication, you will notice that these proven pathways for access to higher education and student success are all externally funded. Please think about how you can support our office to have these programs and initiatives institutionalized for the benefit of current students and future generations.

Please do not hesitate to contact me or my colleagues if you need additional information.

War Eagle!

Overtoun Jenda, Ph.D.
Assistant Provost for Special Projects and Initiatives
and Professor of Mathematics
Dr. Overtoun Jenda
Dr. Jenda, professor of mathematics and assistant provost, is responsible for overall administration of the unit and serves as a principal investigator and project director on externally funded programs in the unit, while continuing to teach, conduct research and mentor.

Dr. Brittany McCullough
Dr. McCullough, program analyst, is responsible for data collection and reporting, assessment, planning and dissemination of information for all programs of the unit. She coordinates specific programs such as the U.S.-Africa Collaborative Research Network and the Greater Black Belt STEM initiative, and has served as an instructor in the Department of Mathematics and Statistics.

Keri Hesson
Hesson, academic programs administrator, is responsible for monitoring expenditures, initiating contracts and generating budget reports. She coordinates specific programs, including ACT Prep Academy and College Quest and serves as a co-advisor and primary contact for student organizations housed in the unit.

Dr. David Shannon
Dr. Shannon is Humana-Germany-Sherman Distinguished Professor of Educational Research and Evaluation in the Department of Educational Foundations, Leadership, and Technology, has served as the social science researcher for all programs in the unit since 2006. In this capacity, Dr. Shannon is responsible for research that focuses on the creation of models for improving STEM student success and retention at partner institutions.

Dr. Edward Thomas, Jr.
Dr. Thomas is associate dean for research and the Charles W. Bulkeley Professor of Physics in the College of Sciences and Mathematics, serves as the group leader and instructor for the pre-law student summer abroad program in the Virgin Islands.

Dr. Alan Wilson
Dr. Wilson is professor and graduate program officer in the School of Fisheries, Aquaculture, and Aquatic Sciences, has served as a co-PI of the South-East Alliance for Persons with Disabilities and S-STEM MAKERS Alliance since 2016.

Dr. James Witte
Dr. Witte is professor and acting chair of the Department of Educational Foundations, Leadership, and Technology in the College of Education, is the primary consultant and advisor for curriculum development and design in the Malawi Online Education Initiative.
We continue to partner with a large number of institutions in developing and implementing innovative interventions for promoting access to higher education and STEM education globally.

**Local Partners:** Auburn joined the Alabama Louis Stokes Alliance for Minority Participation (LSAMP) program in 1994 with Dr. Jenda as the campus coordinator. The alliance consisted of 12 institutions, including eight Historically Black Colleges and Universities at that time. After 23 years, Auburn partnered with Alabama State University and Tuskegee University in 2017 to branch off and create the Greater Alabama Black Belt Region (GABBR) LSAMP Alliance, consisting of eight institutions in the region with Auburn leading. This program focuses on recruiting underrepresented minorities in STEM with a special focus on students in the GABBR. Participating students receive benefits such as scholarships, peer mentoring, free tutoring, research internships, travel to research conferences, summer bridge, summer academies, Saturday academies, study abroad programs, mathematics enrichment initiatives and academic workshops.

Our long-term partnerships in Alabama LSAMP also resulted in the creation of the Scholarship in Science, Technology, Engineering, and Mathematics Making to Advance Knowledge, Excellence and Recognition (S-STEM MAKERS) program, which launched in 2016 with the first students accepted in fall 2017. This is a collaborative research project consisting of six colleges and universities with Tuskegee University as the lead institution. The focus of the MAKERS program is to recruit low-income, academically talented students and provide them with scholarships, academic foundation, and professional skills needed for STEM graduate school and the STEM workforce.

Local partners for GABBR LSAMP and MAKERS include:
- Alabama A&M University
- Alabama State University
- Auburn University Montgomery
- Enterprise State Community College
- Lawson State Community College
- Southern Union State Community College
- Troy University
- Tuskegee University
- University of West Alabama

To be eligible, LSAMP and MAKERS scholars must be majoring in agricultural sciences, engineering, biological sciences, mathematical sciences or physical sciences. These programs are funded by the National Science Foundation (NSF).

**Government Partners:** Our office also partners with the Alabama Department of Rehabilitation Services, Alabama State Department of Education, Alabama Cooperative Extension System, and GABBR public school systems to run programs that address issues of access to higher education for K-12 students.

**National Partners:** In addition to local partners, and building upon the Alabama Alliance for Students with Disabilities in STEM (AASSD-STEM) and the regional Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (INCLUD-ES), we now have 37 institutions nationally that work with the office to develop and implement interventions for mentoring students with disabilities in STEM disciplines. To participate, eligible students must major in agricultural sciences, building science, biological sciences, engineering, mathematical sciences, psychology or physical sciences.

**International Partners:** The office collaborates with a vast network of 30 colleges and universities, national research labs and centers, institutes, and organizations in Africa, the Caribbean, China, Canada and Europe to implement STEM education and research activities.

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Our office supports the Summer STEM Academy which aims to improve student college readiness, and to get them excited about STEM careers.

“The Summer Academy provides evidence-based solutions and exposure to STEM careers which empowers the students to discover and use new instructional methods to overcome common learning challenges that they can apply in the classroom during the regular school year,” said Carla Elston, Bullock County extension coordinator.

“The teachers also benefit from having Summer Academy students in their fall classes because these students are much more academically prepared and further ahead when school starts so educators spend less time re-teaching subject matter in the fall,” she said.

Summer Academies

In 2019, the office implemented the 6th ACT Prep Summer Academy for 39 deaf and hard of hearing high school students from Alabama. This one-week residential program is designed to prepare students for the ACT exam and life in college.

The academy teaches students test-taking strategies as well as ways to improve their performance in each of the test areas. As a result, ACT scores have increased an average of four points for participating students.

“The four-point increase in ACT scores for participating students has allowed them to not only be accepted into their top choices for college, it has allowed them to compete and receive academic scholarships to many four-year institutions,” said Bedarius Bell, Alabama state coordinator of deaf/hard of hearing services.

“In the six years of this program, we have had four students achieve a 30 or higher on the ACT.”

- Bedarius Bell, Alabama state coordinator of deaf/hard of hearing services

On average, student grades improved by at least one letter grade after five weeks, student enjoyment of learning mathematics rose from 47% to 65% and having access to enough information about college to make the best decision for themselves increased from 70% to 89%.

The program is supported by Auburn University, the Alabama State Department of Education, Bullock County School District and the Alabama Cooperative Extension System.

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130 participants

IN 2019 ACROSS ALL GABBR LSAMP INSTITUTIONS

more than

130 total

PARTICIPANTS

OVER SIX YEARS

144

INSTRUCTION
College Quest

The College Quest Summer Academy for blind and low-vision high school students is a three-week residential summer program for 21 students who each represent one of the state’s seven workforce regions. The overall goal of the College Quest program is to enable students to acquire the skills needed to eliminate the gap year often taken by individuals who are blind or have low vision, preventing them from entering college alongside their sighted peers.

College Quest is designed to help these students develop skills, including independent living and travel, self-advocacy, team building, financial management, assistive technology and vocational rehabilitation. Students are better prepared for integrated and competitive employment, ultimately resulting in a higher quality of life.

“This was an unforgettable learning experience. The friendships I made with other students, as well as my counselors, are ones that I will cherish for a lifetime.”
- Sam Looney, 2019 participant

LSAMP Summer Bridge Programs

In 2019, our office provided support to over 200 incoming freshmen who participated in three-to-four-week summer bridge programs implemented at each of the institutions in the Greater Alabama Black Belt Region Louis Stokes Alliance for Minority Participation (GABBR LSAMP). These programs are based on the highly successful 23-year-old Auburn University Summer Bridge Program sponsored by the College of Sciences and Mathematics in partnership with the Samuel Gunst College of Engineering.

“My experience as a participant in Auburn’s summer bridge program played an integral role in my success during my undergraduate career. I was prepared for the academic rigor of my science and math classes, and I received the social support I needed as I progressed towards graduation,” said Kristalyn Lee, associate vice president for administration and liaison to the Board of Trustees at the University of Montevallo.

“Additionally, some of my most meaningful friendships were formed during my four weeks at bridge. These lasting relationships have been both personally and professionally beneficial, and fueled my desire to support my students as they pursue academic excellence,” she said.

more than 200 participants IN 2019

Academic Year Bridge Programs

During the 2019-2020 academic year, 194 diverse students majoring in STEM disciplines at 10 institutions, 56 of them at Auburn, are participating in academic year bridge retention programs. These students graduate with competitive GPAs and successfully enter the STEM workforce or go on to graduate school. Auburn students receive stipends ranging from $5,000 to $7,000 per academic year.

In 2009 and 2016, Alabama State University, Auburn and Tuskegee University worked together to propose four major alliances, including the Alabama Alliance for Students with Disabilities in STEM, the South East Alliance for Persons with Disabilities in STEM, the Greater Alabama Belt Black Region Louis Stokes Alliance for Minority Participation and the Making to Advance Knowledge, Excellence, and Recognition in STEM (MAKERS) Bridge Program.

Working with my peers has strengthened my passion for the STEM career field I seek to enter. A natural mentorship forms when seniors share their research and work experience with juniors; juniors share their professional development skills with sophomores; and sophomores work with freshmen on how to begin preparing for life in and out of college,” said Giovanna Valle-Ramos, MAKERS STEM Bridge program participant.

“This program has provided me the opportunity to gain skills and experiences needed to succeed and allowed me, as a Hispanic woman, to become more competitive when seeking out internships and jobs.”
- Giovanna Valle-Ramos, MAKERS STEM bridge program participant

194 scholars supported AT 10 PARTNER INSTITUTIONS IN 2019-20

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Approximately 550 Auburn students have received stipends for participating in academic year bridge programs. Participants are required to attend mandatory mentoring meetings and maintain at least a 3.0 cumulative GPA.

Lee, associate vice president.
2019-2020 Auburn University

GABBR LSAMP and MAKERS Scholars

Demographics

By the Numbers

Race/Ethnicity

- Black/African American: 66%
- Hispanic: 4%
- Native American: 4%
- Native Hawaiian or other Pacific Islander: 2%
- Asian: 11%
- White: 14%

Current scholars have average GPA: 3.26

By the Numbers

Gender of Participants

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41% male, 59% female

By the Numbers

Class of Participants

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The one-week summer program in the British and U.S. Virgin Islands is designed to give pre-freshmen an opportunity to live and learn in an intercultural setting, while taking the course “Explore Sustainability and Marine Science in an Island Environment” in St. John and St. Thomas (U.S. Virgin Islands) and Virgin Gorda, Tortola and Cooper Island (British Virgin Islands). Students live on campus and attend lectures at the University of the Virgin Islands and participate in excursions that expand upon their classroom topic.

“My experience in the Virgin Islands was an eye opening experience because it showed me how different things are outside of the United States,” said Cameron Walker, a 2014 program participant.

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INCLUDES Initiative for Persons with Disabilities

Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science [INCLUDES] is one of the 10 “Big Ideas” for Future NSF investments, and aims to improve access to STEM education and career pathways on the national scale, making them more widely inclusive to underserved populations. The South East Alliance for Persons with Disabilities in STEM (SEAPD-STEM) is part of the NSF INCLUDES Design and Development Launch Pilots (DDLP) alliance initiative, and consists of 22 colleges and universities.

“Seeing other individuals with disabilities working toward, and succeeding in, scientific fields at my own university, and at other institutions during the annual conferences, helped show me I was on the right path and not alone,” said previous Alabama Alliance for Students with Disabilities in STEM (AASD-STEM) participant, Danielle Tadych. “This fellowship allowed me to gain research experience in a lab and travel to conferences to present my results. All have helped me be a well-rounded scientist and gain acceptance into my master’s program at Auburn and subsequent Ph.D. program at the University of Arizona.”

The primary goals of SEAPD-STEM and AASD-STEM are to develop and implement scalable interventions for increasing the quantity of persons with disabilities completing associate, undergraduate and graduate degrees in STEM disciplines, and entering the STEM workforce. In addition, the program aims to increase the quantity of post-doctoral fellows and junior faculty with disabilities in STEM fields, and improve academic performance of students with disabilities in secondary level science and mathematics courses.

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Pre-Freshman Study Abroad Program in the Virgin Islands

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“The thing that opened my eyes was that people did not complain about the things they did not have; instead, they were appreciative for what they did have. I decided to take this attitude with me wherever I went and that is what I’m doing now in college,” he said.

This annual program is open to a maximum of eight first-generation students, or students demonstrating financial need, who have been recognized for their outstanding academic achievements. Faculty leaders include Dr. Overtoun Jenda, assistant provost for Special Projects and Initiatives and professor of mathematics; and Dr. Edward Thomas, Jr., associate dean for Research and the Charles W. Barkley Professor of Physics in the College of Sciences and Mathematics.
Impact from Social Science Research Perspective

The office has incorporated social science research and dissemination as a priority and an integral part of its mission. Intensive research is being conducted on our programs to determine what works in helping students succeed, and to identify contemporary best practices in the preparation of underrepresented students and those with disabilities. Since 2013, four publications have appeared in peer-reviewed scholarly journals and numerous presentations have been made at national and international conferences.

To continue this research initiative, the office houses the Greater Alabama Black Belt Region (GABBR) Center for Strengthening Pathways for At-Risk Students (SPARK Center) in partnership with GABBR Louis Stokes Alliance for Minority Participation (LSAMP) institutions. The center focuses on fostering research-based technical assistance in K-12, colleges and universities in the Alabama Black Belt region and beyond to increase the quality and quantity of degrees for at-risk students at all academic levels in STEM disciplines.

Key findings:

**LSAMP:**
- Students reported they found the mentoring they received from faculty and peers to be effective and useful. LSAMP participants were especially positive in rating the program’s impact on their awareness of valuable resources. Individuals gained greater confidence in earning a degree and ability to be successful in a STEM-related field.
- Based on data from student surveys focusing on project participation, the following relationships were found:
  - Participation in career workshops in the fall was positively correlated with student ability to face academic challenges, academic efficacy, institutional commitment and research outcome expectations.
  - Participation in research experiences for undergraduates (REU) was positively correlated with academic efficacy as well as research interests, confidence and expectations.
  - Workforce preparation for STEM was positively correlated with academic efficacy.

**MAKERS:**
- The Making to Advance Knowledge, Excellence, and Recognition in STEM (MAKERS) group prototype projects have given students practical experience in applying STEM concepts to everyday problems to develop solutions. They have also gained valuable 21st Century skills, such as critical thinking, creativity, collaboration and dissemination experience while presenting their projects and posters at the annual conferences.
- Students participating at least two hours per week reported significantly greater awareness of valuable resources, improved time management skills and academic knowledge, better preparation for potential internships and confidence they will successfully complete their degree program.

**Students with Disabilities:**
- These students have made significant gains in many areas, both academically and socially. The top areas of improvement are:
  - Increased persistence in STEM
  - Increased knowledge of STEM careers and research opportunities
  - Increased self-advocacy behaviors
  - Increased academic self-efficacy
  - Successful creation of a supportive academic and social network of peers and faculty

As part of the South East Alliance for Persons with Disabilities in STEM (SEAPD)-STEM: Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (INCLUDES) program, asset mapping was used to assess variables related to institutional capacity for serving students with disabilities. Institutional assets were defined in 17 categories with pre- and post-data collected from websites, interviews and surveys. Institutional assets related to students with disabilities in STEM increased from 541 to 751 and demonstrated increased confidence, knowledge and services to students with disabilities in STEM overall.
Research Experiences for Students

Summer, several Auburn students in STEM disciplines have participated in REU programs through funding from LSAMP, national labs and other sources. Specifically, 46 students were supported through our office over the last two summers to conduct research at Alabama State University, Auburn University, and Oak Ridge National Laboratory. The office has supported 143 students with five different NSF grants and more than 65 peer-reviewed publications. Nearly all of our alumni have gone on to graduate school with more than half in mathematics and the other half in mathematics education, computer science, statistics and statistical sciences, and mathematical branches of biology.

Research Experiences for Undergraduate (REU) programs have had a great impact in increasing the number of U.S. students entering graduate school, and it remains a priority for our office. Our involvement started in summer 1994 when two Auburn University African American students were sponsored by the Alabama Louis Stokes Alliance for Minority Participation (LSAMP) to attend the eight-week summer program at the University of Alabama at Birmingham. Since then, every more than 65 mathematics publications have been published in peer-reviewed journals.

With a faculty member and experience the rigor and reality of conducting academic research, we learned a great amount about the process of research and independent thinking,” Jada and Jordan said.

In addition to funding students to attend other REU programs, the office has its own eight-week summer REU program in algebra and discrete mathematics run by Dr. Overtoun Jenda and Dr. Peter Johnson. From 2018-2019 the office has supported 143 students with five different NSF grants and more than 65 peer-reviewed publications. Nearly all of our alumni have gone on to graduate school with more than half in mathematics and the other half in mathematics education, computer science, statistics and statistical sciences, and mathematical branches of biology.

143 participants in mathematics supported since 2010

MAKERS Projects

The Scholarship in Science, Technology, Engineering, and Mathematics Making to Advance Knowledge, Excellence and Recognition (S-STEM MAKERS) model is designed to integrate STEM enrichment, research and peripheral activities. The program’s hallmark intervention is “Learning by Making,” which involves interdisciplinary scholar cluster groups identifying and investigating problems affecting their local communities. The students then apply their STEM knowledge to “make” a product that has the potential to solve these problems. The product prototypes are presented at an annual MAKERS S-STEM conference held at Tuskegee University. Current student projects include a solar-powered phone case and wireless charger, a trash can redesigned to improve accessibility, and a pet collar containing sensors for monitoring location and activity.

“This program was a huge source of growth for me as a person and a scientist. It strengthened my confidence in myself and taught me so much about professionalism, responsibility and scientific creativity,” said Erin McGraw, an Auburn engineering graduate student and alumna of the MAKERS S-STEM program. “We were able to take something as trivial as taking out the trash and put our collective STEM experiences together to create something new and potentially impactful.”

Annual Research Conferences

The office hosts an annual research conference focusing on persons with disabilities each year, attracting participants nationwide. The goal is to develop a research-based proposal for a national alliance for those with disabilities.

The first GABBR LSAMP Research Conference was hosted by Alabama State University in fall 2015 at the Renaissance Hotel in Montgomery. The conference is hosted on a rotating basis among partner institutions and is run by our office. It is open to LSAMP scholars from all GABBR LSAMP institutions.

GABBR LSAMP and MAKERS S-STEM programs have a joint research conference and graduate fair with the NSF-funded Historically Black Colleges and Universities – Undergraduate Program (HBCU-UP), which is held annually at Tuskegee University and is co-hosted by our office. At the conference, students present their research and MAKERS products, in addition to attending professional development sessions. Participation of students who receive stipends or research internships from the program is mandatory, resulting in over 200 students attending each year.
Interdisciplinary Research: Masamu Program

“Interdisciplinary Research: Masamu Program

Our office promotes and supports interdisciplinary research across campus through international collaboration. Our flagship program is in mathematical sciences and related areas focusing on sub-Saharan Africa. The idea of developing a sustainable U.S.-Africa collaboration in mathematical sciences research was first conceived at the 2009 Southern Africa Mathematical Sciences Association (SAMSA) Conference held in Dar es Salaam, Tanzania during a strategy session that resulted in the creation of the Masamu Program (masamu means mathematics in Southern Africa) with initial financial support from Auburn University, the NSF and partial funding from the British Council. The primary focus for initial NSF funding was on a one-year U.S.-Africa institute and workshop in epidemiological modeling that was launched in Livingstone, Zambia, in 2011. As a result, additional connections developed in other areas where mutual research strengths existed. This enabled the Masamu Program, in 2012 and with new NSF funding, to develop a unique multidisciplinary U.S.-Africa Collaborative Research Network (CRN). The CRN consists of U.S. and African researchers together with additional collaborators from Canada, Europe and Asia.

“Through exchanges between western and African scientists, fresh ideas and approaches are brought together in a quantitative framework,” said Dr. F. Stephen Dobson, Alumni Professor of biological sciences at Auburn. “The application of mathematical and statistical approaches to important issues for southern Africa biology creates novel insights into important problems that are faced by the African public and scientists alike.”

In addition, Dr. Javier Arsuaga, professor of mathematics and molecular and cellular biology at the University of California, Davis, and three-time MASI participant, praises the program as well.

“MASI is one of the most exciting events in my research calendar,” Arsuaga said. “Through this program, and the yearly trip to Africa, I have had the opportunity to interact with top researchers from Africa, the U.S. and Europe, and I have been able to present my research results to new audiences across Africa, and collaborate with local high school teachers in the design of new educational activities.”

The Masamu Program is managed by the Masamu steering committee consisting of 10 research mathematicians from sub-Saharan Africa, four U.S. and one UK, and is co-chaired by Dr. Overtoun Jenda and Dr. Edward Lungu. Our office manages the continued on p. 25
Collaborative Research Network, which consists of 82 senior research mathematicians and scientists from around the world, including eight senior research faculty from Auburn playing a leadership role.

Current areas include algebra and geometry, analysis and topology, graph, coding and information theory, mathematical biology and biomathematics, climate change and impacts, biostatistics and data science, mathematics of finance and statistics, and numerical approximations, stochastic and computational mathematics.

MASI takes place over the Thanksgiving holiday break each year in conjunction with the SAMSA Annual Conference, and has been held in seven countries so far in the Southern Africa region. An average of 39 students, faculty and post-docs attend each year.

Twenty-nine research papers have been published in international journals and eight more have been submitted since 2013. Four master’s degrees and 24 Ph.D. degrees in the U.S. and sub-Saharan Africa have been awarded, with eight of the Ph.D.s coming from Auburn.

By the Numbers

MASI Participant Demographic Data, 2011-2019

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*Includes repeats

*OT=Overall Total, F=Faculty, PD=Postdocs, GS=Graduate Students, UG=Undergraduates, NA=North America, AF=Africa, EU=Europe, W=Women, URM=US Underrepresented Minorities, IR=Institutions Represented

MASI host countries 2011-2021
The Greater Alabama Black Belt Region (GABBR) STEM Initiative, launched in fall 2017, is a partnership between the GABBR Louis Stokes Alliance for Minority Participation (LSAMP), the Alabama State Department of Education and the Alabama Cooperative Extension Service, with the goal of improving college readiness in STEM in schools.

This is being done in partnership with our GABBR LSAMP alliance institutions by expanding student content knowledge in core subject areas, allowing them to progress along a path toward college/university admission and be successful in pursuing STEM careers. Activities of the initiative include Saturday academies, five-week summer academies and academic-year engagement in the schools. A pilot program was implemented by our office at Bullock County High School in the summers of 2018 and 2019. Now, our goal is to gradually expand the initiative to all counties in the Alabama Black Belt.

“This intentional programming is intended to highlight possible STEM careers within Bullock County, communicating to the youth, and their families, that attending college does not mean you cannot have a professional STEM career in your home community, out-migration of STEM-focused youth results in a “brain drain” in rural, high-poverty communities. This pervasive issue is one of the driving forces behind the creation of this much-needed initiative,” said Dr. Gary Lemme, director of ACES.

‘Rather than taking students out of their local communities, the GABBR STEM Initiative places a focus on meeting the students where they are, both in terms of geographical location and teaching.’

- Dr. Gary Lemme, director of ACES
Malawi Online Education

The Malawi Online Education Initiative is run by the Auburn Malawi team consisting of John Helms, Rusty Presley and Dr. James Witte. The Malawi team continues to be actively engaged with the Office of Higher Education in the Malawi Ministry of Education, Science and Technology through the current Memorandum of Understanding that Auburn has with all public higher education institutions in Malawi. In particular, the team assists Malawi in developing curriculum, establishing instructional design, and building capacity for Malawi’s public universities to implement online degree and certificate programs in STEM fields and related areas.

“As a university IT professional, it has presented a unique opportunity for me to support the advancement of education in one of the poorest countries in the world, where the challenges are most significant and where Auburn’s help can have the greatest impact,” said John Helms, director of telecommunications in the Office of Information Technology.

“Four years into the Malawi Initiative, Auburn’s influence can be seen in the ideas implemented and the progress made, but there is still a long ways to go.”

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- John Helms, director of telecommunications in the Office of Information Technology
RECOGNITION AND AWARDS

Research Grants

The Kovalevskaia Research Grants were founded in 2014 as an initiative of the Kovalevskaia Fund and Southern Africa Mathematical Sciences Association (SAMSA), within the Masamu Program. The awards aim to encourage upcoming female mathematicians from the sub-Saharan Africa region. Two grants, valued at $2,500 each, are awarded every two years—one in pure mathematics and another in applied mathematics.

Six awards have been made so far and recipients hail from Kenya, Nigeria, South Africa, Tanzania, and Zimbabwe.

$5,000 awarded EVERY TWO YEARS

National Role Model Awards

Each year, since 2000, Minority Access, Inc. recognizes high achieving innovators, recruiters, researchers, faculty, administrators, students, mentors, alumni and institutions that have been exemplary in expanding opportunities for underrepresented populations in STEM disciplines. Our office nominates members of the Auburn Family for the awards and recipients are recognized at the annual Minority Access National Role Model Conference held in Washington, D.C.

The 2019 Auburn University recipient was Bell Rogers. She was recognized for her outstanding work and commitment to providing opportunities for disadvantaged youth, creating nationwide mentoring programs, and her unwavering support within the community—which includes 18 years of sponsorship for students at the Auburn University Summer Bridge program.

“To be recognized, along with some of the brightest and most successful people in the country, as a national role model was truly a humbling and remarkable experience,” Rogers said. “I truly believe the work done in the Summer Bridge program, started by Dr. Jenda, has sparked the careers of some of Auburn University’s best and brightest students. It is programs like the Summer Bridge that help to ensure minorities have the tools and support to be innovative and successful at every stage of life.”

In addition, Auburn has been recognized for its institutional commitment to diversity by Minority Access, Inc. in 2008-2013 and 2015-2019.

“I truly believe the work done in the Summer Bridge Program, started by Dr. Jenda, has sparked the careers of some of Auburn University’s best and brightest students. It is programs like the Summer Bridge that help to ensure minorities have the tools and support to be innovative and successful at every stage of life.”

-- Bell Rogers, AT&T Pioneers
The Office of Special Projects and Initiatives advisory board is a 20-member group that meets at least once per year. These highly-skilled and knowledgeable individuals serve as ambassadors, advocating for our programs and initiatives to enhance STEM education, address issues of access to higher education, and identify ways to increase opportunities for academic performance and retention of at-risk students in STEM.

“As I reflect on the Auburn Creed, the line ‘I believe in education, which gives me the knowledge to work wisely and trains my mind and my hands to work skillfully’ resonates with me as I think of the opportunities the Office of Special Projects and Initiatives provides for underrepresented students in local and international regions,” said Dr. Kristi Garrett, independent business owner at Itsirk Solutions, LLC., and advisory board member. “This support encourages better time management, increased confidence in STEM abilities, as well as effective study skills that will help students build a solid foundation that future alumni can apply into their careers.”

The Greater Alabama Black Belt Region Louis Stokes Alliance for Minority Participation (GABBR LSAMP) has an advisory board consisting of prominent alumni and friends and an executive committee consisting of campus coordinators of the alliance. And each GABBR LSAMP partner institution has a management committee and student cluster groups. The Masamu Program has an international steering committee and research teams while Extension programs have dedicated teams that ensure programs are implemented efficiently.

All these boards, committees, teams and student groups provide the office an excellent mechanism for timely advice and help to implement successful programs and initiatives.

### Programs and Initiatives at a Glance

#### Instruction

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<th>K-12 Programs</th>
<th>Bridge Programs</th>
<th>Fellowships</th>
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#### Research

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#### Extension and Service

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<td>Malawi Online Education</td>
<td>Mathematics Alliance</td>
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<td>Masamu Program</td>
<td>SACNAS (Society for Advancement of Chicanos/Hispanics and Native Americans in Science)</td>
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The office continues to engage alumni and friends. In particular, board members and alumni attend events on campus, including student meetings and conferences, and some participate in our off-campus local, national and global initiatives.

We also like to hear about our alumni engaging in special projects or initiatives that impact society locally, nationally or internationally.

Alumni at Summer Bridge and Drop-In Center Reunion (Top and middle right)

Dr. Kristi Garrett on a mission trip with Partners in Development (PID) to Haiti. She provided database management support to review and update records of PID sponsored children in Port-au-Prince. (Bottom right)