

COLLEGE OF SCIENCE AND MATHEMATICS

Dean: Lora Billings, Ph.D.

Associate Dean for Academic Affairs and Instruction: Gerard Davidson, Ph.D.

Associate Dean for Research and Partnerships: Amy Tuininga, Ph.D.

Associate Dean for Student Affairs: Celeste Van Nice, M.A.

Assistant Dean for Special Programs and Professional Education: Nicole Weir, M.A.

Welcome to the College of Science and Mathematics (CSAM) at Montclair State University. For over a century, we have built distinguished academic programs encompassing STEM fields.

Our success is based on a simple educational philosophy: outstanding and dedicated faculty, engaged students and a commitment to academic and research excellence. Under the direction of our world class faculty, students have access to state-of-the-art facilities, technology and the opportunity to participate in cutting-edge research. Discovery-based courses and numerous experiential learning opportunities result in an optimal environment for our students to succeed as our next generation of STEM leaders.

The College of Science and Mathematics provides students with applied study options: internships, independent research, and field study programs. Some departments offer clinical training or professional certificate programs, including teacher certification. Our faculty offer engaging experiences outside the classroom, where students build professional skills that can be utilized in business, education, government, and healthcare careers. Recruiters continue to seek out students who demonstrate skills in analysis, communication, problem solving, and teamwork.

CSAM is committed to the ongoing formation of academic/industry collaborations and partnerships to provide long-term economic benefits of New Jersey and beyond. We are home to several institutes, centers, and laboratories dedicated to advancing STEM research and education. These include the Clean Energy and Sustainability Analytics Center (<https://www.montclair.edu/clean-energy-sustainability-analytics/>), the Microscopy and Microanalysis Research Laboratory (<https://www.montclair.edu/mmrl/>), the New Jersey Center for Water Science and Technology (<https://www.montclair.edu/water-science/>), the PSEG Institute for Sustainability Studies (<https://www.montclair.edu/pseg-sustainability-institute/>), Professional Resources in Science and Mathematics (<https://www.montclair.edu/prism/>), and the Sokol Institute for Pharmaceutical Life Sciences (<https://www.montclair.edu/sokol-institute/>).

Departments

Biology (<https://www.montclair.edu/biology/>)

Chemistry and Biochemistry (<https://www.montclair.edu/chemistry-biochemistry/>)

Earth and Environmental Studies (<https://www.montclair.edu/earth-and-environmental-studies/>)

Mathematics (<https://www.montclair.edu/mathematics/>)

Physics and Astronomy (<https://www.montclair.edu/physics-astronomy/>)

School of Computing (<https://www.montclair.edu/school-of-computing/>)

- Applied Mathematics and Statistics (B.S.) (<http://catalog.montclair.edu/programs/applied-math-and-statistics-bs/>)
- Biochemistry (B.S.) (<http://catalog.montclair.edu/programs/biochemistry-bs/>)
- Biology (B.A.) (<http://catalog.montclair.edu/programs/biology-ba/>)
- Biology (B.S.) (<http://catalog.montclair.edu/programs/biology-bs/>)
- Biology - Environmental Science/Biology Concentration (B.S.) (<http://catalog.montclair.edu/programs/environmental-science-biology-concentration-bs/>)
- Biology - Pre-Medical Professions Concentration (B.S.) (<http://catalog.montclair.edu/programs/biology-premedical-professions-concentration-bs/>)
- Biology - Research Concentration (B.S.) (<http://catalog.montclair.edu/programs/biology-research-concentration-bs/>)
- Biology Minor (<http://catalog.montclair.edu/programs/biology-minor/>)
- Biology with Teacher Certification in Biological Science (Preschool-Grade 12) (B.S.) (<http://catalog.montclair.edu/programs/teacher-certification-preschool-grade-12-bs/>)
- Chemistry (B.S.) (<http://catalog.montclair.edu/programs/chemistry-bs/>)
- Chemistry - Business Concentration (B.S.) (<http://catalog.montclair.edu/programs/chemistry-business-concentration-bs/>)
- Chemistry with Teacher Certification in Chemistry (Preschool-Grade 12) (B.S.) (<http://catalog.montclair.edu/programs/teacher-certification-chemistry-preschool-grade-12-bs/>)
- Chemistry Minor (<http://catalog.montclair.edu/programs/chemistry-minor/>)
- Climate Science Certificate (<http://catalog.montclair.edu/programs/climate-science-certificate/>)
- Computer Science (B.S.) (<http://catalog.montclair.edu/programs/computer-science-bs/>)
- Computer Science Minor (<http://catalog.montclair.edu/programs/computer-science-minor/>)
- Data Science (B.S.) (<http://catalog.montclair.edu/programs/data-sciences-bs/>)
- Data Science Minor (<http://catalog.montclair.edu/programs/data-science-minor/>)
- Earth and Environmental Science (B.S.) (<http://catalog.montclair.edu/programs/earth-and-environmental-science-bs/>)
- Earth and Environmental Science with Teacher Certification in Earth Science (Preschool-Grade 12) (B.S.) (<http://catalog.montclair.edu/programs/earth-and-envirom-sci-teacher-certification-earth-science-preschool-grade-12-bs/>)
- Earth and Environmental Science Minor (<http://catalog.montclair.edu/programs/earth-and-environmental-sci-minor/>)
- Game Development Certificate (<http://catalog.montclair.edu/programs/game-development-certificate/>)
- Geographic Information Science Minor (<http://catalog.montclair.edu/programs/geographic-information-science-minor/>)

- Geographic, Environmental and Urban Studies (B.A.) (<http://catalog.montclair.edu/programs/geography-environ-urban-studies-ba/>)
 - Geography with Teacher Certification in Social Studies (Preschool-Grade 12) (B.A.) (<http://catalog.montclair.edu/programs/geography-teacher-certification-social-studies-preschool-grade-12-ba/>)
 - Information Technology (B.S.) (<http://catalog.montclair.edu/programs/information-technology-bs/>)
 - Marine Biology and Coastal Sciences (B.S.) (<http://catalog.montclair.edu/programs/marine-biology-bs/>)
 - Mathematics (B.S.) (<http://catalog.montclair.edu/programs/mathematics-bs/>)
 - Mathematics with Teacher Certification in Elementary School Teacher in Grades K-6 (B.S.) (<http://catalog.montclair.edu/programs/teacher-certification-mathematics-elementary-grades-k-6/>)
 - Mathematics - Mathematics Education Concentration with Teacher Certification in Mathematics (Preschool - Grade 12) (B.S.) (<http://catalog.montclair.edu/programs/mathematics-education-concentration-teacher-certification-preschool-grade-12-bs/>)
 - Mathematics Minor (<http://catalog.montclair.edu/programs/mathematics-minor/>)
 - Molecular Biology (B.S.) (<http://catalog.montclair.edu/programs/molecular-biology-bs/>)
 - Neuroscience Minor (<http://catalog.montclair.edu/programs/neuroscience-minor/>)
 - Physics (B.S.) (<http://catalog.montclair.edu/programs/physics-bs/>)
 - Physics - Astronomy Concentration (B.S.) (<http://catalog.montclair.edu/programs/physics-astronomy-concentration-bs/>)
 - Physics with Teacher Certification in Physical Science (Preschool-Grade 12) (B.S.) (<http://catalog.montclair.edu/programs/physics-teacher-certification-physical-science-preschool-grade-12-bs/>)
 - Physics Teacher Certification in Physics (Preschool-Grade 12) (B.S.) (<http://catalog.montclair.edu/programs/physics-teacher-certification-physical-science-preschool-grade-12-bs/>)
 - Physics Minor (<http://catalog.montclair.edu/programs/physics-minor/>)
 - Software Engineering Certificate (<http://catalog.montclair.edu/programs/software-engineering-certificate-undergraduate/>)
 - Sustainability Science (B.S.) (<http://catalog.montclair.edu/programs/sustainability-science-bs/>)
 - Sustainability Science Minor (<http://catalog.montclair.edu/programs/sustainability-science-minor/>)
 - Urban Studies Minor (<http://catalog.montclair.edu/programs/urban-studies-minor/>)
- (<http://catalog.montclair.edu/programs/applied-mathematics-ms/>)
- Applied Mathematics (M.S.) (<http://catalog.montclair.edu/programs/applied-mathematics-ms/>)
 - Artificial Intelligence Systems Certificate Program (<http://catalog.montclair.edu/programs/artificial-intelligence-systems-certificate/>)
 - Biological Science, Instructional Certification: Teacher Certification in Biological Science - Preschool through Grade 12 (<http://catalog.montclair.edu/programs/instructional-certification-subject-area-preschool-grade-12/>)
 - Biology (M.S.) (<http://catalog.montclair.edu/programs/biology-ms/>)
 - Biology - Ecology & Evolution Concentration (M.S.) (<http://catalog.montclair.edu/programs/biology-ecology-evolution-concentration-ms/>)
 - Biology - Physiology Concentration (M.S.) (<http://catalog.montclair.edu/programs/biology-physiology-concentration-ms/>)
 - Chemistry (M.S.) (<http://catalog.montclair.edu/programs/chemistry-ms/>)
 - Chemistry - Biochemistry Concentration (M.S.) (<http://catalog.montclair.edu/programs/biochemistry-concentration-chemistry-ms/>)
 - Chemistry, Instructional Certification: Teacher Certification in Chemistry (Preschool-Grade 12) (<http://catalog.montclair.edu/programs/instructional-certification-subject-area-preschool-grade-12/>)
 - Computer Science (M.S.) (<http://catalog.montclair.edu/programs/computer-science-ms/>)
 - Computing Technology Certificate Program (<http://catalog.montclair.edu/programs/computing-technology-certificate/>)
 - Cybersecurity (M.S.) (<http://catalog.montclair.edu/programs/cybersecurity-ms/>)
 - Data Science (M.S.) (<http://catalog.montclair.edu/programs/data-science-ms/>)
 - Earth and Environmental Science (M.S.) (<http://catalog.montclair.edu/programs/earth-environmental-science-ms/>)
 - Earth Science, Instructional Certification: Teacher Certification in Earth Science - Preschool through Grade 12 (<http://catalog.montclair.edu/programs/instructional-certification-subject-area-preschool-grade-12/>)
 - Environmental Science and Management (Ph.D.) (<http://catalog.montclair.edu/programs/environmental-science-and-management-phd/>)
 - Information Technology (M.S.) (<http://catalog.montclair.edu/programs/information-technology-ms/>)
 - Marine Biology and Coastal Sciences (M.S.) (<http://catalog.montclair.edu/programs/marine-biology-ms/>)
 - Mathematics Education (M.A.) (<http://catalog.montclair.edu/programs/mathematics-education-ma/>)
 - Mathematics Education (Ph.D.) (<http://catalog.montclair.edu/programs/mathematics-education-phd/>)
 - Mathematics, Instructional Certification: Teacher Certification in Mathematics (Preschool-Grade 12) (<http://catalog.montclair.edu/programs/instructional-certification-subject-area-preschool-grade-12/>)
 - Mathematics, Instructional Certification: Teacher Certification in Elementary School with Subject Matter Specialization: Mathematics Grades 5-8 (<http://catalog.montclair.edu/programs/teacher-certification-elementary-school-subject-matter-specialization-mathematics-grades-5-8-graduate/>)
 - Mathematics (M.S.) (<http://catalog.montclair.edu/programs/mathematics-ms/>)
 - Mathematics - Mathematics Education Concentration (M.S.) (<http://catalog.montclair.edu/programs/mathematics-education-concentration-ms/>)
 - Molecular Biology (M.S.) (<http://catalog.montclair.edu/programs/molecular-biology-ms/>)
 - Molecular Biology Certificate (<http://catalog.montclair.edu/programs/molecular-biology-certificate/>)

- Pharmaceutical Biochemistry (M.S.) (<http://catalog.montclair.edu/programs/pharmaceutical-biochemistry-ms/>)
- Science, Instructional Certification: Teacher Certification in Elementary School with Subject Matter Specialization: Science Grades 5-8 (<http://catalog.montclair.edu/programs/teacher-certification-elementary-school-subject-matter-specialization-science-grades-5-8-graduate/>)
- Sustainability Science (M.S.) (<http://catalog.montclair.edu/programs/sustainability-science-ms/>)
- Sustainability Science - Sustainability Leadership Concentration (M.S.) (<http://catalog.montclair.edu/programs/sustainability-science-sustainability-leadership-concentration-ms/>)
- Teaching Middle Grades Mathematics Certificate Program (<http://catalog.montclair.edu/programs/teaching-middle-grades-mathematics-certificate-graduate/>)
- Applied Mathematics and Statistics (B.S.) (Combined B.S./M.B.A. Business Administration) (<http://catalog.montclair.edu/programs/applied-math-and-statistics-bs-mba/>)
- Applied Mathematics and Statistics (B.S.) (Combined B.S./M.S. Applied Mathematics) (<http://catalog.montclair.edu/programs/applied-math-and-statistics-bs-applied-math-ms/>)
- Biology (B.S.) (Combined B.S./M.A.T. Teaching with Teacher Certification in Biological Science (Preschool-Grade 12) and Teacher of Students with Disabilities) (<http://catalog.montclair.edu/programs/teacher-certification-biology-preschool-grade-12-combined-bs-mat/>)
- Biology (B.S.) (Combined B.S./M.B.A. Business Administration) (<http://catalog.montclair.edu/programs/biology-combined-bs-mba/>)
- Chemistry (B.S.) (Combined B.S./M.A.T. Teaching with Teacher Certification in Chemistry (Preschool-Grade 12) and Teacher of Students with Disabilities) (<http://catalog.montclair.edu/programs/teacher-certification-chemistry-preschool-grade-12-students-disabilities-combined-bs-mat/>)
- Chemistry (B.S.) (Combined B.S./M.S. Chemistry) (<http://catalog.montclair.edu/programs/chemistry-bs-ms/>)
- Computer Science (B.S.) (Combined B.S./M.S. Computer Science) (<http://catalog.montclair.edu/programs/computer-science-combined-bs-ms/>)
- Computer Science (B.S.) (Combined B.S./M.S. Cybersecurity) (<http://catalog.montclair.edu/programs/computer-science-combined-bs-ms-cybersecurity/>)
- Computer Science (B.S.) (Combined B.S./M.S. Data Science) (<http://catalog.montclair.edu/programs/computer-science-combined-bs-ms-data-science/>)
- Earth and Environmental Science (B.S.) (Combined B.S./M.B.A. Business Administration) (<http://catalog.montclair.edu/programs/earth-and-environmental-science-combined-bs-mba/>)
- Earth and Environmental Science (B.S.) (Combined B.S./M.A.T. Teaching with Teacher Certification in Earth Science (Preschool-Grade 12) and Teacher of Students with Disabilities) (<http://catalog.montclair.edu/programs/earth-and-envirom-sci-bs-teacher-certification-earth-science-preschool-grade-12-students-disabilities-combined-bs-mat/>)
- Information Technology (B.S.) (Combined B.S./M.S. Cybersecurity) (<http://catalog.montclair.edu/programs/information-technology-combined-bs-ms-cybersecurity/>)
- Information Technology (B.S.) (Combined B.S./M.S. Data Science) (<http://catalog.montclair.edu/programs/information-technology-combined-bs-ms-data-science/>)
- Geographic, Environmental and Urban Studies (B.A.) (Combined B.A./M.B.A. Business Administration) (<http://catalog.montclair.edu/programs/geography-environ-urban-studies-ba-combined-ba-mba/>)
- Marine Biology and Coastal Sciences (B.S.) (Combined B.S./M.S. Marine Biology and Coastal Sciences) (<http://catalog.montclair.edu/programs/marine-biology-bs-combined-bs-ms/>)
- Mathematics (B.S.) (Combined B.S./M.A. Social Research and Analysis) (<http://catalog.montclair.edu/programs/mathematics-combined-bs-ma-social-research/>)
- Mathematics (B.S.) (Combined B.S./M.A.T. Teaching with Teacher Certification in Mathematics (Preschool-Grade 12) and Teacher of Students with Disabilities) (<http://catalog.montclair.edu/programs/teacher-certification-mathematics-preschool-grade-12-students-disabilities-combined-bs-mat/>)
- Mathematics (B.S.) (Combined B.S./M.A.T. Teaching with Teacher Certification in Grades K-6 and Teacher of Students with Disabilities) (<http://catalog.montclair.edu/programs/mathematics-combined-bs-mat-teacher-certification-grades-k-6-students-disabilities/>)
- Mathematics (B.S.) (Combined B.S./M.B.A. Business Administration) (<http://catalog.montclair.edu/programs/mathematics-combined-bs-mba/>)
- Mathematics (B.S.) (Combined B.S./M.S. in Applied Mathematics) (<http://catalog.montclair.edu/programs/mathematics-combined-bs-ms-applied-math/>)
- Mathematics (B.S.) (Combined B.S./M.S. in Mathematics) (<http://catalog.montclair.edu/programs/mathematics-combined-bs-ms-mathematics/>)
- Physics (B.S.) (Combined B.S./M.A.T. Teaching with Teacher Certification in Physical Science (Preschool-Grade 12) and Teacher of Students with Disabilities) (<http://catalog.montclair.edu/programs/teacher-certification-physical-science-preschool-grade-12-students-disabilities-combined-bs-mat/>)
- Physics (B.S.) (Combined B.S./M.A.T. Teaching with Teacher Certification in Physics (Preschool-Grade 12) and Teacher of Students with Disabilities) (<http://catalog.montclair.edu/programs/teacher-certification-physics-preschool-grade-12-students-disabilities-combined-bs-mat/>)
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- Physics (B.S.) (Combined B.S./M.S. Applied Mathematics) (<http://catalog.montclair.edu/programs/physics-combined-bs-ms-applied-math/>)
- Sustainability Science (B.S.) (Combined B.S./M.B.A. Business Administration) (<http://catalog.montclair.edu/programs/sustainability-science-combined-bs-mba/>)
- Sustainability Science (B.S.) (Combined B.S./M.S. Sustainability Science) (<http://catalog.montclair.edu/programs/sustainability-science-combined-bs-ms/>)