

Science and Engineering From Research Growth Plan to 2027 Vision



# Science & Engineering at SLU

# SCHOOL OF SCIENCE AND ENGINEERING

- Aerospace & Mechanical Engineering
- Aviation
- Biomedical Engineering
- Chemistry
- Civil, Computer & Electrical Engineering
- Computer Science
- Earth and Atmospheric Sciences
- Physics

# COLLEGE OF ARTS AND SCIENCES

- Biology
- Bioinformatics & Computational Biology
- Data Science
- Forensic Science
- Mathematics and Statistics
- Neuroscience
- Psychology

# Science & Engineering Research Council at SLU

- Jenna Gorlewicz, Ph.D, (Chair) Associate Dean for Research and Innovation (SSE),
   Associate Professor, Mechanical Engineering
- Stephen Belt, Ph.D., Associate Professor, Aviation Science
- Amanda Cox, Ph.D., Associate Professor, Civil Engineering
- Alexei Demchenko, Ph.D., Chair, Chemistry
- Maureen Donlin, Ph.D., Research Professor, Research Computing, Biochemistry and Molecular Biology
- Kasey Fowler-Finn, Ph.D., Associate Professor, Biology
- Haijun Gong, Ph.D., Associate Professor, Math
- Adriana Montano, Ph.D., Senior Associate Dean for Research, School of Medicine
- Zachary Phillips, Ph.D., Assistant Professor, Earth and Atmospheric Sciences
- Scott Sell, Ph.D., Associate Dean for Undergraduate Education (SSE), Biomedical Engineering
- Laurie Russell, Ph.D., Associate Dean for Student Success & Academic Innovation (CAS), Professor, Biology
- Abby Stylianou, Ph.D., Assistant Professor, Computer Science
- Jeremiah Weinstock, Ph.D., Chair, Psychology
- David Wisbey, Ph.D., Assistant Professor, Physics

## Science & Engineering: 2016 – 2022 Milestones

- Reimagination of two new units: COLLEGE OF ARTS AND SCIENCES &
   SCHOOL OF SCIENCE AND ENGINEERING
- Formation of the Science and Engineering Research Council (SERC)
- 17 Science and Engineering RI FELLOWS Named in 2022
- Numerous **INDIVIDUAL PI AWARDS** (e.g. NSF CAREER, Google Scholar Award, Jefferson Science Fellow, and more!)
- Amplifying our **JESUIT MISSION** through our research & innovation initiatives



NEW ROOTS FOR RESTORATION











## **Taylor Geospatial Institute**

"We're harnessing the power of partnership with industry, government agencies, and research entities to not only grow talent but develop core geospatial science and adjacent fields that enable positive impacts on some of the world's greatest challenges."



#### **AREAS OF GEOSPATIAL IMPACT:**

**Core Geospatial Science** 

**Food Systems** 

**Geospatial Health** 

**National Security** 









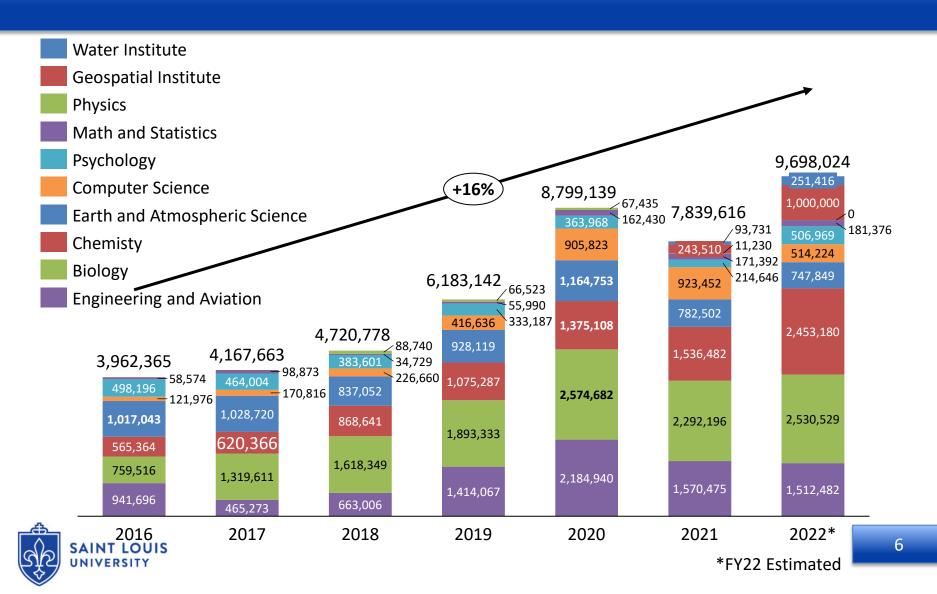




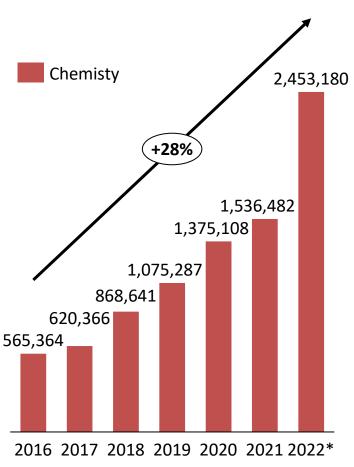


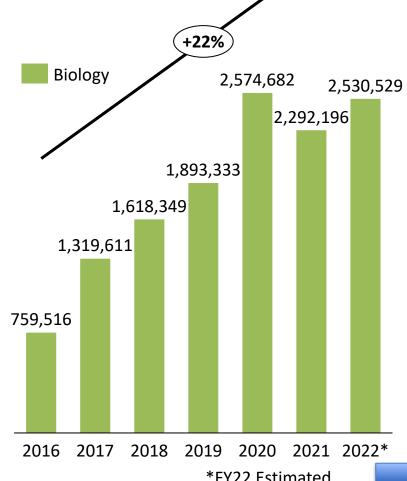


# S&E RESEARCH EXPENDITURES, 2016-2022



# EXEMPLAR GROWTH AREAS: CHEMISTRY & BIOLOGY, 2016-2022







#### MOVING FROM PLAN TO VISION: CURRENT INITIATIVES

#### **RESEARCH GROWTH**

- 1. SERC Infrastructure, Faculty Support, Research Growth, PRF
- 2. Research Computing University Priority
- 3. Faculty Hiring: 8 TT Searches (SSE); 6 TT Searches (CAS-Sciences)
- 4. Undergraduate Research Programs SURGE & FIRE
- 5. Graduate Education Recruiting, Training, and Retaining

#### **UNIT FOUNDATIONS**

- 1. Permanent Dean Searches Underway
- 2. Administrative Structures and Policy Implementation Space and Workload

#### **INNOVATION AND PARTNERSHIPS**

# Industry & Institute Partnerships

- Shaping Future INTERDISCIPLINARY, Education & Research
- Cultivating a **DIVERSE** Workforce
- Recruiting and Retaining TOP TALENT
- Innovating through COLLABORATION











### **Academic Partnerships**

- Building PATHWAYS through the Sciences and Engineering
- Creating IMPACTFUL K-12 Outreach
- Establishing EXPERIENTIAL
   Opportunities for Students & Faculty
- Collaborating in a Research
   SANDBOX environment

HARRIS-STOWE STATE UNIVERSITY



#### **ADDITIONAL SCIENCE & ENGINEERING INITIATIVES**

## REGIONAL GEOSPATIAL INITIATIVES







# ADVANCED MANUFACTURING INNOVATION CENTER



**R&D Co-Leads:** 





**CONVERSATIONS** 

# CYBERSECURITY & INTELLIGENCE

The Global Center for Cybersecurity @Cortex



# NEW ROOTS FOR RESTORATION



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#### MOVING FROM PLAN TO VISION: WE NEED YOU!



## Ways to Engage:

- 5 Year Strategic Planning
- Follow-on Conversations
- Provide Feedback
- Communicate through SERC representatives
- Faculty and Dean Search Processes

# Questions? Thank you!

