

ENV 261 – Mixed Methods for Environmental Studies

WEEKLY CALENDAR – Autumn 2022 – Sept 14 update

General format for most weeks will be to cover textbook material on Tuesday, lab on Wednesday, and then discuss scientific articles or additional readings on Thursday. Please plan your weekly reading accordingly.

- Readings for a specific class/lab are identified by **(For Thursday)** or similar.
- *****Readings designated with a series of asterisks will be the topic of detailed class discussion/activities and should be read closely.
- **Assignment due dates are highlighted.**

This printed list is provided as a convenience only. Please refer to D2L during the quarter for up-to-date information, deadlines, etc.

SEPT 7, 8 – Intro to Course

First day of class stuff during Wednesday lab time; Thursday lecture

Required reading: (all passed out first day of class & posted to D2L)

- ☐ Syllabus
- ☐ Weekly Calendar
- ☐ Ruben, A. (2016, Jan 20). "How to read a scientific paper." *Science*, doi:10.1126/science.caredit.a1600012. Retrieved from <https://www.sciencemag.org/careers/2016/01/how-read-scientific-paper>
- ☐ **(For Thursday)** Pain, E. (2016, Mar 21). "How to (seriously) read a scientific paper." *Science*, doi: 10.1126/science.caredit.a1600047. Retrieved from <https://www.sciencemag.org/careers/2016/03/how-seriously-read-scientific-paper>

Recommended reading: *A good overview and quick reference for mixed methods research and a hint of what will be covered in this class.*

- ☐ Small, M.L. (2011). How to conduct a mixed methods study: Recent trends in a rapidly growing literature. *Sociology*, 37(1): 57-86. doi: 10.1146/annurev.soc.012809.102657.
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SEPT 13, 14, 15 – Intro to Mixed Methods (MM) Research

Tuesday lecture; Wednesday lab (**MM Documentaries Lab**); Thursday lecture

Required reading:

- ☐ Textbook (**Tashakkori et al. 2020 hereafter**) Chapter 1 (skim): Tashakkori, A. M., Johnson, R. B., & Teddlie, C. (2020) *Foundations of Mixed Methods Research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*, 2nd Edition Sage Publications, Thousand Oaks, CA.
 - ☐ Tashakkori et al. 2020 Chapter 2 (read closely)
 - ☐ Fetters, M.D. (2018). Six equations to help conceptualize the field of mixed methods. *Journal of Mixed Methods Research*, 12(3): 262–267. doi: 10.1177/1558689818779433.
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SEPT 20, 21, 22 – Paradigms

Tuesday lecture; Wednesday lab (**Literature Review Lab**); Thursday discussion (**Scientific Article Discussion # 1**)

Required reading:

- ☐ *******(Tuesday)** Chapter 3 from Tashakkori et al.2020 – *Read the following sections closely: “A Review of Philosophical Issues Relevant to Paradigms” and “Contemporary Points of View Regarding the Use of Paradigms”*; skim remainder of chapter.
- ☐ Elliott, K.C., Cheruvilil, K.S., Montgomery, G.M., & Soranno, P.A. (2016). Conceptions of good science in our data-rich world. *BioScience*, 66(10): 880-889.
- ☐ *******(For Thursday - Scientific Article Discussion # 1)** Dell’Angelo, J., McCord, P.F., Gower, D., Carpenter, S., Caylor, K.K., Evans, T.P. (2016). Community water governance on Mount Kenya: An assessment based on Ostrom’s design principles of natural resource management. *Mountain Research and Development*, 36(1):102-115.
 - **Article Discussion # 1 Responses due – uploaded to D2L before class time**

Optional reading: *A great guide to conducting systematic literature reviews*

- ☐ Siddaway, A.P., A.M. Wood, & L.V. Hedges. (2019). How to do a systematic review: A best practice guide for conducting and reporting narrative reviews, meta-analyses, and meta-syntheses. *Annual Review of Psychology*, 70: 9.1-9.24.

Documentaries Lab due Friday, September 23, 11:59 pm

SEPT 27, 28, 29 – Mixed Methods Research Design

Tuesday lecture; Wednesday lab (**Research Design Assignment overview & worksheet time**); Thursday discussion (**Scientific Article Discussion # 2**)

Required reading:

- ☐ Tashakkori et al. 2020 Chapter 5
- ☐ Tashakkori et al. 2020 Chapter 7, pp. 189-205 (read closely beginning p. 194) – *There are some helpful terms and concepts in this and chapter 7 for your Research Design assignment; some of these are summarized in the bullet points on the Research Design Worksheet.*
- ☐ *******(For Wednesday lab)** Ch. 5 “How to draw a diagram of procedures” (p. 51-62) from: Creswell, J.W. (2015) *A Concise Introduction to Mixed Methods Research*. Los Angeles, CA: Sage.
- ☐ *******(For Wednesday lab)** Silver, N. (2014). In search of America’s best burrito. *FiveThirtyEight*, 5 June 2014. Available at: <https://fivethirtyeight.com/features/in-search-of-americas-best-burrito/>
- ☐ *******(For Thursday - Scientific Article Discussion # 2)** Verlič, A., Arnberger, A., Japelj, A., Simončič, P., Pirnat, J. (2015). Perceptions of recreational trail impacts on an urban forest walk: A controlled field experiment. *Urban Forestry & Urban Greening*, 14: 89-98.
<http://dx.doi.org/10.1016/j.ufug.2014.12.004> – *May change! Please double-check D2L.*
 - **Article Discussion # 2 Responses due – uploaded to D2L before class time**

Optional reading:

- ☐ Garcia, J.R., Zazueta, A. (2015). Going beyond mixed methods to mixed approaches: A systems perspective for asking the right questions. *IDA Bulletin*, 46(1): 30-43.

Literature Review Lab due Friday, September 30, 11:59 pm

OCT 4, 5, 6 – Causation, Sampling, & Observation

Tuesday lecture; Wednesday lab (**Observation Lab**); Thursday discussion (**Scientific Article Discussion # 3**)

Required reading:

- ☐ Tashakkori et al. 2020 Chapter 6 – *There are some helpful terms and concepts in this and chapter 7 for your Research Design assignment; some of these are summarized in the bullet points on the Research Design Worksheet.*
- ☐ Tashakkori et al. 2020 Chapter 8, pp. 207-219 (skim)
- ☐ Roulston, K. (2017, April 14). "Memo writing as a way of being a researcher." *QualPage*. Available at: <https://qualpage.com/2017/04/14/memo-writing-as-a-way-of-being-a-researcher/>
- ☐ *****(**For Thursday – Scientific Article Discussion # 3**) Binder, S.B., Baker, C.K., & Barile, J.P. (2015). Rebuild or relocate? Resilience and postdisaster decision-making after Hurricane Sandy. *American Journal of Community Psychology*, 56: 180-196.
 - **Article Discussion # 3 Responses due – uploaded to D2L before class time**

Optional reading:

- ☐ Johnson, R.B., F. Russo, J. Schoonenboom. (2017). Causation in mixed methods research: The meeting of philosophy, science, and practice. *Journal of Mixed Methods Research*, 13(2):143-162. doi: 10.1177/1558689817719610.

Observations Lab due Friday, October 7, 11:59 pm

Paradigms Essay due Friday, October 7, 11:59 pm

OCT 11, 12, 13 – Survey Design & Administration

Tuesday lecture; Wednesday lab (**Survey Design Lab**); Thursday lecture

Required reading:

- ☐ Finish/go back and read Tashakkori et al. 2020 Chapter 6 if you haven't yet
- ☐ Tashakkori et al. 2020 Chapter 8, pp. 226-233
- ☐ *****(**For Tuesday**) Schwarz, N. (1999). Self-reports: How the questions shape the answers. *American Psychologist*, 54(2): 93-105.
- ☐ Ch. 7 "Implementation Procedures" from: Dillman, E., Smyth, J., & Christian, L. (2014). *Internet, phone, mail and mixed-mode surveys: The tailored design method*, 4th ed. Hoboken, NJ: John Wiley & Sons, Inc.

Research Design Worksheets due Friday, October 14, 11:59 pm

OCT 18, 19, 20 – Analysis of Mixed Methods Data (esp. Surveys)

Tuesday lecture; Wednesday lab (**Survey Analysis Lab**); Thursday discussion (**Scientific Article Discussion # 4**)

Required reading:

- ☐ Tashakkori et al. 2020 Chapter 9 (skip pp. 248-254, focus on pp. 255-285, skim remainder)

- ☐ *******(For Thursday - Scientific Article Discussion # 4)** Feinberg, D.S., Hostetler, M.E., Reed, S.E., Pienaar, E.F., & Pejchar, L. (2015). Evaluating management strategies to enhance biodiversity in conservation developments: Perspectives from developers in Colorado, USA. *Landscape and Urban Planning*, 136: 87-96.

- **Article Discussion # 4 Responses due – uploaded to D2L before class time**

Survey Design Lab (Worksheet) due Friday, October 21, 11:59 pm

OCT 25, 26, 27 – Interviews & Ethics of Research

Tuesday lecture (**guest/TA: Kristine Lorenzo**); Wednesday lab (**Interview Conduct Lab**); Thursday lecture

Required reading:

- ☐ Bernard (1995). Ch. 10 “Unstructured and Semistructured Interviewing” (pp. 208–236) from: Bernard, H.R. (1995). *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. AltaMira Press, Walnut Creek, CA.
- ☐ “Ethical Issues to Anticipate” (pp. 88-98) from: Creswell, J.W. & Creswell, J.D. (2018). *Research Design: Qualitative, quantitative, and mixed methods approaches*, 5th edition. Los Angeles, CA, Sage.
- ☐ Fluehr-Lobban, C. (1998). Ethics. In: Bernard, H. R. (Ed.), *Handbook of Methods in Cultural Anthropology*, Walnut Creek, CA, AltaMira Press, pp. 173–202.

Optional, recommended reading:

- ☐ Tashakkori et al. 2020 Chapter 7, p.181-189
- ☐ Ch. 4 “Interviewing” from: Weiss, R.S. (1994). *Learning from Strangers: The art and method of qualitative interview studies*. New York, NY: The Free Press.

Survey Analysis Lab (Methods & Results) due Friday, October 28, 11:59 pm

NOV 1, 2, 3 – Qualitative Data Analysis

Tuesday lecture; Wednesday lab (**Qualitative Interview Analysis Lab**); Thursday discussion (**Scientific Article Discussion # 5**)

Interview Transcript due WEDNESDAY, Nov 2, 8:00 am BEFORE CLASS so that I have time to print these for the QUAL analysis activity.

Required reading:

- ☐ Chapter 1 from Saldaña, J. (2016). *The Coding Manual for Qualitative Researchers*, 3rd edition. Sage Publications, Thousand Oaks, CA. - pay particular attention through page 30, then skimming p. 30 to the end of the chapter
- ☐ *******(For Thursday – Scientific Article Discussion # 5)** Carmichael, C. E., & McDonough, M. H. (2018). The trouble with trees? Social and political dynamics of street tree-planting efforts in Detroit, Michigan, USA. *Urban Forestry & Urban Greening*, 31(August 2017), 221–229.
<https://doi.org/10.1016/j.ufug.2018.03.009>

- **Article Discussion # 5 Responses due – uploaded to D2L before class time**

Optional, recommended reading:

- ☐ Tashakkori et al. (2020) Ch. 9 (QUAL sections, pp. 248-254), which provides an overview of QUAL data analysis useful in MM
- ☐ Chapter 4 from: Miles, M.B., Huberman, A.M., Saldaña, J. (2014). *Qualitative Data Analysis: A methods sourcebook*, 3rd edition. Sage Publications, Thousand Oaks, CA.

CITI Training (upload Completion Report) due Friday, Nov 4, 11:59 pm

IRB Protocol Draft due Friday, Nov 4, 11:59 pm

NOV 8, 9, 10 – MM Research in Action & Synthesis

Tuesday lecture; Wednesday lab (**Research Design work time**); Thursday lecture

Required reading:

- ☐ Tashakkori et al. 2020 Chapters 10 & 11 (skim)
- ☐ *****Bryman, A. (2006). Integrating qualitative and quantitative research: How is it done? *Qualitative Research*, 6(1):97-113 – *May change! Please double-check D2L.*

Optional, advanced reading:

- ☐ Kliskey, A., Alessa, L., Wandersee, S., Williams, P., Trammell, J., Powell, J., Grumblatt, J., & Wipfli, M. (2017). A science of integration: Frameworks, processes, and products in a place-based, integrative study. *Sustainability Science*, 12: 293-303.
- ☐ Fielding, N. (2010). Mixed methods research in the real world. *International Journal of Social Research Methodology*, 13(2): 127-138.
- ☐ Mauser, W., G. Klepper, M. Rice, B.S. Schmalzbauer, H. Hackmann, R. Leemans, H. Moore. (2013). Transdisciplinary global change research: The co-creation of knowledge for sustainability. *Current Opinion in Environmental Sustainability*, 5: 420-431.

Qualitative Interview Analysis Lab due Friday, November 11, 11:59 pm

NOV 15 – Wrap-Up

Tuesday lecture (last day of class) – *No required reading*

Finals Week – No formal class meeting during Finals Week

Research Design due FIRST DAY of Finals Week, WEDNESDAY, Nov 16, 2022, 11:59 pm