

# **Geography & Sustainability Undergraduate Student Handbook**



**2020 - 2021**

## Disclaimer

This document was published in August 2020 and was correct at that time. The Geography and Sustainability Department reserves the right to modify any statement if necessary, make variations to the content or methods of delivery of programs of study, to discontinue programs, or merge or combine programs if such actions are reasonably considered to be necessary by Salem State University. Every effort will be made to keep disruption to a minimum, and to give as much notice as possible.



## Student Conduct Code

The behavioral responsibilities of all Salem State University students can be found in the

### **2019-2020 - Student Conduct Code.**

It is expected that the conduct of all students will be consistent with the educational purposes of the institution and will in no way interfere with the functions of the university as it seeks to fulfill that purpose.

# Content

Please use this Handbook as your guide to the Geography and Sustainability Department at Salem State University. Its purposes are several:

- To inform you about the many diverse opportunities available to you as a student in the department
- To inform you about the curriculum and course scheduling for each of the programs (majors, minors, concentrations) offered by the department
- To introduce you to the faculty and the students of the department

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# 01. Geography and Sustainability @ SSU

Welcome to our student-centered Geography and Sustainability Department! Geography is the study of the spatial distribution of the environment and of human activity across the surface of the Earth and its atmosphere. Each place on earth is distinguished by a unique mix of natural resources, cultural practices, and economic and political systems.

Geography, or technically Cartography, has been a part of Salem State University (SSU) since it opened in 1854. Today, Salem State's Geography and Sustainability programs combine a strong background in the academic tradition of geography and prepare students for applied fields such as:

- **Environmental Sustainability**
- **Sustainable Tourism**
- **The Geospatial Technologies**
- **Regional Development and Planning**
- **Climate Change Resiliency and Adaptation Planning, and**
- **Natural Resource Management.**

The teaching and use of geospatial computer technologies is a hallmark of our Department. Recently the use of drones has been added to our teaching and service to the local and regional communities.



Faculty within the Geography and Sustainability department pride themselves on providing expert mentorship and friendship for all students while at Salem State and beyond graduation. We train our students to be top scientists as well as concerned global citizens.

Geographers study what makes each place unique, and the connections and interactions between places. Key areas of study in Geography include: human/environmental relationships, environmental systems, human spatial organization, transportation, and mapping (Geo-spatial information or GIS).

The graduates of the Geography and Sustainability Department are in strong demand in the Massachusetts' and national economies.



## 02. Why Study Geography at SSU?

**1. A diverse curriculum.** Curriculum in the Geography and Sustainability Department begins with a diverse core of human, physical, and technical courses. Concentrations in Environmental Sustainability, Sustainable Tourism and Cartography and GIS are all available. More flexible BA and BS geography degrees are also offered. There are a BS/MS Cartography and GIS program, an undergraduate GIS certificate and five minors also available

**2. Study and collaborate with exceptional scholar-teachers** whose research informs local, regional and international debates on topics like socio-economic development, environmental sustainability, spatial planning, climate change, tourism and urbanization.

**3. Out of classroom education.** We excel at providing field-oriented, hands-on experience. In addition to class field trips, the department organizes annual study tours to Europe and across the US. Previous trips included: Athens, Florence, Munich, London, Moscow, Beijing, Dublin, Belfast, Lisbon, Madrid, Montreal, Barbados, the Grand Canyon, the Southwest United States and Disney World.

**4. The department's Digital Geography Lab (DGL)** is regarded as one of the best academic geography-based computer labs in the U.S. This unique facility is dedicated to supporting and fostering undergraduate and graduate geo-spatial computing education and research. The DGL facilitates collaboration within the department, and is a focal point for faculty, undergraduate and graduate research.



**5. Be part of a vibrant community of**

undergraduates, graduate students and faculty united by a commitment to use geographical tools and insights to address critical environmental and social challenges

**6. Supportive and engaged faculty.** All faculty are experts in their fields and have regional specialties. They pride themselves on providing expert mentorship and friendship for all students while at Salem State and beyond graduation.



### 03. Professionals with a Conscience

Geographers make valuable contributions to the work and performance of businesses, nonprofits, and government agencies, including:

- **Understanding Social Systems:**

Geographers analyze the ways in which people interact in economic, political, social, and spatial contexts. Geographers offer a powerful perspective that helps take the specific needs and interests of populations into consideration when making decisions.

- **Improving the Environment:**

Geographers study natural phenomena and work in areas as diverse as conservation, climate change, geoscience, meteorology, hazards, and natural resource management. Geographers understand human-environment relationships and how to use that information to manage natural resources and to protect the planet as a whole.

- **Enhancing Financial Performance:** Geographers, using geospatial tools such as GIS, remote sensing, and GPS, are able to map and analyze economic data in search of important spatial patterns and relationships that can significantly enhance business efficiency and profitability. Spatial and temporal analysis is an important component of a geographic education and a skill valued by a large number of business employers. *(Info Credit: AAG)*

"Through my years at SSU the professors in the Geography and Sustainability Department made me realize my passion on the subject! I discovered a different side of myself and how much I can do for our world."

**Maria Navarro Marzolla, Class of 2020**



## 04. Program Overview

As a geography major you use the concepts of place and space to better understand the physical and social processes that shape our planet. You explore why places are different; the economic, political and cultural systems that connect us locally, regionally and globally; and how we shape—and in turn are shaped by—our environment.

The Geography and Sustainability Department at Salem State offers:

- 3 Bachelor's degrees
- 1 BS/MS program
- 2 BS Concentrations
- 5 Minors
- 1 Undergraduate Certificate

For all Bachelor's programs, a five-course core group of classes forms the backbone of the curriculum. From there, both the BA and BS have significant flexibility in how they are completed, with the BA having a language requirement. Both BS Concentrations (Environmental Sustainability, Sustainable Tourism) have more structured curriculums, as does the BS in Cartography and GIS.

While in the program, students are strongly encouraged to get involved in the Department. Opportunities are many, from participating in the regional Geography Bowl, to working with a professor on a research project, to participating in a campus organization such as Sunrise Salem and MassPIRG, to working with other students in the Digital Geography Laboratory on assignments.

The Geography and Sustainability department has directly enabled me and my peers to found and sustain climate crisis advocacy efforts on campus. The professors and department staff readily provide support and resources to accomplish this meaningful work on campus, and their unwavering help and kindness has been one of the biggest things I've loved about my SSU experience."

**Joey Wolongevicz, Class of 2022**



The Geography and Sustainability Department has some of the most active faculty on and off campus and they are always looking for students to join in on their activities. The department very strongly believes in experiential education whether it is dealing with real world situations in the classroom or traveling to a foreign country as part of a study-travel course. When graduating with a degree from the Geography and Sustainability Department at Salem State, students will be top scientists as well as concerned citizens.

# Courses of Study

## Bachelor of Science/Bachelor of Arts Geography

These programs are for those looking for a general degree in geography.

- Both require less credits (33) than others, giving students ample opportunity to double major in other areas of interest (for example: elementary education)
- Requirements beyond the 5 class geography core are very flexible
- The BA has a foreign language requirement that the BS does not

PROGRAM REQUIREMENTS: [Click here!](#)

## Bachelor of Science Geography (Environmental Sustainability Concentration)

Sustainability is at the core of the Geography and Sustainability department and this program exposes students to all aspects of this extremely important issue.

- This program requires more credits (42) than others
- Requirements beyond the 5 class geography core include
  - 4 Core Concentration courses (*for example: Food, Drink & the Environment*)
  - 2 Planning courses (*for example: Land Use Planning and Analysis*)
  - 1 Techniques courses (*for example: Introduction to GIS*)
  - 2 Perspective courses (*for example: Environmental Justice*)
- Internships are often available and encouraged
- [Articulation Agreement with North Shore Community College Environmental Studies program](#)
- PROGRAM REQUIREMENTS: [Click here!](#)

"SSU Geography Department delivers equal opportunity to all their students. I was given the chance to participate in the American Association of Geographers conference in New Orleans of 2018. As an undergraduate, the professors were excellent in teaching new geographic computer technology. This contributed to my successful experience at my internship as a G.I.S concentration major. My time here, I found a new love for the global environment, National Parks, and met new people along the way."

**Brendan Lewis, Class of 2018**



## Bachelor of Science Geography (Sustainable Tourism Concentration)

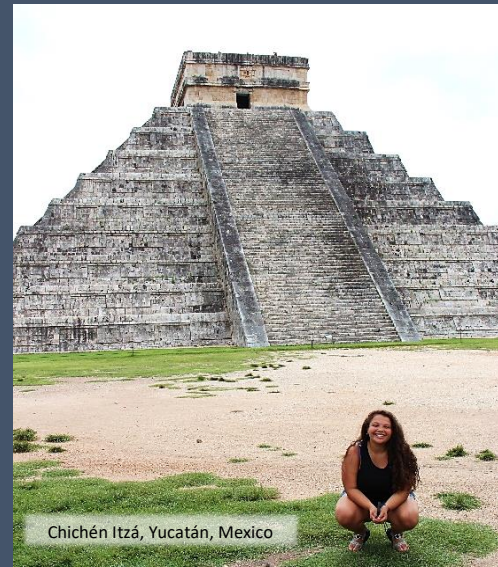
This program's focus was recently revised from the travel and tourism industry in general to sustainable tourism to reflect the department's overall focus on sustainability.

- This program requires less credits (33) than others, giving students ample opportunity to double major in other areas of interest (*for example: elementary education*)
- Requirements beyond the 5 class geography core include:
  - 4 Core Concentration courses (*for example: Environmental Sustainability and Society*)
  - 2 Required Geography Elective courses (*for example: Parks and Protected Areas*)
- Internships are often available and encouraged

I can't thank this Department, and specifically the professors, enough for everything they did for me as a student. Not only did the department accept college credits

I took in high school (*which allowed me to start as a junior even though it was my freshman year*). I was then allowed the opportunity to complete a senior level internship, flexible enough class times to work 30+ hours a week & then to top it off recommend me for a full semester scholarship abroad which I won. Not to mention my professors all taking time from their very busy days to give me career advice and suggestions, the graduate school recommendation letters and then nominating for a Geography Department Award.

**Angelina Dimauro, Class of 2020**



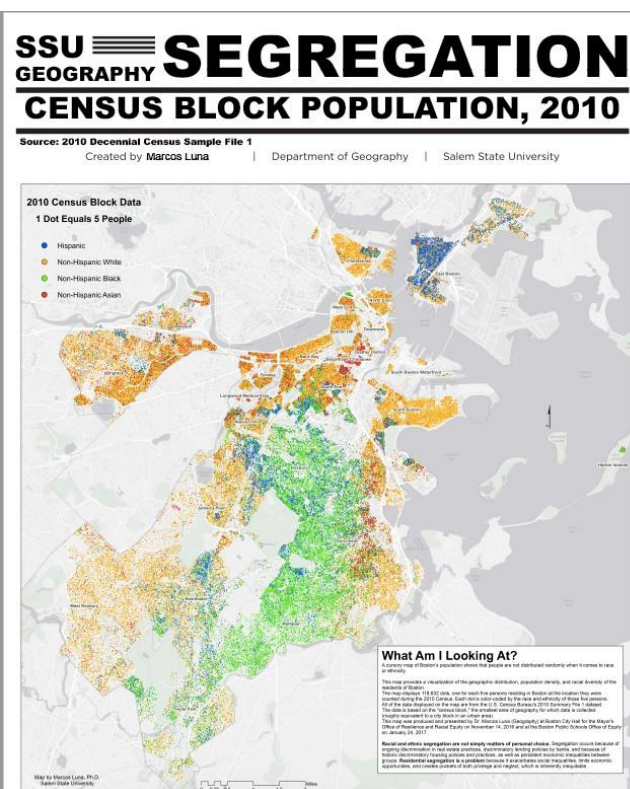
PROGRAM REQUIREMENTS: [Click here!](#)

## Bachelor of Cartography and GIS

This is a technology-focused program designed to provide students with the theoretical, practical and technical skills essential for the visualization and analysis of spatial data in a wide variety of applications

- This program requires a medium number of credits (36-39)
- Requirements beyond the 5 class geography core include:
  - 3 Core Concentration courses (*for example: Cartography*)
  - 2-3 Techniques elective courses (*for example: Drones and Aerial Imagery*)
  - 2 Upper Level Geography elective courses
- Internships are often available and encouraged
- Option to enter BS/MS program is available to students in their junior year of study.

PROGRAM REQUIREMENTS: [Click here!](#)



## Geography Minors

Geography minors are available in the following areas (link):



- Geography
- Environmental Sustainability
- Sustainable Tourism
- Travel and Tourism
- Geo-Information Science

All of the minors require taking 15 credits in their various areas of study.

All have 2-4 required classes with 1-3 elective classes.

## Certificate in GIS

This certificate program is primarily for students interested in having a GIS skillset to accompany their major. While similar to a minor, for many careers, certifications are highly valued. This certificate is especially appropriate for Geography and Sustainability students not in the Cartography and GIS program. However, in many other professions, GIS skills are seen as very beneficial.

- This is a **15 credit** certificate that adds a technical certificate to any student's portfolio
- For non-GIS Geography students, this certificate allows them to show proficiency in this area of study
- This certificate is also available to non-matriculated students interested in advancing their skill set

When I began to piece together what I wanted out of a career two things came to mind; I wanted the chance to and explore, and I wanted my work to benefit the world as a whole. After being exposed to GIS it became clear to me how important spatial analysis is in subjects such as social justice, environmental conservation, or even business. The supportive and welcoming environment created by the professors in the geography department fostered a positive learning culture where I developed the skills I use today. My career now involves using GIS to help planners make decisions that improve public transit and reduce the carbon footprint in Massachusetts.

**Mark Piandes,**  
**Class of 2018**



**PROGRAM REQUIREMENTS:** [Click here!](#)

## Class Rotation

Below please find a tentative schedule for the offerings of all Geography and Sustainability Core, Required and Elective courses found on the different flowsheets. Please note:

- These are not all of the Geography and Sustainability offerings as the department also offers numerous General Education courses and special topics courses
- Every attempt is made to follow this schedule, but numerous factors can influence this

### CORE Courses

COURSE #	COURSE TITLE	INSTRUCTOR	WHEN OFFERED
GPH 105	Introduction to Geography	Emlinger/Healy/Krebs	every semester
GPH 110	World Regions	Silvern/Young	every semester
GPH 115	Global Climate Change	Hayes/Healy/Young	every semester
GPH 140	Maps and Geographical information Systems	Cacchiotti/Hamilton/Luna/Ratner	every semester
GPH 301	Introduction to Quantitative Geography	Luna/Ratner/Young	every semester
GPH 302	Geographic Research	Healy/Krebs/Silvern	every semester

### ENVIRONMENTAL SUSTAINABILITY Courses

COURSE #	COURSE TITLE	INSTRUCTOR	WHEN OFFERED
GPH 171	Environmental Sustainability and Society	Silvern	every Spring semester
GPH 252	Native American Lands and Environments	Silvern	Spring 22
GPH 282P	Global Environmental Issues	Hayes/Matchak/Young	every Fall semester
GPH 315	Economic Geography	Krebs	every Fall semester
GPH 366	Energy and the Environment	Healy/Luna	every Spring semester
GPH 373	Land Use Planning and Analysis	Emlinger/Ratner	every Spring semester
GPH 375	Food, Drink and the Environment	Silvern	every Fall semester
GPH 376P	Conservation of Natural Resources	Hayes/Ratner	every Fall semester
GPH 377	Environmental Impact Assessment	Hayes	every Spring semester
GPH 379	Environmental Justice	Luna	Fall 21

### CARTOGRAPHY and GIS Courses

COURSE #	COURSE TITLE	INSTRUCTOR	WHEN OFFERED
GPH 245	Cartography	Ratner	every Fall semester
GPH 340	Introduction to GIS	Luna/Ratner/Young	every semester
GPH 343	Drones and Aerial Imagery Applications	Young	every Fall semester
GPH 344	Remote Sensing	Young/Waddington	every Fall semester
GPH 346	GIS and Business	Krebs	Spring 22
GPH 348	Crime Mapping	Robinson (CJ Dept)	every Spring semester
GPH 444	Digital image Processing	Young/Waddington	every Spring semester

## SUSTAINABLE TOURISM

COURSE #	COURSE TITLE	INSTRUCTOR	WHEN OFFERED
GPH 171	Environmental Sustainability and Society	Silvern	every Spring semester
GPH 246	Parks and Protected Areas	Healy	every Summer semester
GPH 247	Exploring Tourist Destinations	Krebs/Matchak	every Spring semester
GPH 248	Ecotourism	Krebs	every Fall semester
GPH 261	introduction to Tourism	Bloom (SMS Dept)	every Fall semester
GPH 264	Recreation Geography	Bloom (SMS Dept)	every Fall semester
GPH 315	Economic Geography	Krebs	every Fall semester
GPH 317	Transportation Geography	Ratner	every Spring semester
GPH 364	Special Events	Krebs	every Summer semester
GPH 365	Tourism Development	Healy/Krebs/Matchak	TBD
GPH 402	Study-Travel Seminar	Healy/Luna/Ratner/Young	Spring and Summer semesters

## Transfer Students

Changing schools doesn't have to mean starting over. In the Geography and Sustainability Department we embrace students graduating from community college, changing four-year institutions, or looking for a fresh start. Here we are ready to make your transfer as seamless as possible.

If you are coming from a Massachusetts Community College, you may be eligible for MassTransfer Block, that allows you to enter Salem State with your general education requirements completed.

In addition, if you come from the North Shore Community College Environmental Studies program, an articulation agreement is in place between the schools automatically giving you up to 15 credits towards the SSU Environmental Sustainability concentration.

Transferring to Geography was the best choice I made in my academic career. I came to the Geography department after having to take a medical break from school, and the professors, as well as fellow students, helped me rebuild my confidence as a individual. I feel so supported and encouraged by my professors because they sincerely care for their students' success and well-being in and outside of the classroom. At Salem State, the Geography professors encourage students to explore and find what they are passionate about. They also help create a cohesive atmosphere where it is easy to make friends - late night pizza study parties with my new 'geography friends' definitely helped me ace final projects!



**Shoshana Heerter,**  
**Class of 2021**

Please check [our website](#) for information about requirements and how to apply.

## 05. Student Involvement

The Geography and Sustainability Department aims to bring all students into a close, harmonious relationship with each other and with the wider community. We offer a variety of resources, opportunities and activities for our students, both inside and outside of the classroom. Broaden your horizons, gain new skills, make new connections – see what sparks your interest and get involved today!

### Geographical Society Student Club

This is the department's student club, however membership is open to all students of Salem State University. The purpose of the geographical society is to bring the people of the world together in an effort to share and learn from each other about different beliefs, views, and cultures. We do this through the exploration of the many cultural and regional aspects within our reach.

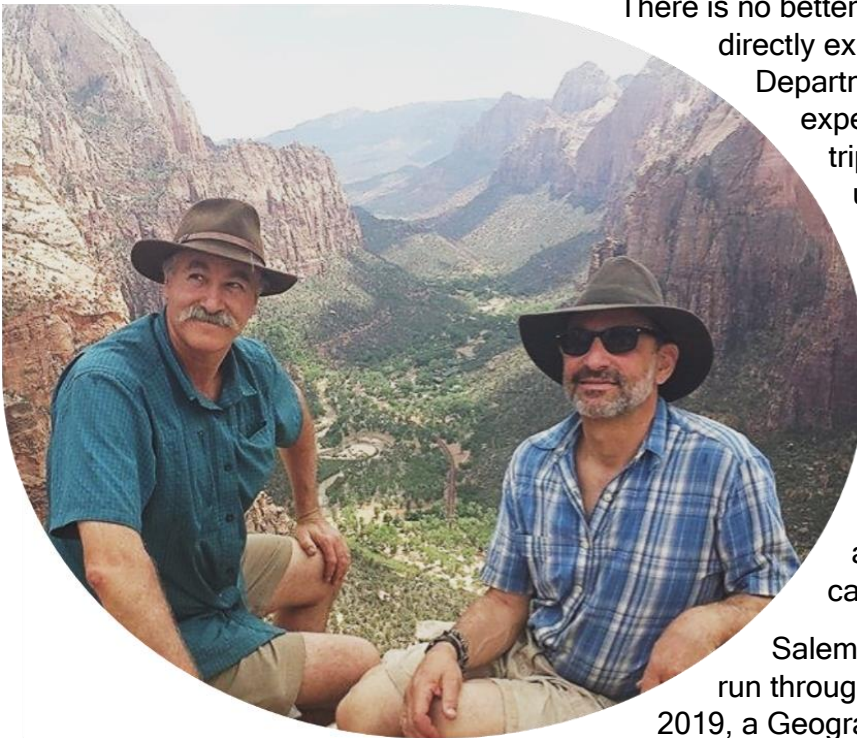
The geographical society is host to a variety of events both informative and entertaining. Events range from physical activities such as rock climbing to educational events like the NESTVAL conference. The society aims to connect with nearby professionals and employers to inform members of the many opportunities available to geographers. Past career-oriented events have included trips to the ESRI offices in Danvers and trips to a local meteorology station.

### We welcome you to join us!

For more information about the Geographical and Sustainability Society, please contact [Prof. Hayes](#), [Prof. Silvern](#), or [Prof. Healy](#).



## Experiential Education



There is no better way to learn about the geography of the world than directly experiencing it and the Geography and Sustainability Department excels at providing field-oriented, hands-on experiences. These experiences range from class field trips such as spending a day experiencing the Boston urban fabric through riding MBTA trains to spending a week or two traveling throughout Europe, the Caribbean or the United States.

All of the Caribbean trips have run over Spring Break as part of an entire course studying the destination. Most of the European trips have run during the summer and though options for course credit have been available, it is not required. The recent U.S. trips have also run in the summer, but are classes like the Caribbean trips, and feature camping in state and national parks.

Salem State also has a very active Study Abroad program run through the Center for International Education ([link](#)). In fall 2019, a Geography and Sustainability student studied abroad in

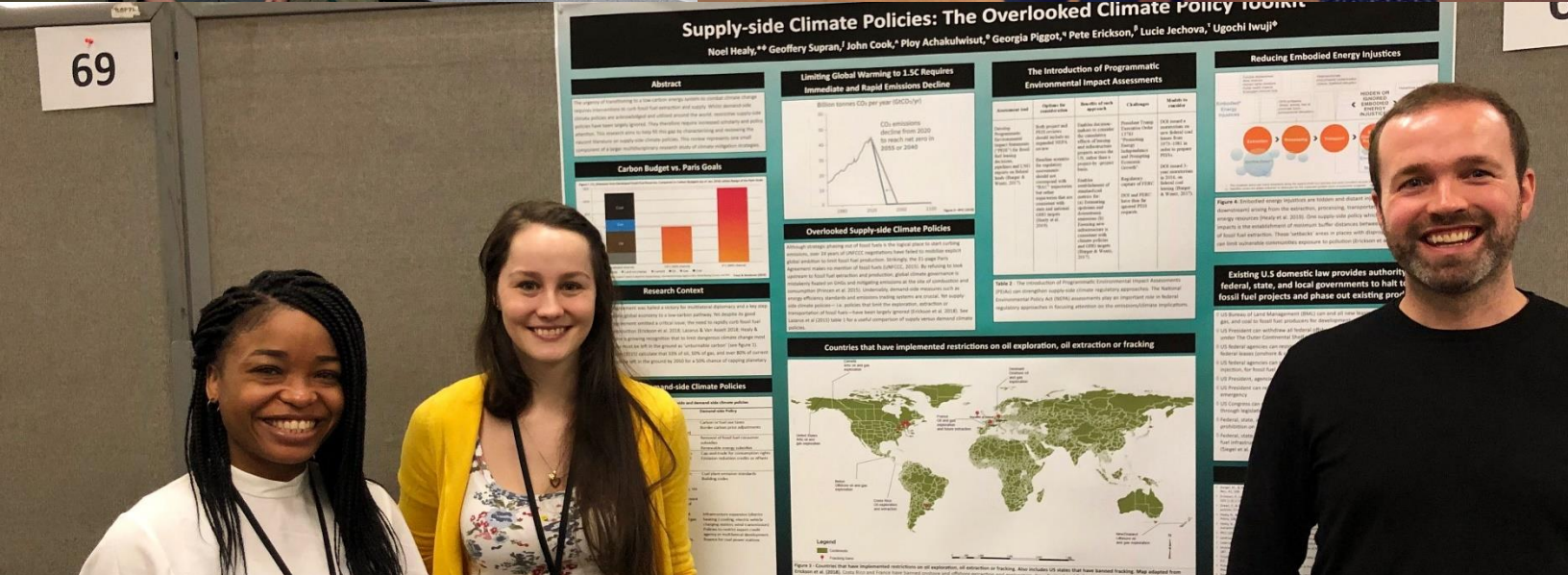
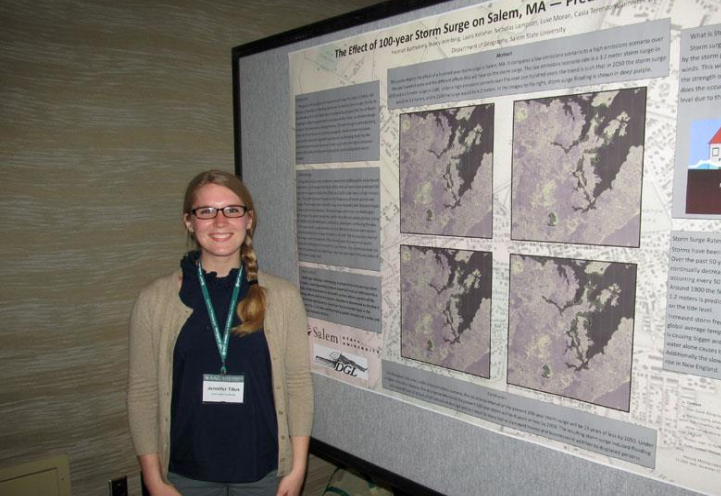
Costa Rica and Mexico for a STEM+Society trip through the CIE with all the costs covered through a grant.

For more information, contact the chairperson [Professor Keith Ratner](#).



## Present at a Professional Conference

The Geography and Sustainability Department feels involving students in professional meetings and conferences can be a very important piece of their academic journey. Meetings may be on campus or within the local community. Conferences range in topics and scale from a daylong regional climate change resiliency meeting to the five day annual meeting of the American Association of Geographers. Most times, if a student is presenting or participating in the conference, funding to alleviate some or all of the costs are available.



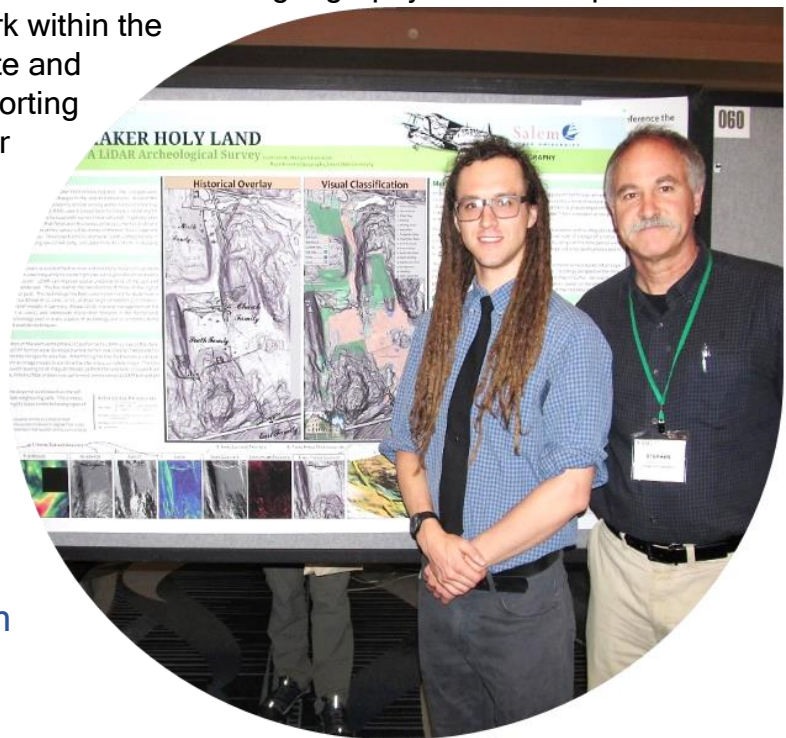
## Digital Geography Lab (DGL)



The Digital Geography Lab (DGL) is regarded as one of the best academic geography-based computer labs in the country. This unique facility enables teamwork within the department and is a focal point for faculty, undergraduate and graduate research and is dedicated to serving and supporting students. The DGL offers an amazing opportunity for our students to work as a Lab Assistants.

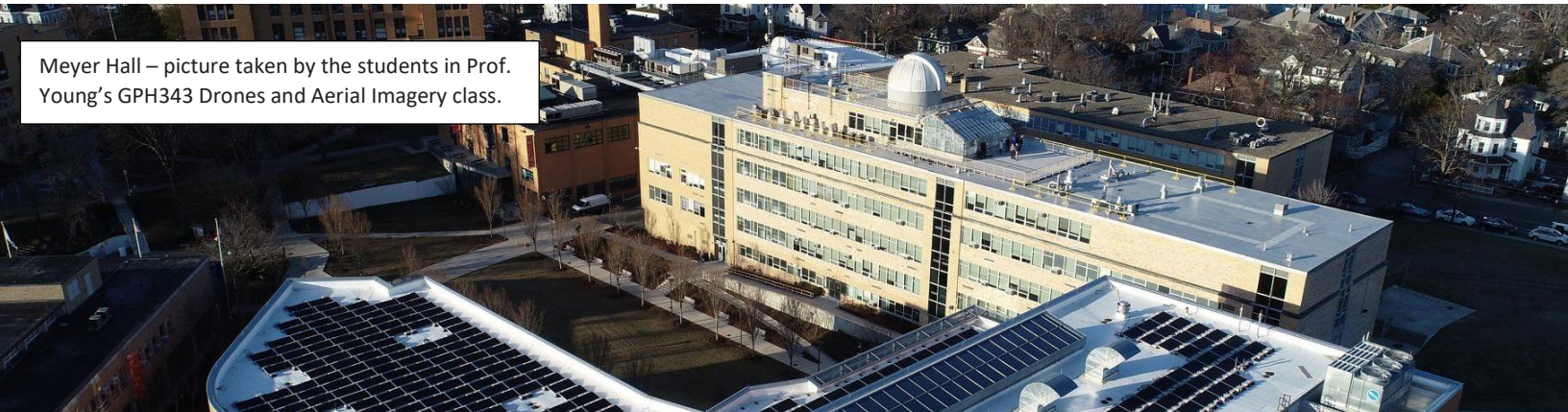
Students in the DGL conduct research and work on projects such as:

- Climate change and beach erosion
- Geographic crime patterns
- How hazardous materials tend to be located in low-income neighborhoods
- Emergency management procedures
- Demographic and transportation analysis
- How human activity has changed the earth



To learn more about the DGL, [click here!](#)

Meyer Hall – picture taken by the students in Prof. Young's GPH343 Drones and Aerial Imagery class.



## 06. Student Opportunities

### Gamma Theta Upsilon Honor Society (GTU)

Gamma Theta Upsilon (GTU), is an international honor society in geography. GTU activities support geography knowledge and awareness. Prospective members must have completed a minimum of three geography courses, have a B average in geography, must rank in the upper 35 percent of their class and shall have completed at least three semesters of college course work.

#### Goals of GTU

- ❖ To further professional interest in geography by affording a common organization for those interested in the field
- ❖ To strengthen student and professional training through academic experiences in addition to those of the classroom and laboratory
- ❖ To advance the status of geography as a cultural and practical discipline for study and investigation
- ❖ To encourage student research of high quality and to promote an outlet for publication
- ❖ To create and administer funds for furthering graduate study and/or research in the field of geography.

Membership is open to both undergraduate and graduate students. New GTU members at Salem State are inducted during the annual Geography Day Awards Ceremony in the spring. During this ceremony, outstanding students at the Geography and Sustainability Department are given scholarships and awards as a token of recognition.

### Annual Scholarships and Awards

#### Scholarships

- **Dr. John George Memorial Scholarship**
- **Ken Saro-Wiwa Climate Justice Scholarship**
- **SSU Social Justice Scholarship**

#### Awards

- **National Council for Geographic Education** for Outstanding Academic Achievement in Geography
- **James J. Centorino Memorial Award** for Superior Academic Achievement in Geography
- **J. Michael Ruane Award** for Excellence in Digital Cartography
- **Graduate Student Award** for Excellence in the Geo-Information Sciences
- **Dr. John George Memorial Award** for Scholarship and Service in Geography



## Finding an Internship

The Geography and Sustainability Department strongly encourages each student to have an internship. The internship provides employment related to his/her course of study and may be paid or unpaid. Many interns are offered full-time employment upon graduation from the place where they had their internship.

The best time to take an internship is during the summer between the junior and senior year or during the senior year. Faculty members in the department maintain ties with businesses, organizations and government agencies that provide internships and paid employment.

Start your search early (*preferably in the semester that precedes the internship*), as certain industries and internship programs have early deadlines.

- ❖ First, identify your career interests and goals. Then seek out prospective organizations for internship opportunities that relate to your career goals and interests.
- ❖ Contact employers about internship opportunities. Introduce yourself and sell your skills and explain how you can contribute to the organization's success.
- ❖ Check Career Services at Salem State.
- ❖ Search the internet for internship programs.
- ❖ Network with friends, alumni, faculty, etc.

Civic Engagement is an important component in the Geography and Sustainability Department as our students are often doing internships with cities, towns, environmental NGO's, among other engaging activities with the broader community.

An internship requires a faculty advisor in the Department - this responsibility is performed by many faculty members, who often advise students for internships in the domains of expertise and classes that they teach. Sustainability Council Internships are also available each semester. Information on this is found [here](#).



## Events and Activities

Students and professors from the Geography and Sustainability Department are very active in organizing and participating in academic and professional events. Some examples follow.



### Earth Days @ SSU

Earth Day is an annual event celebrated around the world on April 22 to demonstrate support for environmental protection. First celebrated in 1970, it now includes events coordinated globally. Since 2000, Salem State University has dedicated one week of events every year to celebrate Earth Day.

**Earth Days Student Poster Competition** - This is the only judged poster competition on campus. Any class at 200-level or higher is able to submit posters on the Earth Days Week theme. Approximately 100 research posters, submitted by SSU students in many disciplines, are judged

in the morning of the first day of the event. The Geography and Sustainability Department is involved in the organization of the event, and students from our department frequently win several awards in this competition.

To learn more about the Earth Days Week, please contact [Prof. Hayes](#), [Prof. Young](#), [Prof. Healy](#), [Prof. Silvern](#), or [Kym Pappathanasi](#).

The campus community from alumni to the board of trustees to the administration to faculty to students are strongly committed to sustainability. Program highlights include:

- ✓ 5 rooftop solar arrays
- ✓ 5 LEED certified buildings
- ✓ Divested from fossil fuels in 2018

## Multi-School Fossil Fuel Divestment Fund Releases \$57,000 to Salem State University

Salem State University – the only institution from the 30 participating schools in the Multi-School Fossil Free Divestment Fund (MSFFDF) to fully divest from fossil fuels – received all of the funds holdings on April 11th 2019. As no other participating school in the MSFFDF divested by the end of the December 2018 deadline, Salem State University was awarded with 30 schools' escrowed donations.

The fund was established in 2014 to collectively pressure universities to divest from fossil fuels. The MSFFDF allowed parents, alumni, faculty, staff, students, and others to leverage their donations to help participating universities do the



right thing. On May 24th 2018 Salem State University announced it had sold the universities' prior holdings in Carbon 200 (fossil fuel companies). This decision followed a five-year campaign by University students, faculty and alumni.

Geography and Sustainability Department Professor Noel Healy stated, "Now more than ever it's critical that universities take a moral stand against the obstructionism of the fossil fuel industry". Divestment, he added, is "a tactic, which can be employed by individuals, organizations, and institutions to hold fossil fuel companies responsible for nearly 40 years of climate deception and harm".



Ken Saro-Wiwa

To celebrate SSU's leadership in tackling climate change Salem State established two endowed annual student scholarships: (1) The Ken Saro-Wiwa Climate Justice Scholarship and (2) The SSU social justice scholarship. Student interested in applying for these scholarships must possess an interest in climate justice or social justice as demonstrated by past and present activism (on and off campus), volunteering, professional, and educational experiences. Winners are chosen on the basis of their commitment to climate and social justice.

### **Ken Saro-Wiwa Climate Justice Scholarship (\$500)**

The "climate justice" award is named after Nigerian activist Ken Saro-Wiwa. Ken Saro-Wiwa led a peaceful movement for the environmental and human rights of Nigeria's Ogoni people whose oil-rich land has been exploited by multinational oil companies. In 1990 Saro-Wiwa dedicate his time to organizing non-violent movement for social and ecological justice. Sadly the Nigerian government executed Saro-Wiwa in 1995. Ken Saro-Wiwa's life has provided a legacy of great inspiration for human rights and environmental activists around the world. Posthumously Ken Saro-Wiwa was awarded the Goldman Environmental Prize and the Right Livelihood

Award. Salem State University is privileged to dedicate this scholarship in his honor.

### **SSU Social Justice Scholarship (\$500)**

Applicants for the social justice award should demonstrate how they seek to improve the living and working conditions for less advantaged members of their community in concrete and sustainable ways. This may involve work through a NGO or less formally structured activity (e.g. activism). Examples include students tackling racial justice, immigrant rights, incarcerated people's rights and education etc.

To learn more about it, please contact [Prof. Noel Healy](#).



## Darwin Festival @ SSU



The Salem State University Darwin Festival was started in 1980. The week-long festival honors the extraordinary impact Darwin's work has had on so many areas of human endeavor. This unique lecture series brings scientists and their research to undergraduates and others in the university and wider community. Our department is also involved in the organization and frequently brings the keynote speaker for the event. In the picture you see Dr. Nathan Philips (center), Acting Director of the Sustainable Neighborhood Lab in the Earth and Environment Department at Boston University, after his talk in the Darwin Festival 2020.

To learn more about the Darwin Festival, please contact [Prof. John Hayes](#).

## New England-St. Lawrence Valley Geographical Society – NESTVAL

The New England-St. Lawrence Valley Geographical Society contributes to the advancement of geography by holding a fall annual conference, publishing a peer-review professional journal, *The Northeastern Geographer*, and recognizing and supporting geography professionals and students through awards and annual activities.

The New England-St. Lawrence Valley Geographical Society is a regional division of the American Association of Geographers.



**NESTVAL 2019 - Salem State Student Team won the NESTVAL Geography Bowl First Place.**

**NESTVAL 2020 - the Geography and Sustainability Department at Salem State University will host the very first virtual edition of NESTVAL, due to the global pandemic crisis caused by Covid-19. Professors John Hayes and Stephen Young are serving as the Local Program Committee!**

## "Pizza in Paradise"

'Pizza in Paradise' was a fundraiser ran by students who took "Special events" class with Professor Lorri Krebs. The students raised over \$1500 cash for our Salem State Food Pantry, raised awareness of food security on campus, in addition to providing free hot pizza and fun activities to over 200 students.



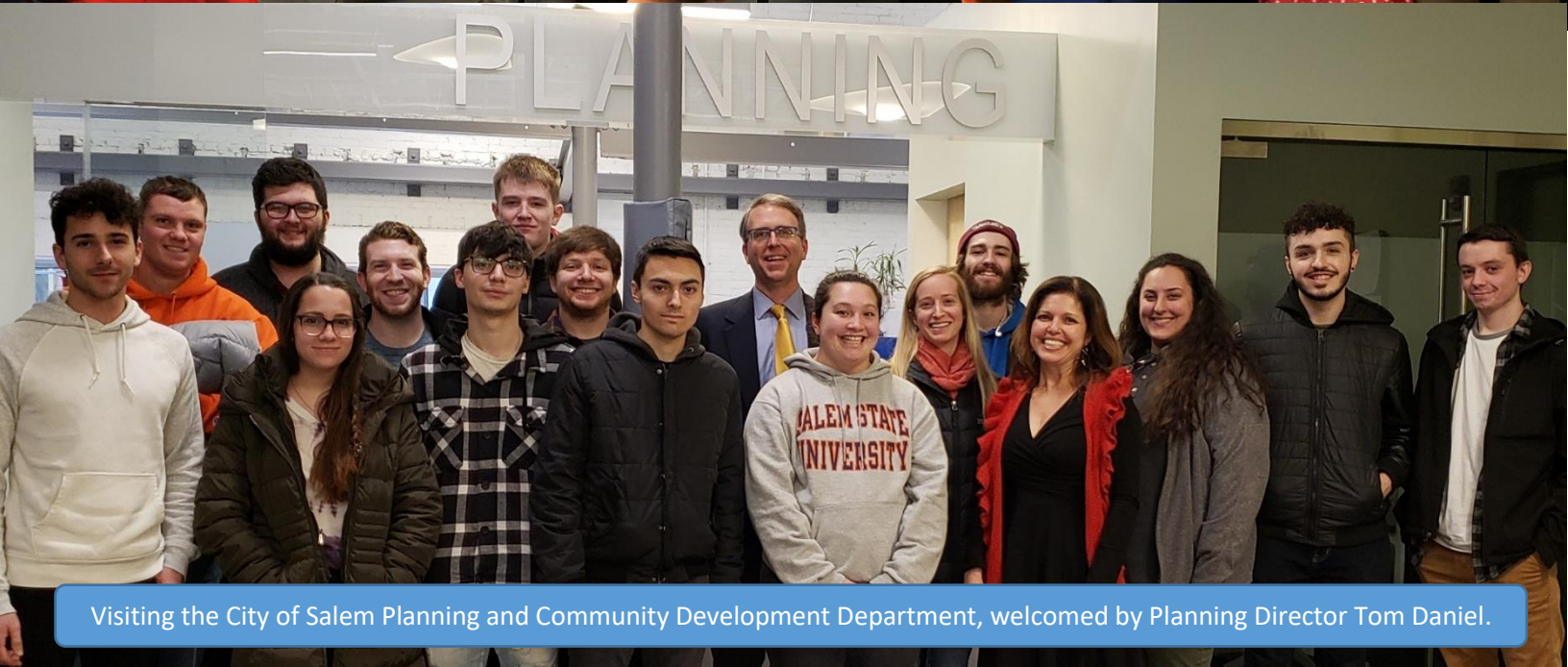
Guest Speakers and Visits



Campus tour with Tara Gallagher, Sustainability and EH&S Coordinator, Office of Campus Planning and Facilities Management, SSU.



Lecture with Bosco Pesse, Professor and researcher at the Army War Academy and Center for Strategic Studies (CEEAG), Chile.



Visiting the City of Salem Planning and Community Development Department, welcomed by Planning Director Tom Daniel.

**Fun while working!** In the Geography and Sustainability Department we are happy because we love what we do. We have fun while working! **Join us!**



# 07. Meet our Team



## Head of Department

### Keith Ratner

Professor



#### Professional Biography

Dr. Keith A. Ratner is a Professor of geography specializing in urban geography, urban and transportation planning, and GIS implementation and development. He joined the Department of Geography at Salem State College in 1999 upon completing his PhD in Geography at the University of Denver. Prior to entering the University of Denver, he obtained a Master of Regional Planning from Penn State University, and a Bachelors of Science in Natural Resource Development from Michigan State University. He worked for eleven years as a professional planner in New England at the local, regional and state levels of government. His research projects since arriving at Salem State have included an investigation into the regionalization of transportation planning north of Boston, the use of three dimensional data for the determination of road lengths for federal reporting requirements, the analysis of regional development changes related to transit oriented development in Denver, Colorado, and the success and failure of track sharing between passenger and freight railroads.

#### Favorite Hobbies

Riding Bicycles . Traveling . Being outside

**Contact:** [kratner@salemstate.edu](mailto:kratner@salemstate.edu)

## Director of Graduate Programs

### Stephen Young

Professor



#### Professional Biography

Professor Young is a former chair of the Geography and Sustainability Department at SSU where he uses remote sensing (satellite imaging) to analyze climate change and deforestation. He received his Ph.D. in geography from Clark University, a master's degree in environmental science from Yale University and a B.A. in environmental studies from the University of Vermont. His geographic areas of expertise include northeastern North America and China. He has published over 30 peer-reviewed scientific articles and books. His research has brought him to more than 60 countries. In addition to his academic research, he bridges the arts and sciences through art gallery exhibitions which try to expose the public to science and geography. His exhibition Macro or Micro? (with Salem State University Biology professor Paul Kelly) has been displayed at over a dozen galleries including the Museum of Science in Boston, MA, the Centre des congrès de Québec in Quebec City, Canada, and at the Sazmanab Institute of Contemporary Art in Tehran.

#### Favorite Hobbies

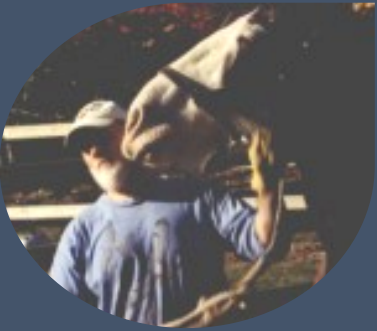
Riding Bicycles . Hiking . Traveling

**Contact:** [syoung@salemstate.edu](mailto:syoung@salemstate.edu)

## Academic Staff – Full-time Faculty

### William Hamilton

Professor



#### Professional Biography

Holds BA, MS, Ed.M and Ph.D degrees. Over 35 years teaching experience spanning elementary to post doctoral education. Held high level positions in and currently consults with Fortune 100 companies in GEOINT applications. While at SSC developed seventeen new courses, acquired funding and created the Digital Geography Laboratory, created the Masters in Geo-Information Science, and the Ph.D. in Geo-Information Science. Widely published in books, proceedings, journals, and software applications and has earned several awards for GEOINT curricula development and integration. Current research endeavors are time-space modeling and systems development for anti-terrorism bio and chemical warfare initiatives and applied spatial modeling in economic geography. Professional Interests: Spatial Mathematics, Quantitative Geography, Cartography, Applied Data Analysis, Geographic Information Science, Digital Image Processing (Hyperspectral, Lidar, Radar) and Close Range Photogrammetry

**Contact:** [william.hamilton@salemstate.edu](mailto:william.hamilton@salemstate.edu)

### John Hayes

Associate Professor



#### Professional Biography

Dr. John Hayes is a physical geographer who teaches courses in physical geography, natural resource management, meteorology, global climate change, global environmental issues, and EIA. He has also taught courses on soils and water resources management. He teaches and advises in the Department's M.S. program in geo-information science. He received his Ph.D. and M.A. in Geography from UCLA and his B.A. in Geography (with a math minor) from Bowling Green State University. His recent research includes: 1) an assessment of the role of soil carbon and soil management techniques to mitigate climate change; 2) a critical review of municipal climate action planning by selected cities and towns; 3) an analysis of the physical and human dimensions of the Hydro-Social Cycle; 4) a diagrammatic approach for the study of positive and negative feedbacks in the climate system; and 5) the role of carbon offsets in climate change policy. Prof. Hayes has served as Vice President and President of the New England-St. Lawrence Valley Geographical Society (NESTVAL), as Regional Councilor on the American Association of Geographers' governing AAG Council, and is now serving on the AAG's Climate Action Task Force. Prof. Hayes served with Prof. Steven Silvern as co-editor for the inaugural first and second years of NESTVAL's peer-reviewed annual journal, The Northeastern Geographer. Prof. Hayes is serving his 4th three-year term as a member of the city of Salem's former Renewable Energy Task Force and now Sustainability, Energy, and Resiliency Committee (SERC) which he now chairs. He was also appointed by the Mayor to serve on a Climate Change Vulnerability and Adaptation Working Group which produced its final report in December 2014 (available online at the city's SERC website). Lastly, Prof. Hayes is long time advisor to our department's student club, the Salem Geographical Society, and coach of the Department's World Geography Bowl team which competes at the annual meeting of NESTVAL.

#### Favorite Hobbies:

Gardening/yard work . following politics . being outside

**Contact:** [john.hayes@salemstate.edu](mailto:john.hayes@salemstate.edu)

### Lorri Krebs

Professor



#### Professional Biography

Lorri Krebs is a Professor in Geography and Sustainability at Salem State University, Massachusetts where she specializes in sustainability and tourism, economic development, community identity and data analysis. She hold a Masters Degree with an emphasis on ecosystem approaches, parks and protected areas as well as a Ph.D. with an emphasis on technology, tourism, marketing tools, and decision-making. She has extensive international employment experience across various fields in Switzerland, Mexico and Canada. Current research interests include sustainable local foods, climate change and sustainable development, quality of life, and ecotourism. Dr. Krebs is the appointed Executive Director of Salem State's Center for Economic Development and Sustainability (CEDS) where much of the grant-funded projects aid non-profit organizations, municipalities and regions in economic development initiatives, data gathering and analysis. As the appointed Executive Director of the Center for Economic Development & Sustainability (CEDS), I have become more involved in community service, and as a regional resource and grants interface between non-profits and academia.

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## Noel Healy

Associate Professor



### Professional Biography

Dr. Noel Healy's research, teaching, and activism focus on responses to the climate crisis and normative dimensions of rapid climate change mitigation. His core work revolves around climate change politics, global climate governance, energy transformations, supply-side climate policy, energy justice, and the link between academic knowledge, political activism, and policymaking. Dr. Healy's projects have secured over \$175,000 in research grants and have spanned Ireland, the US, China, Germany, and Latin America. Dr. Healy is a contributing author for the IPCC (2018-2022). He was also appointed to the editorial board of Energy Research and Social Sciences (2019-2021). In 2015 Dr. Healy acted as an observer to the 2015 UNFCCC talks in Bonn and at the UNFCCC COP21 Paris talks. Dr. Healy is also a Ludwig-Maximilian University (LMU) of Munich Rachel Carson Fellow. Dr. Healy founded the SSU Fossil Fuel Divestment campaign and the SSU Faculty For Divestment group. A four-year campaign led SSU to commit to divest from fossil fuels in 2016. Noel teaches classes such as "saving the world: social justice in an era of climate change" and "Global Climate Change". Any SSU students seeking research experience are welcome to join Noel's climate and energy justice research group. Noel has co-authored publications with SSU undergraduates. Noel is actively involved in climate activist groups (e.g. fossil fuel divestment and Green New Deal) and social justice groups (e.g. Witness For Peace, Colombia). He is the faculty advisor to "Sunrise Salem". Noel was awarded a SSU Civic Engagement Hall of Fame award in 2018.

### Favorite Hobbies:

Climate & social justice activism . Travel . Irish dancing

**Contact:** [nhealy@salemstate.edu](mailto:nhealy@salemstate.edu)

## Marcos Luna

Professor



### Professional Biography

I received my Ph.D. in Urban Affairs and Public Policy with a concentration in Technology, Environment and Society from the University of Delaware in 2007. I received my M.A. in Geography from California State University, Los Angeles in 2000. Before coming to Salem State University, I worked as an Environmental Analyst for the Massachusetts Department of Environmental Protection, and before that, as a GIS consultant for Native American tribes in the Southwest and Northwest. In addition, I have held research assistantships in grant-funded remote sensing and spatial analysis projects and have participated in various health and environmental public service projects in Massachusetts, Delaware and California.

Professional Interests: My areas of expertise and interest include GIS analysis, Environmental Justice, Energy, Environmental History, and Social Justice and Inequality. I am particularly interested in applications of geospatial technology to environmental sustainability and environmental justice challenges. I am also interested in histories of landscape, environmental change, and perception. I am currently working on a project to document and understand how seasonality was represented and understood in early America, and how those representations or perceptions did, and did not, correspond with local geographic realities. I teach undergraduate courses on Geographic Information Systems (GIS), map interpretation and cartography, Energy and the Environment, and Environmental Justice, as well as graduate courses on GIS and its applications to analysis and research. I serve on the University Graduate Education Council, the Earth Days Planning Committee (as webmaster), and I am the Geography Department's liaison for the Gamma Theta Upsilon (GTU) International Geographical Honor Society.

**Contact:** [mluna@salemstate.edu](mailto:mluna@salemstate.edu)

## Steven Silvern

Professor



### Professional Biography

B.A. Clark University; M.A. University of Illinois-Urbana; Ph.D. University of Wisconsin-Madison  
Professional Interests: I am a cultural-political geographer whose primary research interests have centered on Native American Geographies, Geography of Food Systems and the Geography of Israel and the Middle East. Much of my recent work has centered on mapping the food systems of Massachusetts CSA and a study on the geography and characteristics of Community Supported Fisheries. A second project I am working on is the study of the Jewish food movement. This project is unique in that it will focus on issues relating social justice, food justice and community identity to local and sustainable food systems. I am currently working on historical context, theoretical idea formation and some data collection for this project. I am also working on a paper examining the politics of place and photography in the Israel/Palestinian conflict and academic geography's representations of Israel/Palestine, Zionism, the BDS movement and Anti-Semitism.

**Contact:** [steven.silvern@salemstate.edu](mailto:steven.silvern@salemstate.edu)

## Academic Staff – Adjunct Faculty

**Aggeliki Barberopoulou**



### Professional Biography

Aggeliki Barberopoulou is a physical scientist with a background in mathematics but because of her attraction to seismology she decided to pursue her PhD in Geophysics from the University of Washington. She joined the Viterbi School of Engineering at the University of Southern California (USC) as a postdoctoral research associate and later as a Research Assistant Professor. This research position was her official starting point of work in tsunamis. In 2011 she accepted a position as permanent tsunami scientist across the Pacific at GNS Science, New Zealand. She has also held positions as a research scientist at the National Observatory in Athens and more recently at AIR in Boston. She has worked extensively with emergency management officials and has represented California as the numerical modeler of the Golden State at the National Tsunami Hazard Mitigation Program and the Tsunami Steering Committee of California. In New Zealand she also served in the Tsunami Experts Panel (TEP) that provides support and advice to the Ministry of Civil Defense and Emergency Management (MCDEM) during a tsunami. She currently serves as an editor and reviewer for many journals and has been teaching Geography and GIS classes at SSU since January of 2019.

**Contact:** abarberopoulou@salemstate.edu

**Jeffrey Blossom**



### Professional Biography

Mr. Jeffrey Blossom is a consultant and GIS Service Manager at the Center for Geographic Analysis (CGA), at Harvard University. Mr. Blossom has 25 years' experience working in the GIS industry as a consultant, technician, analyst, developer, and manager. Prior to joining the CGA, he was the GIS Photogrammetry Administrator for the City and County of Denver, and served as Chairman of Denver's GIS Steering Committee. One of Jeffs most interesting projects has been his work as the Chief cartographer for National Geographic The Out of Eden Walk project.

### Favorite Hobbies

Biking, skiing, Destination Imagination

**Contact:** jblossom@salemstate.edu

**Brian Cacchiotti**



### Professional Biography

Brian Cacchiotti is a graduate of our department, earning a degree in Cartography and GIS in 2001. He returned to Salem State in 2007 as an adjunct professor. He is a physical geographer, focusing on the physical processes that shape the world and society. His research focuses on wind power as a sustainable source for energy production in the US and world. Primarily, Brian can be found in the Weather and Climate lab or the DGL where he specializes in teaching W&C Lab and Maps and GIS. Since 2005, Brian along with his wife, Framingham State University Professor Judith Otto, have led student trips to Europe for Spring Break and summer travel course for Massachusetts k-12 teachers. Exploring the world is the very best way to discover greater knowledge of the world and a deeper depth of human understanding. Their motto, Bringing the world to you, means the world to us! Brian is co-founder of Geography Trips, a student-centered travel enterprise. He is a member of the American Association of Geographers and NESTVAL.

### Favorite Hobbies

Irish music (tenor) . travel . cooking . zymurgy.

**Contact:** bcacchiotti@salemstate.edu

**Carolyn Damato**



### Professional Biography

MS Geography and Regional Planning, Indiana University of Pennsylvania  
Prof. Damato teaches a variety of introductory level courses in the Salem State Geography and Sustainability Department, including Weather and Climate Lecture and Lab, Introduction to Geography, World Regions, and World Cities.

Personal Interests: Coral reef preservation

### Favorite Hobbies

SCUBA diving . sewing . photography . geocaching

**Contact:** carolyn.damato@salemstate.edu

## Ana Emlinger



### Professional Biography

Professor Ana Emlinger has worked at public and private universities in Brazil and United States. Her ability to develop constructive working relationships and passion for teaching (with focus on learning) granted her several Excellence College Teaching awards and students' evaluations consistently near the top of the range. In addition to teaching, Emlinger's professional practice in the field of architecture and urban planning in Brazil focused on housing for low income population, historic preservation and downtown revitalization. She has served as the Director of Historic Patrimony in the Municipal Institute of City Planning - PLANURB, in Campo Grande, Brazil, a city of almost 800.000 inhabitants. Her current interests involve planning for climate change in coastal communities, Latinx issues and Instructional Design. Prof. Emlinger holds a PhD in Regional Planning from the University of Massachusetts Amherst, a Masters in Environmental Urban Studies from the University of Sao Paulo and a BA in Architecture and Urbanism from Londrina State University, Brazil. In 2018 she received the Certificate in Effective College Instruction, ACUE Association of College and University Educators, endorsed by the American Council on Education.

### Favorite Hobbies

Dancing . Cooking . Studying Philosophy of Education and also Spiritism

**Contact:** [aemlinger@salemstate.edu](mailto:aemlinger@salemstate.edu)

## Sheila Gibbons



### Professional Biography

Sheila J. Arenstam Gibbons earned a BA as a double major in Geography and History from Assumption College in Worcester, MA and an MA in Geography from the University of Maryland College Park, MD where she explored the relationship between sea-level rise and island community abandonment. Prior to a career in higher education, Prof. Gibbons was a Physical Scientist with the Strategic Environmental Assessments Division of NOAA in Silver Spring, Maryland and a Senior Program Developer in Education at the New England Aquarium in Boston. Her current areas of interest include behavioral geography, environmental perception, geography education, and helping students understand the role of human/environmental interaction regarding climate change. She teaches Introduction to Geography, Geography of the U.S, Geography of Africa, Weather and Climate, Cultural Geography, Environmental Geography, Human Geography, and Physical Geography.

**Contact:** [sheila.gibbons@salemstate.edu](mailto:sheila.gibbons@salemstate.edu)

## Anthony LaVerde



### Professional Biography

Anthony (Tony) LaVerde is a visiting instructor in the MS Geo-Information Science program, teaching Spatial Database Design and GIS Software Development using Python. He has over 15 years of experience building and managing Geographic Information Systems, large spatial data infrastructure networks, designing spatial databases, and developing geo-processing tools and applications. He is currently the GIS Manager for the Town of Wilmington, Massachusetts. In this capacity, he is responsible for developing, maintaining, and managing the spatial data that is relied on, both in the office and in the field by vital community service providers such as the Wilmington Department of Public Works and Wilmington Fire Department. This includes building and managing GIS datasets for the drainage, water, and sewer utility networks for the entire community. Tony is a graduate of both the MS Geo-Information Science (2018) and the BS Cartography & Geographic Information Systems (2004) programs at Salem State University. He is also a FAA Part 107 licensed UAV (drone) pilot, and has a GISP certification from GISCI.

### Favorite Hobbies:

Flying his drone, spending quality time with his wife, dog and cats, and playing hockey.

**Contact:** [alaverde@salemstate.edu](mailto:alaverde@salemstate.edu)

## Jacob Silverio



### Professional Biography

Jacob Silverio is a Visiting Lecturer at Salem State University, Massachusetts. He graduated from Lyndon State College, Vermont with a B.S. in Meteorology. He received his M.S. in Environmental Studies with a Concentration in Atmospheric Science from the University of Massachusetts at Lowell. Professional Interests: New England weather, particularly heat waves and winter precipitation; Severe weather, including recent tornado outbreaks; Climate Change and Sustainability; Weather

### Favorite Hobbies

Running . Hiking . Biking

**Contact:** [jacob.silverio@salemstate.edu](mailto:jacob.silverio@salemstate.edu)

## Richard O’Gara



### Professional Biography

Richard O’Gara has a B.A. in Geography from Boston University with a concentration in Energy and Environment, Analysis and Policy. He earned his Masters in GIS from Salem State University. Mr. O’Gara has more than 30 years experience developing, analyzing, and visualizing large infrastructure and environmental geographic data sets for the public and private sectors. He enjoys working with geospatial data models, asset management, and sustainability. He provides technical services and guidance on a wide variety of topics ranging from forensics to cloud-based field inspections.

Mr. O’Gara is currently teaching GIS and research methods classes at Salem State University, and working for PEER Consultants, where he is working on projects involving storm water modeling, GPS data conflation, photovoltaic power plant siting, and light rail expansion projects.

### Favorite Hobbies

Mr. O’Gara is an avid cyclist, photographer, and traveler.

**Contact:** [rogaragis@gmail.com](mailto:rogaragis@gmail.com)

## Jeffrey Pearlman



### Professional Biography

Jeff Pearlman is an adjunct professor at Salem State University. As a regional geographer, he specializes in teaching courses such as Introduction to Geography, New England Geography, European Geography, The Geography of Canada, as well as the Geography of the United States. Mr. Pearlman taught public school in Revere, MA. for 36 years and retired in 2005. He is committed to sharing his expertise with students as well as making them more informed about their geography, history and world affairs.

Since 1985, Pearlman has also taught history courses as an adjunct professor at Bunker Hill Community College in Charlestown, MA.

**Professional Interests:** Jeff Pearlman is an active member in the Revere Society for Cultural and Historical Preservation. He often writes and lectures on local history and is concerned about saving historical buildings for future generations. He is also a member of the Colonial Society of Massachusetts and often attends lectures at the Massachusetts Historical Society.

**Contact:** [jeffrey.pearlman@salemstate.edu](mailto:jeffrey.pearlman@salemstate.edu)

## George Waddington



### Professional Biography

Mr. Waddington has 32 years of experience in the commercial application of geospatial technology to address the needs of agricultural monitoring, forest inventory, environmental remediation, water quality analysis, and national defense.

Before moving into the classroom at SSU, Mr. Waddington was responsible for maintenance, QA/QC testing, and management of the airborne sensor systems deployed for agricultural monitoring around the world by Aeroptic/GeoVantage. Other roles in his career include: Senior Quality Assurance Engineer at Applied Analysis Inc., where he managed the quality assurance for all image processing software & imagery-derived map products; Product Manager/Engineer at Emerge, Inc., where his focus was on the technical development of the image production system to ensure consistent agricultural monitoring product quality; Senior MTS at TASC, Inc., where he oversaw the image data processing & product generation activities for the precision agriculture program; Senior Remote Sensing Scientist at CROPIX, Inc., where he was responsible for all image processing & GIS activities for generating crop acreage & condition reports.

Mr. Waddington completed an M.S. degree in Environmental Engineering at SUNY College of Environmental Science and Forestry, where he studied the utilization of satellite imagery for watershed mapping.

**Favorite Hobbies:** Being outdoors . Traveling domestically and internationally . Watching lots of football from around the world (avid Leeds United supporter since 1971)

**Contact:** [gwaddington@salemstate.edu](mailto:gwaddington@salemstate.edu)

## Academic Staff – Emeritus

### Stephen Matchak

Professor Emeritus



#### Professional Biography

B.A., University of Hartford in Philosophy, M.A., University of Wales, Aberystwyth in Welsh, M.A., University of North Carolina in Folklore, Ph.D., University of North Carolina in Geography. I have been employed at Salem State since 1986. From 1982 to 1986, I worked for the Massachusetts Data Center at the University of Massachusetts in Amherst, MA. Starting as an assistant professor, I have risen to the rank of professor.

**Professional Interests:** I have developed several professional interests that I have kept alive over the years. The longest standing interests have been in folklore and the cultural landscape. Folkloric interests pre-date my career as a geographer and, these days, center on New England. I am interested in studying the folkloric contribution of the pre-industrial culture to today's landscape as well as the ethnic and cultural diversity of the region. Reading the cultural landscape is another long standing interest that originally drew me into geography as a discipline. I find that the richness of the cultural landscape fascinating.

Over the years, I have developed professional and research interests in global regional geography, American geography and New England geography. My approach has had a strong historical bent. I have taught a number of human geography courses. Within the last five to six years, I have developed an interest in tourism and tourism studies.

Finally, I am interested in experiential education through study/travel seminars. I have been a group leader on over forty international and a handful of domestic trips. The domestic trips have focused on the American Southwest and all the international trips have been to either Canada or Europe. Many of these seminars have been run with a colleague from the History Department, and they are themed on broad an important topics such as World War I and World War II.

**Contact:** [stephen.matchak@salemstate.edu](mailto:stephen.matchak@salemstate.edu)

## Technical/ Operations Staff

### Robin Champa

Administrative Assistant



#### Professional Biography

Robin Champa attended North Shore Community College and has 2 Associates Degrees in General Studies and Office Technology. She has been with Salem State University for over ten years. In addition to dedicating herself to the Geography and Sustainability Department, Robin is also an office assistant in the Geological Sciences Department. Before joining our department, Robin was devoted to the Nursing Department, running the testing for the students while also proctoring their exams.

#### Favorite Hobbies

She loves the outdoors

**Contact:** [rchampa@salemstate.edu](mailto:rchampa@salemstate.edu)

### Kym Pappathanasi

DGL Systems Manager



#### Professional Biography

Kym Pappathanasi received her degree in Geography and Cartography at the University of Vermont. After completing her Graduate Certificate in the Cartographic Sciences at Salem State the following summer, she became a Cartography Instructor at Salem State. The following year she accepted the Systems Manager position, and for the last 28 years she has been supervising and managing the Digital Geography Lab at Salem State University.

#### Favorite Hobbies

Traveling and golf

**Contact:** [kym@salemstate.edu](mailto:kym@salemstate.edu)

# 08. 2020-21 Course Offerings

## Fall 2020

Subj	Catlg Nbr	Course Title	Meeting Pattern	Meeting Start Time	Meeting End Time	Instructor	*Instruction Mode
GPH	261	INTRO TO TOURISM	M	9:25AM	10:40AM	Bloom, Katharine C	Hybrid - Blended Instruction
GPH	264	RECREATION GEOGRAPHY	W	12:15PM	1:30PM	Bloom, Katharine C	Hybrid - Blended Instruction
GPH	140	INTRO TO MAPS & GIS	TR	10:50AM	12:05PM	Cacchiotti, Brian M	In Person
GPH	140	INTRO TO MAPS & GIS	TR	1:40PM	2:55PM	Cacchiotti, Brian M	In Person
GPH	105	INTRODUCTION TO GEOGRAPHY	Online			Emlinger, Ana M	World Wide Web
GPH	100P	WEATHER & CLIMATE	Online			Hamilton, William L	World Wide Web
GPH	100P	WEATHER & CLIMATE	WF	8:00AM	9:15AM	Hamilton, William L	In Person
GPH	285P	OCEANOGRAPHY	WF	9:25AM	10:40AM	Hamilton, William L	In Person
GPH	100P	WEATHER & CLIMATE	WF	1:40PM	2:55PM	Hayes, John T	In Person
GPH	100P	WEATHER & CLIMATE	TR	1:40PM	2:55PM	Hayes, John T	In Person
GPH	115	GLOBAL CLIMATE CHANGE	TR	10:50AM	12:05PM	Hayes, John T	In Person
FYGE	100	FIRST YEAR SEMINAR (GEOG)	M	8:00AM	10:40AM	Healy, Noel	In Person
FYGE	100	FIRST YEAR SEMINAR (GEOG)	M	1:10PM	3:50PM	Healy, Noel	In Person
GPH	105	INTRODUCTION TO GEOGRAPHY	WF	12:15PM	1:30PM	Healy, Noel	In Person
GPH	115	GLOBAL CLIMATE CHANGE	WF	10:50AM	12:05PM	Healy, Noel	In Person
GPH	105	INTRODUCTION TO GEOGRAPHY	TR	12:15PM	1:30PM	Krebs, Lorri K	In Person
GPH	229	GEOG-CARIBBEAN & MDL AMERICA	Online			Krebs, Lorri K	World Wide Web
GPH	248	ECOTOURISM	R	9:25AM	10:40AM	Krebs, Lorri K	Hybrid - Blended Instruction
GPH	315	ECONOMIC GEOGRAPHY	T	9:25AM	10:40AM	Krebs, Lorri K	Hybrid - Blended Instruction
GPH	282P	GLOBAL ENVIRONMENTAL ISSUES	TR	12:15PM	1:30PM	Matchak, Stephen	In Person
GPH	105 H	FOUNDATIONS OF GLOBAL STUDIES	TR	9:25AM	10:40AM	Pearlman, Jeffrey M	In Person
GPH	245	CARTOGRAPHY	WF	12:15PM	1:30PM	Ratner, Keith A	In Person
GPH	301	INTRO TO QUANTITATIVE GEOG	WF	9:25AM	10:40AM	Ratner, Keith A	In Person
GPH	110	WORLD REGIONS	Online			Silvern, Steven	World Wide Web

<b>GPH</b>	237	GEOG. OF THE MIDDLE EAST	TR	10:50AM	12:05PM	Silvern, Steven	In Person
<b>GPH</b>	302	GEOGRAPHIC RESEARCH	M	1:10PM	3:50PM	Silvern, Steven	In Person
<b>GPH</b>	375	FOOD, DRINK, AND THE ENVIRONMENT	TR	1:40PM	2:55PM	Silvern, Steven	In Person
<b>GPH</b>	115	GLOBAL CLIMATE CHANGE	WF	1:40PM	2:55PM	Young, Stephen S	In Person
<b>GPH</b>	115	GLOBAL CLIMATE CHANGE	TR	3:05PM	4:20PM	Young, Stephen S	In Person
<b>GPH</b>	340	GEOG INFO SYSTEMS	TR	12:15PM	1:30PM	Young, Stephen S	In Person
<b>GPH</b>	344	REMOTE SENSING	R	6:30PM	9:00PM	Young, Stephen S	In Person
<b>GPH</b>	909	INTERPRETATION/ANALYSIS OF REMOTE SENSING IMAGERY	R	6:30PM	9:00PM	Waddington, George	In Person
<b>Continuing Ed Courses (DGCE)</b>							
<b>GPH</b>	100P	WEATHER & CLIMATE	Online			Hamilton, William L	World Wide Web
<b>GPH</b>	110	WORLD REGIONS	Online			Emlinger, Ana M	World Wide Web

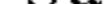
## Spring 2021

<b>Subj</b>	<b>Catlg Nbr</b>	<b>Course Title</b>	<b>Meeting Pattern</b>	<b>Meeting Start Time</b>	<b>Meeting End Time</b>	<b>Instructor</b>	<b>*Instruction Mode</b>
<b>GPH</b>	140	INTRO TO MAPS & GIS	TR	12:15PM	1:30PM	Cacchiotti, Brian M	In Person
<b>GPH</b>	105	INTRODUCTION TO GEOGRAPHY	Online			Damato, Carolyn E	Asynchronous Online
<b>GPH</b>	373	LAND USE PLANNING & ANALYSIS	R	1:10PM	3:50PM	Emlinger, Ana M	In Person
<b>GPH</b>	100P	WEATHER & CLIMATE	Online			Hamilton, William L	Asynchronous Online
<b>GPH</b>	100P	WEATHER & CLIMATE	WF	9:25AM	10:40AM	Hamilton, William L	In Person
<b>GPH</b>	140	INTRO TO MAPS & GIS	WF	12:15PM	1:30PM	Hamilton, William L	In Person
<b>GPH</b>	222	ENVIRONMENT & CULTURE OF THE U.S.	WF	10:50AM	12:05PM	Hamilton, William L	In Person
<b>GPH</b>	100P	WEATHER & CLIMATE	Online			Hayes, John T	Asynchronous Online
<b>GPH</b>	100P	WEATHER & CLIMATE	TR	12:15PM	1:30PM	Hayes, John T	In Person
<b>GPH</b>	115	GLOBAL CLIMATE CHANGE	WF	12:15PM	1:30PM	Hayes, John T	In Person
<b>GPH</b>	377	ENVIRONMENT IMPACT ASSESSMENT	WF	9:25AM	10:40AM	Hayes, John T	In Person
<b>GPH</b>	115	GLOBAL CLIMATE CHANGE	TR	1:40PM	2:55PM	Healy, Noel	In Person
<b>GPH</b>	115	GLOBAL CLIMATE CHANGE	TR	9:25AM	10:40AM	Healy, Noel	In Person

<b>GPH</b>	366	ENERGY AND THE ENVIRONMENT	M	9:25AM	11:55AM	Healy, Noel	In Person
<b>GPH</b>	221	GEOGRAPHY OF CANADA	T	10:50AM	12:05PM	Krebs, Lorri K	Hybrid - Blended Instruction
<b>GPH</b>	302	GEOGRAPHIC RESEARCH	TR	12:15PM	1:30AM	Krebs, Lorri K	In Person
<b>GPH</b>	364	SPECIAL EVENTS	Online			Krebs, Lorri K	Asynchronous Online
<b>GPH</b>	463	INTL PERSP IN TOURISM	R	10:50AM	12:05PM	Krebs, Lorri K	In Person
<b>GPH</b>	140	INTRO TO MAPS & GIS	WF	10:50AM	12:05PM	Matchak, Stephen	In Person
<b>GPH</b>	220	GEOGRAPHY OF NEW ENGLAND	TR	9:25AM	10:40AM	Pearlman, Jeffrey M	In Person
<b>GPH</b>	301	INTRO TO QUANTITATIVE GEOGRAPHY	WF	3:05PM	4:20PM	Ratner, Keith A	In Person
<b>GPH</b>	317	TRANSPORTATION GEOGRAPHY	WF	12:15PM	1:30PM	Ratner, Keith A	In Person
<b>GPH</b>	110	WORLD REGIONS	Online			Silvern, Steven	Asynchronous Online
<b>GPH</b>	171	ENVT SUSTAIN & SOCIETY	TR	1:40PM	2:55PM	Silvern, Steven	In Person
<b>GPH</b>	251	CULTURAL GEOGRAPHY	TR	10:50PM	12:05PM	Silvern, Steven	In Person
<b>GPH</b>	252	NATIVE AMER LANDS & ENVIRON	TR	9:25AM	10:40AM	Silvern, Steven	In Person
<b>GPH</b>	444	DIP-REMOTE SENSED DATA	R	6:30PM	9:00PM	Waddington, George	In Person
<b>GPH</b>	105	INTRODUCTION TO GEOGRAPHY	WF	10:50AM	12:05PM	Young, Stephen S	In Person
<b>GPH</b>	115	GLOBAL CLIMATE CHANGE	TR	10:50AM	12:05PM	Young, Stephen S	In Person
<b>GPH</b>	115H	CLIMATE CHANGE HONORS	WF	1:40PM	2:55PM	Young, Stephen S	In Person
<b>GPH</b>	340	GEOG INFO SYSTEMS	WF	9:25AM	10:40AM	Young, Stephen S	In Person
<b>Continuing Ed Courses (DGCE)</b>							
<b>GPH</b>	100P	WEATHER & CLIMATE	Online			Hamilton, William L	World Wide Web
<b>GPH</b>	105	INTRODUCTION TO GEOGRAPHY	Online			Healy, Noel	World Wide Web
<b>GPH</b>	110	WORLD REGIONS	Online			Silvern, Steven	World Wide Web

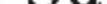
## 09. Academic Flowsheets

These flowsheets are meant to keep track of your progress throughout your time in the Geography and Sustainability Department. The department will keep a copy of this sheet on hand and it is recommended that you update it each semester. This is helpful for advising appointments so that your advisor can see which requirements you have completed and which requirements still remain.



Salem STATE UNIVERSITY

Date Admitted Into Major:



Salem | STATE  
UNIVERSITY

Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_  
Date Admitted Into Major: \_\_\_\_\_

**BACHELOR OF SCIENCE  
CARTOGRAPHY AND GIS**

## GENERAL EDUCATION REQUIREMENTS

### Competencies

<input type="checkbox"/>	• Basic College Math
<input type="checkbox"/>	• Reading Comprehension

•General Education Categories (34-35 credits total)

•FYS	First Year Seminar		3
•W-I	Written Communication - Level I		3
•OC	Oral Communication		3
•PGR	Personal Growth & Responsibility		3
CEA	Creative Expression & Appreciation		3
WC	World Cultures		3
HP	The Human Past		3
CS	Contemporary Society		3
SR	Scientific Reasoning:	# Any SR course	3-4
		# SR Lab course	4
QR	Quantitative Reasoning		3

‡ Written Communication (Level II and Level III) and Diversity, Power Dynamics and Social Justice

W-II	Written Communication - Level II			<input type="checkbox"/>
W-III	Written Communication - Level III			<input type="checkbox"/>
DPDS	Diversity, Power Dynamics and Social Justice			<input type="checkbox"/>

**Minor/Free Electives (46 credits minimum)**

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

[illegible]

**COURSES IN MAJOR (36-39 credits total)**

**Major Core Courses (15 credits)**

GPH	115	Global Climate Change OR	3	
GPH	115H	Honors Global Climate Change	3	
GPH	105	Introduction to Geography	3	
GPH	105H	OR Foundations of Global studies		
GPH	110	OR World Regions		
GPH	140	Intro to Maps & GIS	3	
GPH	301	Intro to Quantitative Geography	3	
GPH	302	Geographic Research	3	

**Major Concentration Courses (9 credits)**

GPH	245	Cartography	3
GPH	340	GIS	3
GPH	344	Remote Sensing	3

**Techniques Electives (6-9 credits)**

GPH	343	Drones and Aerial Imagery: Applications and Image Analysis	3	
GPH	346	GIS and Business	3	
GPH	347	GIS Applications	3	
GPH	442	Programming for GIS	3	
GPH	410	internship in Geography	3-6	
GPH	444	Digital Image Processing	3	
GPH OR CRJ	348 370	Crime Mapping	3	

**Geography Electives (6 credits)**

†GPH	Geography Elective	3
†GPH	Geography Elective	3

▼ Students may choose to use support courses to satisfy general education categories, but may not be required to do so. **Note:** If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does not reduce the credit total required for graduation.

- \* Courses used to satisfy the general education requirements of the university must be taken from a minimum of six different academic disciplines. First Year Seminar and Level I Written Communications courses are exempt from this restriction. Courses may not be used to fulfill both major discipline and general education requirements.

- § These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

- † Level II, Level III Written Communications and Diversity, Power Dynamics and Social Justice Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.

- † Course must be Above 200 Level.

- Course must be Above 300 Level.

\* COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

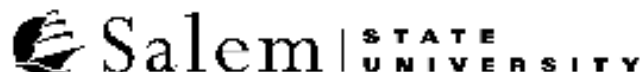
\* GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students.

**Total credits for graduation: 120**

**Effective: 9/2020**

# BACHELOR OF SCIENCE GEOGRAPHY ENVIRONMENTAL SUSTAINABILITY CONCENTRATION



Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_  
Date Admitted Into Major: \_\_\_\_\_

## BACHELOR OF SCIENCE Geography

### ENVIRONMENTAL SUSTAINABILITY CONCENTRATION

#### GENERAL EDUCATION REQUIREMENTS

##### Competencies

☐ • Basic College Math  
☐ • Reading Comprehension

##### •General Education Categories (34-35 credits total)

•FYS	First Year Seminar			3	
•W-I	Written Communication - Level I			3	
•OC	Oral Communication			3	
PGR	Personal Growth & Responsibility			3	
CEA	Creative Expression & Appreciation			3	
WC	World Cultures			3	
HP	The Human Past			3	
CS	Contemporary Society			3	
SR	Scientific Reasoning: # Any SR course			3-4	
	# SR Lab course			4	
QR	Quantitative Reasoning			3	

##### ‡ Written Communication (Level II and Level III) and Diversity, Power Dynamics and Social Justice

W-II	Written Communication - Level II				<input type="checkbox"/>
W-III	Written Communication - Level III				<input type="checkbox"/>
DPDS	Diversity, Power Dynamics and Social Justice				<input type="checkbox"/>

##### Free Electives (43 credits minimum)

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.


##### Minor (Optional):


#### COURSES IN MAJOR (42 credits total)

##### Required Core (15 credits)

GPH	115	Global Climate Change	3	
	115H	Honors Global Climate Change	3	
GPH	105	Introduction to Geography	3	
	105H	Foundations of Global Studies	3	
	110	World Regions	3	
GPH	140	Intro to Maps & GIS	3	
GPH	301	Intro to Quantitative Geography	3	
GPH	302	Geographic Research	3	

##### Concentration Core Courses (12 credits)

GPH	171	Environmental Sustainability & Society	3	
GPH	282P	Global Environmental Issues	3	
GPH	375	Food, Drink & the Environment	3	
GPH	366	Energy & the Environment	3	

##### Concentration Planning Courses (6 credits)

###### Choose two:

GPH	315	Economic Geography	3	
GPH	373	Land Use Planning & Analysis	3	
GPH	377	Environmental Assessment	3	

##### Concentration Techniques Courses (3 credits)

###### Choose One:

GPH	340	Geographic Information Systems	3	
GPH	344	Remote Sensing	3	

##### Concentration Perspectives: (6 credits)

###### Choose Two:

BIO	208	Environmental Problems	3	
ECO	319	Environmental & Natural Resource Economics	3	
GPH	252	Native American Lands & Environment	3	
GPH	376P	Conservation of Natural resources	3	
GPH	379	Environmental Justice	3	
GLS	351	Energy and Natural Resources In the Earth	3	
PHL	224	Environmental Ethics	3	
POL	304	Environmental Politics	3	

▼ Students may choose to use support courses to satisfy general education categories, but may not be required to do so. **Note:** If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does not reduce the credit total required for graduation.

• Courses used to satisfy the general education requirements of the university must be taken from a minimum of six different academic disciplines. First Year Seminar and Level I Written Communications courses are exempt from this restriction. Courses may not be used to fulfill both major discipline and general education requirements.

# These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

‡ Level II, Level III Written Communications and Diversity, Power Dynamics and Social Justice Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.

• COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

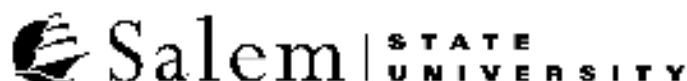
• GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

Effective: 9/2020

# BACHELOR OF SCIENCE GEOGRAPHY SUSTAINABLE TOURISM CONCENTRATION



Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_  
Date Admitted Into Major: \_\_\_\_\_

## BACHELOR OF SCIENCE GEOGRAPHY SUSTAINABLE TOURISM CONCENTRATION

### GENERAL EDUCATION REQUIREMENTS

#### Competencies

- ☐ • Basic College Math
- ☐ • Reading Comprehension

#### • General Education Categories (34-35 credits total)

•FYS	First Year Seminar			3	
•W-I	Written Communication - Level I			3	
•OC	Oral Communication			3	
PGR	Personal Growth & Responsibility			3	
CEA	Creative Expression & Appreciation			3	
WC	World Cultures			3	
HP	The Human Past			3	
CS	Contemporary Society			3	
SR	Scientific Reasoning: # Any SR course			3-4	
	# SR Lab course			4	
QR	Quantitative Reasoning			3	

‡ Written Communication (Level II and Level III) and Diversity, Power Dynamics and Social Justice

W-II	Written Communication - Level II				<input type="checkbox"/>
W-III	Written Communication - Level III				<input type="checkbox"/>
DPDS	Diversity, Power Dynamics and Social Justice				<input type="checkbox"/>

### COURSES IN MAJOR (33 credits total)

#### Required Core (15 credits)

GPH	115	Global Climate Change	3	
	115H	Honors Global Climate Change	3	
GPH	105	Introduction to Geography	3	
	105H	Foundations of Global Studies	3	
GPH	140	Intro to Maps & GIS	3	
GPH	301	Intro to Quantitative Geography	3	
GPH	302	Geographic Research	3	

#### Major Concentration Courses (12 credits)

GPH	171	Environmental Sustainability and Society	3	
GPH	261	Introduction to Tourism	3	
GPH	315	Economic Geography	3	
†GPH		Regional Elective	3	

#### • Required Geography Electives (6 credits) Choose two from the following list

GPH	246	Parks and Protected Areas	3	
GPH	247	Exploring Destinations	3	
GPH	248	Ecotourism	3	
GPH	264	Recreation	3	
GPH	317	Transportation	3	
GPH	364	Special Events	3	
GPH	365	Tourism Development	3	
GPH	463	International Perspectives	3	
GPH	402	Travel Seminar	3	

#### Minor/Free Electives: (52 credits)

May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.


▼ Students may choose to use support courses to satisfy general education categories but may not be required to do so. Note: If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does not reduce the credit total required for graduation.

- Courses used to satisfy the general education requirements of the university must be taken from a minimum of six different academic disciplines. First Year Seminar and Level I Written Communications courses are exempt from this restriction. Courses may not be used to fulfill both major discipline and general education requirements.
- # These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.
- ‡ Level II, Level III Written Communications and Diversity, Power Dynamics and Social Justice Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.
- † Regional Electives: GPH 220, 221, 222, 229, 233, 234, 235, 236, 237..

• COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

• GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

Effective: 9/2020



Salem STATE UNIVERSITY

Date Admitted Into Malor:

## GENERAL EDUCATION REQUIREMENTS

<input type="checkbox"/>	• Basic College Math
<input type="checkbox"/>	• Reading Comprehension

•FYS	First Year Seminar		3
•W-I	Written Communication - Level I		3
•OC	Oral Communication		3
PGR	Personal Growth & Responsibility		3
CEA	Creative Expression & Appreciation		3
WC	World Cultures		3
HP	The Human Past		3
CS	Contemporary Society		3
SR	Scientific Reasoning:	# Any SR course	3-4
		# SR Lab course	4
QR	Quantitative Reasoning		3

W-II	Written Communication - Level II			<input type="checkbox"/>
W-III	Written Communication - Level III			<input type="checkbox"/>
DPDS	Diversity, Power Dynamics and Social Justice			<input type="checkbox"/>

GPH	115/115H	Global Climate Change	3
GPH	105/105H	Introduction to Geography OR	3
GPH	110	World Regions	
GPH	140	Intro to Maps & GIS	3
GPH	301	Intro to Quantitative Geography	3
GPH	302	Geographic Research	3

TGPH				
TTGPH				
TTGPH				
GPH				
GPH				
GPH				

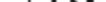
May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

[illegible]

tt    GPH 300-level or GPH 400-level course.

\* GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Effective: 9/2020



**Salem** | STATE  
UNIVERSITY

Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_  
Date Admitted into Major: \_\_\_\_\_

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## 10. Preparing for a Career in Geography

If you want to make a difference to the world, studying geography is a great place to start. Geography careers offer opportunities to develop solutions to some of the society's most pressing problems, including climate change, natural disasters, multicultural integration, urban expansion, and environmental sustainability. There are numerous career possibilities with a degree in geography and the undergraduate majors, concentrations, and minors offered by the Geography and Sustainability Department at SSU are designed to prepare students for careers in several different areas. The flexibility and diversity of a geography degree makes graduates highly sought after in the work force.

Geographers may find career opportunities in a variety of work sectors. There are possibilities in state and local government offices, federal agencies, and international organizations. Many geographers find work in private businesses or as consultants to businesses. Also, geographers may pursue the possibility of teaching or researching at a university, or teaching at the primary or secondary level, each requiring additional years of study at the graduate level.



- Some **SSU graduates** pursue further education in graduate or professional schools while others directly enter the work force. Recent **SSU graduates** have gone on to work for ESRI, U.S. NPS, U.S. Census Bureau, among other organizations.
- Geographers are classified by the U.S. Department of Labor as a "**Bright Outlook**" occupation.
- The U.S. Department of Labor projects "**much faster than average**" growth, in excess of 20 percent or more, in jobs for geographers, geoscientists, cartographers, urban and regional planners, and other geographic professionals.
- Geospatial technology is considered to be a **high growth industry** by the U.S. Department of Labor.





## Sample Job titles of Geographers

The analytical and research skills gained from your geography degree are attractive to a range of employers. Career opportunities for geographers also exist in specialized areas such as remote sensing and aerial photography, resource evaluation, urban and regional planning, industrial location, marketing resources, transportation and cartography. Today's competitive job market demands that students possess the knowledge, skills, and relevant job experiences that will set them apart from other applicants.

Find below a sample of job titles related to your degree:

<b>Jobs directly related to your degree:</b>	<b>Jobs where your degree would be useful:</b>
Aerial Photo Interpreter	Astronomer
Cartographer	Economic Development Analyst
Climatologist	Editorial Assistant
Commercial/residential surveyor	Health Planner
Community Development Specialist	International aid/development worker
College Professor	Landscape architect
Ecologist	Law Enforcement
Emergency Management Planners	Logistics and distribution manager
Environmental Analyst	Market researcher
Environmental Consultant	National Security
Geographer	Nature conservation officer
Geographic Information Systems Analyst	Political risk analyst
Planning and development surveyor	Space Exploration
Political Analyst	Sustainability consultant
Recreational Resources Manager	Tourism officer/Tour Guide
Remote Sensing Analysts and Specialists	Trade Analyst
Researcher	Transportation Planner
Secondary school teacher	
Urban/Land Use Planner	

The wide range of transferable skills acquired through a Geography degree, such as communication and team working skills is now widely recognized by an increasing number of employers. As a result, a large number of our graduates go into careers not obviously related to Geography. These include international banking, accountancy, Law, advertising, marketing, local & national government, and journalism. Geography's diversity and skills building base is its strength in both academic and career terms.

## Additional Information

To learn more about career opportunities in geography, please contact your geography undergraduate advisor or you can check out the following links:

- **American Association of Geographers** [Jobs and Careers](#)
- **U.S. Department of Labor/Bureau of Labor Statistics** [Geography Jobs](#)
- **Cartography and Geographic Information Society** [Careers in Cartography and GIS](#)

## Additional Career Resources

- **SSU Career Services** <https://www.salemstate.edu/careers>
- **Jobs in Geography at Earthworks, Jobs.com** <http://www.earthworks-jobs.com/geog.htm>
- **GeoSearch, Inc.** <http://www.geosearch.com>
- **GISJobs.com** <https://www.gisjobs.com/>



## Geography and Sustainability Department



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kratner@salemstate.edu



Webpage | <https://www.salemstate.edu/academics/college-arts-and-sciences/geography-and-sustainability>

Twitter | [@SSUGeography](https://twitter.com/SSUGeography)

Facebook | [Geography + Sustainability at Salem State](#)

This Handbook was designed by Ana Emlinger and last updated in August 2020 by Ana Emlinger and Keith Ratner.