

CARDINALS **STAND OUT**

SCIENCE, ENGINEERING & TECHNOLOGY



The SVSU Cardinal Formula Racing Team has twice built
the quickest college race car in the world!



**SAGINAW VALLEY
STATE UNIVERSITY**

**COLLEGE OF SCIENCE,
ENGINEERING & TECHNOLOGY**

COLLEGE OF SCIENCE, ENGINEERING & TECHNOLOGY **DEAN'S NOTE**



Greetings, future Cardinals,

I am delighted to have you join our college, where you will build a strong academic foundation and gain hands-on experience to shape your future career or post-graduate studies.

The College of Science, Engineering & Technology (SE&T) is dedicated to providing personalized attention and experiential learning opportunities. Our state-of-the-art facilities offer direct collaboration with faculty members, ensuring a supportive learning environment. Additionally, we have a wide variety of student organizations focused on the interests of SE&T students that provide excellent networking and résumé-building opportunities.

As an SE&T student, you will have unique access to faculty-mentored research projects, where you are the researcher, expanding the frontiers of science, mathematics and engineering and presenting your results at professional conferences and in academic journals. You can even apply for grants to support your projects, through funding opportunities such as the Michigan Space Grant Consortium and SVSU's Undergraduate Research Program. The Saginaw Bay Environmental Science Institute, which is housed in our college, also provides exciting research opportunities to explore the vast Saginaw Bay Watershed that we call home. Our engineering and computer science students engage in real-world senior design projects that lead directly to employment with top employers in our backyard and beyond. Working with regional businesses for practical hands-on experiences, our students gain the skills necessary to empower them as graduates to hit the ground running in the hottest technical fields.

Explore our diverse range of majors and minors online: go.svsu.edu. The SVSU College of Science, Engineering & Technology is dedicated to supporting you throughout your academic journey. If you have any questions or would like more information about our programs and opportunities, please don't hesitate to contact us at 989-964-4144 or setdean@svsu.edu.

Congratulations on your acceptance to our college. We look forward to providing you with an enriching and successful learning experience.

Best regards,
Andrew M. Chubb, Ph.D.
Dean, College of Science, Engineering & Technology

STAND OUT

IN SCIENCE, ENGINEERING & TECHNOLOGY CAREER PATHS

UNDERGRADUATE PROGRAMS

MAJORS

Applied Mathematics
Biochemistry
Biological Science
Biology Education
Business Chemistry
Cell Biology, Molecular
Biology & Biomedical
Sciences
Chemical Physics
Chemistry
Chemistry Education
Computer Engineering
Computer Information Systems
Computer Science
Ecology, Evolution &
Organismal Biology
Electrical Engineering
Engineering Technology
Management
Environmental Science
Mathematics
Math Education
Mechanical Engineering
Optical Physics
Physics
Physics Education
Pre-Agriculture

MINORS

Actuarial Science
Agricultural Studies
Computer Science & Information Systems
Cybersecurity
Engineering & Technology
Psychological Biology

SPECIALIZATIONS

Biochemistry
Environmental
Chemistry
American Chemical
Society (ACS)
Environmental

PRE-HEALTH PROGRAMS

Pre-Chiropractic Medicine
Pre-Dentistry
Pre-Medicine
Pre-Optometry
Pre-Pharmacy
Pre-Physician Assistant
Pre-Podiatry
Pre-Veterinary Medicine

GRADUATE PROGRAM

Master of Science in Computer Science & Information Systems (MS-CSIS)

*Undergraduate students majoring in Computer Information Systems or Computer Science at SVSU can choose elective courses from the Master in Computer Science & Information Systems pathway.

ALUM



Sabrina Coffman
Mechanical Engineering Alum

Application Engineer at
GenomOncology



Cory Goetzinger
Computer Science &
Information Systems Alum

Cyber Security Analyst
at Dow

SE&T CLUBS AND ORGANIZATIONS

ASSOCIATION FOR
COMPUTING MACHINERY
BIOLOGY CLUB
CARDINAL FORMULA RACING
CHEMISTRY CLUB
INSTITUTE OF ELECTRICAL AND
ELECTRONICS ENGINEERS
MACHINE LEARNING CLUB
MATH CLUB
ROBOTICS CLUB
SOCIETY OF WOMEN ENGINEERS

FACULTY HIGHLIGHT



Tami Sivy, Ph.D.
Associate Professor of
Chemistry

Dr. Sivy received the Michigan Distinguished Professor of the Year Award in 2021 from the Michigan Association of State Universities. The award recognizes faculty from Michigan's 15 public universities who have contributed to student success.



ENGINEERING — FROM THE CLASSROOM TO A CAREER

Shane Gross graduated from SVSU with dual majors in electrical engineering and engineering technology management. During his time at SVSU, Shane developed a strong foundation in both theoretical knowledge and practical skills, which prepared him for his current role as a field service engineer at Freudenberg e-Power Systems. Pictured above is Shane presenting his senior project at SVSU.



SVSU's Department of Biology is preserving the legacy of the late Dr. Stephen Taber, whose decades-long passion for entomological research and expedition helped build an extensive insect collection at SVSU. The Steve Taber Insect Collection for Knowledge and Science (STICKS) will make Taber's discoveries available to scientists around the world, and the hands-on digitization project helps students build research skills they will use professionally.



Start your path at SVSU to become a medical professional

A PATHWAY TO MEDICAL SCHOOL WITH EARLY ASSURANCE

SVSU has Early Assurance Program partnerships with medical schools at Central Michigan University, Michigan State University and Wayne State University. These partnerships allow SVSU students to apply to medical schools the summer before their senior year. ***Through this program, these medical schools reserve seats for SVSU students each year!***

Dedicated Advisor



Heidi Lang
Pre-Health Professions Advisor

Heidi Lang, SVSU's advisor for pre-health students, is a former president of the Central Association of Advisors for the Health Professions. Her experience allows her to connect students with graduate programs nationwide. She advises on course requirements, necessary clinical and community service experiences and helps students decide between medical fields. Heidi also coordinates mock interviews with SVSU staff and faculty to prepare students for their professional school interviews.



Do you have questions about SE&T academic programs and pathways? SVSU faculty members are here for you.

ASK AN EXPERT
svsu.edu/admissions/asktheexperts



A SAMPLING OF BUSINESSES WHERE SVSU STUDENTS & GRADUATES **STAND OUT.**



STAND OUT

CAREERS IN SCIENCE, ENGINEERING & TECHNOLOGY

SVSU has academic pathways that lead to top careers highlighted by the Michigan Department of Technology, Management & Budget. These jobs have impressive long-term growth and plenty of job openings projected all the way up to 2030. So if you're looking to secure a bright future in Michigan, SVSU is your ticket to success!

Enroll at SVSU and let our advisors guide you toward your dream career!

svsu.edu/nextsteps



SCAN ME

QUESTIONS?

Contact your admissions representative to schedule a one-on-one conversation.

svsu.edu/admissionsrepmap

FACULTY HIGHLIGHTS



Aneesha Gogineni, Ph.D.
Associate Professor of Mechanical Engineering

Dr. Gogineni, department chair, brings her expertise in thermodynamics, heat transfer, fluid mechanics, HVAC, and computational numerical methods to the classroom. A recipient of the Dow Professor Award, she actively supports student research at SVSU. She also advises the Society of Women Engineers, championing STEM education and student success.



Jorge R. Paredes-Montero, Ph.D.
Assistant Professor of Biology

Dr. Paredes-Montero brings a passion for insect biology through SVSU's Super-Bugs Research Lab where students engage in research projects that may be presented at conferences or published. At SVSU, he works diligently to mentor his students to foster hands-on research projects in and out of the classroom.

SVSU will provide reasonable accommodations for those persons with disabilities. Individuals who wish to make accommodations should contact the Conference Center at SVSU at (989) 964-4348 at least three days prior to an event. SVSU does not discriminate based on race, religion, color, gender, sexual orientation, national origin, age, physical impairment, disability or veteran status in the provision of education, employment and other services.

100+ UNDERGRADUATE PROGRAMS AT SVSU

ARTS & BEHAVIORAL SCIENCES

Art
Asian Studies ●
Black Studies
Communication
Communication & Theatre Education
Creative Writing
Criminal Justice
Digital Publishing and Community Journalism ●
English/Language Arts Education
English-Literature
Environmental Studies & Sustainability
Fine Arts BFA
French
French Education
Gender Studies ●
General Studies
Geographic Information Systems ●
Geography
Geospatial Techniques ●
Graphic Design
History
International Studies

Japanese ●
Leadership & Service ●
Legal Philosophy ●
Music
Music Education
Musical Theatre ●
Philosophy ●
Political Science
Pre-Law
Public Law ●
Professional & Technical Writing
Psychology
Public Administration (4+1 MPA)
Public History ●
Religious Studies ●
Sociology
Spanish
Spanish Education
Spanish for Health Professions ●
Teaching English to Speakers of Other Languages ●
Theatre
User Experience Design ●
Visual Arts Education
Writing for Public Purposes ●

TEACHER EDUCATION

EARLY CHILDHOOD & ELEMENTARY:
Birth-Kindergarten
PreK-3rd Grade Lower Elementary
3rd-6th Grade Upper Elementary

MIDDLE AND SECONDARY
5TH-9TH GRADES & 7TH-12TH GRADES:
English/Language Arts
Integrated Science
Mathematics
Science
Social Studies

K-12 SPECIAL EDUCATION:
Autism Spectrum Disorder
Cognitive Impairment
Learning Disabilities

PRE K-12 SPECIALTY AREAS & ADDITIONAL ENDORSEMENTS:
Health and Physical Education
Music Education
Visual Arts Education
World Languages (Spanish or French)

Educational Studies ● (non-certification)

KEY: ● Minor ● Certificate ● Concentration

STILL DECIDING?

You don't need to pick a major right away at SVSU. Your academic advisor will help you choose classes that count toward your general education. Our career advisors have tools to help you discover a career path based on your interests & strengths!

BUSINESS (All business majors can lead to a 4+1 MBA)

Accounting
BPA (CPA track)
Digital Marketing ●
Economics
Economics and Data Analytics
Entrepreneurship ● ●
Finance
Financial Planning ●
Investment ●

General Business
International Business
Legal Studies ●
Management
Family Business Management ●
Human Resource Management ●
Marketing
Professional Sales ● ●
Supply Chain Management

HEALTH & HUMAN SERVICES

Athletic Coaching ●
Behavioral Health – Substance Use and Dependency ●
Child Welfare ●
Emergency Management ●
Exercise Promotion ●
Exercise Science
Gerontology ●
Healthcare Quality & Safety ●
Health Science
Juvenile Delinquency ●
Long Term Care ●
Long Term Care Administrator ●
Medical Laboratory Science

Neuroscience
Nursing
BSN
RN to BSN
Occupational Therapy (3+2 MSOT)
Pre-Athletic Training
Pre-Physical Therapy
Public Health
Combined BS/MPH degree
Health Promotion ●
Health Administration ●
Rehabilitation Medicine
Social Work
Youth Services ●

SCIENCE, ENGINEERING & TECHNOLOGY

Actuarial Science ●
Agricultural Studies ●
Applied Mathematics
Biochemistry
Environmental ●
Biological Science
Biology Education
Business Chemistry
Cell Biology, Molecular Biology & Biomedical Sciences
Chemical Physics
Chemistry
American Chemical Society (ACS) ●
Environmental ●
Chemistry Education
Computer Engineering

Computer Information Systems
Computer Science
Computer Science & Information Systems ●
Cybersecurity ●
Ecology, Evolution & Organismal Biology
Electrical Engineering
Engineering & Technology ●
Engineering Technology Management
Environmental Science
Mathematics
Math Education
Mechanical Engineering
Optical Physics
Physics
Physics Education
Pre-Agriculture
Psychological Biology ●

PRE PROFESSIONAL HEALTH PROGRAMS

Pre-Chiropractic Medicine
Pre-Dentistry
Pre-Medicine
Pre-Optometry

Pre-Pharmacy
Pre-Physician Assistant
Pre-Podiatry
Pre-Veterinary Medicine

CONTINUE WITH YOUR MASTER'S / ADVANCED DEGREE AT SVSU ● Certificate ● Concentration

BUSINESS

Business Administration (MBA)
-Business Analytics ●
-Entrepreneurship ●
-Health Administration ●
-International Business ●

HEALTH

Health Administration (MHA)
Health Administration/Public Health (Combined MHA/MPH)
Occupational Therapy (MSOT)
Social Work (MSW)
Public Health (MPH)
-Combined BS/MPH degree
Public Health Certifications
-Public Health ●
-Healthcare Ethics and Compliance ●
-Health Administration Leadership ●
-Healthcare Quality and Safety ●
-Epidemiology ●

COMMUNICATION

Strategic Organizational Communication ●

EDUCATION

Early Childhood Classroom Teaching (MAT)
Educational Leadership – Principalship (MEd)
Educational Leadership – Ed Specialist (EDS)
Educational Leadership – Accelerated Route to Michigan Admin Certification (Ascend Leadership Academy)
K-12 Literacy Specialist (MAT)
Special Education (MAT)
Technology Learning Systems & Design (MA)
Education Certifications
-Traditional Route to Teacher Certification ●
-Accelerated Route to Teacher Certification ●
-Autism Spectrum Disorder (K-12) ●
-Cognitive Impairment (K-12) ●
-Learning Disabilities (K-12) ●
-Online Training & Design ●

PUBLIC SERVICE & NONPROFIT

Public Administration (MPA)
-Student Affairs Administration ●
-Workplace Conflict Management ●

TECHNOLOGY

Computer Science & Information Systems (MS)

NURSING

Doctor of Nursing Practice (DNP)
Doctor of Nursing Practice (DNP) – Psychiatric Mental Health Nurse Practitioner (PMHNP)
Doctor of Nursing Practice (DNP) – Psychiatric Mental Health Nurse Practitioner (PMHNP) BSN to DNP
Doctor of Nursing Practice (DNP) – Psychiatric Mental Health Nurse Practitioner (PMHNP) MSN to DNP
Doctor of Nursing Practice (DNP) – Dual Family Nurse Practitioner/Psychiatric Mental Health Nurse Practitioner (FNP/PMHNP)
Master of Science in Nursing (MSN)
-Dual Nurse Educator/Nurse Administrator ●
-Nurse Administrator ●
-Nurse Educator ●
-Primary Care Family Nurse Practitioner ●
Nursing Certifications
-Dual Nurse Educator/Nurse Administrator ●
-Nurse Administrator ●
-Nurse Educator ●
-Primary Care Family Nurse Practitioner (FNP) ●
-Psychiatric Mental Health Nurse Practitioner Postgraduate (PMHNP) ●