CEN
COLLEGIATE EDU-NATION

PROGRAM OF STUDY

ANIMAL SCIENCE

The Animal Science program prepares students for careers in the animal agriculture industry, veterinary sciences, and related fields. Students gain foundational knowledge in animal biology, health, nutrition, breeding, and management practices, combined with hands-on experiences and industry engagement.

CORE COURSES

VETERINARY SCIENCE
Fundamentals of animal health, disease prevention, and basic veterinary procedures.

ANIMAL REPRODUCTION & BREEDING
Principles of genetics, breeding programs, and reproductive technologies.

These may vary depending on the specific pathway chosen by the student.

PARTNERSHIPS

LOCAL VETERINARY CLINICS
Collaborations for student internships and training

LIVESTOCK PRODUCERS
On-site training and fieldwork opportunities

WORK-BASED LEARNING

LEARNING ABOUT WORK
Virtual Tours and Webinars: Utilize virtual platforms to explore animal science facilities such as research labs, zoos, or agricultural research centers. This helps students understand the work environment and potential career paths.

LEARNING AT WORK
Field Trips to Farms and Zoos: Organize visits to farms, veterinary clinics, or zoos where students can observe real-world applications of their classroom learning and engage in discussions with professionals.

LEARNING THROUGH WORK
Internships and Apprenticeships: Provide students with hands-on experiences through internships or apprenticeships at local farms, veterinary clinics, or wildlife conservation centers, where they actively participate in animal care, management, and treatment.

CAREER PATHWAYS

- VETERINARY TECHNICIAN
- AGRI-LIFE EXTENSION AGENT

INDUSTRY CERTIFICATIONS & DEGREES

- Agrilife Veterinary Assistant Certificate
- Equine Management and Evaluation Certification
- Bachelor of Science, Animal Science

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PROGRAM OF STUDY

HEALTH SCIENCE

The Health Science program prepares students for careers in the healthcare industry, covering areas such as patient care, medical technology, public health, and biomedical sciences. Students gain foundational knowledge in human anatomy, physiology, medical terminology, and healthcare practices. The program emphasizes hands-on experience, ethical considerations, and real-world applications to equip students with the skills needed for a variety of health professions.

CORE COURSES

ANATOMY AND PHYSIOLOGY
In-depth study of the human body systems, their functions, and common diseases.

MICROBIOLOGY AND PATHOPHYSIOLOGY
Understanding of pathogens, human diseases, and the body's response to infection.

These may vary depending on the specific pathway chosen by the student.

WORK-BASED LEARNING

LEARNING ABOUT WORK
In-Person and Virtual Medical Facility Tours: Use local facilities and virtual platforms to give students insight into various healthcare environments, including hospitals, clinics, and specialized care centers.

LEARNING AT WORK
Workshops on Medical Equipment and Procedures: Collaborate with local healthcare facilities to offer workshops on using medical equipment, understanding patient care procedures, and practicing basic clinical skills.

LEARNING THROUGH WORK
Internships and Apprenticeships: Facilitate internships at local hospitals, clinics, or public health organizations where students gain hands-on experience in patient care, medical assisting, or health administration.

PARTNERSHIPS

LOCAL HOSPITALS AND NURSING HOMES
Collaborations for student internships and training

COMMUNITY HEALTH CENTERS
Engagement for resources and mentorship programs

INDUSTRY CERTIFICATIONS & DEGREES

- Certified Nursing Assistant (CNA)
- Pharmacy Technician Certification (CPhT)
- Bachelor of Science, Nursing

CAREER PATHWAYS

PHARMACY TECHNICIAN

REGISTERED NURSE

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PROGRAM OF STUDY

CYBER SECURITY

The Cybersecurity program equips students with the skills and knowledge needed to protect digital information and systems from cyber threats. Students learn about network security, ethical hacking, digital forensics, and risk management. The program combines theoretical knowledge with hands-on experience in cybersecurity tools, techniques, and best practices, preparing students for high-demand roles in various industries.

CORE COURSES

NETWORK SECURITY
Principles of securing computer networks, firewalls, intrusion detection systems, and VPNs.

DIGITAL FORENSICS
Methods for investigating cybercrimes and analyzing digital evidence.

These may vary depending on the specific pathway chosen by the student.

WORK-BASED LEARNING

LEARNING ABOUT WORK
Cybersecurity Career Exploration Days: Organize virtual or in-person events where students interact with experts from government agencies, tech companies, and cybersecurity firms to learn about different roles and skills.

LEARNING AT WORK
Job Shadowing in IT Security Departments: Set up shadowing opportunities with cybersecurity analysts or network administrators to understand day-to-day operations and responsibilities.

LEARNING THROUGH WORK
Student-Run Cyber Defense Teams: Encourage students to form teams that participate in cyber defense competitions, simulating real-world cyber-attack scenarios.

PARTNERSHIPS

LOCAL IT AND CYBERSECURITY FIRMS
Collaborations for student internships and shadowing

GOVERNMENT AGENCIES
Engagement for resources and training programs

CAREER PATHWAYS

- CYBERSECURITY ANALYST
- NETWORK SECURITY SPECIALIST

INDUSTRY CERTIFICATIONS & DEGREES

- Certified Ethical Hacker (CEH)
- Cisco Certified CyberOps Associate
- Bachelor of Science, Cybersecurity

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COLLEGIATE EDU-NATION

PROGRAM OF STUDY

ADVANCED MANUFACTURING

The Advanced Manufacturing program prepares students for careers in the evolving field of manufacturing, where technology and innovation are key. Students gain skills in areas such as automation, robotics, computer-aided design (CAD), and additive manufacturing (3D printing). The program combines foundational knowledge in manufacturing principles with hands-on experience in cutting-edge technologies, quality assurance, and process improvement.

CORE COURSES

ROBOTICS AND AUTOMATION

Principles of robotics and automation in manufacturing, including programming, operation, and maintenance of robotic systems.

COMPUTER-AIDED DESIGN (CAD) AND DRAFTING

Basics of CAD software used for designing and engineering products and systems in manufacturing.

These may vary depending on the specific pathway chosen by the student.

PARTNERSHIPS

LOCAL MANUFACTURING COMPANIES

Collaborations for student internships and hands-on training

INDUSTRY ASSOCIATIONS

Engagement with organizations for resources, mentorship, and industry events.

WORK-BASED LEARNING

LEARNING ABOUT WORK

Field Trips to Local Manufacturing Plants: Arrange visits to local plants specializing in automotive, aerospace, or consumer electronics manufacturing. Students observe real-time use of automation, robotics, CNC machines, and lean manufacturing practices.

LEARNING AT WORK

On-Site and Virtual Plant Tours: Leverage local industry and online platforms to provide students with tours of advanced manufacturing facilities, highlighting cutting-edge technologies like robotics and AI-driven processes.

LEARNING THROUGH WORK

Workshops on Advanced Manufacturing Tools and Techniques: Collaborate with local technical schools or manufacturing companies to provide workshops on using CNC machines, 3D printers, or CAD software. These workshops offer practical skills and insights into modern manufacturing tools.

CAREER PATHWAYS

- ROBOTICS TECHNICIAN
- CNC MACHINIST

INDUSTRY CERTIFICATIONS & DEGREES

- Certified Production Technician (CPT)
- Robotics Technician Certification
- Bachelor of Science, Advanced Manufacturing Systems

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COLLEGIATE EDU-NATION

PROGRAM OF STUDY

BUSINESS

The Business program prepares students for careers in various sectors of the business world, including entrepreneurship, management, finance, marketing, and human resources. Students gain foundational knowledge in business principles, financial literacy, management strategies, marketing techniques, and business law. The program emphasizes real-world applications, project-based learning, and industry engagement to build essential skills.

CORE COURSES

BUSINESS MANAGEMENT
Leadership, team management, decision-making, and strategic planning in business contexts.

FINANCIAL LITERACY AND ACCOUNTING
Basics of financial management, budgeting, accounting principles, and financial reporting.

These may vary depending on the specific pathway chosen by the student.

WORK-BASED LEARNING

LEARNING ABOUT WORK
Virtual Business Seminars: Participate in webinars with industry experts to explore topics such as entrepreneurship, digital marketing, and business innovation, giving students a perspective on the work environment and potential career paths.

LEARNING AT WORK
Business Networking Event Attendance: Take students to local business networking events, industry expos, or Chamber of Commerce meetings where they can practice networking, meet potential mentors, and learn the importance of relationship-building in business.

LEARNING THROUGH WORK
Student-Run School-Based Enterprises: Develop a program where students start and run their own business within the school, such as a school store, online shop, or event management company. This experience covers all aspects of business, from planning and marketing to sales and financial management.

PARTNERSHIPS

SMALL BUSINESS DEVELOPMENT CENTERS
Offer mentoring, workshops, and real-world business projects.

LOCAL CHAMBER OF COMMERCE
Collaborations for student internships, networking events, and training.

CAREER PATHWAYS

- BUSINESS ANALYST
- FINANCIAL ADVISOR

INDUSTRY CERTIFICATIONS & DEGREES

- Microsoft Office Specialist (MOS) Certification
- Certified Business Professional (CBP)
- Business Administration - Associate's or Bachelor's Degree