



THE PROMISE OF STEM EDUCATION



THE CAMPAIGN FOR TCNJ

INNOVATE • INSPIRE • ENGAGE



OUR VISION

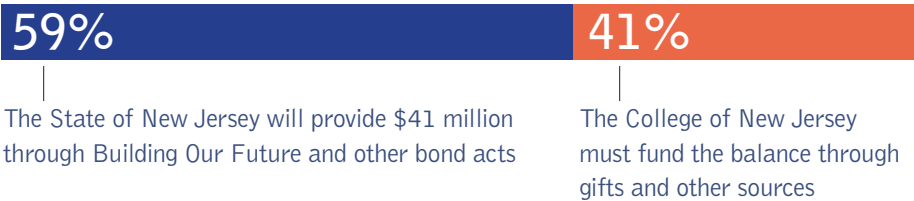
DESIGNED TO THE PURPOSE: to connect TCNJ students with the synergy and the tools—the *how-it's-done*—of science, technology, engineering, and math (STEM) in the 21st century. That's the vision driving our ambitious \$70 million STEM Complex. First, we'll remove the physical barriers that stand in the way of creativity and collaboration. Second, we'll build the knowledge-sharing spaces—from labs to lounges—that spur ideas and innovation. The result? Our graduates will begin their careers fully integrated into the collaborative environments embraced by today's innovators.

[BUILDING ON SUCCESS]

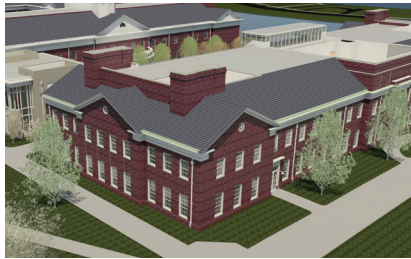
TCNJ HAS AN OUTSTANDING RECORD in preparing students to excel in the STEM fields. Our civil engineering graduates, for instance, pass the Fundamentals of Engineering Exam, a first step toward a P.E. license, at a rate 16 percentage points higher than the national average. And the American Chemical Society ranks TCNJ in the top four percent in the nation—and first in New Jersey—for producing ACS-certified bachelor’s degree chemistry graduates. With this forward-thinking facility, the college will be able to attract and retain the best faculty and students, fueling more success stories like these.

3

TOTAL PROJECT COST: \$70 million



STEM BUILDING



A NEW 89,000-SQUARE-FOOT, state-of-the-art STEM Building is the heart of this project. Slated to open in fall 2017, it has been designed from the ground up to facilitate a fresh, multifaceted approach to teaching and

learning. Glass replaces walls. Interactive lounges supplant isolated hallways. Teaching and research occur across—rather than within—disciplines. By bringing students and faculty closer together, without barriers and across boundaries, we can prepare a new generation of TCNJ graduates for the demands of the STEM economy: creative thinkers who are comfortable working on teams and collaborating across disciplines.

PROJECT HIGHLIGHTS:

THE BIOMEDICAL ENGINEERING RESEARCH SUITE will allow advanced designs and analysis with sophisticated instrumentation, including confocal microscopy, human performance instrumentation, and biosafety level 2 facilities that allow for sophisticated experiments in support of our research thrusts in areas such as neural engineering and prosthetics, tissue engineering, physiological control systems, and hemocompatibility.

THE COMPUTER SCIENCE FACULTY-STUDENT COLLABORATIVE RESEARCH SUITE has been intentionally designed to accommodate the wide array of research areas in which our faculty and students work—computer networking and security, artificial intelligence, grid computing and computational journalism, human-computer interaction—so this can happen in a team setting.



Collaborative research labs employ glass walls to symbolize that ideas have no boundaries.



THE ROBOTICS LABORATORY provides a forum for this cross-disciplinary field. Faculty and students will utilize this space for design, research, and teaching about a myriad of topics that span software algorithm and hardware design.

THE HIGH-PERFORMANCE SCIENTIFIC COMPUTING CLUSTER strings together approximately 300 servers, and will provide a platform for the intensive computing needs of our faculty and student researchers.

THE MECHANICAL ENGINEERING DESIGN STUDIO enables students to fully develop their complex designs from concept through validation. Specialized spaces for prototyping, systems validation, material testing, and other advanced testing complement student and faculty research and design efforts.

INFORMAL LEARNING SPACES, such as student commons and open study rooms, have been strategically integrated into the building's design.

CHEMISTRY BUILDING EXPANSION



THE COLLEGE OF NEW JERSEY'S CHEMISTRY DEPARTMENT is poised to become one of the nation's elite programs. It is in the top four percent in the US and first in New Jersey in graduation of American

Chemical Society-certified bachelor's degree chemistry graduates. The expansion of their present home will give them the space and equipment they need to make the leap.

The second floor, for example, will include a Multidisciplinary Super Laboratory Suite that will allow for seamless transition between computational, experimental, and analytical activities. A state-of-the-art instrumentation laboratory will house current and new equipment, and it will be outfitted with camera and screen capturing technology to facilitate instrument usage and instruction. This lab, along with a specialized instrument lab and a laser facility, will interconnect to a computational chemistry laboratory, a synthetic chemistry laboratory, and a multipurpose chemistry laboratory.



A view of the
Instrumentation Lab
within the Multidisciplinary
Lab Suite.

POINTS OF PRIDE:

Our Student Chemists Association was featured on the cover of the **NATIONAL ACS MAGAZINE**, *In Chemistry*, for an interdisciplinary chemistry/art project.

60% of our chemistry graduates
immediately pursue graduate study.

The ACS has awarded its **OUTSTANDING CHAPTER** and **GREEN CHEMISTRY AWARDS** to TCNJ's Student Chemists Association for the past three years.



The Forum will
bridge the STEM
and Biology Buildings.

FORUM



ONE OF THE MOST DISTINCTIVE features of this project is the glass-enclosed Forum, which will connect the new STEM Building with the Biology Building. It is designed to be a campuswide living room, drawing students from

across the campus and creating the exciting possibilities that can only happen when students and faculty from disparate disciplines interact in a casual, creative setting.

But more than just a gathering space, the Forum brings it all together, creating a unified, interdisciplinary STEM Complex from the collection of discipline-specific buildings that currently exists.

How to give

NEITHER THE WHITE HOUSE nor American corporate leaders mince words: Both view STEM education as key to the nation's economic growth and global competitiveness. This new complex will give our faculty and students a setting that reflects and enhances the already exemplary STEM education available at the college—at the very time the job market demands it. Together, let's give TCNJ students what they need to be STEM leaders. There are many opportunities for support:

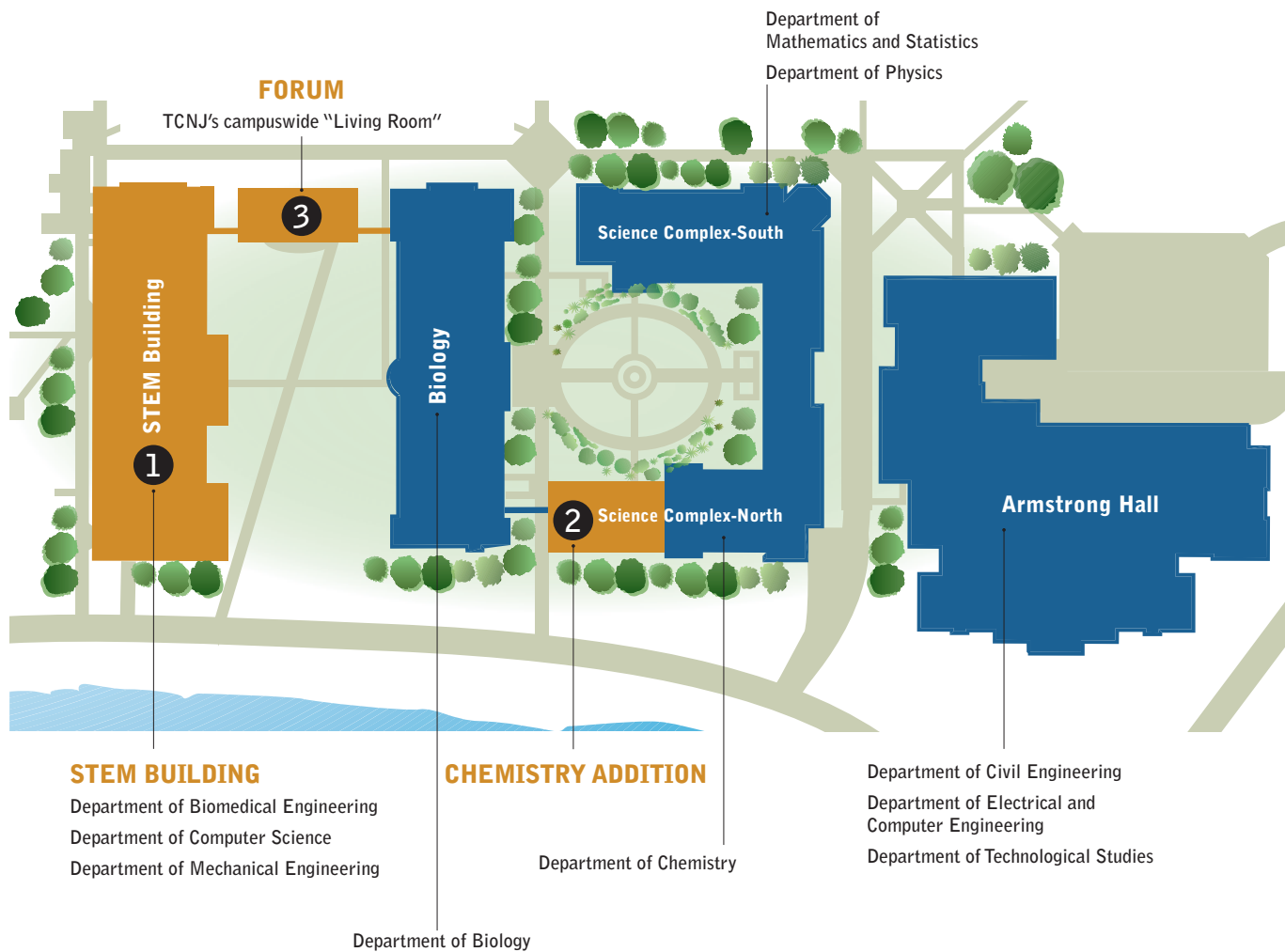
- Classrooms
- Teaching laboratories
- Computer teaching laboratories
- Faculty-student collaborative research labs
- Instrumentation labs
- Open computer labs
- Student commons
- Student study areas
- Specialized laboratories and facilities
- Department office suites
- Faculty offices
- Staff offices
- Equipment

QUESTIONS? WE'RE HERE TO HELP.

THE COLLEGE OF NEW JERSEY
Office of Development • PO Box 7718 • Ewing, NJ 08628-0718
609.771.2925 800.347.9621

campaign.tcnj.edu

TCNJ STEM COMPLEX



New Construction

1 2 3

WHAT DOES TCNJ MEAN TO ME?

“Everything.”

—SUSAN ACERO '18



THE CAMPAIGN FOR TCNJ

INNOVATE • INSPIRE • ENGAGE

