

# University of Washington Tacoma

## Master of Science in Geospatial Technologies

### 2017 -2018 GRADUATE STUDENT HANDBOOK

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#### 1. PROGRAM OVERVIEW

Welcome to the University of Washington Tacoma's Master of Science in Geospatial Technologies (MSGT) Program. You are among a select few students to have been admitted to this year's cohort! As a graduate student in the UW Tacoma MSGT program you will explore the ways that emergent geospatial technologies are shaping our world. You will also have the opportunity to design and develop innovative real-world applications of geospatial technologies in both facilitated and independent research environments. Curriculum in the program is, therefore, designed to provide graduate students with 1) a foundational set of technical skills applicable to emergent geospatial technologies, and 2) a theoretical framework from within which appropriate and effective uses of geospatial technology can be designed. Additional information about the curriculum will be available as course syllabi are released by your faculty throughout the year.

##### a. Program Length

The UW Tacoma MSGT is designed to be completed in a 12 month year (four academic quarters). The program begins in the autumn quarter and runs through the following winter, spring and summer quarters. Only in exceptional circumstances will graduate students be permitted to delay the completion of their program beyond the 12 month period.

##### b. Cohort Structure

The UW Tacoma MSGT employs a cohort-based curriculum. This means that students may begin the program only in the autumn quarter as a part of a new cohort and are expected to complete the program alongside other members of their cohort. The curriculum in this program is entirely prescribed by the graduate faculty and does not include any elective or optional units.

##### c. Maintenance of Student Status

It is expected that graduate students will enroll in all required courses during their cohort year. At the discretion of the graduate program coordinator and director of the Urban Studies Program, students who fail to enroll in (and complete) any one of the required eight courses will be withdrawn from the program.

##### d. Satisfactory Performance and Grade Expectations

In order to remain active in the MSGT graduate program students must maintain a quarterly and cumulative minimum 3.0 GPA, and earn at least 2.7 GPA in each of the eight required courses. If at the mid-point of any quarter a student's work should fall below this performance threshold, the student will be notified by the graduate program coordinator that she/he will be placed on academic probation should the course(s) not be satisfactorily completed. After the completion of a quarter if a student has not satisfactorily completed any of the eight courses then, at the discretion of the graduate program coordinator and director of the Urban Studies Program, the student may be withdrawn from the program.

*Please see your Graduate Program Advisor or Graduate Program Coordinator for more information on performance expectations.*

## 2. KEY PERSONNEL

### **Ali Modarres, PhD** | Professor and Director of Urban Studies

Dr. Modarres earned his Ph.D. in geography from the University of Arizona and holds master and bachelor degrees in landscape architecture from the same institution. He is the editor of *Cities: The International Journal of Urban Policy and Planning* and serves on a number of research and policy advisory boards. He specializes in urban geography and his primary research and publication interests are socio-spatial urban dynamics and the political economy of urban design. He has published in the areas of immigration, race and ethnicity in American cities, social geography, transportation planning, environmental equity, urban development and public policy.

### **Matthew Kelley, PhD** | Associate Professor and Graduate Program Coordinator

Dr. Kelley specializes in critical and participatory applications of GIS and geospatial technologies in urban planning and community development contexts. In his research he also focuses on issues of digital exclusion and the role that emergent location-aware technologies play in the production of urban space. He received his PhD in Geography from the Pennsylvania State University where he studied asset based community development and critical GIS in West Philadelphia. At UW Tacoma Dr. Kelley oversees the undergraduate GIS Certificate Program, the BA in GIS and Spatial Planning, and the MS in Geospatial Technologies Program.

### **Britta Ricker, PhD** | Assistant Professor and Faculty in MSGT

Dr. Ricker has diverse research and professional experiences ranging all steps of a GIS life cycle. Dr. Ricker has been a Hazard Mapping Analyst for FEMA during Hurricane Katrina, conducted usability evaluations of electronic health records in hospital settings, and built an iPad application for her daughter. Dr. Ricker obtained her PhD and MSc both in Geography and both in Canada while she earned a BS in Geography and International Studies from Frostburg State University in Western Maryland.

### **Jim Thatcher, PhD** | Assistant Professor and Faculty in MSGT

Dr. Thatcher received his PhD in Geography from Clark University and his Master's from the University of Chicago. His research focuses on relations between data, code, and everyday life. He is specifically interested in the political economies of geospatial and mobile technologies and of the data said technologies generate. His work tends fall into the fields of GeoWeb studies, Critical Data Studies, and Critical GIS.

### **Gregory Lund, MGIS** | Lecturer and Geospatial Technology Coordinator

Gregory earned a MS in Education from the University of New York, College at Brockport, prior to relocating to the Pacific Northwest. After completing the GIS Certificate Program at the University of Washington Tacoma he completed in a Master of Geographic Information Systems at the University of Washington Seattle. In addition to his work as the Technology Coordinator for geospatial programs, Gregory is a lecturer in the UW Tacoma GIS Certificate Program.

## 3. CURRICULUM OVERVIEW

There are forty required credits (eight courses) in the UW Tacoma MSGT program. Courses are offered in the autumn, winter, spring and summer quarters. There are no elective or optional courses offered in this program. In general, all courses are designed to alternately provide 1) training in the use of emergent geospatial technologies, and 2) critical theoretical foundations in the appropriate applications of such technologies.

Students in the UW Tacoma MSGT are also expected to complete a capstone project that demonstrates the ability to work effectively with a selection of geospatial technologies in an applied or research-oriented context. The capstone project includes a technical as well as a written component that are overseen by a committee of at least two faculty readers. Please see the following section for additional capstone details.

#### 4. CAPSTONE PROJECT EXPECTATIONS

Students in the UW Tacoma MSGT must complete a capstone project in order to satisfy the requirements of the graduate degree. The capstone project is expected to include both a technical and a written component that demonstrate the student's mastery of the graduate program curriculum. The capstone project is overseen by a committee of at least two faculty readers who are selected by the student and who have agreed to serve as readers on the student's capstone committee. Successful completion of the capstone project is required prior to the conferral of the degree Master of Science in Geospatial Technologies.

a. Capstone Project Topic

Capstone projects are expected to be driven by either a research question or hypothesis. The question or hypothesis will be generated by the student in concert with a graduate faculty member and the student's capstone committee. The topic of the capstone project is open for the student to determine in coordination with the graduate faculty in the MSGT program. Students will be encouraged to begin identifying topical areas early in the autumn quarter.

b. Capstone Technical Component

The technical component of the capstone project must demonstrate the student's ability to engage a selection of geospatial technologies in a *research-oriented context*. The particular technologies that are utilized in a capstone project will reflect the student's project topic and proposed outcomes. Although there are not specifications in regards to the technologies that must be utilized in a capstone project, a student will not commence work on the capstone project until her/his project proposal has been approved by her/his capstone committee and at least one of the graduate faculty of the MSGT program.

c. Capstone Written Component

The written component of the capstone project must demonstrate the student's ability to synthesize and apply relevant theoretical and scholarly work to the research problem or question that the student has identified in her/his proposal. The capstone paper must range from 6,000 to 12,000 words in length (not including references) and adequate diagrams and/or images to support the claims that are made in the text.

d. Capstone Committee

The capstone committee will consist of at least one first reader (committee chair) and one second reader. Potential readers will be identified by students by the fifth week of the autumn quarter. To form a capstone committee the student must complete the committee formation document (see appendix 1) and return it to the graduate program coordinator. Capstone committees must be formed no later than the end of the second week of winter quarter. Students who have not formed a capstone committee by this date will not be permitted to continue the program.

e. Capstone Proposal

Students will work with graduate faculty and their capstone committee to complete a formal capstone proposal during the winter quarter. This proposal serves as a contract (between the student, the capstone committee and the graduate faculty) that details the plans and expectations for the student's capstone project. Capstone proposals will not be considered complete until the capstone proposal document (see appendix 2) has been signed off by the student's capstone committee, at least one MSGT graduate faculty member, and the graduate program coordinator. Capstone proposal documents must be completed and returned to the graduate program coordinator no later than the end of the second week of spring quarter.

f. Capstone Project Completion and Approval

The capstone project will be considered complete after the student has completed and submitted the capstone approval document (see appendix 3) to the graduate program coordinator. In order to be considered for degree completion by the conclusion of the summer term students must submit the capstone approval document to the graduate program coordinator by the date specified on the MSGT graduation details webpage.

## 5. LABS AND EQUIPMENT

a. Computing Labs

Graduate students have access to all public UW Tacoma computer labs (<http://www.tacoma.uw.edu/information-technology/computer-labs>) and computing technology. Please see the website for information about when public labs are open to students.

Additionally, there are two computing labs which serve only UW Tacoma undergraduate GIS and graduate Geospatial Technologies students. These lab spaces (Pinkerton 131 and Pinkerton 130) are available to graduate students 24 hours/day 7 days/week unless the room has been reserved for a class or other special event (please see the calendar on the door of the room for these dates/times). Pinkerton 131 is the primary teaching computer lab for GIS and Geospatial Technologies students at UW Tacoma. Students are expected to minimize social interaction in Pinkerton 131 in order to maintain a quiet work environment for others who are using the space. Pinkerton 130 is the GIS/Geospatial Technologies student lounge and computing lab. The lounge is designed to accommodate group work, project planning and organizing, study sessions, individual work, etc. It is a multifunctional space that includes several desktop computers as well as multiple tables and chairs that can be configured to meet the needs of students who use the space.

b. Equipment

The UW Tacoma MSGT program provides a full range of computing hardware for students to utilize while participating in the program. Equipment currently available to graduate students in the program includes: Dell laptops, MacBook Pro laptops, 10" Nexus tablets, 7" Nexus tablets, Nexus phones, iPad Airs, iPad Minis, iPhones, and a Phantom Drone. For more information regarding equipment loans, please see our [equipment and lab policies](#).

While it is not required that graduate students have access to a personal computer in order to complete this program, it is strongly recommended for students who are unable to spend time outside of regular class hours in the computing lab. Please consult appendix 4 for our currently recommended specifications.

## 6. IMPORTANT DATES (\*recommended, \*\*required)

### a. Registration

May 5 – October 3, 2017 | Autumn quarter class registration \*\*

November 3, 2017 – January 9, 2018 | Winter quarter class registration \*\*

February 9 – April 1, 2018 | Spring quarter \*\*

April 9 – June 24, 2018 | Summer quarter \*\*

### b. Capstone

Week 5 Autumn Quarter | Identify potential capstone project topics \*

Week 5 Autumn Quarter | Identify and contact potential capstone committee members \*

End of Week 2 Winter Quarter | Submit paperwork to form capstone committee \*\*

Week 8 Winter Quarter | Meet with capstone committee to review proposal draft \*

End of Week 2 Spring Quarter | Submit capstone proposal document \*\*

Week 5 Spring Quarter | Meet with capstone committee to review capstone work plan \*

End of Summer Quarter (Exact Deadline Announced on Graduation Webpage) | Submit capstone approval document \*\*

### c. Graduation

Summer Quarter (Exact Deadline TBA) | Register for hooding ceremony \*\*

Spring Quarter (Exact Deadline TBA) | Register for commencement ceremony \*\*

Summer Quarter (Exact Deadline TBA) | Declare intent to graduate \*\*

Summer Quarter (Exact Deadline TBA) | File final degree completion document \*\*

Date TBD (spring quarter) | UW Tacoma Commencement Ceremony \*

Date TBD (summer quarter) | MSGT Hooding Ceremony \*\*

### d. Events and Meetings

Week 5 Autumn Quarter (Date TBD) | Cohort meeting with Graduate Program Coordinator\*

Week 5 Winter Quarter (Date TBD) | Cohort meeting with Graduate Program Coordinator\*

Week 5 Spring Quarter (Date TBD) | Cohort meeting with Graduate Program Coordinator\*

Date TBD (summer quarter) | MSGT Graduate Research Colloquium \*\*

## 7. APPENDICES

Appendix 1: Capstone Committee Formation Document

Appendix 2: Capstone Proposal Document

Appendix 3: Capstone Approval Document

Appendix 4: Personal Computer Recommended Technical Specifications