DSCI 599: Data Science for Business, Economics, and Society

Units: 4.0

Spring 2024 – Mondays – 6:00-9:20pm

Location: GFS 222

Instructors:

- **Wensheng Wu (Viterbi School of Engineering)**
- **Milan Miric (Marshall School of Business)**

Catalog Description
Applications of data science and machine learning techniques for solving business, economic, and societal problems, including marketing, econometrics, education, public safety, healthcare, and social services.

Course Description
This course introduces students to the important challenges faced by business, economy, and the society; and teaches students how to develop effective data-driven solutions to address these challenges. Topics include data-driven marketing, customer analytics, growth forecasting, inflation simulation, education inequalities, crime prevention, drug overdose epidemic, and citizen sciences. It provides students with hands-on experiences on data science and machine learning techniques such as regression analysis, time-series analysis, decision tree, random forest, clustering, Markov model, neural network, and deep learning. Students will also work on course projects addressing real-world problems ranging from customer behavior analysis, home sharing economy, panel data analysis, social pressure, and voter turnout, to COVID-19 spread forecasting.

Learning Objectives
Upon completion of this course, the students should be able to:

- Identify the major challenges in digital marketing and customer analytics.
- Identify the major problems in the global economy, such as growth and inflation.
- Explain the major issues in education, public safety, public health, and healthcare.
- Apply machine learning techniques to solve real-world problems in the above domains.
- Build an end-to-end data science and machine learning project.
- Evaluate the effectiveness of machine learning algorithms in solving the problems.
- Discover the pitfalls in the data science practices.

Recommended Preparation
Basic understandings of machine learning algorithms. Working knowledge of linear algebra (at the level of MATH 225: Linear Algebra and Linear Differential Equations) and probability and statistics (at the level of EE 364: Introduction to Probability and Statistics for Electrical Engineering and Computer Science). It is desirable that students have taken a machine learning course (at the level of DSCI 352: Applied Machine Learning and Data Mining or DSCI 552: Machine Learning for Data Science). Students should be proficient in Python programming and using Jupyter notebook (at the level of DSCI 510: Principles of Programming for Data Science).

Course Notes
Course materials including lecture notes, homework assignments, and project details will be posted on Blackboard. Lectures will be recorded and made available for the students to review after class. Class discussions will be conducted on Piazza.

Technological Proficiency and Hardware/Software Required
Students are expected to have been proficient in writing Python programs and using Jupyter notebook. Experiences with R would be helpful but not required.

Required Readings and Supplementary Materials
- [**Hwang19**] Hwang, Yoon Hyup. Hands-on data science for marketing: Improve your marketing strategies with machine learning using Python and R. Packt Publishing, 2019. (ISBN-13: 978-1789346343. Available online at USC library)
- [**Provost13**] Provost, Foster, and Tom Fawcett. Data science for business: What you need to know about data mining and data-analytic thinking. O'Reilly Media, Inc., 2013. (ISBN-13: 978-1449361327. Available online at USC library)

- [Nokeri21] Nokeri , Tshepo Chris. Econometrics and data science: Apply data science techniques to model complex problems and implement solutions for economic problems. Apress, 2021. (ISBN-13: 978-1484274330. Available online at USC library)
- [Géron19] Géron, Aurélien. Hands-on machine learning with Scikit-Learn, Keras, and TensorFlow: Concepts, tools, and techniques to build intelligent systems. Third Editioin, O'Reilly Media, 2022. (ISBN: 9781098125967. Available online through USC library)
- Additional readings are listed in the schedule.

Hands-on Exercises

- There will be 10 hands-on exercises designed to help students get familiar with the process of applying data science and machine learning techniques for solving real-world challenges.
- Detailed tasks of these exercises are stated in the weekly schedule.
- Students are expected to submit a Jupyter notebook file that includes Python codes for the completed exercises. Submission is due at the end of the week.

Project Description

Students are also expected to complete a course project. The theme of the project is to develop a data science and machine learning solution for solving a real-world problem in a domain of interest. Students are free to choose subject area and datasets for the project, which may be related to the use cases and applications covered in the class.

Students may form a project group of no more than 3 people. It is **strongly encouraged** that students from different backgrounds, e.g., CS and economics, team up in their projects so that they can combine their knowledge and skills in solving a real-world problem, e.g., a problem in econometrics.

Phases: The project will be done in phases: proposal, midterm report, final report, and demo. In addition, students will be required to submit a video to present aspects of the project that can't be covered in in-class demo due to time constraint. Student project will be evaluated based on whether it meets the requirements and how well it has accomplished the goals set out in the proposal.

Student peer evaluation: In addition, a student peer evaluation on the projects will be conducted at the end of the semester. The demo videos submitted by the project groups will be made available to all students to facilitate the peer evaluation. Students will be asked to indicate their ratings on the peer projects in the Likert scale, based on a set of criteria stated in the project guideline. Students will also give an overall rating for each peer project; and the average of the overall ratings will be used as the peer evaluation score for the project.

The grading breakdown is as follows.

- Proposal: 10%
- Midterm report: 10%
- Final report: 15%
- Implementation: 50%
- In-class demo, presentation, and demo video: 10%
- Student peer evaluation: 5%

Proposal will be due in the fourth week, midterm progress report in the eighth week, and all other deliverables in the final week of the semester.

Grading rubric:

The grading of the project will be based on the extent that the deliverables meet the expectations:

- **Proposal** should include team members, project topic, planned implementation, timeline (when to finish which items), and tasks for each member.

- **Midterm report** should report progress made, challenges faced, and any update on the plan.
- **Final report** should be a comprehensive report to include project title, topic, details on the implementation, and learning experiences.
- **Implementation**: the grading of project implementation will be based on the quality of key components of the solution developed in the project. Common components among the project topics include data cleaning, data transformation, exploratory data analysis, and advanced data analytics (e.g., using clustering, classification, or other machine learning techniques). Some projects may also require data integration (e.g., sample projects 5, 6, and 7 below). Missing or incomplete work will be subject to the deduction of points. Students should also submit their project implementation codes (e.g., by uploading them to Google drive and including a link in the final report).
- **In-class demo, presentation, and demo video**: All members of a project team should be present during the demo and presenting part of the project. Points will be deducted from a member if he/she is absent. The demo video should be an in-depth presentation of technical aspects of the project. A spreadsheet will be provided for the students to fill out the details including link to the demo video. All members of team should be present, with camera on during the presentation.
- **Student peer evaluation**: A Google form will be created to solicit students' feedback on the quality of projects done by other groups. Points will be deducted if students fail to submit the peer evaluation form by the deadline. Students should base their peer evaluation on the in-class demo and in-depth demo videos of the projects.

Sample projects:

1. Segmenting customers using online retail data.
   Data set: Online retail data set (from UCI machine learning repository)

2. Predicting the most profitable customers using demographics and buying behavior data.
   Data set: IBM Watson marketing customer value data (from Kaggle.com)

3. Understanding home sharing economy during COVID-19.
   Data set: Airbnb Listings in the Los Angeles Area

4. What makes certain basketball team or players successful?
   Data set: NBA play-by-play basketball data

5. Estimating large dynamic panel data models: application to house price, crime, and traffic data.
   Data sets:
   - City of Chicago crime data
   - NYC taxi trips
   - Chicago taxi trips
   - Zillow housing price data

6. Estimating heterogeneous treatment effects in experimental data using machine learning.
   Data sets: social pressure, welfare, school voucher, and mobilization data.

7. Out of sample forecasting of COVID-19 spread.
   Data sets:
   - COVID-19 research data
   - American Community Survey

Paper presentation

Students are required to present at least one paper selected from the papers listed in the syllabus.

Grading Breakdown

Assessment Tool	% of Grade
Hands-on exercises (10)	25
Paper presentation	5
Course Project	40
Comprehensive exam	30
TOTAL	100

Assignment Submission Policy

Homework assignments, hands-on exercises, and project deliverables will be submitted to Blackboard. **NO** late submissions will be accepted.

Grading Timeline

Grades for student coursework are typically posted within a week after the deadline. Regarding requests must be made within a week after the grades have been posted. A regarding session will be held for the comprehensive exam; no changes to the grades are permitted after the regrading session.

Additional Policies

Students may request makeups in the event of special needs (e.g., medical emergency). A documented proof (e.g., doctor notes) should accompany the requests. Requests should be made well in advance and before the deadline or exam dates. Students are responsible for arranging events of non-emergency nature, such as job interviews and doctor appointments, to avoid conflicts with the class schedule.

Course Schedule: A Weekly Breakdown (subject to change when the course progresses)

Week 1: Course introduction (1/8) – Prof. Wu and Prof. Miric

Topics:

- Data science challenges in business, economics, and society
- Review of machine learning techniques:
  - Regression (linear and logistic)
  - Classification (random forests and naïve Bayes)
  - Clustering (k-meaning)
  - Neural network
- Causal inference

Readings	**Required:** • Cao, Longbing. "Data science: challenges and directions." Communications of the ACM 60, no. 8 (2017): 59-68. • [Géron19] Chapters 1 and 2
Hands-on	• Installing and setting up Jupyter Notebook

Week 2: Data science for business 1 (1/15) -- Prof. Miric

Topics:

- Business problems and data science solutions
- Data-driven marketing
- Key performance indicators
- Drivers behind marketing engagement (via regression analysis)

- From engagement to conversion (via decision tree analysis)

Readings	**Required:** • **[Hwang19]** Chapters 1, 2, 3, and 4 • **[Provost13]** Chapters 1 and 2
Data sets	• UCI's Bank Marketing Data Set • IBM Watson Marketing Customer Value Data
Hands-on	• Walk through examples in [**Hwang19] chapters 3 and 4** • Python libraries: sklearn, pandas, matplotlib, graphviz

Week 3: Data science for business 2 (1/22) -- Prof. Miric

Topics:

- Product analytics
- Recommending right products (via collaborative filtering)

Readings	**Required:** • **[Hwang19]** Chapters 5 and 6 **Optional:** • Jure Leskovec, Anand Rajaraman, Jeff Ullman. Mining of Massive Datasets. Chapter 9 (Recommendation system). 3rd edition. 2020. Download here.
Data sets	• UCI's Online Retail Data Set
Hands-on	• Walk through examples in [**Hwang19] chapters 5 and 6** • Python libraries: sklearn, pandas, matplotlib

Week 4: Data science for business 3 (1/29) -- Prof. Miric

Topics:

- Exploratory analysis of customer behaviors
- Predicting the likelihood of marketing engagement (using random forest)
- Predicting customer lifetime value (via regression analysis)

Readings	**Required:** • **[Hwang19]** Chapters 7, 8, and 9
Data sets	• UCI's Online Retail Data Set
Hands-on	• Walk through examples in [**Hwang19] chapter 9** • Python: sklearn, pandas, matplotlib
Project	• Proposal due

Week 5: Data science for business 4 (2/5) -- Prof. Miric

Topics:

- Data-driven customer segmentation (via clustering)
- Predicting customer churn (using ANN and deep learning)
- A/B testing for better marketing strategies

Readings	**Required:** • **[Hwang19]** Chapters 10, 11, and 12
Data sets	• Telco Customer Churn Data Set • UCI's Online Retail Data Set
Hands-on	• Walk through examples in [**Hwang19] chapters 10 and 11** • Python: sklearn, pandas, matplotlib, Keras

Week 6: Case studies (2/12) -- Prof. Miric

Topics:

- Industry transformation with Big Data
- Data Science at **Target**
- **VIACOM**: Democratization of Data Science
- **SenseTime**: World's Most Valuable Artificial Intelligence Startup
- Predicting Consumer Tastes with Big Data at **Gap**

Readings	**Required:** • Datar, Srikant M., and Caitlin N. Bowler. "Data Science at Target." Harvard Business School Case 118-016, October 2017. (Revised July 2018.) • Shane Greenstein and Christine Snively. Viacom: Democratization of Data Science. Harvard Business Review, January 2018. • Bernard Marr. Meet The World's Most Valuable AI Startup: China's SenseTime. Forbes Magazine, July 2019. • Israeli, Ayelet, and Jill Avery. "Predicting Consumer Tastes with Big Data at Gap." Harvard Business School Case 517-115, May 2017. (Revised March 2018.) **Optional:** • What Great Data Analysts Do — and Why Every Organization Needs Them. Harvard Business Review, December 2018. • What Great Data Analysts Do — and Why Every Organization Needs Them. Harvard Business Review, December 2018.

Week 7: Econometrics and data science 1 (2/19) -- Prof. Miric

Topics:

- Introduction to econometrics (micro and panel econometrics)
- Consumption study via regression analysis
- Growth forecasting via time-series analysis

Readings	**Required:** • [Nokeri21] Chapters 1, 2, 3, and 4 **Optional:** • Einav, Liran, and Jonathan Levin. "Economics in the age of big data." Science 346, no. 6210 (2014). • Athey, Susan. "Beyond prediction: Using big data for policy problems." Science 355, no. 6324 (2017): 483-485. • Bluhm, Benjamin, and Jannic Cutura. "Econometrics at scale: Spark up big data in economics." (2020). • Sean J. Taylor, Benjamin Letham (2018) Forecasting at scale. The American Statistician 72(1):37-45
Dataset	• World bank open data
Hands-on	• Walk through examples in [Nokeri21] chapter 4 • Python libraries: wbdata, statsmodels, sklearn, matplotlib, prophet

Week 8: Econometrics and data science 2 (2/26) -- Prof. Miric

Topics:

- Classifying economic data via logistic regression
- Finding hidden patterns in world economy and growth
- Clustering GNI per capita

Readings	**Required:** • [Nokeri21] Chapters 5, 6 and 7 **Optional:** • Michael Galarnyk. PCA using Python (scikit-learn). Online. 2017. • L. Rabiner and B. Juang, "An introduction to hidden Markov models," in IEEE ASSP Magazine, vol. 3, no. 1, pp. 4-16, Jan 1986, doi: 10.1109/MASSP.1986.1165342. • Varian, Hal R. "Big data: New tricks for econometrics." Journal of Economic Perspectives 28, no. 2 (2014): 3-28.
Dataset	• World bank open data
Hands-on	• Walk through examples in [Nokeri21] chapter 6 • Python libraries: hmmlearn, sklearn
Project	• Midterm progress report due

Week 9: Data science for society 1: Education data science I (3/4) -- Prof. Wu

Topics:

- Education data science pipeline with online science class data
- Case study A: Using school-level aggregate data to illuminate education inequalities
- Case study B: Predicting students' final grades using machine learning with online course data

Readings	**Required:** • [Estrellado21] Estrellado, Ryan A., Abingdon, Oxon. Data science in education using R. New York, NY, Routledge, 2021. Available online at USC library. (Chapters 7, 9, 11, and 14 only) ○ Class examples will be based on Python instead. **Optional:** • Coulton, Claudia J., Robert Goerge, Emily Putnam-Hornstein, and Benjamin de Haan. "Harnessing big data for social good: A grand challenge for social work." Cleveland: American Academy of Social Work and Social Welfare (2015): 1-20. • Kshirsagar, Meghana, Caleb Robinson, Siyu Yang, Shahrzad Gholami, Ivan Klyuzhin, Sumit Mukherjee, Md Nasir et al. "Becoming Good at AI for Good." arXiv preprint arXiv:2104.11757 (2021). • Tomašev, Nenad, Julien Cornebise, Frank Hutter, Shakir Mohamed, Angela Picciariello, Bec Connelly, Danielle CM Belgrave et al. "AI for social good: unlocking the opportunity for positive impact." Nature Communications 11, no. 1 (2020): 1-6.

Dataset	• Online science class data:
	  ○ Self-report survey on students' motivation
	  ○ Log-trace data (time students spent on Blackboard)
	  ○ Student academic performance data
	• School aggregate data:
	  ○ Minneapolis public schools annual student racial/ethnic count
	  ○ Student meal reduce price data

Hands-on	• Walk through example in [Estrellado21] chapter 7

Week 10: Data science for society 2: Education data science (3/18, note week of 3/11 is Spring break) -- Prof. Wu

Topics:

- Exploratory factor analysis on student's self-efficacy
- Correlation of computing attitudes with students' class performance

- Group analyses on the impact of gender and academic backgrounds

Readings	**Required:** • B Dorn, A Elliott Tew. Empirical validation and application of the computing attitudes survey. Computer Science Education, Taylor & Francis, 2015. • Elliott Tew, Allison, Brian Dorn, and Oliver Schneider. "Toward a validated computing attitudes survey." In Proceedings of the ninth annual international conference on International computing education research, pp. 135-142. 2012. • Bockmon, Ryan, Stephen Cooper, Jonathan Gratch, and Mohsen Dorodchi. "Validating a CS attitudes instrument." In Proceedings of the 51st ACM Technical Symposium on Computer Science Education, pp. 899-904. 2020.
Dataset	• Survey data on self-efficacy and computing attitudes
Hands-on	• R psych library; factor analysis model in Python scikit-learn.

Week 11: Data science for society 3: Public health and healthcare (3/25) -- Prof. Wu

Topics:

- Emergence and future of public health data science
- Case study A: Predictive analytics and machine learning for healthcare
- Case study B: Drug overdose epidemic

Readings	**Required:** • Jeff Goldsmith, et. al. The Emergence and Future of Public Health Data Science. Public Health Reviews, April 2021. • Jaquie Finn, Gavin Troughton, Paul Baxter, Martin Cookson, Katie Cornish, Joe Corrigan, Yan Lin Lye, Noga Sella, Sam Pumphrey, Ian Taylor, Chris Wagner. Predictive Analytics for Healthcare. O'Reilly Media, Inc. 2020. ISBN: 9781492090021. Available online at USC library. • Puneet Mathur. Machine Learning Applications Using Python: Cases Studies from Healthcare, Retail, and Finance. Apress, 2018. Available online at USC library. (Chapters 1, 2 3, and 4 only) • Tara Boyle. The Opioid Crisis in Data: Exploratory Analysis of opioid overdose deaths using Medicare and Medicaid prescription data. July 2019.
Data sets	• CDC (center for disease control and prevention) opioid data

Week 12: Data science for society 4: Public safety (4/1) -- Prof. Wu

Topics:

- Stanford Open Policing project
- Case study A: Crime prediction and prevention
- Case study B: Racial disparities in policing

Readings	**Required**: • Exploring United States Policing Data Using Python. https://blog.patricktriest.com/, 2017. • Will Keefe. Crime Location Analysis and Prediction Using Python and Machine Learning. Towards Data Science. October 2021. **Optional**:

	• E. Pierson, et. al. A large-scale analysis of racial disparities in police stops across the United States. Nature Human Behavior, vol. 4, 2020.
Data sets	• Standardized traffic stop data
Libraries	• Folium, SciPy

Week 13: Data science for society 5: Public policy and social services (4/8) -- Prof. Wu

Topics:

- Citizen science and public policy
- Data science for social work practice
- Case study: Catching rogue trains with data science

Readings	**Required:** • Guerrini, Christi J., Mary A. Majumder, Meaganne J. Lewellyn, and Amy L. McGuire. "Citizen science, public policy." Science 361, no. 6398 (2018): 134-136. • Cariceo, Oscar, Murali Nair, and Jay Lytton. "Data science for social work practice." Methodological Innovations 11, no. 3 (2018): 2059799118814392. • A catalog of civic data use cases. Data-smart city solutions, April 2021. • How the Circle Line rogue train was caught with data. Open Government Products, 2016. **Optional:** • Data science and the public good, Liu Feng-Yuan. TEDxNUS, 2017.
Hands-on	• Circle line analytics

Week 14: Student project presentation (4/15) -- Prof. Wu and Prof. Miric

Project	• Project in-class demo • Demo video due

Week 15: Exam, project demo (continued), evaluation (4/22) -- Prof. Wu and Prof. Miric

Project	• Project in-class demo (continued) • Comprehensive exam
Evaluation	Student project peer evaluation due

FINAL Week: Project Final Report due on the university-scheduled date of the final exam **-- Prof. Wu and Prof. Miric**

Statement on Academic Conduct and Support Systems

Academic Integrity:
The University of Southern California is a learning community committed to developing successful scholars and researchers dedicated to the pursuit of knowledge and the dissemination of ideas. Academic misconduct, which includes any act of dishonesty in the production or submission of academic work, comprises the integrity of the person who commits the act and can impugn the perceived integrity of the entire university community. It stands in opposition to the university's mission to research, educate, and contribute productively to our community and the world.

All students are expected to submit assignments that represent their own original work, and that have been prepared specifically for the course or section for which they have been submitted. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s).

Other violations of academic integrity include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), collusion, knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university. All incidences of academic misconduct will be reported to the Office of Academic Integrity and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the student handbook or the Office of Academic Integrity's website, and university policies on Research and Scholarship Misconduct.

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

Course Content Distribution and Synchronous Session Recordings Policies
USC has policies that prohibit recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class without the express permission of the instructor and announcement to the class, or unless conducted pursuant to an Office of Student Accessibility Services (OSAS) accommodation. Recording can inhibit free discussion in the future, and thus infringe on the academic freedom of other students as well as the instructor. (Living our Unifying Values: The USC Student Handbook, page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relationship to the class, whether obtained in class, via email, on the internet, or via any other media. (Living our Unifying Values: The USC Student Handbook, page 13).

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

988 Suicide and Crisis Lifeline - 988 for both calls and text messages – 24/7 on call
The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL) – 24/7 on call
Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086
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
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 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) 740-0411
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
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
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) 442-1200 – 24/7 on call
Non-emergency assistance or information.

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

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) 442-2850 or otfp@med.usc.edu
Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.