# USC Suzanne Dworak-Peck
School of Social Work

## Social Work 721

### Section 67724

### Data Driven Decision Making in Social Services

### 3 Units

### *Summer 2021*

| | | | |
|---|---|---|---|
| **Instructor:** | Rick Newmyer, MSW | | |
| **Email:** | [newmyer@usc.edu](mailto:newmyer@usc.edu) | **Course Day:** | Tuesday |
| **Telephone:** | 619.370.1350 | **Course Time:** | 5:00 to 7:00 p.m. PST |
| **Office Hours:** | By appointment (flexible) | | |

## Course Pre-requisites, Co-requisites, and Concurrent Enrollment

None

## Catalogue Description

This course serves as a practical introduction to using quantitative administrative data to identify trends, track performance, evaluate programs, and drive decision making.

## Course Description

Leaders and innovators in the world of social work must be conversant in data. In the contemporary social service and policy landscape, funders are increasingly concerned with seeing concrete evidence to support the continuation of programs and policy makers are increasingly demanding data to support policy change. Fortunately, administrative data, social media data, program evaluation, and community needs assessments are all readily available sources of data which are increasingly being used to push for social justice and meaningful program development and policy change. This course covers research methodologies and statistics, but with a focus on their application as leaders and innovators. The purpose is to provide students with the practical and conceptual skills needed to manage, analyze, interpret, and present quantitative findings from data generated through agency operations. Learning how to interpret statistics, visual presentations of statistics, and conceptualizing the measurement and rigorous assessment of new innovations and policy change initiative will be emphasized. Ethical considerations and practical issues on using data originally collected for non-research purposes will also be discussed. The course also introduces students to developments in data science and artificial intelligence which are emerging as new methods to analyze big data within social work. Assignments will be oriented around hands-on work with existing data sources and integrating them into student's work on their capstone innovation and their application to the Social Work Grand Challenges.

## Course Objectives

1.  Confront, evaluate, and use large ideas grounded in the Grand Challenges for Social Work as defined by the American Academy of Social Work and Social Welfare (AASWSW).
2.  Leverage evidence from secondary sources in addition to primary data collection strategies to assess the existing social and practice landscape as a basis for designing new responses to complex social problems.
3.  Apply relevant social work and social science theories of problem causation to develop ideas for change, program or policy implementation, and evaluation.

## Course Format / Instructional Methods

This course follows a "service-learning" model. Students will be asked to develop assignments that align and inform broader policy objectives related to the Social Work Grand Challenges. As such, students are given the opportunity to apply their methodological training to a problem that is immediately relevant to the field at large.

Weekly units are organized as a combination of lecture/discussion of academic literature, technical reports, and other available data sources. In order to solidify connections between the topics covered and Social Work practice and policy, asynchronous lectures will include speakers from the community who will describe the manner in which data are being utilized by their agencies.

## Student Learning Outcomes

The following table lists DSW Program Goals and the DSW Program Competencies/Student Learning Outcome Objectives:

| DSW Program Goals | | |
|---|---|---|
| * | 1 | The foundation for the DSW curriculum and student academic products rests on three pillars: (1) problem definition within the Grand Challenges for Social Work; (2) innovative design; and (3) executive leadership in human service organizations and community contexts. |
| * | 2 | Student academic work will culminate in a substantive advance in practice or policy related to one of the Grand Challenges for Social Work |
| * | 3 | Aligned with the goals for a science of social work, curricula will be multi- and interdisciplinary and reflect diverse public and private sector perspectives on social innovation and organizational problem-solving in complex systems |
| * | 4 | Courses will emphasize bold action leading to scaling of programs, disruption, or other changes that promote social justice and human potential. |
| * | 5 | Graduates will emerge as effective leaders in social work or allied fields, prepared to excel in executive management roles |
| * | 6 | Graduates will emerge as capable public intellectuals who exemplify the core values, ethical principles, and standards of the NASW Code of Ethics. |

*\* Highlighted in this course*

| DSW Program Competencies/Student Learning Outcome Objectives | | |
|:---:|:---:|:---|
| * | 1 | Confront, evaluate, and use large ideas grounded in the Grand Challenges for Social Work as defined by the American Academy of Social Work and Social Welfare (AASWSW). |
| * | 2 | Leverage evidence from secondary sources in addition to primary data collection strategies to assess the existing social and practice landscape as a basis for designing new responses to complex social problems |
| * | 3 | Apply relevant social work and social science theories of problem causation to develop ideas for change, program or policy implementation, and evaluation |
| | 4 | Master creative, expansive, and rigorous design principles that advance innovation and invention in social solutions. |
| | 5 | Effectively lead others in future efforts to brainstorm, refine, and implement forward-thinking solutions to complex social problems across organizational boundaries |
| | 6 | Accurately map the organizational and policy environment affecting options for social change. |
| * | 7 | Use logic models to carefully plan for and maximize impact with proposed interventions |
| * | 8 | Organize financial and program data for decision-making, communication, and evaluation to improve program and policy outcomes in human service organizations. |
| | 9 | Confidently employ a variety of media and methods to influence and communicate with professional, political, academic, and general public audiences |
| | 10 | Create positive social impact in complex systems and at scale. |

*\* Highlighted in this course*


See **Appendix A** for an expanded table, which details the competencies and dimensions of competence highlighted in this course.  The table also shows the course objective(s), behaviors/indicators of competence, and course content and assignments related to each competency highlighted in the course.


## Course Assignments, Due Dates, and Grading

| Assignment | Due Date | % of Final Grade |
|:---|:---|:---|
| Assignment 1:   Written introduction to Grand Challenge topic and description of data to be used throughout the semester | Week 4 | 25% |
| Assignment 2:   Grand Challenge infographic | Week 8 | 25% |
| Assignment 3:   Final presentation of Grand Challenge Pilot Test and submission of slide deck | Week 11/12 | 40% |
| Class Participation: Critical commentary on topics in live session & asynchronous | Each Week | 10% |

Each of the major assignments is described below.

\* Additional details for each assignment to be provided on the VAC platform.

**Assignment 1:** Students will be asked to provide a brief literature review of their grand challenge capstone area, focused on quantitative and statistical findings that support the need for their capstone innovation.  In addition, a deep dive into 3 of these data sources, the methods undergirding the data, and the possible sources of bias are to conclude this assignment.

**Assignment 2:** Using infographic design software (e.g., https://infogr.am), students will be asked to develop a digital poster for presenting data concerning their Grand Challenge.

**Assignment 3:** For the final assignment of the semester, students will do an in-class presentation of their plan for an initial pilot test (or Beta test) of their grand challenge innovation. Presentations are 15-20 minutes depending upon the size of the class.

**Expectations for Class Participation**: Social workers have an ethical imperative to rely on practices and policies supported by empirical evidence. Throughout this course, students will be challenged to critically evaluate research findings encountered – particularly those that are cited as justification for either maintaining the practice/policy status quo, or as a call for change. In both discussions and written assignments, students are expected to draw upon data when arguing a particular point and to make explicit those assumptions that fall outside of the evidentiary research base. Students are expected to be active and open-minded participants in group discussions. An inclusive classroom environment will be promoted in which a diversity of perspectives emerge and respectful debates ensue. Students should challenge one another (and the instructor) to consider rival alternatives to one's hypotheses and to play the role of "skeptic".

Class grades will be based on the following:

| Grade Points | | Letter Grades | |
|---|---|---|---|
| 3.85 – 4.00 | A | 93 – 100 | A |
| 3.60 – 3.84 | A- | 90 – 92 | A- |
| 3.25 – 3.59 | B+ | 87 – 89 | B+ |
| 2.90 – 3.24 | B | 83 – 86 | B |
| 2.60 – 2.89 | B- | 80 – 82 | B- |
| 2.25 – 2.59 | C+ | 77 – 79 | C+ |
| 1.90 – 2.24 | C | 73 – 76 | C |
| | | 70 – 72 | C- |

See **Appendix B** for additional details regarding the definitions of grades and standards established by faculty of the School.

## Attendance and Participation

Students' active involvement in the class is considered essential to their growth as practitioners. Consistent attendance, preparation for and participation in class discussions and activities, timely completion of coursework and assignments, and personal conduct that fosters a respectful, collegial, and professional learning environment are expected. Having more than 2 unexcused absences in class may result in the lowering of the grade. For VAC and remote/hybrid Ground courses, substantive participation includes maintaining an active screen in live sessions and completing all asynchronous content and activities prior to the scheduled live class discussion. Failure to complete 2 or more asynchronous units before the live class, without prior instructor permission, also may result in a lowered grade.

**Class participation will be assessed according to the following criteria:**

"A" grade range: Very Good to Outstanding Participation: Contributions in class reflect thorough preparation, and participation is substantial. Ideas offered are always substantive. Regularly provides one or more major insights and comments that provoke deeper thought. If this person were not a member of the class, the quality of discussion and class activities would be diminished markedly.

"B" grade range: Good Participation: Contributions in class reflect solid preparation. Ideas offered are usually substantive, and participation is regular. Provides generally useful insights and some comments that provoke thought. If this person were not a member of the class, the quality of discussion would be diminished somewhat.

"C+" or "C": Adequate Participation: Contributions in class reflect some preparation. Ideas offered are somewhat substantive. Provides some insights, but seldom offers comments that provoke deeper thought. Participation is somewhat regular. If this person were not a member of the class, the quality of discussion would be diminished slightly.  Please note: The minimum passing grade at the graduate level is "C".

"C-" or "D": Inadequate Participation: Says little in class and does not adequately participate in activities or present insights or ideas. Does not appear to be engaged. Submits late work. If this person were not a member of the class, the quality of discussion would not be affected.

"F": Nonparticipant/Unsatisfactory Participation: Misses class. When present, contributions in class, if any, reflect inadequate preparation.  Ideas offered are seldom substantive, and behavior may be inappropriate and/or disrespectful. Unable to work effectively on in-class assignments/activities and detracts from the learning process. Regularly misses assignment deadlines, if work is submitted at all.


## Required Instructional Materials and Resources

### Required Textbooks

None

### Course Reader

N/A, all readings are available online through USC library access.

### Notes:

- Additional required and recommended readings may be assigned by the instructor throughout the course.
- See **Appendix C** for recommended instructional materials and resources

## Course Overview

| Unit | Date | Topics | Asynchronous Content | Assignments |
|------|------|--------|---------------------|-------------|
| 1 | 5/18 | Course Introduction | • Data and the Grand Challenges of Social Work <br> • Relationship between organizational leaders and data <br> • Sources of data <br> • How to effectively read research articles (including those pesky tables!) | |
| 2 | 5/25 | Critically Consuming Research | • Data and research methods 101 (review) <br> • Sources of bias <br> • Causal inference | |
| 3 | 6/1 | Matching Objectives to Data Sources and Methods | • Data for program evaluation <br> • Data for continuous quality improvement <br> • Data for measuring outcomes and accountability | |
| 4 | 6/8 | Administrative Data in Public and Nonprofit Sectors | • Operationalizing concepts using existing data <br> • Sampling frameworks / defining the universe of records <br> • Reliability and validity in the context of administrative data | |
| 5 | 6/15 | Visualizing Data to Tell Stories | • Using charts and tables to summarize data <br> • The role of technology in visualizing statistics <br> • Messaging with infographics | Assignment 1 due |
| 6 | 6/22 | Developing Program and Policy Evidence | • Using retrospective data to answer prospective questions <br> • Cost-effective RCTs of social service programs <br> • Quasi-experimental evaluations <br> • Case Study: Orange County Prevention and | |

| | | | Early Intervention Program | |
|---|---|---|---|---|
| 7 | 6/29 | Data for population surveillance & Ethics | • Community-based surveillance methods <br> • Random sampling based surveillance methods <br> • Institutional review boards <br> • Health Insurance Portability and Accountability Act (HIPAA) | |
| 8 | 7/6 | Predictive Analytics and Risk Modeling | • Predictive risk modeling <br> • TAY Triage Tool case study <br> • Artificial Intelligence and the future of predictive modelling | Assignment 2 due |
| 9 | 7/13 | Foundational issues in statistics and Inferential Statistics | • Review of univariate statistics <br> • Probability distributions <br> • Means, proportions, rates, and ratios <br> • T-tests, ANOVA, 2 test, z-test <br> • p-values: statistical significance vs. practical significance | |
| 10 | 7/20 | Multivariable Modeling 101: A Conceptual Overview of Linear Regression & Logistic Regression | • Linear and logistic regression <br> • Generalized linear models | |
| 11 | 7/27 | Multivariable Modeling 102: A Conceptual Overview | • Survival analysis <br> • Hierarchical models <br> • Structural equation models | Assignment 3 In Class Presentations |
| 12 | 8/3 | AI, Machine Learning and Social work | • How Social Work Science and Computer Science can collaborate on Grand Challenges | Assignment 3 In Class Presentations |

<div align="center">**Course Schedule—Detailed Description**</div>

### Unit 1 – Week of 5/18

*Topics*

- Data and the Grand Challenges of Social Work
- Relationship between organizational leaders and data
- Sources of data
- How to effectively read research articles (including those pesky tables!)

This unit relates to course objective(s) 1, 2, 3.

### *Required Readings*

- Coulton, Goerge, Putnam-Hornstein, & de Haan: "Harnessing Big Data for Social Good: A Grand Challenge for Social Work" http://aaswsw.org/wp-content/uploads/2015/10/Big-Data-GC-edited-and-formatted-correct-references.pdf
- Rice, E., Kurzban, S., & Ray, D. (2012). Homeless but connected: the role of heterogeneous social network ties and social networking technology in the mental health outcomes of street-living adolescents. *Community Mental Health Journal, 48*(6), 692-698.

### *Recommended Readings*

- Harvard Business Review: "Keep Up with Your Quants" https://hbr.org/2013/07/keep-up-with-your-quants/ar/3
- Petering, R., Rice, E., & Rhoades, H. (2016). Violence in the Social Networks of Homeless Youths: Implications for Network-Based Prevention Programming. *Journal of Adolescent Research, 31*(5), 582-605.
- Harris, T., Rice, E., Rhoades, H., Winetrobe, H., & Wenzel, S. (2017). Gender Differences in the Path From Sexual Victimization to HIV Risk Behavior Among Homeless Youth. *Journal of Child Sexual Abuse, 26*(3), 334-351.
- Rice, E., Craddock, J., Hemler, M., Rusow, J., Plant, A., Montoya, J., & Kordic, T. (2017). Associations Between Sexting Behaviors and Sexual Behaviors Among Mobile Phone-Owning Teens in Los Angeles. *Child Development*.

### Unit 2 – Week of 5/25

*Topics*

- Data and research methods 101 (review)
- Sources of bias
- Causal inference

This unit relates to course objective(s) 1, 2, 3.

*Required Readings*

- John Ioannidis "Why Most Published Research Findings are False": http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0020124

- Palinkas, L. A. (2014). Causality and Causal Inference in Social Work: Quantitative and Qualitative Perspectives. *Research on Social Work Practice*.

- Emily Oster "Flip your thinking on AIDS in Africa" https://www.ted.com/talks/emily_oster_flips_our_thinking_on_aids_in_africa

- The New Yorker "How a Gay-Marriage Study Went Wrong" http://www.newyorker.com/science/maria-konnikova/how-a-gay-marriage-study-went-wrong

*Recommended Readings*

- The B Files: Case Studies of Bias in Real Life Epidemiologic Studies. "Should we stop drinking coffee? The story of coffee and pancreatic cancer"

- FiveThirtyEight: http://fivethirtyeight.com

- Everything is correlated: http://www.correlated.org/

- "Are Fats Unhealthy? The Battle Over Dietary Guidelines" http://www.nytimes.com/2015/10/13/upshot/are-fats-unhealthy-the-battle-over-dietary-guidelines.html?rref=upshot&_r=0

- David Brockman & Joshua Kalla "Irregularities in LaCour" http://stanford.edu/~dbroock/broockman_kalla_aronow_lg_irregularities.pdf

- Engel, R. J., & Schutt, R. K. (2012). Chapter 1 Science, Society, and Social Work Research. In *The practice of research in social work*. Sage Publications.

## Unit 3 – Week of 6/1

*Topics*

- Data for program evaluation

- Data for continuous quality improvement

- Data for measuring outcomes and accountability

This unit relates to course objective(s) 2, 3.

*Required Readings*

- Chris Anderson: "The End of Theory: The Data Deluge Makes the Scientific Method Obsolete" http://www.wired.com/2008/06/pb-theory/

- Coalition for Evidence-Based Policy Making: "Which Study Designs are Capable for Producing Valid Evidence about a Program's Effectiveness?"

http://coalition4evidence.org/wp-content/uploads/2014/10/Which-Study-Designs-are-Capable-of-Producing-Valid-Evidence-of-Effectiveness.pdf

- Bruce D. Meyer & Nikolas Mittag: **"**Using Linked Survey and Administrative Data to Better Measure Income: Implications for Poverty, Program Effectiveness and Holes in the Safety Net": NBER Working Paper

### *Recommended Readings*

- Engel, R. J., & Schutt, R. K. (2012). Chapter 13 Evaluation Research. In *The practice of research in social work*. Sage Publications.

## Unit 4 – Week of 6/8

### *Topics*

- Operationalizing concepts using existing data
- Sampling frameworks / defining the universe of records
- Reliability and validity in the context of administrative data
- Structured and unstructured fields

This unit relates to course objective(s) 1, 2, 3.

### *Required Readings*

- Card, D., Chetty, R., Feldstein, M., & Saez, E. (n.d.) Expanding access to administrative data for research in the United States. National Science Foundation. Retrieved January 11, 2020 from: https://pdfs.semanticscholar.org/a4f5/38bb04fa41323790d02024b637869aea3885.pdf?_ga=2.102815808.1597860752.1578805217-850795989.1578805217
- Putnam-Hornstein E, Needell B, & Rhodes AE. (2013). Understanding risk and protective factors for child maltreatment: the value of integrated, population-based data. *Child Abuse & Neglect, 37*(2-3), 116-119. [PMID: 23260115]
- Stuart Buck & Josh McGee: "Why Government Needs More Randomized Controlled Trials: Refuting the Myths" https://craftmediabucket.s3.amazonaws.com/uploads/PDFs/RCT_FINAL.pdf

### *Recommended Readings*

- Engel, R. J., & Schutt, R. K. (2012). Chapter 4 Measurement. In *The practice of research in social work*. Sage Publications.
- Engel, R. J., & Schutt, R. K. (2012). Chapter 5 Sampling. In *The practice of research in social work*. Sage Publications.

## Unit 5 – Week of 6/15

### *Topics*

- Using charts and tables to summarize data
- The role of technology in visualizing statistics
- Messaging with infographics

This unit relates to course objective(s) 2, 3.

### Required Readings
- Hans Rosling: "The Best Stats You've Ever Seen"
  https://www.youtube.com/watch?v=hVimVzgtD6w
- Tableau: "Data Visualisation Literacy: Learning to See"
  http://www.tableau.com/learn/webinars/data-literacy-learning-to-see
- David McCandless: "The Beauty of Data Visualization"
  http://www.ted.com/talks/david_mccandless_the_beauty_of_data_visualization?language=en

### Recommended Readings
- "Junk Charts" (Recycling chart junk as junk art w/ statistician Kaiser Fung):
  http://junkcharts.typepad.com/
- "Visualizing Data" http://www.visualisingdata.com/blog/
- Infographics: https://infogr.am/

## Unit 6 – Week of 6/22

### Topics
- Using retrospective data to answer prospective questions
- Cost-effective RCTs of social service programs
- Quasi-experimental evaluations
- Case Study: Orange County Prevention and Early Intervention Program

This unit relates to course objective(s) 1, 2, 3.

### Required Readings
- Ron Haskins:  "Social Programs that Work"
  http://www.nytimes.com/2015/01/01/opinion/social-programs-that-work.html
- Stuart Buck & Josh McGee: "Why Government Needs More Randomized Controlled Trials: Refuting the Myths"
  https://craftmediabucket.s3.amazonaws.com/uploads/PDFs/RCT_FINAL.pdf
- Hyatt, S. (2013). More than a roof: How California can end youth homelessness. *California Homeless Youth Project*. http://cahomelessyouth.library.ca.gov/docs/pdf/More-Than-a-Roof-FINAL.pdf
- Hyatt, S., Walzer, B., & Julianelle, P. (2014). *California's Homeless Students: A Growing Population*. CA Homeless Youth Project, CA Research Bureau, CA State Library.

http://cahomelessyouth.library.ca.gov/docs/pdf/CaliforniasHomelessStudents_AGrowingPopulation.pdf

*Recommended Readings*

- Engel, R. J., & Schutt, R. K. (2012). Chapter 7 Group Experimental Designs. In *The practice of research in social work*. Sage Publications.

## Unit 7 – Week of 6/29

*Topics*

- Community-based surveillance methods
- Random sampling based surveillance methods
- Institutional review boards
- Waivers of informed consent / assent
- Information Practices Act
- Health Insurance Portability and Accountability Act (HIPAA)

This unit relates to course objective(s) 2, 3.

*Required Readings*

- Rice, E., Barman-Adhikari, A., Rhoades, H., Winetrobe, H., Fulginiti, A., Astor, R., ... & Kordic, T. (2013). Homelessness experiences, sexual orientation, and sexual risk taking among high school students in Los Angeles. *Journal of Adolescent Health*, *52*(6), 773-778.
- Rice, E., Winetrobe, H., & Rhoades, H. (2013). Hollywood homeless youth point-in-time estimate project: an innovative method for enumerating unaccompanied homeless youth. hhyp.org/wp-content/uploads/2013/02/HHYP_Point-in-Time_Brief_5.pdf
- Putnam-Hornstein E, Webster D, Needell B, & Magruder J. (2011). A public health approach to child maltreatment surveillance. Child Abuse Review, 20, 256-273.
- Currie, J. (2013). "Big Data" versus "Big Brother": On the appropriate use of large-scale data collections in pediatrics. *Pediatrics, 131* (Supplement): S127-S132.
- Petrila, J. Legal issues in the use of electronic data systems for social science research. https://www.aisp.upenn.edu/wp-content/uploads/2015/09/0033_12_SP2_Legal_Issues_Data_Systems_000.pdf

*Recommended Readings*

- Culhane, D. P., Fantuzzo, J., Rouse, H. L., Tam, V., & Lukens, J. (2010). Connecting the Dots: The Promise of Integrated Data Systems for Policy Analysis and Systems Reform. *Intelligence for Social Policy,* Retrieved from http://repository.upenn.edu/spp_papers/146

- Engel, R. J., & Schutt, R. K. (2012). Chapter 9 Survey Research. In *The practice of research in social work*. Sage Publications.
- NASW code of ethics. (n.d.). Available from http://www.naswdc.org/pubs/code/
- USC's IRB. Retrieved from http://www.usc.edu/admin/provost/irb/

## Unit 8 – Week of 7/6

*Topics*
- Predictive risk modeling
- TAY Triage Tool case study
- Artificial Intelligence and the future of predictive modelling

This unit relates to course objective(s) 2, 3.

*Required Readings*
- Rice, E. (2013). The TAY Triage Tool: A tool to identify homeless transition age youth most in need of permanent supportive housing. http://www.csh.org/wp-content/uploads/2014/02/TAY_TriageTool_2014.pdf
- Rice, E., & Rosales, A. (2015). TAY Triage Tool pilots report. http://www.csh.org/wp-content/uploads/2015/06/TAY-Triage-Tool-Pilots-Report_FINAL.pdf
- Cuccaro-Alamin, S., Foust, R., Vaithianathan, R., & Putnam-Hornstein, E. (2017). Risk assessment and decision making in child protective services: Predictive risk modeling in context. *Children and Youth Services Review*, *79*, 291-298.

*Recommended Readings*
- Putnam-Hornstein, E., & Needell, B. (2011). Predictors of child protective service contact between birth and age five: An examination of California's 2002 birth cohort. *Children and Youth Services Review, 33*(11), 2400-2407.

## Unit 9 – Week of 7/13

*Topics*
- Review of univariate statistics
- Probability distributions
- Means, proportions, rates, and ratios
- T-tests, ANOVA, 2 test, z-test
- p-values: statistical significance vs. practical significance

This unit relates to course objective(s) 2, 3.

*Required Readings*

- Christie Aschwanden "Not Even Scientists Can Easily Explain p-Values": http://fivethirtyeight.com/features/not-even-scientists-can-easily-explain-p-values/

- Rice, E., Lester, P., Flook, L., Green, S., Valladares, E. S., & Rotheram-Borus, M. J. (2009). Lessons learned from "integrating" intensive family-based interventions into medical care settings for mothers living with HIV/AIDS and their adolescent children. *AIDS and Behavior*, *13*(5), 1005.

- Rhoades, H., Winetrobe, H., & Rice, E. (2015). Pet ownership among homeless youth: Associations with mental health, service utilization and housing status. *Child Psychiatry & Human Development*, *46*(2), 237-244.

- Winetrobe, H., Rhoades, H., Rice, E., Milburn, N., & Petering, R. (2017). "I'm not homeless, I'm houseless": identifying as homeless and associations with service utilization among Los Angeles homeless young people. *Journal of Social Distress and the Homeless*, *26*(1), 16-24.

### *Recommended Readings*

- Hoffman, R. D. (2003). Internet glossary of statistical terms. Retrieved from http://www.animatedsoftware.com/statglos/statglos.htm

## Unit 10 – Week of 7/20

### *Topics*

- Linear and logistic regression
- Generalized linear models

This unit relates to course objective(s) 2, 3.

### *Required Readings*

- "The Discovery of Statistical Regression": http://priceonomics.com/the-discovery-of-statistical-regression/

- Blosnich, J. R., & Andersen, J. P. (2015). Thursday's child: the role of adverse childhood experiences in explaining mental health disparities among lesbian, gay, and bisexual US adults. Social Psychiatry and Psychiatric Epidemiology, 50(2), 335-338.

- Rice, E., Monro, W., Barman-Adhikari, A., & Young, S. D. (2010). Internet use, social networking, and HIV/AIDS risk for homeless adolescents. Journal of Adolescent Health, 47(6), 610-613.

## Unit 11 – Week of 7/27

### *Topics*

- Survival analysis
- Hierarchical models
- Structural equation models

This unit relates to course objective(s) 1,2,3.

*Required Readings*

1. Putnam-Hornstein E. (2013). Hierarchical modeling: applications to social work. *Journal of Social Work, 13*(6), 599-615.

2. Putnam-Hornstein, E. (2011). Report of maltreatment as a risk factor for injury death: A prospective birth cohort study. *Child Maltreatment*, *16*(3), 163-174.

3. Fulginiti, A., Pahwa, R., Frey, L. M., Rice, E., & Brekke, J. S. (2016). What factors influence the decision to share suicidal thoughts? A multilevel social network analysis of disclosure among individuals with serious mental illness. *Suicide and Life-Threatening Behavior*, *46*(4), 398-412.

4. Rice, E., Stein, J. A., & Milburn, N. (2008). Countervailing social network influences on problem behaviors among homeless youth. *Journal of adolescence*, *31*(5), 625


## Unit 12 – Week of 8/3

*Topics*

- How Social Work Science and Computer Science can Collaborate on Grand Challenges

This unit relates to course objective(s) 1, 3.


*Required Readings*

- Rice, E. & Tambe, M. (2018). Merging Social Work Science and Computer Science for Social Good. In Tambe, M., & Rice, E. (Eds.). *Artificial Intelligence and Social Work* (pp. 3-15). Cambridge University Press.

- Seif, G. (2018). The 5 Basic Statistics Concepts Data Scientists Need to Know. Retrieved from https://towardsdatascience.com/the-5-basic-statistics-concepts-data-scientists-need-to-know-2c96740377ae

**List of Appendices**

    A.  Detailed Descriptions of Social Work Core Competencies Highlighted in this Course
    B.  Definitions of Grades and Standards Established by Faculty of the School
    C.  Recommended Instructional Materials and Resources
    D.  Suzanne Dworak-Peck School of Social Work DEI Statement
    E.  Statement on Academic Conduct and Support Systems

**Appendix A: Detailed Description of DSW Program Goals and Competencies Highlighted in this course**

**Program Goals and Competencies**

*Goals*

1. The foundation for the DSW curriculum and student academic products rests on three pillars: (1) problem definition within the Grand Challenges for Social Work; (2) innovative design; and (3) executive leadership in human service organizations and community contexts.
2. Student academic work will culminate in a substantive advance in practice or policy related to one of the Grand Challenges for Social Work.
3. Aligned with the goals for a science of social work, curricula will be multi- and interdisciplinary and reflect diverse public and private sector perspectives on social innovation and organizational problem-solving in complex systems.
4. Courses will emphasize bold action leading to scaling of programs, disruption, or other changes that promote social justice and human potential.
5. Graduates will emerge as effective leaders in social work or allied fields, prepared to excel in executive management roles.
6. Graduates will emerge as capable public intellectuals who exemplify the core values, ethical principles, and standards of the NASW Code of Ethics.

*Program Competencies/Student Learning Outcome Objectives*

1. Confront, evaluate, and use large ideas grounded in the Grand Challenges for Social Work as defined by the American Academy of Social Work and Social Welfare (AASWSW).
2. Leverage evidence from secondary sources in addition to primary data collection strategies to assess the existing social and practice landscape as a basis for designing new responses to complex social problems.
3. Apply relevant social work and social science theories of problem causation to develop ideas for change, program or policy implementation, and evaluation.
4. Master creative, expansive, and rigorous design principles that advance innovation and invention in social solutions.
5. Effectively lead others in future efforts to brainstorm, refine, and implement forward-thinking solutions to complex social problems across organizational boundaries.
6. Accurately map the organizational and policy environment affecting options for social change.
7. Use logic models to carefully plan for and maximize impact with proposed interventions.
8. Organize financial and program data for decision-making, communication, and evaluation to improve program and policy outcomes in human service organizations.
9. Confidently employ a variety of media and methods to influence and communicate with professional, political, academic, and general public audiences.
10. Create positive social impact in complex systems and at scale.

## Appendix B: Definitions of Grades and Standards Established by Faculty of the School

Within the USC Suzanne Dworak-Peck School of Social Work, grades are determined in each class based on the following standards which have been established by the faculty of the School:

1. Grades of A or A- are reserved for student work which not only demonstrates very good mastery of content but which also shows that the student has undertaken a complex task, has applied critical thinking skills to the assignment, and/or has demonstrated creativity in her or his approach to the assignment. The difference between these two grades would be determined by the degree to which these skills have been demonstrated by the student.

2. A grade of B+ will be given to work which is judged to be very good. This grade denotes that a student has demonstrated a more-than-competent understanding of the material being tested in the assignment.

3. A grade of B will be given to student work which meets the basic requirements of the assignment. It denotes that the student has done adequate work on the assignment and meets basic course expectations.

4. A grade of B- will denote that a student's performance was less than adequate on an assignment, reflecting only moderate grasp of content and/or expectations.

5. A grade of C would reflect a minimal grasp of the assignments, poor organization of ideas and/or several significant areas requiring improvement.

6. Grades between C- and F will be applied to denote a failure to meet minimum standards, reflecting serious deficiencies in all aspects of a student's performance on the assignment.

## Appendix C: Recommended Instructional Materials and Resources

*Recommended Resources for APA Style Formatting*

https://apastyle.apa.org/

https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_style_introduction.html

## Appendix D: Suzanne Dworak-Peck School of Social Work Diversity, Equity, and Inclusion Statement

At the USC Suzanne Dworak-Peck School of Social Work, we aspire to promote diversity, equity and inclusion in our courses and professional practice. We value the diverse backgrounds and perspectives that our students bring into the classroom as strengths and resources that enrich the academic and learning experience. We offer and value inclusive learning in the classroom and beyond.  We integrate readings, materials and activities that are respectful of diversity in all forms, including race, ethnicity, culture, gender identity and expression, sexual orientation, age, ability and disability, socioeconomic status, religion, and political perspectives. Collectively, we aspire to co-create a brave space with students and instructors to critically examine individual and collective sources of bias, prejudice, discrimination, and systematic oppression that affect the ability of people and communities to thrive. In this way, we fulfill our professional responsibility to practice the NASW Code of Ethics, abide by the CSWE Educational Policy and Accreditation Standards, and address the American Academy of Social Work and Social Welfare, Grand Challenges for Social Work.

## Appendix E: University Policies and Guidelines

## Attendance Policy

Students are expected to attend every class and to remain in class for the duration of the unit. Failure to attend class or arriving late may impact your ability to achieve course objectives which could affect your course grade. Students are expected to notify the instructor by email (newmyer@usc.edu) of any anticipated absence or reason for tardiness.

University of Southern California policy permits students to be excused from class for the observance of religious holy days. This policy also covers scheduled final examinations which conflict with students' observance of a holy day.  Students must make arrangements in advance to complete class work which will be missed, or to reschedule an examination, due to holy days observance.

Please refer to SCampus and to the USC School of Social Work Policies and Procedures for additional information on attendance policies.

## Statement on 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. Recording a university class without the express permission of the instructor and an announcement to the class, as well as distributing or using recordings of university lectures or classes without the express permission of the instructor, for purposes other than individual or group study, also constitute violations of the USC Student Conduct Code.

Please familiarize yourself with the discussion of plagiarism, unauthorized recording of university classes, and other forms of academic dishonesty and misconduct in SCampus, Part B, Section 11, "Behavior Violating University Standards," as well as information in SCampus and in the university policies on scientific misconduct.

## Statement about Incompletes

The Grade of Incomplete (IN) can be assigned only if there is work not completed because of a documented illness or some other emergency occurring after the 12th week of the semester. Students must NOT assume that the instructor will agree to the grade of IN. Removal of the grade of IN must be instituted by the student and agreed to be the instructor and reported on the official "Incomplete Completion Form."

## Policy on Late or Make-up Work

Papers are due on the day and time specified.  Extensions will be granted only for extenuating circumstances.  If the paper is late without permission, the grade will be affected.

## Policy on Changes to the Syllabus and/or Course Requirements

It may be necessary to make some adjustments in the syllabus during the semester in order to respond to unforeseen or extenuating circumstances. Adjustments that are made will be communicated to students both verbally and in writing.

## Code of Ethics of the National Association of Social Workers (Optional)

*Approved by the 1996 NASW Delegate Assembly and revised by the 2017 NASW Delegate Assembly*
[https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English](https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English)

### Preamble

The primary mission of the social work profession is to enhance human well-being and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty. A historic and defining feature of social work is the profession's focus on individual well-being in a social context and the well-being of society. Fundamental to social work is attention to the environmental forces that create, contribute to, and address problems in living.

Social workers promote social justice and social change with and on behalf of clients. "Clients" is used inclusively to refer to individuals, families, groups, organizations, and communities. Social workers are sensitive to cultural and ethnic diversity and strive to end discrimination, oppression, poverty, and other forms of social injustice. These activities may be in the form of direct practice, community organizing, supervision, consultation, administration, advocacy, social and political action, policy development and implementation, education, and research and evaluation. Social workers seek to enhance the capacity of people to address their own needs. Social workers also seek to promote the responsiveness of organizations, communities, and other social institutions to individuals' needs and social problems.

The mission of the social work profession is rooted in a set of core values. These core values, embraced by social workers throughout the profession's history, are the foundation of social work's unique purpose and perspective:

- Service
- Social justice
- Dignity and worth of the person
- Importance of human relationships
- Integrity
- Competence

This constellation of core values reflects what is unique to the social work profession. Core values, and the principles that flow from them, must be balanced within the context and complexity of the human experience.

## Academic Dishonesty Sanction Guidelines

Some lecture slides, notes, or exercises used in this course may be the property of the textbook publisher or other third parties. All other course material, including but not limited to slides developed by the

instructor(s), the syllabus, assignments, course notes, course recordings (whether audio or video) and examinations or quizzes are the property of the University or of the individual instructor who developed them. Students are free to use this material for study and learning, and for discussion with others, including those who may not be in this class, unless the instructor imposes more stringent requirements. Republishing or redistributing this material, including uploading it to web sites or linking to it through services like iTunes, violates the rights of the copyright holder and is prohibited. There are civil and criminal penalties for copyright violation. Publishing or redistributing this material in a way that might give others an unfair advantage in this or future courses may subject you to penalties for academic misconduct.

## Complaints

Please direct any concerns about the course with the instructor first.  If you are unable to discuss your concerns with the instructor, please contact the faculty course lead.  Any concerns unresolved with the course instructor or faculty course lead may be directed to the student's advisor and/or the Chair of your program.

## Tips for Maximizing Your Learning Experience in this Course (Optional)

- Be mindful of getting proper nutrition, exercise, rest and sleep!
- Come to class.
- Complete required readings and assignments BEFORE coming to class.
- BEFORE coming to class, review the materials from the previous Unit AND the current Unit, AND scan the topics to be covered in the next Unit.
- Come to class prepared to ask any questions you might have.
- Participate in class discussions.
- AFTER you leave class, review the materials assigned for that Unit again, along with your notes from that Unit.
- If you don't understand something, ask questions! Ask questions in class, during office hours, and/or through email!
- Keep up with the assigned readings.

## Appendix F: Support Systems and Additional Resources

**Counseling and Mental Health**
https://studenthealth.usc.edu/counseling/
Phone number (213) 740-9355
On call 24/7
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

**National Suicide Prevention Lifeline**
https://suicidepreventionlifeline.org/
Phone number 1 (800) 273-8255
On call 24/7
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)**
https://studenthealth.usc.edu/sexual-assault/
Phone Number (213) 740-9355(WELL), press "0" after hours
On call 24/7
Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

**USC Office of Equity, Equal Opportunity, and Title IX**
https://eeotix.usc.edu/
Phone number (213) 740-5086
Title IX Office (213) 821-8298
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**
https://usc-advocate.symplicity.com/care_report/index.php/pid422659?
Phone number (213) 740-5086 or (213) 821-8298
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity, Equal Opportunity, and Title IX for appropriate investigation, supportive measures, and response.

**The Office of Disability Services and Programs**
https://dsp.usc.edu/
Phone number (213) 740-0776
Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

**USC Campus Support and Intervention**
https://campussupport.usc.edu/
Phone number (213) 821-4710

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

**Diversity at USC**
https://diversity.usc.edu/
Phone number (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**
https://dps.usc.edu/
UPC phone number (213) 740-4321
HSC phone number (323) 442-1000
On call 24/7
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**
https://dps.usc.edu/
UPC phone number (213) 740-6000
HSC phone number (323) 442-120
On call 24/7
Non-emergency assistance or information.

## Additional Resources

Students enrolled in the Virtual Academic Center can access support services for themselves and their families by contacting Perspectives, Ltd., an independent student assistance program offering crisis services, short-term counseling, and referral 24/7.  To access Perspectives, Ltd., call 800-456-6327.