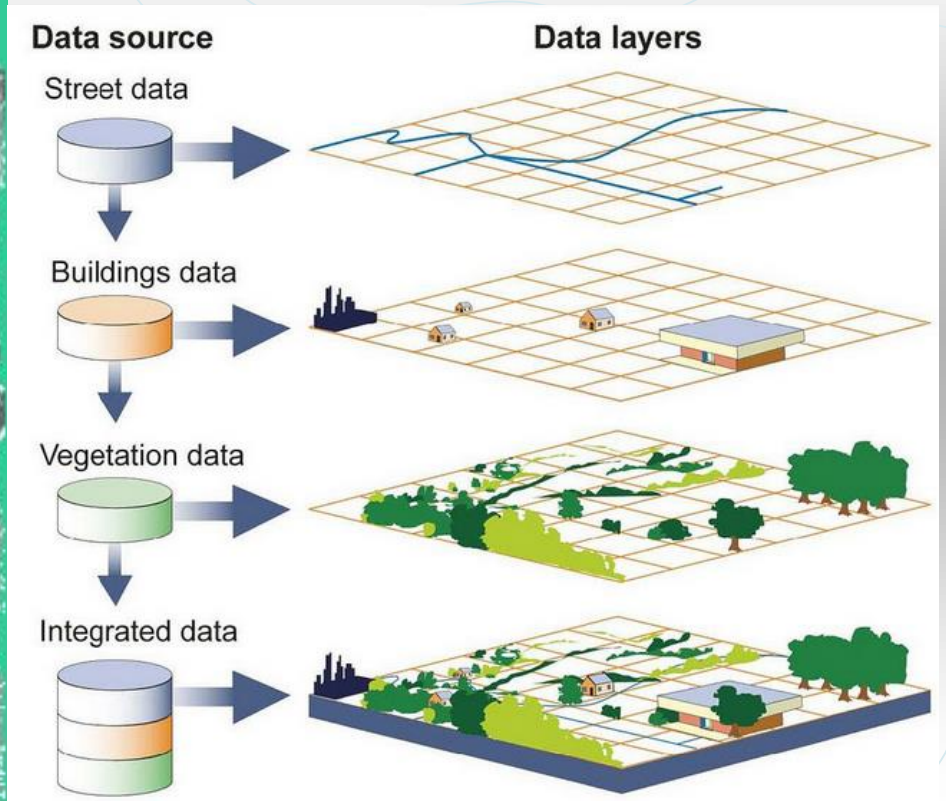
Proposed A.A.S. in GIST (Geospatial Information Science Technology)

Monroe Community College
STATE UNIVERSITY OF NEW YORK

The *Meeting Workforce Needs for Skilled Geospatial Technicians through Virtual Geospatial Information Science Technology Education* project was funded through the U.S. National Science Foundation (NSF) Office of Advanced Technological Education under Grants Award # 1955256 to Monroe Community College. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

What is Geospatial Technology?

Integration of Geographical Information Systems, Remote Sensing, and GPS.



https://www.nationalgeographic.org/encyclopedia/geographic-information-system-gis/

MCC's Geospatial program

Current:

24 Credit GIST Certificate

A.S. Geography concentration in GIST (modify SP 21)

Stackable program expected 2022:

A.A.S. in GIST

24 credit GIST Certificate

9-credit micro-credential for GIST professionals

2018-2028 GIST Job Outlook

Geospatial Information Scientists & Technologists:

Employment: 413,000

Projected Growth: Faster than avg, 7-10%

Median Wages: $88,550

Geographic Information Systems Technicians:

Employment: 412,800

Projected Growth: Faster than avg 7-10%

Median Wages: $88,550

Cartographers and Photogrammetrists:

Employment: 11,800

Projected Growth: Much faster than avg, 11%+

Median Wages: $65,470

Remote Sensing Technicians:

Employment: 72,400

Projected Growth: Faster than avg, 7-10%

Median Wages: $50,550

Source: Bureau of Labor Statistics. Employment figures are for 2018; projected growth is for the period 2018-2028; median wages are for 2019.

AAS in Geospatial Information Science & Technology (GIST)

Table 1			
FALL Year 1	**Cr**	**SPRING Year 1**	**Cr**
Introduction to GIST	3	***Web Mapping***	3
Cartography	3	Spatial Analysis	3
English	3	Art/Foreign Language	3
Introduction to Remote Sensing	3	Physical Geography Lab	1
Math	3	Physical Geography	3
		Physical/Health Education	2
FALL Year 2	**Cr**	**SPRING Year 2**	**Cr**
UAS Data Acquisition and Management	3	***Introduction to Programming for GIS***	3
Statistics	3	Capstone Course in Geospatial Technology	2
Elective	3	American History	3
Human Geography	3	Program Elective	3
Elective	3	Elective	3
		Elective	3

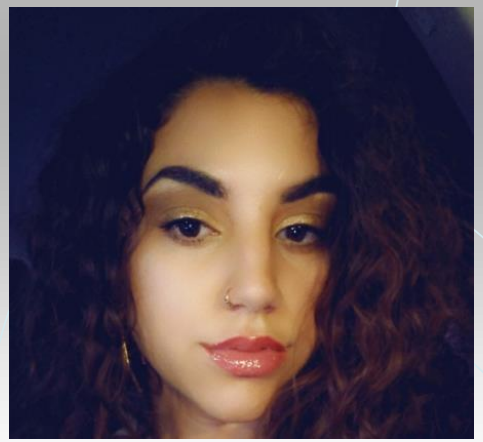
Micro-credential

Micro-credential

Micro-credential

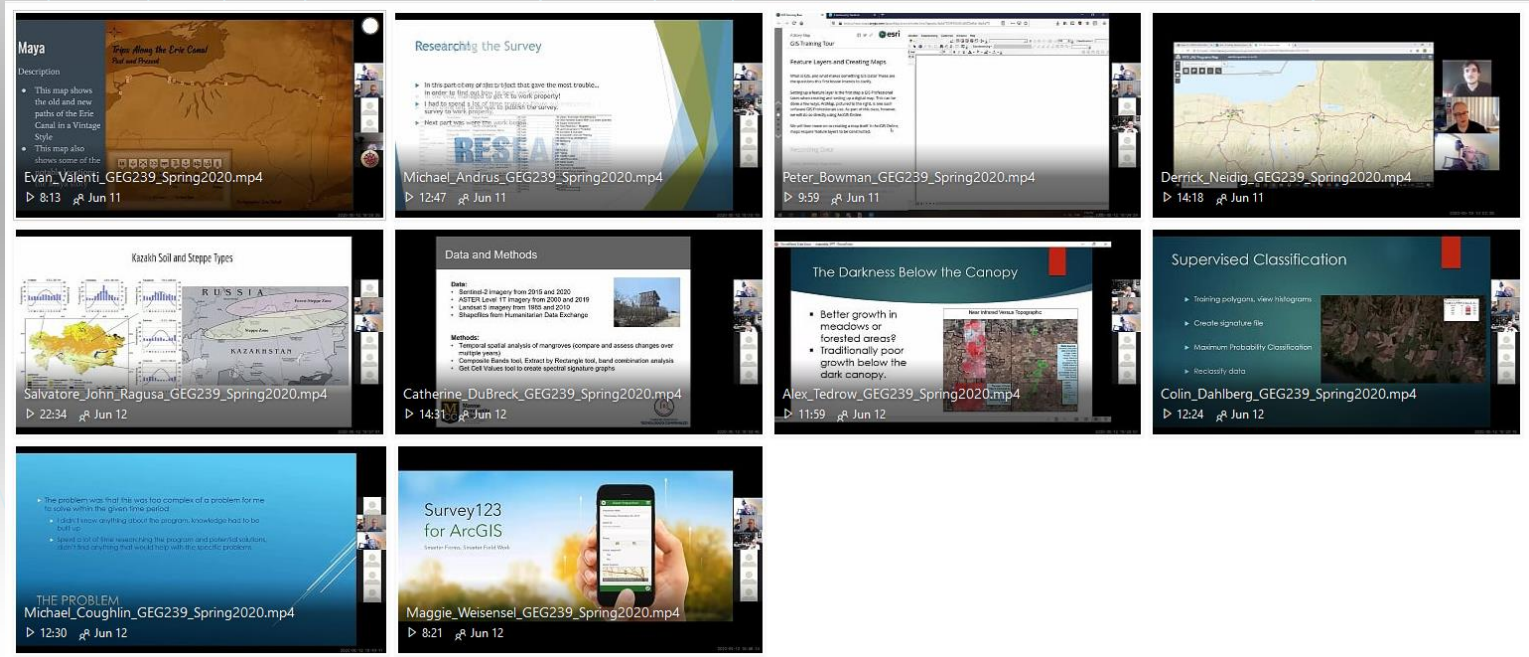
Alumni Mentoring

Four alumni are providing support to our current students!



Sample Virtual Internships/Partnerships

- American Red Cross
- New York State Department of Environmental Conservation
- NY State Department of Health
- Water for South Sudan
- National GeoTech Center of Excellence
- Genesee Land Trust



Global Virtual GIST Internships

Current

- Malawi: Cornell University and partner in Malawi
- Mexico: Universidad Autónoma de San Luis Potosí

Past

- Colombia: Fundación Universitaria Tecnológico Comfenalco
- Costa Rica: Monteverdi Institute
- Kazakhstan: Kazakh State Agrotechnical University

Library Professional Development

Deliver innovative outreach and enriched virtual support from Public Librarians!

~ 20 Librarians in fall of 2020!

Enrollment Projections

Why conservative enrollment?

Please consider that the AAS focuses in on the traditional student. However, the 3 new courses in the AAS program overlap with the micro-credential for professionals. Thus, we will be pulling from three groups (traditional, professionals and Certificate), and we expect course enrollment in these new courses to be near their max.

Recruitment of Students

1) GIST summer camp
2) dual credit enrollment
3) targeted recruitment of introductory GIST students
4) MCC Mapping Club events – 400 attended in the fall!

Thank you! Questions?

Jonathon Little: Associate Professor of Geography/GIST and NSF ATE Principal Investigator
Heather Pierce: Assistant Professor of Geography/GIST and co-PI
Catherine DuBreck: co-PI & EagleView
Wayne Howard: Senior team member, Adjunct, & co-founder Solara Concepts
Alumni: Drew Ortego, Catherine DuBreck, Kareem Howard, & Enith (Annie) Lay Soler
NSF External Evaluator: Donna Lange, Rochester Institute of Technology Professor/PI DeafTEC

Special thanks to:

Board of Trustees and Provost Wade
Curriculum Office at MCC (Andy Freeman), STEM (Margaret Kaminsky), and Chem/Geo (Jessica Barone)
MCC Library Staff, Katie Ghidiu, and Public Librarians
Rochester Regional Library Council, Tina Broomfield
Monroe County Library System & Patricia Uttaro, Pioneer Library System and Ronald Kirsop
Jian Qin (Syracuse University) and Keith Jenkins (Cornell University)
Rochester City School District and Carmelita Brown-Wallace (Upward Bound)
GIST Advisory Committee: Vince DiNoto, Buffy Quinn, Dan Allen, Andy Mendola, Justin Cole, Jackie Sax
Internships: NY State Department of State at University of Albany, Genesee Land Trust, National GeoTech Center of Excellence, New York Geographic Alliance, GIS Scholars, EagleView, GIS-SIG, Water for South Sudan, River Area Council of Governments, Tug Hill Commission, and Genesee River Watch.

Grant web site: https://atecentral.net/msites/MCC_GIST
MCC GIST program web site: https://www.monroecc.edu/depts/geography/
Questions: Jonathon Little at jlittle@monroecc.edu

The *Meeting Workforce Needs for Skilled Geospatial Technicians through Virtual Geospatial Information Science Technology Education* project was funded through the U.S. National Science Foundation (NSF) Office of Advanced Technological Education under Grants Award # 1955256 to Monroe Community College. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.