

MKT-599: Geographic Information Systems (GIS) Applications in Marketing
Fall 2022
3 Units, Mondays 6:30 – 9:30 online

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OFFICE HOURS: Prof Burgos: Monday 3pm - 4pm, or by appointment
Prof Wellman: Monday 4pm - 5pm, or by appointment

EMERGENCY NUMBERS: USC Emergency Info Line: 213-740-9233
USC Emergencies: 213-740-4321
USC Information Line: 213-740-2311 or KUSC Radio (91.5 FM)

PREREQUISITES: 1 from: GSBA 509 or GSBA 509a or GSBA 528

COURSE MATERIALS:

Readings: You do not have to purchase a textbook or course reader/course pack. Links will be made available within the course for required readings and videos.

Software: ArcGIS Pro with Business Analyst. This includes ArcGIS Online. Instructions for purchase and download are available in Blackboard.

COURSE DESCRIPTION:

This course offers an introduction to the fundamentals of Geographic Information Systems and location analytics as they relate to decision-making in Marketing Strategy. This course will be taught as a lab-based class, where students will experiment hands-on with GIS software to address specific marketing challenges. Students will learn the fundamentals of spatial thinking and will also explore specific applications of GIS platforms such as ESRI Tapestry and ArcGIS Business Analyst in business/marketing. This course will also cover how GIS data are gathered, predictive modeling for marketing decision-making using GIS data, and the relationship between digital/mobile marketing, social media, and GIS models. Students will have many opportunities to discuss real-world marketing applications of GIS data at various multi-national firms.

COURSE LEARNING OUTCOMES:

Upon successful completion of this course, students will be able to:

1. Develop models that support data-driven decision-making in Marketing using GIS data.
2. Create a data-driven marketing plan that leverages location analytics.
3. Describe how spatial thinking and GIS can impact Pricing, Promotional, Product-related, and Placement/supply-chain decisions.
4. Develop and execute digital marketing plans based on spatial thinking and GIS data analytics.
5. Segment consumers using GIS data.
6. Address specific marketing challenges by leveraging location analytics as part of the STP (segmentation, targeting, and positioning) process.

GRADING POLICY:

The course grade is based on synchronous class participation, moderated discussion forums, pre-work readings, projects, and exams. Unless otherwise stated, all readings, discussion forums, homework assignments, and quizzes must be completed prior to synchronous class sessions. For more information on grading policies, go to: <http://www.usc.edu/dept/ARR/grades/gradinghandbook/gradingpolicies.html>.

TOPIC AND ACTIVITIES	Points	% OF GRADE	DUE DATES
Class Participation	50	5%	weekly
Discussion Boards (12, 5 pts. each)	60	6%	weekly
In-class workshops & cases (8, 25 pts. each)	200	20%	Weeks 1, 3, 4, 6, 7, 9, 11, 12
In-class projects & cases (2, 70 pts. each)	140	14%	Weeks 5, 13
Midterm	250	25%	Week 8
Final Project (Case Based) (with peer evaluation)	300	30%	Final's week
Total:	1000	100%	

CLASS PARTICIPATION:

Class participation is an extremely important part of the learning experience in this course.

A course such as this one, which incorporates the frequent use of case analyses to illustrate the practical application of concepts and practices, requires students to diligently and thoroughly prepare cases and actively offer the results of the analyses and conclusions derived as well as recommendations during each class session. Our expectation, and that of your classmates, is that you are prepared for *all* classes and will actively participate in and meaningfully contribute to class discussions.

In-class participation is also a critical part of this course's learning experience. Cold calling may take place to encourage active in-class participation and to gain multiple perspectives and points of view, thus lending itself to the richness of the learning experience. In-class participation grading will be based on students' demonstrated willingness to participate, and the quality of the comments expressed, rather than quantity. While some students are far more comfortable than others with class participation, *all* students should try to contribute meaningfully.

Students will offer their opinions in group settings many times in their careers; thus, class participation serves to prepare students for this business experience.

The evaluation of in-class participation is based on the following:

- *Relevance* – Does the comment or question meaningfully bear on the subject at hand? Irrelevant or inappropriate comments can detract from the learning experience.
- *Responsiveness* – Does the comment or question connect to what someone else has said?
- *Analysis* – Is the reasoning employed consistent and logical? Has data from course materials, personal experience, or general knowledge been employed to support the assertions/findings?
- *Value* – Does the contribution further the understanding of the issues at hand?
- *Clarity* – Is the comment concise and understandable?

To underscore the importance of participation, 12.5% percent of the course grade will be allocated to discussion boards and class participation. An additional 17.5% of the course grade is in-class workshops. If you are unable to attend a class, you are still responsible for completing the in-class workshops on your own.

General guidelines for class and lab participation:

Excellent Performance

- Initiates information relative to topics discussed
- Accurately exhibits knowledge of assignment content
- Clarifies points others may not understand
- Shares personal experiences or opinions related to topic
- Offers relevant / succinct input to class
- Actively participates in class exercises
- Demonstrates ability to apply, analyze, evaluate & synthesize course material.
- Demonstrates willingness to attempt to answer unpopular questions
- Builds on other students' contributions

Average Performance

- Participates in group discussions when asked
- Demonstrates knowledge of course material
- Offers clear, concise, "good" information on class assignments
- Offers input, but tends to reiterate the intuitive

Unacceptable Performance

- Fails to participate even when directly asked
- Gives no input to discussions
- Does not demonstrate knowledge of the readings
- Shows up to class: does nothing
- Distracts group / class
- Irrelevant discussion

CLASSROOM POLICIES – SPRING 2022

1. Active class participation is important in achieving the learning objectives for this course. Unless students provide an accommodation letter from USC OSAS or from Marshall detailing visa or travel restrictions, attendance and active participation is expected in the classroom.
2. Any student with such accommodations should submit their accommodation document to their instructor as soon as possible. Your instructor will then provide regular access to a recording of the class and an opportunity to regularly make up missed in-class participation.

CASES

Students will be expected to analyze, prepare, and discuss cases such as Walgreens and Starbucks in order to understand and master GIS applications as part of real-world marketing challenges. Further instructions and grading standards will be posted in Blackboard.

TEAM PROJECT

Students will self-select teams using a set of guidelines that will be provided in class by your instructors. Students will work in teams of 3 - 4 members. Upon completion of the team project, students will be asked to submit a peer-evaluation form. Additional project instructions will be posted in Blackboard and discussed in class. ArcGIS Business Analyst will be required resources for completion of the team project.

EXAM

MKT 599 will include one exam (midterm exam) which will count for 35% of the overall course grade. The exam will be taken individually, with no collaboration allowed among students. It will be open-book, open-notes, and will require use of certain web-based resources. Further details will be posted in Blackboard and discussed in class.

The in-class mid-term exam will be held in Week 8 and is open note. It will consist of a combination of multiple choice, short answer and longer analyses. Everyone should have ArcGIS Pro or ArcGIS Online. All students will need to be on Zoom with their cameras on.

TECHNOLOGY REQUIREMENTS

Online lectures will take place via Zoom, with links provided via Blackboard. Therefore, you must have access to the Internet to view/hear lectures. No special software is required.

The lecture presentations, links to articles, assignments, quizzes, and rubrics are located on Blackboard. To participate in learning activities and complete assignments, you will need:

- Access to a working computer that has a current operating system with updates installed, plus speakers or headphones to hear lecture presentations;
- Reliable Internet access and a USC email account;
- A current Internet browser that is compatible with Blackboard (Google Chrome is the recommended browser for Blackboard);
- A working video camera with microphone for use on Zoom;
- Microsoft Word as your word processing program; and
- Reliable data storage for your work, such as a USB drive or Office365 OneDrive cloud storage.

CLASS CONDUCT/NETIQUETTE

Professionalism will be expected at all times. Because the university classroom is a place designed for the free exchange of ideas, we must show respect for one another in all circumstances. We will show respect for one another by exhibiting patience and courtesy in our exchanges. Appropriate language and restraint from verbal attacks upon those whose perspectives differ from your own is a minimum requirement. Courtesy and kindness is the norm for those who participate in our class.

Our discussion boards are a way for you to share your ideas and learning with your colleagues in this class. We do this as colleagues in learning, and the Discussion Board is meant to be a safe and respectful environment for us to conduct these discussions.

Some Netiquette Rules:

- Dress respectfully. Video conference business meetings are and will be the norm, so practice your professional telepresence.
- Virtual background respectfully professional

- Display both your first and last name during video conferencing and synchronous class meetings.
- Respectfully minimize distractions with muting and video off when moving around
- Disagree respectfully
- Respectfully pay attention to classmates
- When sending an email, please include a detailed subject line. Additionally, make sure you reference the course number in the message and sign the mail with your name.
- Use proper grammar, spelling, punctuation, and capitalization. Text messaging language is not acceptable. You are practicing for your role as a business leader.
- Re-Read, think, and edit your message before you click "Send/Submit/Post." As a check, consider whether you would be comfortable with your email or post or text being widely distributed on the Internet.

THE IMPORTANCE OF COURSE EVALUATIONS

There will be a mid-point informal course evaluation and a final course evaluation. Time will be provided during class for students to complete these evaluations. The professors value the evaluations and continuously improve the course based on student feedback.

EMERGENCY PREPAREDNESS

In case of a declared emergency if travel to campus is not feasible, the USC Emergency Information web site (<https://emergency.usc.edu/>) will provide safety and other information, including electronic means by which instructors will conduct class using a combination of USC's Blackboard learning management system (blackboard.usc.edu), teleconferencing, and other technologies.

COURSE OUTLINE AND ASSIGNMENTS

Reading materials and other pre-work will be published on a weekly basis in Blackboard. Pre-work for each class session will be published in Blackboard at 8:00a.m. on every Tuesday morning. We will follow this schedule every week.

Date	Topic	Pre-Work Links to readings, videos and other pre-work activities provided in Blackboard Learning to Think Spatially. NAP. (links to readings will be	Activities/Assignments <i>Please complete readings and watch assigned videos prior to class session. All readings will be in Blackboard. Class sessions may be moved around depending on the availability of guest speakers</i>
8/22 Wk 1	Introduction to Geographic Information Systems (GIS) using the 4P's of marketing through Esri Tapestry	<ul style="list-style-type: none"> • Discussion Board #1 Introductions (5 pts.) 	Introduction to the course Workshop #1: Tapestry Segmentation (20 pts.)
8/29 Wk 2	What is spatial thinking and why is it important? Introduction to ArcGIS Online	<ul style="list-style-type: none"> • Learning to Think Spatially. NAP • 4 key Elements of Using GIS Technology for Digital Marketing • Esri - a brief history • Discussion Board #2 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • Complete spatial thinking game. • Demo of ArcGIS Online. • Individual and group exploration of ArcGIS Online

9/12 Wk 4	ArcGIS Online and ArcGIS Pro Mapping of point and line marketing data	<ul style="list-style-type: none"> • Complete Esri tutorials on ArcGIS Online and ArcGIS Pro • Starbucks: Using Big Data, Analytics and AI to Boost Performance. Forbes. • The Definitive Guide to Location Data. TIGER/line files, technical detail. • Discussion Board #3 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • GIS Applications in Marketing Strategy • FIPS Codes, Geopolitical Areas, Geocodio.io, TIGER/Line data • Workshop #2: Mapping fast food point Data and TIGER/Line linear data (20 pts.)
9/19 Wk 5	Use American Community Survey data to develop a segmentation profile Geotargeting	<ul style="list-style-type: none"> • About the American Community Survey. • Data 101: The American Community Survey • 5 Real-World Marketing Made Better by Geotargeting • Discussion Board #4 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • Geotargeting • ACS data • The critical importance of symbology and buffers • Workshop #3: Adding areal ACS data to point and line based fast food data in ArcGIS to address a marketing question. (20 pts.)
9/26 Wk 6	Geofencing and Geoconquesting	<ul style="list-style-type: none"> • What is Geofencing Marketing and how to Get Started. • Brief Video from WebFX on Geofencing. • Geoconquesting, what it is and when is it a bad marketing strategy. • Discussion Board #5 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • Geofencing and geoconquesting • Project #1: Develop a marketing plan for fast food restaurants using geofencing and geoconquesting techniques. (70 pts.)
10/3 Wk 7	Void Analysis Review for midterm	<ul style="list-style-type: none"> • SiteSeer: "What you need in a void analysis report" • Birds of a Feather shop together - Demographics and store performance. • Why understanding our rapidly changing planet calls for a geographic approach. ESRI, Fast company. • Discussion Board #6 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • Guest Speaker: Liz Parrish, HEB Industries • Void Analysis and it's applications • Workshop #4: Perform a void analysis (20 pts.)
10/10 Wk 8	Midterm	none	Midterm to be held in-class.
10/17 Wk 9	Introduction to Business Analyst	<ul style="list-style-type: none"> • Savvy Businesses Share a Secret. • ArcGIS Business Analyst. ESRI. • Tobler's First Law of Geography explained. • How to Use ArcGIS Living Atlas Layers in ArcGIS Business Analyst • Discussion Board #7 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • Midterm Review • Tobler's First Law of Geography and it's implications • The Living Atlas • Workshop #5: Introduction to Business Analyst (20 pts.)

10/24 Wk 10	Team meetings for the Project		Individual team meetings during class.
10/31 Wk 11	Cartography	<ul style="list-style-type: none"> • Chapters 3 & 5 of GIS Cartography • Normalization and Classifying Choropleth maps. • Discussion Board #8 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • What is cartography and why it is important for communicating marketing data • Legends • Workshop #6: Cartographic principles and creating a legend. (20 pts.)
11/7 Wk 12	Social Media data Business Analyst	<ul style="list-style-type: none"> • How Social Media Mapping, GIS and Big Data Guide Business decisions. • How Social Media Could Improve Target marketing. • Discussion Board #9 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • Social Media • Project #2: Business Analyst. Develop a marketing plan which is based on creating maps using the extensive data available in Business Analyst (70 pts.)
11/14 Wk 13	How to Lie with maps	<ul style="list-style-type: none"> • How to Lie with Maps • Discussion Board #10 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • Guest Speaker Amy Luca • Use of social media data • Workshop #7: Create a map which distorts the interpretation of the data. (20 pts.)
11/21 Wk 14	Chik-fil-A's use of GIS Projects	<ul style="list-style-type: none"> • Whether the Weather Will Affect My Sales. • Using Spatial Analytics & GIS in Retail Supply Chains to Respond to COVID-19 • Discussion Board #11 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • Guest Speaker: Chan Lee from Chik-fil-a • Work on projects in class
11/28 Wk 15	Story Maps	<ul style="list-style-type: none"> • What is a Story Map • Business Forward Brooklyn Park. • End of the Line • Discussion board #12 on pre-readings (5 pts.) 	<ul style="list-style-type: none"> • What is a story Map? • When do you use story Maps? • Workshop #8: Create a story map to promote a product (20 pts.)
12/12 Finals	Final Projects		Project Presentations (300 pts.)

OPEN EXPRESSION AND RESPECT FOR ALL

An important goal of the educational experience at USC Marshall is to be exposed to and discuss diverse, thought-provoking, and sometimes controversial ideas that challenge one's beliefs. In this course we will support the values articulated in the USC Marshall "Open Expression Statement."

STATEMENT ON ACADEMIC CONDUCT AND SUPPORT SYSTEMS

Academic Conduct:

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on Research and Scholarship Misconduct.

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call
studenthealth.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call
suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press "0" after hours – 24/7 on call

studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086
eetix.usc.edu

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298
usc-advocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

The Office of Student Accessibility Services (OSAS) - (213) 740-0776

osas.usc.edu

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

USC Campus Support and Intervention - (213) 821-4710

campussupport.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity, Equity and Inclusion - (213) 740-2101

diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.

Office of the Ombuds - (213) 821-9556 (UPC) / (323) 442-0382 (HSC)

ombuds.usc.edu

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

Occupational Therapy Faculty Practice - (323) 442-3340 or otfp@med.usc.edu

chan.usc.edu/otfp

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.