

Physics at SUNY Old Westbury

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Brookhaven National Laboratory

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SUNY Old Westbury

Primarily undergraduate

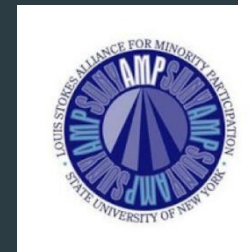
- Enrollment: 4,270 students (Fall 2022)

Guiding Principles: Liberal Education, Integrity, Participatory Governance, Intercultural Understanding, Sustainability, and Social Justice

- Founded in 1965 to promote diversity, social justice, and social mobility
- The Social & Environmental Justice Institute (SEJI)
- Social Justice Fellows (starting fall 2023)

Student Programs:

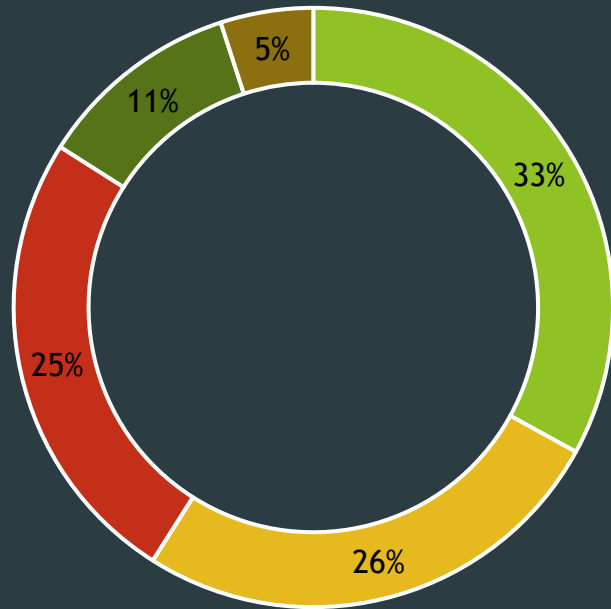
- Collegiate Science and Technology Entry Program (CSTEP)
- Louis Stokes Alliance for Minority Participation (LSAMP)
- Science & Technology Entry Program (STEP)
- Community Action, Learning & Leadership Program (CALL)





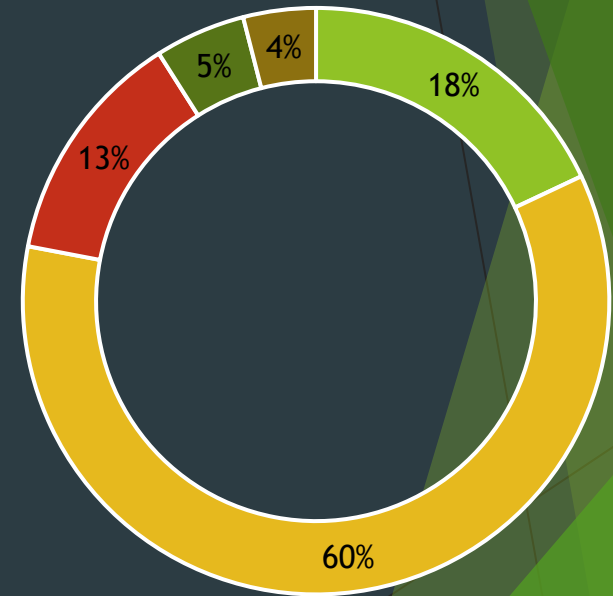
DIVERSE CAMPUS

2021 Enrollment



- Hispanic/Latino -33%
- African-American -25%
- Other -5%
- Caucasian -26%
- Asian- 11%

U.S. Population (as per 2019 Census)



- Hispanic/Latino -18%
- African-American -13%
- Other -4%
- Caucasian -60%
- Asian -5%

STEM at SUNY Old Westbury

Biology

- Biological Sciences, B.S.
- Bioinformatics and Computational Biology, B.S.

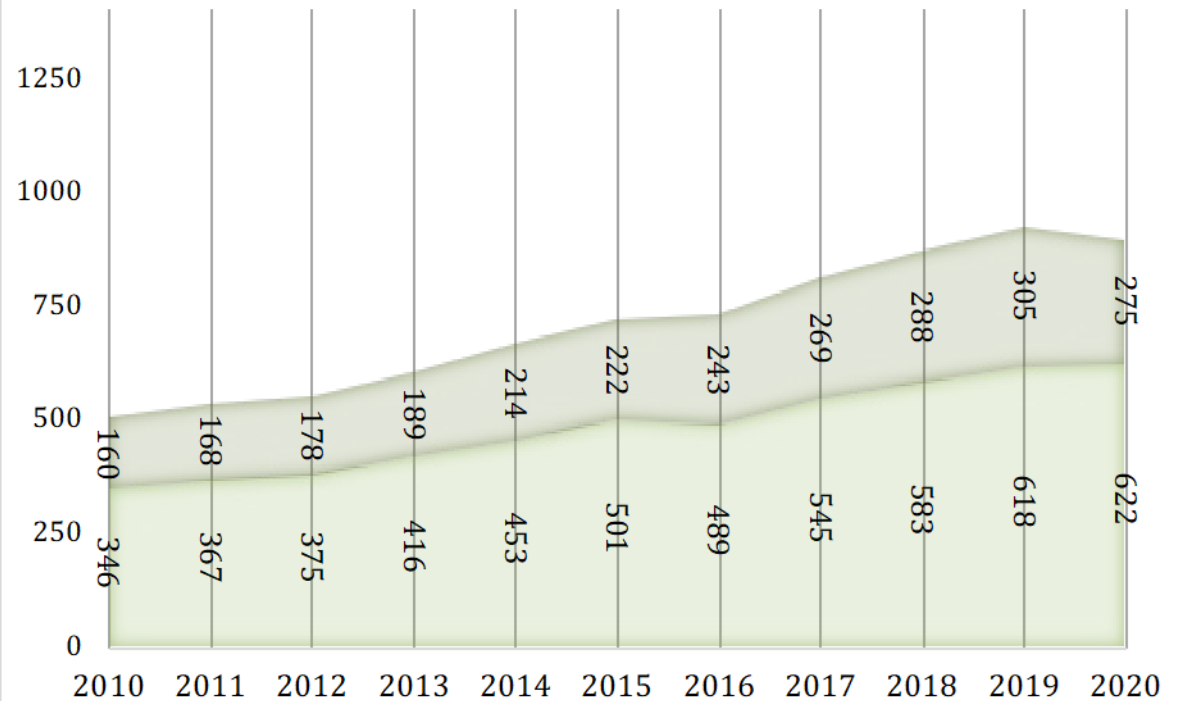
Chemistry and Physics

- Biochemistry, B.S.
- Chemistry, B.S. (ACS certified)
- Physics, B.S. (new)

Mathematics, Computer & Information Science

- Mathematics, B.S.
- Computer & Information Sciences, B.S.
- Data Science, M.A.

FALL-TO-FALL ENROLLMENT (2010 - 2020)



■ Math & Computer Science

■ Physical, Life Science & Technology

Natural Science Building Renovation and Expansion

- ▶ Groundbreaking 2024
- ▶ Active Teaching Classrooms
- ▶ New Teaching and Research Labs
- ▶ Collaboration Spaces
- ▶ Astronomy Roof Deck



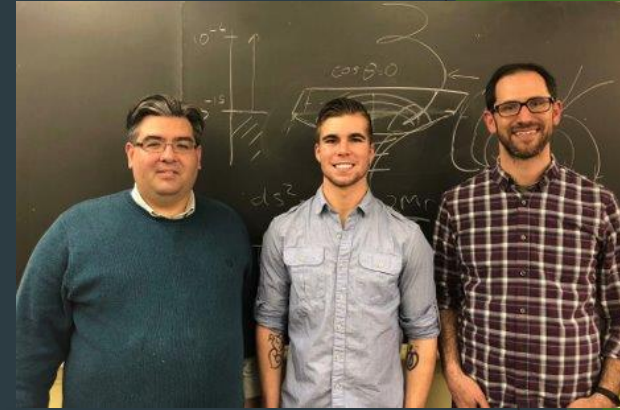
New Physics Program

Minor (fall 2019)

- ▶ 17 students

Major (fall 2023)

- ▶ Career concentrations
 - General Physics
 - Health Sciences
 - Quantitative Finance
 - Applied/Technology
- ▶ Student research
 - Capstone senior seminar course



Physics faculty

Michael Kavic

Currently Associate Provost
Radio astronomy, High-energy astrophysics,
String theory

Matt Lippert

String theory, High-energy theoretical
physics, High-energy astrophysics,

John Estes

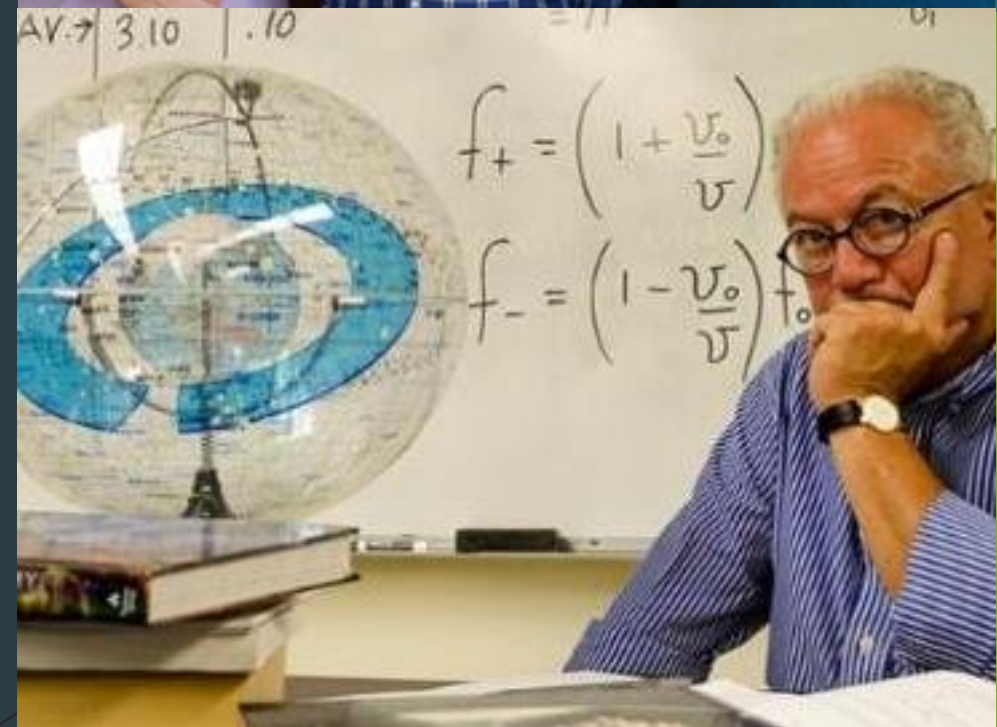
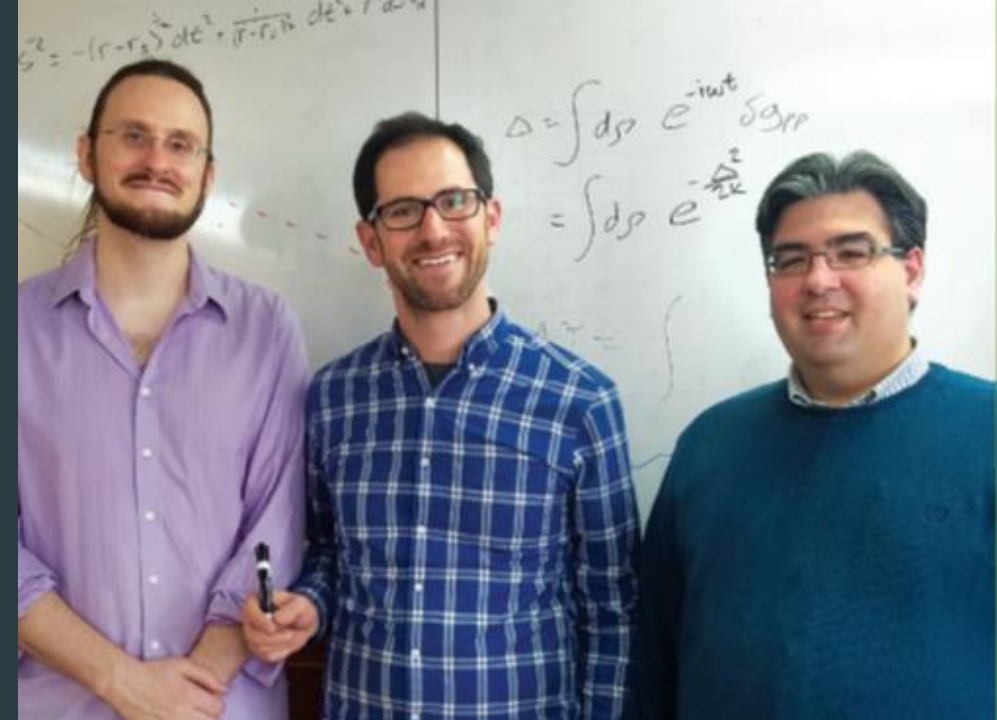
String theory, High-energy theoretical
physics

Michael Colaneri

Biophysics

Fernando Espinoza

Physics education
Joint position with School of Education



Research Interests

Gauge/Gravity Duality

- ▶ QCD and nuclear physics, neutron star cores
- ▶ Condensed matter: Quantum Hall and topological insulators, graphene, strongly interacting electrons, non-equilibrium steady states

String theory

- ▶ Intersecting branes, anomalies, defect field theory

High energy theoretical astrophysics

- ▶ Signatures of beyond-the-standard-model physics/quantum gravity
- ▶ Ultra-light particles, cosmic strings, magnetic black holes

Observational radio astronomy

- ▶ Fast radio transients from binary neutron star merges

Exciting time for physics at SUNY Old Westbury

Lots to do:

- ▶ Student recruitment
- ▶ Curriculum development
- ▶ Lab development
- ▶ Renovations
- ▶ Secure funding for student research

Thank You!