



SHENANDOAH[®]
UNIVERSITY

College of Business, Engineering & Technology

COLLEGE OF BUSINESS, ENGINEERING & TECHNOLOGY



2027 Undergraduate Programs

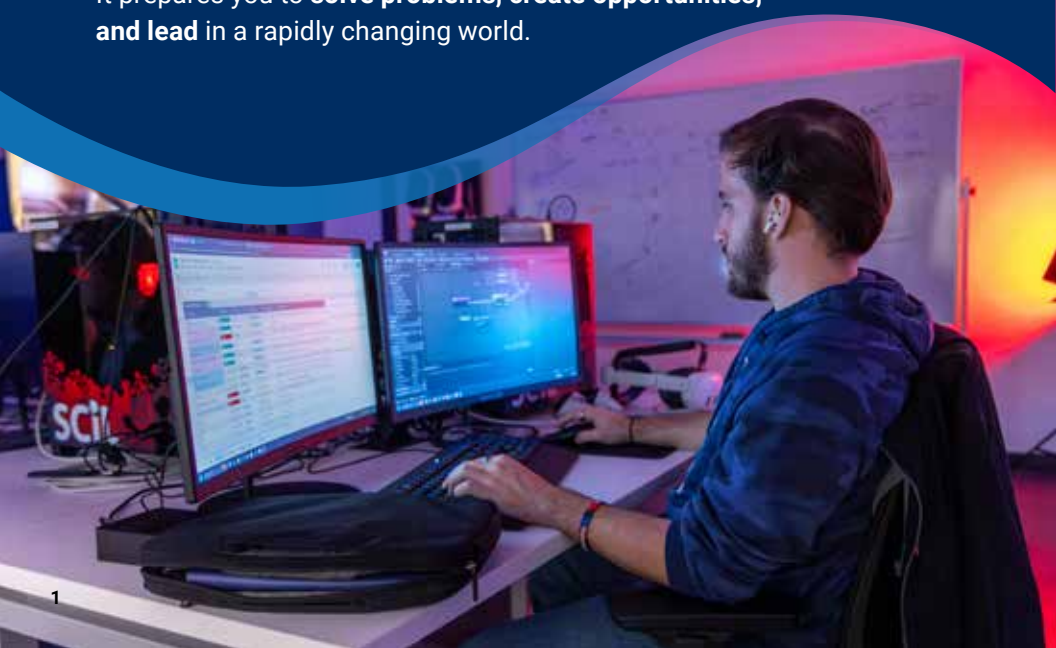
Innovation happens when people understand both how things work and why they matter.

At Shenandoah, you'll develop **deep expertise** in your chosen field while gaining the ability to **collaborate across disciplines**.

In the College of Business, Engineering & Technology, you'll **learn by doing**. Working alongside faculty mentors, industry partners, and fellow students, you'll tackle **real-world challenges** through internships, research, client projects, and experiential learning opportunities that connect classroom concepts to **meaningful outcomes**.

We believe the best solutions happen when **technical expertise, business insight, and human understanding** align. That's why our programs emphasize not only professional and technical excellence, but also creativity, ethical leadership, critical thinking, and a commitment to serving others.

The result is an education that **prepares you for more than a career**. It prepares you to **solve problems, create opportunities, and lead** in a rapidly changing world.



THE COLLEGE OF BUSINESS, ENGINEERING & TECHNOLOGY UNDERGRADUATE PROGRAMS

SCHOOL OF BUSINESS

MAJORS

- **Business Administration**
 - Accounting
 - Aviation Studies
 - Digital Marketing
 - Economics & Finance
 - Entrepreneurship
 - Esports Management
 - Management
 - Marketing
 - Healthcare Management
 - Sport Management
 - Information Systems & Technologies
- **Esports**
 - Management
 - Media & Communication

MINORS

- Business Administration
- Economics
- Entrepreneurship
- Esports Management

CERTIFICATES

- Air Traffic Control*
- Cybersecurity Management
- Data Analytics
- Digital Marketing
- Esports Coaching
- Esports Management
- Healthcare Management
- Sustainable Business

*Pending SACSCOC approval

SCHOOL OF ENGINEERING AND TECHNOLOGY

MAJORS

- **Cybersecurity**
- **Engineering**
 - Computer Engineering
 - Engineering Physics
 - Simulation Engineering
 - Software Engineering
- **Information Technology**
- **Virtual Reality Design**

MINORS

- Artificial Intelligence
- Cybersecurity
- Game Design & Development
- Human-Computer Interaction
- Information Technology
- Virtual Reality Design

CERTIFICATES

- IT/Cybersecurity Technician
- Virtual Reality Design

BACHELOR OF BUSINESS ADMINISTRATION (BBA)

Why a Bachelor of Business Administration (BBA)?

The BBA gives you a solid foundation in general business and offers flexibility and diversity in career preparation. All concentrations offer opportunities for internships, project-based experiential learning and international travel.

CONCENTRATIONS

Accounting

Crunch the numbers that keep businesses thriving. This track preps you to become a Certified Public Accountant (CPA) and positions you to stand out to recruiters for top corporate or public accounting roles.

Aviation Studies

The aviation concentration provides a pathway for students who already hold an FAA certified private pilot's license, instrument rating and two additional flight certifications* to complete a bachelor's degree with fewer credits due to aviation credits counted. **FAA flight training and instrument rating are not available at Shenandoah University.*

Business Administration

Want maximum flexibility? Get a broad, powerful foundation in everything from management and marketing to finance and ethics to keep your career options wide open.

Digital Marketing

Master SEO, social media, and modern advertising strategies through hands-on experience. Graduate with a globally recognized Digital Marketing Institute (DMI) certification that gives you a competitive edge for fast-tracked career advancement.

Economics & Finance

Dive into the world of wealth, investments, and markets. You'll prep for high-paying roles in banking or government, and get ready for the Chartered Financial Analyst (CFA) exam.

Entrepreneurship

Learn to think like a founder. Whether you want to launch a startup, freelance in the gig economy, or take over a family business, you'll learn how to build and grow your own enterprise from the ground up.

Esports Management

Turn your passion for competitive gaming into a profession. Learn what it takes to manage pro teams, run massive tournaments, and lead global esports organizations.

Healthcare Management

The rapidly growing medical field needs leaders. Combine business skills with health sciences to manage hospitals, clinics, and health tech companies.

Information Systems & Technologies

Be the bridge between tech and business. Learn how to solve real-world corporate problems using the latest computer systems, software, and networks.

Management

Learn the art of making things happen. Mix of people skills and business strategy to lead teams, organize resources, and run successful companies.

Marketing

Find out what makes consumers tick. Learn how to build brands, spot the latest trends, and solve modern advertising challenges.

Sport Management

Become a player in the front office. Combine business basics with sports law and facility planning so you can manage athletes, market teams, and run major events.

FAST-TRACK TO YOUR MBA

Master of Business Administration

- Early admission available from high school (4 + 1)
- With our 4 + 1 option, you can earn an MBA with only one additional year of classes.
- Transfer students can take advantage of our 2 + 2 + 1 option.



ESPORTS PROGRAMS

Shenandoah has positioned itself as one of the nation's premier leaders in esports academia. Shenandoah's esports programs prepare students to be an integral part of the action in a field that values quick and strategic thinking, mental agility, intellectual curiosity, and creativity.

ESPORTS MANAGEMENT (BS)

The Bachelor of Science in esports management is designed to prepare individuals for careers in esports management with interscholastic, intercollegiate and professional esports organizations; entrepreneurial esports ventures; and more. This program provides a robust esports background with a focus in business management. You will gain one-of-a-kind experiences through international partnerships and at our state-of-the-art esports arena.

ESPORTS MEDIA AND COMMUNICATION (BS)

The Bachelor of Science in esports media and communication prepares students for a career in the broadcast and production side of esports. Through collaborative international experiences with esports employees and players from around the world and trips abroad, internships with major esports and video game companies, and hands-on experiences with industry executives as well as the varsity esports team at Shenandoah, students will be ready for careers as esports event producers, broadcasters, streamers and more.



"Shenandoah Esports was essential in giving me the experience I needed to land my dream job. The coursework provided me with a knowledge of the business of esports, and experiential learning opportunities, which gave me standout points on my resume."

– Mykiah Bonhom '23
BBA / Esports

Esports Specialist at Spectrum Industries



MORE THAN A GAME: ***Experiential Learning in the Esports Arena***

Our Esports Arena is the first collegiate, spectator esports arena in Virginia and one of the first on the East Coast. This state-of-the-art facility features pro-level competitor stations, a dedicated broadcasting booth, and massive projector screens to create an immersive environment for varsity practices and live public matches. Beyond hosting competitions, the venue serves as an experiential learning hub where students can gain hands-on experience in event planning, esports management, and media communications.

Gain a Global Perspective In & Out of the Classroom



The Shenandoah University Business School's AACSB International accreditation, achieved by less than 6% of business schools in the world, means you'll receive a world-class education from one of a very select group of universities across the globe. As a result, our graduates are recognized within the business community as knowledgeable, capable and able to excel in the workplace.

ENGINEERING (BS)

The Bachelor of Science in Engineering offers you the essential mathematical, scientific and real-world problem-solving skills you need to pursue a career in engineering. All students in the engineering program complete a common core of courses in math, science and the fundamentals of engineering as well as select a focus in one of four specialized areas of study.

THE ENGINEERING CORE

The Engineering Core provides the foundations necessary for all of the university's engineering concentrations. This comprehensive foundation includes courses in:

- Linear algebra and calculus
- Computer programming
- Chemistry and physics
- Differential equations
- Electronic interface design
- Engineering design
- Probability and statistics

ENGINEERING CONCENTRATIONS

After completing the foundational core, students select a focus in one of four specialized areas of study to complete their degree.

► COMPUTER ENGINEERING

The Computer Engineering concentration provides a background for designing, analyzing, building and testing computer hardware and software components and systems.

- Courses include discrete mathematics, data structures, signal processing, digital system analysis and design, and computer architecture.

► ENGINEERING PHYSICS

The Engineering Physics concentration focuses on the fundamental physical concepts and methods required for solving modern engineering problems.

- Courses include computational physics, thermal physics, electrical circuits, classical mechanics, electricity and magnetism, and quantum mechanics.



“Engage in creative and competitive learning and research in our technology programs, where hands-on learning meets state-of-the-art resources.”

—Mohammad F. Obeid, Ph.D.

Associate Professor of AR/VR & Engineering
Director, AR/VR (BS), Co-Director, Shenandoah
Center for Immersive Learning (SCiL)

► **SIMULATION ENGINEERING**

The Simulation Engineering concentration combines computer engineering (hardware) and computer science (software design and development), which provides the skills necessary to create computational and graphical models and simulations of real-world systems and processes.

- Courses include 3D modeling and design, and development and programming in game engines.

► **SOFTWARE ENGINEERING**

The Software Engineering concentration focuses on the engineering concepts and methods required to design, develop, maintain, test and evaluate computer software systems.

- Courses include discrete mathematics, data structures, operating systems, software design, introduction to databases and programming languages.

TECHNOLOGY

Our advanced technology programs offer you the essential skills you need to design spaces in the digital sphere, engage in mixed-reality storytelling, and protect valuable information stored in virtual environments. Students develop a pioneering spirit through teamwork and real-world experiences, establishing a solid foundation for ethical decision-making while selecting a focus in a specialized area of study.

CYBERSECURITY (BS)

The cybersecurity program provides a strong foundation in computer science, mathematics, and practical digital security skills. Students receive a MacBook equipped with vital cyber tools and gain hands-on experience using the latest technologies to protect digital information, computing systems, and networks from cyber attacks. Graduates are prepared to earn security certifications and enter professional fields or graduate programs.

INFORMATION TECHNOLOGY (BS)

The information technology program prepares students to work in a wide range of technical fields, including robotics, e-commerce applications, IT security, and virtual reality. Through hands-on learning with computer hardware kits, drones, and specialized labs, graduates are ready to follow career paths in IT administration, product development, project management, and client support.

VIRTUAL REALITY DESIGN (BS, BA)

As immersive experiences transform businesses, students can pursue a Bachelor of Science to work as technical specialists and developers, or a Bachelor of Arts to produce high-quality AR/VR content. All students complete foundation courses, utilize industry-standard equipment, and complete a two-semester capstone sequence working on a real project with a client or an internship.





We are a proud member of the National Center for Women & Information Technology Academic Alliance. NCWIT increases the influence and meaningful participation of girls and women in the field of computing.



Explore More Tech & Math Majors

Did you know Shenandoah offers even more tech-focused degrees through our College of Arts & Sciences?

Scan the QR code to learn about:

- Computer Science
- Data Science & Applied Mathematics
- Mathematics



"The XR field is constantly growing and changing, and to keep up with that, the AR/VR program at Shenandoah is growing with it. Whether it is the technology or the development process, the AR/VR program and staff do their best to stay up to date and teach the most recent methods. That is one of the key reasons I chose SU over another school. When I first visited, the AR/VR program seemed pretty on top of the XR wave of change - and I wanted to be surfing up there too."

– Kadin Myers '27
B.S. Virtual Reality Design

LEVEL UP YOUR DEGREE: MINORS & CERTIFICATES

What's the difference?

- A **minor** allows you to explore a secondary area of study or complement your major/degree with broad, well-rounded knowledge and skills in another academic discipline.
- A **certificate** is a focused add-on credential layered on top of your major/bachelor's degree to give you specialized skills.

To reference the list of minors and certificates for the College of Business, Technology and Engineering, refer to page 2.

MIX & MATCH YOUR DEGREE:

Business Major + Psychology Minor → Master consumer behavior and organizational leadership.

Cybersecurity Major + Entrepreneurship Minor → Launch your own digital security firm.

Virtual Reality Design Major + Media & Communication Minor → Create immersive tech and know exactly how to market it.

Bottom line: You can double major, add a minor, or grab a certificate across different schools and still stay on track to graduate in four years.

Fast-Track Your Resume

Want to stand out to employers? Upper-level undergrads can actually apply for our **graduate-level business certificates** as part of their bachelor's degree program:

- Cybersecurity Management
- Digital Marketing
- Data Analytics
- Healthcare Management

It's a great way to tackle master's-level coursework while still an undergrad.

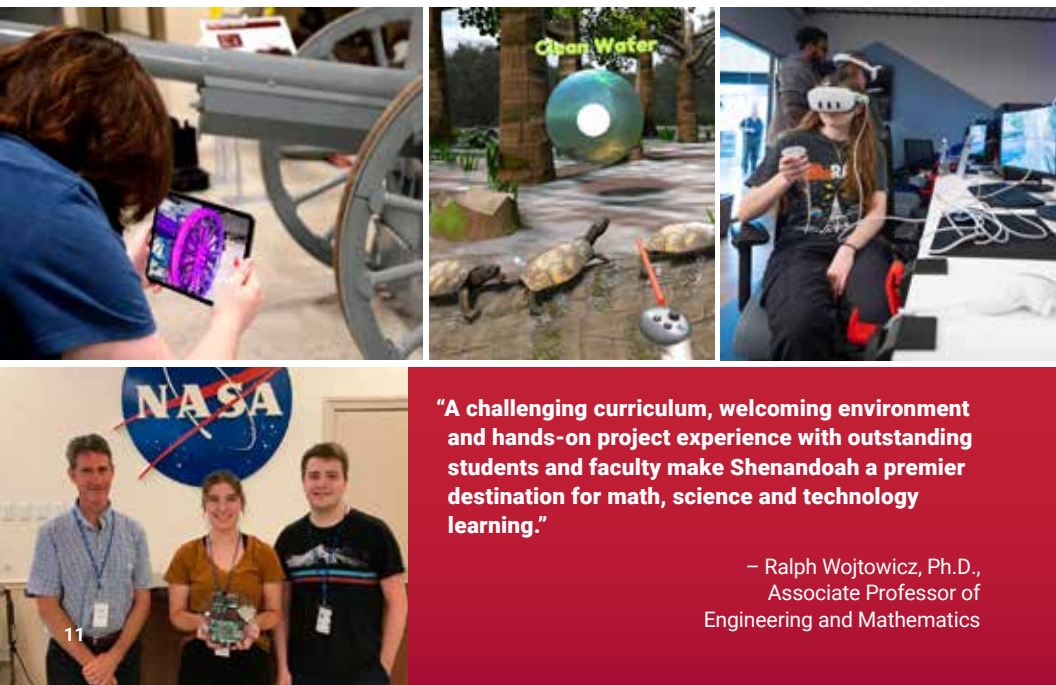
Build the future at the Shenandoah Center for Immersive Learning

The Shenandoah Center for Immersive Learning (SCiL) is where imagination meets next-generation technology. SCiL is Virginia's premier active design studio for virtual, augmented, and extended realities (VR/AR/XR). Operating as a student-run production company under the mentorship of industry-tested faculty, SCiL empowers you to transform abstract concepts into living, immersive experiences.

Through partnerships with corporate, nonprofit, and governmental organizations, our students don't just study theory, they build professional portfolios. SCiL students bring history, science, and critical training to life through immersive storytelling. Our teams have built projects that allow users to crew a World War I artillery gun alongside future U.S. President Harry S. Truman, stand on the frontlines of a civil rights-era lunch counter sit-in, explore ecosystems through the eyes of a North American wood turtle, and practice sterile compounding in virtual pharmacy labs.

Whether your passion lies in software development, the visual arts, history, or healthcare, SCiL ensures you graduate with a robust resume of published, real-world work, ready to step directly into a dynamic career or leading graduate programs.

Read more at su.edu/scil/projects



"A challenging curriculum, welcoming environment and hands-on project experience with outstanding students and faculty make Shenandoah a premier destination for math, science and technology learning."

– Ralph Wojtowicz, Ph.D.,
Associate Professor of
Engineering and Mathematics

ACCOMPLISHED, CARING FACULTY

Our faculty members have had successful careers with their own businesses, Fortune 500 companies, multinational corporations, government agencies and the military. Their wealth of experience informs their teaching and provides you with the benefits of multiple perspectives.



ACADEMIC ADVISING

Academic advising is the key to personalizing your Shenandoah education and staying on track for graduation. A College of Business, Engineering and Technology faculty advisor in your area of interest will help you with an appropriate program of study that meets your career aspirations and goals.

OUR PROFESSORS ENGAGE YOU IN MANY WAYS:

- Providing internships and experiential learning opportunities
- Mentoring
- Connecting you with alumni in the field
- Advising clubs and organizations
- Networking with professional groups
- Attending conferences
- Co-authoring publications



THE HONORS PROGRAM

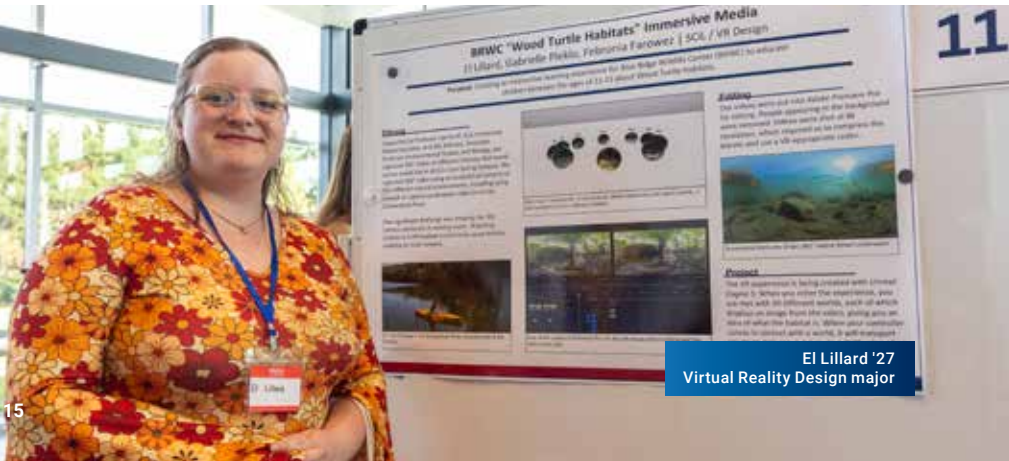
Push yourself further and elevate your academic experience by joining Shenandoah's Honors Program.

- **Targeted Coursework:** Take specialized, multidisciplinary honors courses within your major that build communication and critical thinking skills.
- **Exclusive Seminars:** Explore your personal goals and learn how to make a tangible difference in global and local communities.
- **Learning Grants:** Apply for small grants to fund real-world, experiential learning opportunities.
- **Tight-Knit Community:** Study and live alongside a supportive network of driven peers in the Honors residential learning community.
- **Proven Rigor:** Show future employers your dedication and ability to excel in demanding courses.



UNDERGRADUATE RESEARCH

Hundreds of students have presented original research at the **Shenandoah University Research Expo (SURE)**. SURE gives students the opportunity to network, practice presentations for regional and national conferences, and vie for prize money. Research and works in progress are presented in a wide variety of forms, including digital media, fine art, audio and video, and posters.



El Lillard '27
Virtual Reality Design major

STUDY INTERNATIONALLY

Develop as a leader in a globally focused team environment.

Because modern business, engineering, and technology are deeply interconnected global enterprises, our **Global Experiential Learning (GEL) program** offers incredible opportunities to earn credit while exploring fascinating topics around the world. Whether you choose to study abroad for a few weeks, a full semester, or an entire year, you'll participate in high-impact experiences that provide immense value to your future employers.



"The College of Business, Engineering and Technology offers a unique program grounded in the intersection between theory and practice. Our culture is focused on the building of individual skill sets within a professional team environment, which can range from being mentored by the CEO of a financial company to interning at a global firm in Barcelona, Spain. Your studies here will prepare you to take your place in the new wave of global leadership."

— Fitz G. Polite, Ph.D., MPA,
College Life Coach

Business students at 2018
Winter Olympics in South Korea



Esports in Ireland



Immersive technology and business
students in Cape Town, South Africa

LEARNING BEYOND THE CLASSROOM



INTERNSHIPS

Internships provide a bridge to the business world. Students gain hands-on experience when they intern at local and regional organizations, including American Woodmark, Shenandoah Valley Discovery Museum, Rubbermaid, United Bank, United Way, U.S. Army Corps of Engineers, Valley Health and YHB | CPAs & Consultants, as well as with firms across the nation.

LEADERSHIP & MENTORING PROGRAM

The Leadership & Mentoring Program (LAMP) provides students opportunities to learn real-world business practices under the guidance of seasoned professionals interested in sharing their wisdom.

VIRTUAL EXCHANGE PROJECTS

Cybersecurity students take part in a virtual exchange project that connects cybersecurity with artificial intelligence and other closely related fields. Students collaborate with peers from a different international university, gaining experience in global teamwork, technical problem-solving, and cross-cultural communication. Strong projects may lead to publication opportunities in conference proceedings, international journals, or book chapters.

STUDENT ADVISORY BOARD

Every year, the dean invites 12 undergraduate and graduate students to serve on a highly influential student advisory board.

SPORT BUSINESS ASSOCIATION

The SBA is a student-run organization that helps students develop professional skills related to the sports industry. Through networking events and experiential projects, students have the opportunity to work at major sporting events, including the Super Bowl, the College Football Playoff National Championship, and NCAA Men's College Basketball Final Four Tournament.

ESPORTS CLUB

Shenandoah University is in the vanguard of competitive collegiate esports with its own esports arena, varsity program and academic major. The club has hosted tournaments for League of Legends, Overwatch, Rocket League and Smash Bros Ultimate.

CENTER FOR ENTREPRENEURSHIP

You don't have to want to start your own business to be part of the entrepreneurship program. Entrepreneurship is more than owning your own business — it is learning to think like an owner.



SCHOOL OF BUSINESS LEGACY GOLF TOURNAMENT PROVIDES SCHOLARSHIPS AND EXPERIENCE

The tournament's goal is to raise money for scholarships to support first-generation, regionally located applicants who want to major in business. Current SU business students lead, promote, and facilitate the event as a class project, applying what they learn in the classroom to a real-world experience.

WHERE INNOVATION GOES TO WORK

Operating out of our historic Hazel-Pruitt Armory, The Hub for Innovators, Veterans and Entrepreneurs (HIVE) is a boundary-breaking innovation accelerator dedicated to driving economic development, supplying a highly trained workforce, and making the top of Virginia the Mid-Atlantic's ultimate emerging technology hub.



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