# Academic Innovation

EYP/

#### / firm overview

EYP is a global provider of comprehensive high-performance building design, research, and consulting services. We are five sectors — Higher Education, Government, Healthcare, Science & Technology, and Energy — who work as one firm to help our clients address some of the most critical issues facing our nation and our world. Our professionals work across 15 offices in the United States and Europe.

The only design firm to have been ranked in the Top 5 for sustainability for four consecutive years by *Architect Magazine*, EYP is committed to creating rich, productive, and inspiring environments that promote human well-being, preserve natural resources, and provide flexibility and resilience for the future. Our knowledge-based innovation strategy helps promote action-oriented public dialogue about the future of the built environment.

#### **Disciplines**

Architecture, Engineering, Energy, Environmental Graphic Design, Interior Design, Master Planning

#### **Integrated Design Expertise**

- Academic Innovation
- Diplomatic Facilities
- Energy & Sustainability
- Health Education
- Healthcare
- Historic Preservation
- Libraries

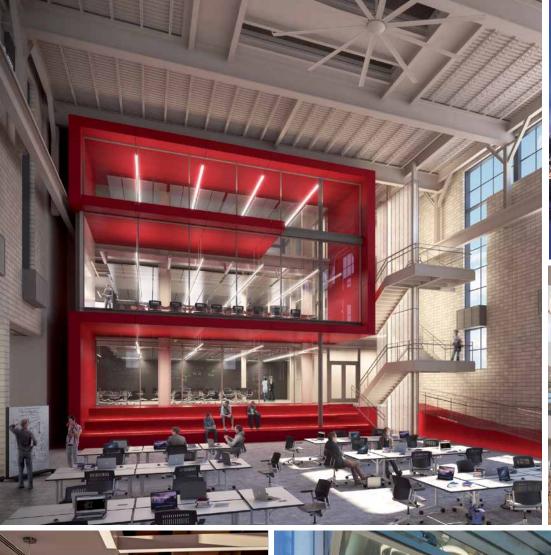
- Master Planning
- Mission Critical
- Modernization
- Science & Technology
- STEM
- Student Life
- Workplace

#### Research

The right building design can help organizations advance their mission and goals. Our research program makes us better designers and more valuable advisors to our clients — and helps our clients make more strategic decisions about their buildings. Our open innovation approach values collective intelligence. We partner with outside experts in many disciplines to transcend the limits of current thinking and expectations, collaboratively exploring and testing ideas in Building Science, Energy, Healthcare Design, Living-Learning, STEM, and Workplace.

#### Recognition

- 2017 Architect 50 Architect Magazine
- 2017 Top 25 Architecture Firms Architectural Record
- 2017 Top 25 Architecture & Engineering Firms Engineering News-Record
- 2017 MEP Giants Consulting-Specifying Engineer
- 2017 Giants 300 Building Design + Construction
- 2017 Top 500 Design Firms Engineering News-Record
- 2017 Top Architects #1 for Healthcare Renovation Health Facilities Construction Quarterly















#### / academic innovation

Today's classrooms must accommodate multi-modal presentations and group learning, as well as the traditional pedagogical system of text-based lectures and testing — all within a single space. Our designs for collaborative/experimental academic spaces maximize instructor-to-student and student-to-student contact while incorporating technology as a learning tool. Whether known as Maker Spaces, Innovation Zones, or Classatories (hybrid classroom/labs), today's learning spaces simulate real-world creative environments to help students develop higher-order critical-thinking and collaborative skills.

#### Contact

John Baxter, AIA, LEED AP 202 471 5050 / jbaxter@eypae.com

### /Trinity University San Antonio, TX

Center for Sciences & Innovation



The forward-thinking design of CSI places the most innovative learning space at the building's front door on the main campus quadrangle. A series of student teamwork spaces — sized to accommodate both freshmen and seniors — supports the iterative think/model/make learning process.

Shared space fosters collaboration among class cohorts, enabling younger students to learn and be inspired by upper-level students. An operable glass wall enables the thinking space and the making space to be either separated or connected.

The double-height making space, dubbed "the Cube," embeds the classroom experience in the laboratory. "Garages" containing the tools for making surround and are connected to the Cube via overhead doors. A moveable instructor station and movable student workstations - incorporating benchtops, white boards, tool cases, and digital displays - enable teaming areas to be easily reconfigured. Overhead garage doors that open onto the main campus quad allow students to move their projects outside, making them visible to the entire campus. An open computer lab and study spaces overlook the making space.

The glass-walled modeling space puts the excitement of the problem-solving process on display for students passing through the corridor. Classatories for sophomores and juniors also integrate lecture and lab spaces, emphasizing just-in-time learning prior to application.

- LEED Gold certified
- 155,000 GSF new construction
- 85,000 GSF modernization
- Programming & Planning, Architecture, Laboratory Planning, MEP Engineering, Energy Analysis









### / Bryant University Smithfield, RI

Academic Innovation Center



Bryant's new Academic Innovation Center (AIC) is envisioned as an immersive, collaborative learning environment for the iterative design process.

The AIC is designed to promote the entrepreneurial spirit that characterizes the renowned College of Business brand experience for both students and faculty. The 50,000 GSF facility is organized around the Innovation Forum, a highly flexible space whose furnishings and whiteboards can be reconfigured to support various group learning activities, enabling collaborative hands-on discovery. Semi-enclosed breakout spaces along the building perimeter will provide quieter and more private group work settings. The program also includes tiered classrooms and flat-floor flexible classrooms to accommodate multimodal presentations and learning.

Reinforcing the concept that the building belongs to the entire university rather than a particular department, the program replaces assigned faculty offices with a flexible Faculty Workshop – including conference and storage space – that any faculty member can use whenever they are in the facility to work with students.

Prominently sited at the campus's main point of arrival, the AIC will welcome visitors and serve as the launching point for Admissions tours. A café is located near the building's main entrance and adjacent to the President's Walkway – the campus's central pedestrian circulation path.

- 50,000 GSF new construction
- Architecture, MEP Engineering, Programming & Planning, Energy Analysis, Construction Administration









## / Virginia Tech Blacksburg, VA New Classroom Building



Virginia Tech's new classroom building advances the University's mission to "invent the future" by transforming the science learning environment. The cuttingedge design creates two radically different types of spaces: the SCALE-UP (Student Centered Active Learning Environments for Undergraduate Programs) classroom and the classatory, a hybrid classroom/lab.

The two SCALE-UP rooms, whose concept was tested in other campus buildings, are furnished with 11 seven-foot round tables — the optimal size for interaction, according to NCSU research — with microphones, power cords, and cable connections to monitors around the room. Nine students work in three groups of three, collaborating on real-world science problems.

The four flexible classatories blend elements of traditional classroom and laboratories to support the Integrated Science Curriculum, in which students work in several disciplines – biology, chemistry, physics, etc., – within a single class period. Each classatory has a central wet lab area, moveable tables, and one or two fume hoods and sinks. Enclosed, connected prep spaces house equipment requiring supervision. Write-up spaces between wet labs also support informal study outside class hours.

- 74,000 GSF new construction
- Programming & Planning, Architecture, MEP Engineering









### / Concordia College Moorhead, MN

Science Building Programming & Conceptual Design

The design for the Unified Science Center, Concordia College's largest capital project to date, focuses on conservation and adaptive use to create an interactive, hands-on STEM learning environment. Rehabilitating the conjoined Ivers and Jones Science Buildings, respectively constructed in the 1960s and early 1980s, will create a new integrated science complex that will unite the departments of Biology, Chemistry, Physics, Psychology, and Math and Computer Science to foster creative collaboration.

A new two-story Commons and main entrance replace an existing underutilized two-story stepped lecture hall. This design solution links the new programmatic elements, promoting way-finding and connectivity among neighborhoods of flexible, multi-functional classrooms and laboratories. Informed by our latest research, a unique series of combined Teaching and Research ("T-search") spaces allows students and faculty to move from a teaching modality to research activities within the same space. This hybrid space also permits greater utilization, primarily supporting teaching during the semester and research during winter and summer breaks.

The project will remove an existing twostory wall of solid masonry and re-clad the Commons with transparent glazing to engage this new space with the main campus green and establish a more prominent entrance.

- 137,000 GSF modernization
- · Programming & Planning, Architecture







### / Radford University Radford, VA

Center for the Sciences



The Center for the Sciences realizes
Radford's vision of a dynamic and
welcoming new "front door" on East Main
Street. The project expands existing science
facilities to create a premier destination
for STEM learning and research, supporting
the University's Science Saturdays, an
outstanding outreach programs for K-12
that introduced many current Radford
students to Radford and the STEM fields.

The contemporary, LEED Silver design — nestled into the landscape to preserve views of the Blue Ridge Mountains — enhances visitors' sense of anticipation and arrival.

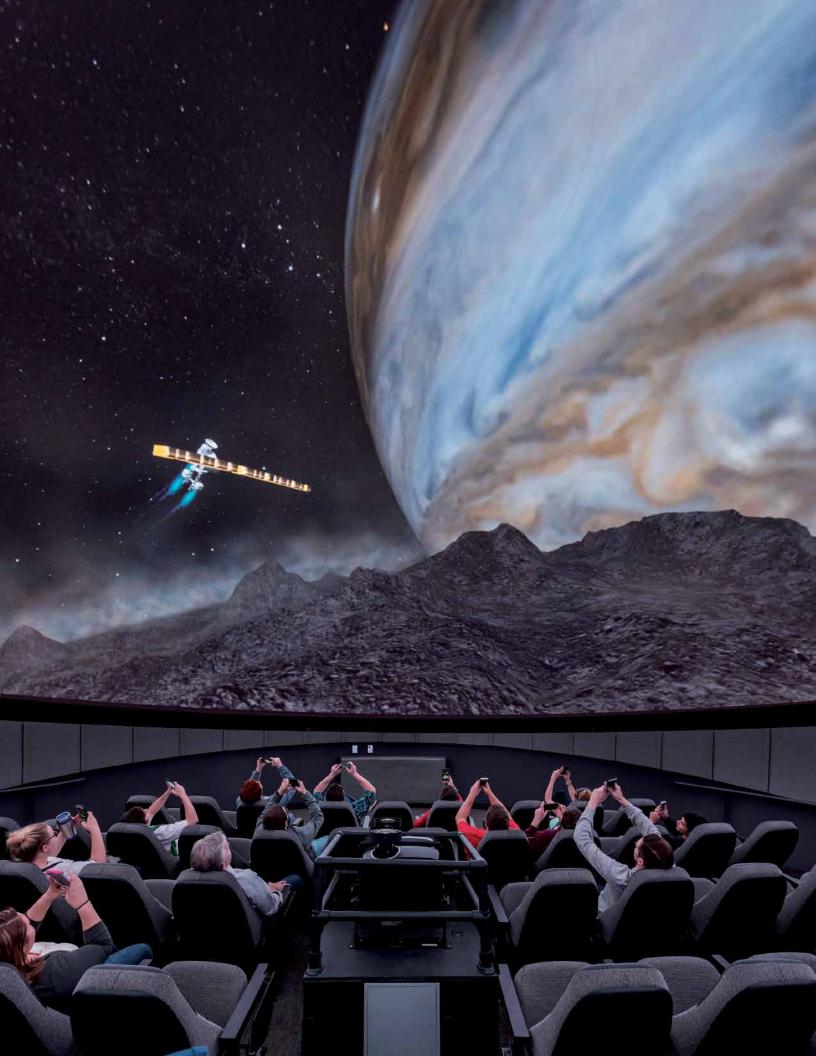
An open, cascading stair connects Main Street through the building to the main campus quadrangle. At the heart of the building, students, faculty, and visitors are invited into a unique science experience. Science Saturdays start with a briefing in the auditorium; students then rotate through the varied spaces of the Science Commons: an elliptical earth sciences museum; foundational teaching labs; and the domed planetarium – all structural building elements connected by informal learning spaces. The open stair leads students past teaching and research spaces to the greenhouse on the campus's main historic quadrangle.

- 115,000 GSF new construction
- Programming & Planning, Architecture, MEP Engineering









### / Lehigh University Bethlehem, PA

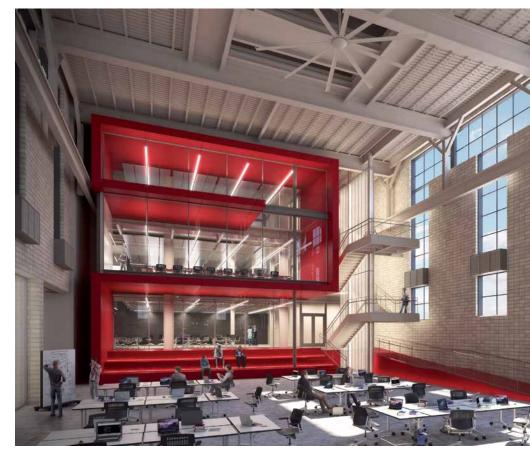
Mountaintop Campus

Lehigh University is reinventing a former Bethlehem Steel research facility as a next-generation academic environment to support its innovative New Horizons initiative. The 110,000 GSF facility's raw industrial aesthetic and isolation from the main campus are already helping inspire students and faculty to think differently, be resourceful, and take full advantage of the vast potential of the site.

The University's goal is to transform the 1950s exposed steel and stone-clad, high-bay industrial buildings into a high-performance home for a diverse groups of students, entrepreneurs, researchers, and faculty. Our design proposes a "mixing box" addition to connect the existing office/lab building to 3 high-bay buildings to create a dynamic unified space that sparks engagement and fosters collaboration. The facility's flexible collaborative Maker Spaces are designed to be readily be adapted to meet evolving needs.

Future phases of this project will create dedicated space for the Computer Science Department's Data X initiative, a unique academic endeavor that allows faculty and students to leverage the University's interdisciplinary strengths by using computer and data science to push the boundaries of research, teaching and learning in fields including bioengineering, data analytics, and digital media.

- 23,000 GSF modernization
- Architecture, MEP & Structural Engineering, Programming, Energy Analysis, Construction Administration
- · Historic Preservation, Modernization





### / The College of New Jersey Ewing, NJ New STEM Building



TCNJ's new 89,000 SF STEM building will anchor a cross-disciplinary STEM Complex by uniting the existing science buildings to Armstrong Hall, home of the Engineering program. Reflecting the latest research and pedagogies, the new facility will provide cutting-edge academic spaces and labs — including a robotics labs, biosafety level-2 testing labs, an engineering design studio, and a metal fabrication/assembly workshop — as well as student spaces, and faculty offices for the Schools of Engineering and Science.

The heart of the new building and the Complex at large will be the Innovation Center — a unique glass-walled environment for collaborative learning and research — that visually and physically connects the digital design lab, student project space, metal fabrication workshop, and prototyping lab with 3D printers and laser cutter. Highly flexible and technologically robust, the venue will accommodate multimodal presentations, seminars, and demonstrations of student projects.

Designed to foster group learning through an iterative think/model/make process, the Innovation Center also supports mechanical engineering, robots, and biomedical engineering, which have adjacent wet labs and clean room.

Phase 1 of the project focuses on the new STEM facility, whose transitional design scheme responds in massing, scale, materials, and details to the campus's Collegiate Georgian architectural vernacular. The existing Science Complex will be enlarged by 23,600 GSF Chemistry addition. Phase 2 will modernize 56,000 GSF of existing classroom and lab space.

The project is designed to LEED Silver standards but will not pursue certification.

- 89,000 GSF new construction
- 56,000 GSF modernization
- 23,600 GSF addition
- Programming & Planning, Architecture, Laboratory Planning, MEP Engineering, Structural Engineering, Energy Analysis









### / SUNY Maritime Throggs Neck, NY

Maritime Academic Center



Prominently sited overlooking the Long Island Sound, the new Academic Building symbolizes SUNY Maritime's prominent role in the increasingly global arena of maritime education and affairs. The signature design reflects the institution's international reputation for preparing students for careers in the maritime industry.

The site-specific sustainable design reflects the close connection between maritime education and the natural marine environment. The open, flexible facility enables students to quickly move between classroom and training vessels. The facility houses a 350-seat auditorium, lecture halls, and classrooms for academic programs, which can also be used for maritime industry conferences.

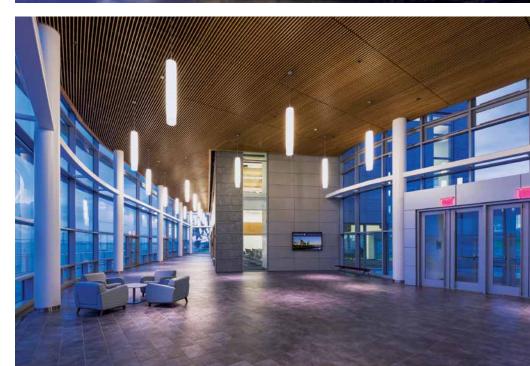
A flexible atrium forum space, subdividable into three separate spaces, balances the dynamic tension between the conference and classroom wings. The structure, which is clad in local stone to reference the adjacent historic fort, appears to rise from the seawall it closely hugs.

Bioclimatic analysis and building orientation help reduce wind friction, conserve heat in winter, capture natural light, and provide cooling natural ventilation in summer.

- 45,400 GSF
- Architecture, Engineering, Programming & Planning, Geotechnical Site & Utility Improvements, Construction Administration









## / Grinnell College Grinnell, IA Humanities and Social Studies Complex



The new Humanities and Social Studies Complex will foster working synergies among students and faculty by supporting active, collaborative learning. A 125,000 GSF addition will unify two landmark buildings – the 1917 Alumni Recitation Hall (38,000 GSF) and Carnegie Hall (14,000 GSF) – to create an innovative environment for multiple disciplines and programs.

The design of the Complex is influenced by our research and best practices on discovery-based learning and collaboration spaces. "Learning laboratories" for the humanities and social sciences, similar to those for the physical and natural sciences, will incorporate the latest technologies. Adaptable spaces with easily reconfigured furnishings will support multimodal pedagogies.

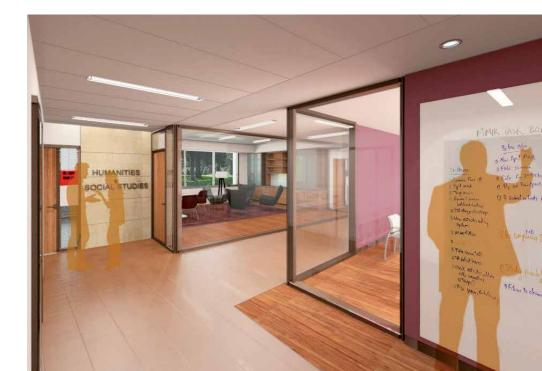
The program organizes neighborhoods by shared intellectual interests to enable cross-disciplinary inquiry. Open and semi-private informal spaces in close proximity to labs and classrooms foster effective intellectual collisions to extend learning beyond the classroom.

In addition to providing state-of-the-art facilities, this complex has the potential to reactive Grinnell's main campus quadrangle.

- 125,000 GSF new construction
- 52,000 GSF modernization
- Architecture, programming, planning, academic innovation, historic preservation, modernization









### / capabilities

#### Architecture

- Design
- Planning
- Programming
- Interior Design
- Life Safety
- Signage & Wayfinding
- Workplace Strategy & Design
- Master Planning

#### Energy

- Energy Data Analysis
  - Energy modeling
  - Benchmarking
- DSM Programs for Utilities
- Building Performance Optimization
  - Energy Audits
  - Energy Master Plans
  - Retro-commissioning

#### Engineering

- Electrical
- Fire Protection
- Mechanical
- Plumbing
- Security
- Structural
- Telecommunications

#### Software

- B3 Benchmarking
- NEO Net Energy Optimizer®
- Custom tools with WeidtSim®

#### Consulting

- Environmental Graphic Design
- Marketing Communications
- Public Relations

Abilene Christian University Clinton Community College

Adelphi University Coastal Bend College
Alamo Colleges Colby College

Albany College of Pharmacy and Health Sciences Colgate University

Albany Law School College of Saint Elizabeth
Amarillo College College of Staten Island
American University College of the Holy Cross

Amherst College
Angelo State University
Appalachian State University
Assumption College
Austin College
Collin College
Concordia College
Connecticut College
Cornell University

Austin Community College District Dallas County Community College District

Austin Peay State University

Barnard College

Bay Path College

Baylor College of Medicine

Dartmouth College

Del Mar College

Dominican College

Duke University

Baylor University East Carolina University

Bemidji State University East Carolina University School of Dental Medicine

Bennington College Eastern Michigan University

Berea College
Binghamton University
Effat University
Black Hills State University
El Centro College
Boston College
Boston University
Emmanuel College
Emmory and Henry College

Bowdoin University Emory University

Bowie State University Farmingdale State College, State University of New York

Brandeis University Finger Lakes Community College
Bridgewater College Florida Southern College
Brookdale Community College Fordham University

Brookhaven College Franklin & Marshall College

Brown University Franklin College

Bryant University Frederick Community College

Bucknell University Gallaudet University
Buena Vista University Galveston College

Cabrini College George Mason University
Canisius College Georgetown University

Carleton College Georgia Institute of Technology

Case Western Reserve University Goucher College
Cazenovia College Grinnell College
Central College Hamilton College

Central Texas College
Chatham University
Hampden-Sydney College
Hardin-Simmons University

Christopher Newport University Hartwick College

Clarendon College Harvard Business School
Clemson University Harvard College Library

Harvard University

Harvard University, John F. Kennedy

School of Government

Haverford College

Herkimer County Community College

Houston Baptist University Houston Community College

**Howard University** 

Hudson Valley Community College

Iowa State University
James Madison University
Johns Hopkins University

Kean University
Keene State College
Lafayette College

Laguardia Community College Lamar Institute of Technology Lamar State College - Port Arthur

Lamar University
Lehigh University

Lone Star College System
Loyola University New Orleans
Lubbock Christian University
Manhattanville College

Marist College Marshall University

Massachusetts College of Liberal Arts Massachusetts Institute of Technology

McMurry University

Medical University of South Carolina

Massachusetts Maritime Academy

Mercy College Meredith College

Michigan State University Middlebury College

Midwestern State University

Minnesota State Colleges & Universities

Mississippi State University
MIT Department of Facilities
Mitchell Community College
Mohawk Valley Community College

Monmouth University
Montclair State University
Montgomery College

Moravian College Morgan State University Mount Aloysius College Mount Holyoke College Mount Saint Mary College Muskingum University

Navarro College

New Jersey City University

New Jersey Institute of Technology

New York University

North Carolina A&T State University North Carolina Central University North Carolina State University

Northeastern University

Northern Virginia Community College

Northland College Northwestern University

Orange County Community College

Pace University

Pennsylvania State University
Prairie View A&M University
Princeton University

Purchase College

Quinsigamond Community College

Radford University

Ramapo College of New Jersey Rensselaer Polytechnic Institute

Rice University

Richard Stockton College of New Jersey Rochester Institute of Technology

Rockefeller University
Rockhurst University

Rockland Community College Roger Williams University

Rollins College

Rowan College at Burlington County
Rutgers, The State University of New Jersey

Sage Colleges

Saint Joseph's College

Sam Houston State University

San Jacinto College
Sarah Lawrence College
School of Visual Arts
Schreiner University
Siena College

Skidmore College

Southern Methodist University
Southwestern University

Spring Hill College

Springfield Technical Community College

St. Edward's University
St. John's University

St. Mary's College of Maryland

St. Mary's University St. Olaf College Stanford University

State University of New York at New Paltz State University of New York at Oneonta

State University of New York College at Cortland

State University of New York Institute of

Technology at Utica/Rome Stephen F. Austin State University

Stetson University Stevenson University Stony Brook University Sul Ross State University

SUNY Broome Community College

SUNY Cobleskill SUNY Geneseo

SUNY Maritime College SUNY Polytechnic Institute

SUNY Upstate Medical University

Swarthmore College
Syracuse University
Tarleton State University
Tarrant County College
Temple University

Texas A&M College of Medicine
Texas A&M International University

Texas A&M University

Texas A&M University Baylor College of Dentistry

Texas A&M University-Central Texas

Texas A&M University-Commerce
Texas A&M University-Corpus Christi
Texas A&M University-Galveston
Texas A&M University-Kingsville
Texas A&M University-San Antonio

Texas A&M University-Texarkana Texas Christian University Texas Southern University

Texas State Technical College-Harlingen
Texas State Technical College-Waco

Texas State University
Texas Tech University

Texas Tech University Health Science Center

Texas Wesleyan University
Texas Woman's University

The Catholic University of America
The City University of New York
The College of New Jersey
The College of New Rochelle
The College of Saint Rose

The College of William & Mary

The College of Wooster

The George Washington University

The Ohio State University

The State University of New York
The Texas A&M University System
The Texas State University System

The University of North Carolina at Charlotte

The University of Texas at Arlington
The University of Texas at Austin
The University of Texas at Brownsville
The University of Texas at Dallas
The University of Texas at El Paso
The University of Texas at San Antonio

The University of Texas at Tyler

The University of Texas Health Science Center at Houston

The University of Texas Health Science Center at

San Antonio

The University of Texas Medical Branch at Galveston

The University of Texas of the Permian Basin

The University of Texas System

The University of Texas-Pan American

Towson University Transylvania University

Trinity College Trinity University

Trinity Valley Community College Trinity Washington University Truman State University

Tufts University
Union College

United World College
University at Albany
University at Buffalo
University of Akron
University of California
University of Charleston

University of Chicago

University of Dallas University of Dayton University of Delaware University of Denver University of Florida University of Houston

University of Houston - Clear Lake University of Houston - Downtown University of Houston - Victoria

University of Iowa

University of Mary Hardin - Baylor
University of Mary Washington
University of Maryland, Baltimore
University of Massachusetts Amherst
University of Massachusetts Dartmouth

University of Michigan
University of Minnesota
University of Missouri
University of New England
University of New Hampshire
University of New Haven
University of New Mexico

University of North Carolina at Chapel Hill
University of North Carolina at Greensboro
University of North Carolina at Pembroke
University of North Carolina at Wilmington
University of North Carolina School of Medicine

University of North Texas

University of North Texas System

University of Oxford

University of Pennsylvania

University of Pittsburgh

University of Richmond

University of Scranton

University of South Carolina

University of Southern Maine

University of St. Joseph Connecticut

University of St. Thomas

University of Tennessee at Knoxville

University of Texas MD Anderson Cancer Center

University of Texas Southwestern Medical Center

University of the Incarnate Word

University of Vermont

University of Virginia

University of Virginia Foundation

University of Wisconsin - Madison

University System of New Hampshire

**UNT Health Science Center** 

Unversity of Wisconsin - Whitewater

Vassar College

Virginia Commonwealth University Virginia Community College System

Virginia Polytechnic Institute & State University

Virginia State University

Wake Technical Community College Washington & Jefferson College

Washington College

Washington University in St. Louis

Wayne State University Weatherford College Wellesley College

West Texas A&M University
West Virginia University
Western Technical College
Wharton County Junior College

Wheaton College Williams College

Winston-Salem State University Worcester Polytechnic Institute

Yale University

Yale University School of Medicine

Yeshiva University



eypae.com Design for your people, your purpose, our planet.

© 2018 EYP Inc. All rights reserved.