Johns Hopkins University School of Education Research Landscape ED.855.725.1D Research Landscape

Fall 2023 SOE Room 220

Instructor(s):

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Credit Hours: 3

Class Times: Mondays 1:00 – 4:00 pm; Office hours by appointment

Course Descriptions:

Official: This course is designed to teach students the skills necessary to design and evaluate educational research. It is structured to give students an introduction to the practice of research and a survey of various modes of conceptualization, problem identification, and research designs used in the study of education. The course develops understandings of the principles, processes and techniques used in educational research. The course is based on the premise that final published research develops, evolves through an iterative process, and may contain errors. This research process requires decisions and judgments and careful consideration of alternatives. The goals for the class are: a greater comfort in reading, reviewing and critiquing educational research, increased understanding of the various designs and practices for educational research, and beginning ideas of how to conceptualize and conduct a research project in your own area of interest.

Off-the-record:

My vision for the course is that each student walk away from this course as a different scholar than you walked in... in three main ways:

- 1) That you have a much bigger more nuanced sense of the *whole* of the research process—e.g., in the sense that starting with a quality research question that actually does some good for the world may be a substantial process unto itself... and that the research process may not end until you have disseminated your findings to multiple audiences.
- 2) That you augment your understanding of what a research toolkit might look like—i.e., knowing what research designs, data collection techniques, and analytical approaches you might use in different circumstances (and what the basic pros/cons are); and
- 3) That you begin developing a preliminary sense of which techniques, approaches, and strategies might be "your thing."

You will gain other key experiences—designing a study (with a partner), building good habits (like keeping a research journal, etc.—but these three goals are the big picture/bottom line.

Course Learning Objectives	Relevant Tasks/Assessments	
To attain broad working familiarity with a robust		
toolkit of educational research approaches: their	Research journal	
uses, pros, and limitations.		
To develop fluency in reading academic articles		
that employ these approaches.	Weekly readings	
To begin identifying which approaches are likely to be	oproaches are likely to be Weekly readings/class	
more appealing to you personally and to articulate why.	appealing to you personally and to articulate why. discussions/final project	
To apply a subset of these approaches in a research study	Final project	
that you might plausibly conduct during your PhD. Final project		

Required Text and Other Materials

Remler, V. R., G. G., & Van Ryzin, G. G. (2022). Research methods in practice: Strategies for description and causation (3rd ed.). Sage.

Recommended

American Psychological Association. (2020). Publication manual of the American Psychological Association. (7th Ed.). Washington, DC.

Assignments, Evaluation, and Grading

Your grade will consist of a possible total of 100 points with assignments weighted as follows:

Ongoing Assignment: Research journal	= 20 points
Final Assignment: Preregistration	= 40 points
Preregistration dissemination	= 15 points
Citizenship/Making others better learners*	= 25 points
	= 100 points

^{*}Please see 'the fine print' section at the end.

Grading Scale

= 93 - 100%A A-= 90 - 92%= 87 - 89% B+= 83 - 86%В B-= 80 - 82%C+= 77 - 79% C = 73 - 76% =70 - 72%C-= 69% and below

Please note: The grades of D+, D, and D- are not awarded at the graduate level.

COURSE OUTLINE¹:

WEEK	CONTENT
WEEK 1	Overview
8/28	Research that might actually matter
	Philosophical underpinnings
Themes	Research toolkit: Designs, data collection, and analyses
	Research mindset
	READ THE ASSIGNMENTS FOR THIS COURSE. It is always useful to see the big
	picture from the outset!
Required	Remler, V. R., G. G.,, & Van Ryzin, G. G. (2022). Research methods in practice:
Reading &	Strategies for description and causation (3rd ed.). Sage. (Chpt. 1)
Viewing	Kaestle, C. F. (1993). The awful reputation of education research. <i>Educational</i>
	Researcher, 22(1), 26-31.
	Pain, E. (2016, March 21). How to (seriously) read a scientific paper. Science.
	Ruben, A. (2016, January 20). How to read a scientific paper. Science.
	Willingham, D. T. (2023). How to read difficulty books: A guide for high school and
	college students. American Educator.
	https://www.aft.org/ae/summer2023/willingham
	TEDx. (2016, December 13). Laura Valadez-Martinez: Things about a PhD nobody told
	you about. https://youtu.be/CAKsQf77nHU
Due in class	Check out the FORRT Glossary. https://forrt.org/glossary/
	Read the introduction and the definition of at least 3 terms you are familiar with.
	Next, pick 3 terms you may not be familiar with but have heard or otherwise think
	maybe you should know. Summarize the definitions and check in with at least
	one other source to confirm your definitions. Please post the definitions for the
WEDIZA	benefit of class on the corresponding discussion thread.
WEEK 2	No of Log - Li Don Dilli
9/4	NO CLASS—LABOR DAY
UNIT 1	THE CANNAC TENCIONO & DIMENSIONS OF EDUCATIONAL DECEADOR
	THE CANVAS: TENSIONS & DIMENSIONS OF EDUCATIONAL RESEARCH
WEEK 3	Open Science vs. heterogeneity of treatment effects: Part I
9/11	Open science toolkit: Replication, preregistration, open data/code/measures, registered
Themes	reports, preprints
THEMES	Education is local—why contextual factors matter
Paguirad	Cabibach II & Dakingan C. D. (2021) Enem ald asharita and asigned The
Required Reading	Gehlbach, H., & Robinson, C. D. (2021). From old school to open science: The
Reading	implications of new research norms for educational psychology and beyond.
	Educational Psychologist, 1-11. https://doi.org/10.1080/00461520.2021.1898961
	Plucker, J. A., & Makel, M. C. (2021). Replication is important for educational
	psychology: Recent developments and key issues. <i>Educational psychologist</i> ,
	56(2), 90-100. https://doi.org/10.1080/00461520.2021.1895796

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¹ Articles are available online unless otherwise noted.

WEEK	CONTENT
	Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. <i>Psychological Science</i> , <i>22</i> (11), 1359-1366. https://doi.org/10.1177/0956797611417632
	Conway, C., Tipton, E., & Artiles, A. J. (2022, August 1). The value of variation: Why we need to attend to heterogeneity in intervention research. <i>Stanford Graduate School of Education: Public Scholarship Collaborative</i> .
	https://publicscholarship.stanford.edu/news/value-variation-why-we-need-attend-heterogeneity-intervention-research
WEEK 4	Nature of Educational Research and Research Paradigms
9/18	Ethics IRB
Themes	What is unique about educational research (and what isn't) Politics Fidelity Diversity Field vs. disciplines
	Pasteur's quadrant
Required Reading	Shavelson, R. J., & Towne, L. (2002). Scientific research in education. National Academy Press. https://nap.nationalacademies.org/catalog/10236/scientific-research-in-education (Executive Summary & Chpts. 1, 3, 4)
	National Research Council. (2005). Advancing Scientific Research in Education. The National Academies Press. https://doi.org/doi:10.17226/11112 (Executive Summary)
	 Data Colada Posts 109, 110, 111, 112 Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. <i>Child Development</i>, 78(1), 246-263. https://doi.org/10.1111/j.1467-8624.2007.00995.x
WEEK 5	Organizing units of research
9/25	Research topics Problems
Themes	Research Questions Hypotheses
Required Reading	Lombrozo, T. (2017, September 11). Yes, some questions are better than others. <i>Cosmos & Culture</i> . https://www.npr.org/sections/13.7/2017/09/11/550151190/yes-some-questions-are-better-than-others Buchanan, N. T., Perez, M., Prinstein, M. J., & Thurston, I. B. (2021). Upending racism in psychological science: Strategies to change how science is conducted, reported, reviewed, and disseminated. <i>The American Psychologist</i> , 76(7), 1097-1112. https://doi.org/10.1037/amp0000905 One reading you find on your own that addresses a research topic/question of interest to you personally

WEEK	CONTENT
	Choose one of the following:
	Duchi, L., Lombardi, D., Paas, F., & Loyens, S. M. M. (2020). How a growth mindset can change the climate: The power of implicit beliefs in influencing people's view and action. <i>Journal of Environmental Psychology</i> , 70, 101461. https://doi.org/https://doi.org/10.1016/j.jenvp.2020.101461
	OR Murphy, M. C., & Dweck, C. S. (2010). A culture of genius: How an organization's lay theory shapes people's cognition, affect, and behavior. <i>Personality and Social Psychology Bulletin</i> , 36(3), 283-296. https://doi.org/10.1177/0146167209347380 OR
	A growth mindset article of interest to you personally
Due in class	Identify the real-world problem, research question(s), and hypotheses (if any) of the growth mindset article you read, of Blackwell et al (2007) and of 2-3 articles you review for your literature review.
Due 9/28 11:59pm	Please make sure you have submitted your first 3 research journal entries.
WEEK 6	The literature
10/2	Types of resources: types of journal articles, book chapters, policy briefs, reports,
Themes	popular press Synthesis Meta analysis
	Meta-analysis
Required Viewing	Ahmad, M. S. (2020). The purpose of literature review, Sage. Ahmad, M. S. (2020). What is systematic literature review?, Sage. Ahmad, M. S. (2020). Steps in systematic literature review, Sage: Research Methods. https://methods.sagepub.com/video/discipline
	Randolph, J. J. (2009). A guide to writing the dissertation literature review. <i>Practical assessment, research & evaluation, 14</i> (13), 13. Murphy, P. K., Knight, S. L., & Dowd, A. C. (2017). Familiar paths and new directions: Inaugural call for manuscripts. <i>Review of educational research, 87</i> (1), 3-6. https://doi.org/10.3102/0034654317691764
	Boveda, M., Ford, K. S., Frankenberg, E., & López, F. (2023). Editorial vision 2022–2025. <i>Review of educational research</i> , 3465432311701. https://doi.org/10.3102/00346543231170179
WEEK 7	There is nothing so practical as a good theory
10/9	Theories Frameworks
Themes	(Logic) Models Constructs: Definitions and operationalizations

WEEK	CONTENT
Required	
Reading &	Remler, V. R., G. G., & Van Ryzin, G. G. (2022). Research methods in practice:
Listening	Strategies for description and causation (3rd ed.). Sage. (Chpt. 2)
Listening	Greene, J. A. (2022). What can educational psychology learn from, and contribute to,
	theory development scholarship? Educational psychology review, 34(4), 3011-
	3035. https://doi.org/10.1007/s10648-022-09682-5
	Healy, K. (2017). Fuck nuance. <i>Sociological theory</i> , <i>35</i> (2), 118-127.
	https://doi.org/10.1177/0735275117709046
	Two Psychologists Four Beers. (January 12, 2022). Meehl on theory.
	https://www.fourbeers.com/78
	Dweck, C. S. (1986). Motivational processes affecting learning. American Psychologist,
	<i>41</i> (10), 1040-1048.
	71(10), 10 10 10 10.
WEEK 8	Measurement
	Validity
10/16	Reliability
	Sampling
Themes	Generalizability
	Constructs: Definitions and operationalizations Part II
	Constructs. Definitions and operationalizations Fart II
Required	Pamlar V. P. G. G. & Van Pazin, G. G. (2022). Pagagnah mathada in pagatiga:
Reading &	Remler, V. R., G. G., & Van Ryzin, G. G. (2022). Research methods in practice:
Listening	Strategies for description and causation (3rd ed.). Sage. (Chpt. 4 + Chpt. 5 154-
Listening	160)
	Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry.
	<i>Theory into practice</i> , 39(3), 124-130.
	https://doi.org/10.1207/s15430421tip3903_2
	Polich, K. (Producer). (2015, September 18). Sample sizes [Audio podcast]. Data
	Skeptic. https://radiopublic.com/data-skeptic-6VVqb6/s1!4ec49
	Roberts, S. O., Bareket-Shavit, C., Dollins, F. A., Goldie, P. D., & Mortenson, E.
	(2020). Racial inequality in psychological research: Trends of the past and
	recommendations for the future. Perspectives on Psychological Science, 15(6),
	1295-1309. https://doi.org/10.1177/1745691620927709
	Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S.
	(2015). Mind-set interventions are a scalable treatment for academic
	underachievement. Psychological Science, 26(6), 784-793.
	https://doi.org/http://dx.doi.org/10.1177/0956797615571017
	https://doi.org/http://dx.doi.org/10.1177/0930797013371017
UNIT 2	THE PAINT: RESEARCH DESIGN & TOOLS
WEEK 9	Quant toolkit 1:
10/23	Causation
	Experiments
Themes	Field experiments
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	Statistical approaches:
	Means vs. associations
	Critical quantitative analyses
	Consuming quantitative knowledge

WEEK	CONTENT
Required Reading	Remler, V. R., G. G.,, & Van Ryzin, G. G. (2022). Research methods in practice: Strategies for description and causation (3rd ed.). Sage. (Chpt. 11, 14) Deaton, A., & Cartwright, N. (2018). Understanding and misunderstanding randomized controlled trials. Social science & medicine (1982), 210, 2-21. https://doi.org/10.1016/j.socscimed.2017.12.005
Due 10/26 at	Round II of your Research Journal submission.
11:59 pm	•
WEEK 10	Quant toolkit 2:
10/30	Quasi experimental
Themes	Correlational/observational Causal inference Big data sets/secondary data analysis Longitudinal—Cross-sectional
	Prospective—Retrospective Surveys Single subject
Required Reading	Remler, V. R., G. G., & Van Ryzin, G. G. (2022). Research methods in practice: Strategies for description and causation (3rd ed.). Sage. (Chpt. 12, 15)
reading	Grosz, M. P., Rohrer, J. M., & Thoemmes, F. (2020). The taboo against explicit causal inference in nonexperimental psychology. <i>Perspectives on Psychological Science</i> , 1745691620921521. https://doi.org/10.1177/1745691620921521
WEEK 11	Mixed Methods
	Observations
11/6	Q-sort
	Design-based research
Themes	Think aloud
	Case studies
	Consuming mixed methods research
Required Reading & viewing	Onwuegbuzie, A. J., & Leech, N. L. (2006). Linking Research Questions to Mixed Methods Data Analysis Procedures. <i>Qualitative report</i> , 11(3), 474-498. Creswell, J. (February 19, 2013). What is mixed methods research. https://www.youtube.com/watch?v=1OaNiTlpyX8
	Yeager, D. S., Romero, C., Paunesku, D., Hulleman, C. S., Schneider, B., Hinojosa, C., Lee, H. Y., O'Brien, J., Flint, K., Roberts, A., Trott, J., Greene, D., Walton, G. M., & Dweck, C. S. (2016). Using design thinking to improve psychological interventions: The case of the growth mindset during the transition to high school. <i>Journal of Educational Psychology</i> , 108(3), 374-391. https://doi.org/http://dx.doi.org/10.1037/edu0000098
WEEK 12	Qual toolkit:
11/13	Document analysis Interviews/Focus Groups

WEEK	CONTENT
Themes	Research Synthesis
	Ethnography
	Consuming qualitative research
D : 1	
Required Reading	Remler, V. R., G. G., & Van Ryzin, G. G. (2022). Research methods in practice: Strategies for description and causation (3rd ed.). Sage. (Chpt. 3) Nowell, B., & Albrecht, K. (2019). A reviewer's guide to qualitative rigor. Journal of public administration research and theory, 29(2), 348-363. https://doi.org/10.1093/jopart/muy052 Humphreys, L., Lewis, N. A., Jr, Sender, K., & Won, A. S. (2021). Integrating qualitative methods and open science: Five principles for more trustworthy research. Journal of Communication, 71(5), 855-874. https://doi.org/10.1093/joc/jqab026 Lofton, R. (2021). Plessy's Tracks: African American students confronting academic placement in a racially diverse school and African American community. Race, ethnicity and education, 1-20. https://doi.org/10.1080/13613324.2021.1924141
WEEK 13	NO CLASS—THANKSGIVING BREAK
WEEK 14	Individual meetings
11/27	Please note that these meetings do not need to happen this week (and in fact should probably happen earlier). The goal here is to talk through your research design
Themes	for your final project.
Required	Snyder, K. E. (2018). How to become a more effective reviewer. Gifted Child Quarterly,
Reading	62(2), 251-254. https://doi.org/10.1177/0016986218754495
	Macnamara, B. N., & Burgoyne, A. P. (2023). Do growth mindset interventions impact students' academic achievement? A systematic review and meta-analysis with recommendations for best practices. <i>Psychological Bulletin</i> , <i>149</i> (3-4), 133-173. https://doi.org/10.1037/bul0000352
12/1 due via email	Preregistrations
WEEK 15	Open Science and heterogeneity of treatment effects: II
12/4	Data science
	Meta science
Themes	Team science
Required Reading & Listening	Davis, W. E., Giner-Sorolla, R., Lindsay, D. S., Lougheed, J. P., Makel, M. C., Meier, M. E., Sun, J., Vaughn, L. A., & Zelenski, J. M. (2018). Peer-review guidelines promoting replicability and transparency in psychological science. <i>Advances in Methods and Practices in Psychological Science</i> , 1(4), 556-573. https://doi.org/10.1177/2515245918806489 Standards for Excellence in Education Research. https://ies.ed.gov/seer/index.asp [Read the About page and the pages for each practice].

WEEK	CONTENT
	Two Psychologists Four Beers. (June 8, 2022). Many many labs.
	https://www.fourbeers.com/88
	Aronczyk, A., & Engber, D. (2017). Radiolab In Stereothreat. S. Adler & A. Aronczyk.
	http://www.radiolab.org/story/stereothreat/
	Nussbaum, D. (2017, 7-30-23). Claude Steele's Comment on a Quote in Radiolab's
	recent program on Stereotype Threat. <i>Medium</i> .
	https://medium.com/@davenuss79/claude-steeles-comment-on-a-quote-in-
	radiolab-s-recent-program-on-stereotype-threat-e67a55aaae94
WEEK 16	
WEEK 16	Wrap-up
12/11	Presentations
Tl	Research Norms/professional socialization
Themes	Research/Science- Communication
	Final questions
Required Reading &	Snyder, K. E. (2018). How to become a more effective reviewer. Gifted Child Quarterly, 62(2), 251-254. https://doi.org/10.1177%2F0016986218754495
Viewing	Hotaling, S. (2020). Simple rules for concise scientific writing. Limnology and
	Oceanography Letters, 5(6), 379-383.
	https://doi.org/https://doi.org/10.1002/lol2.10165
	Lewis, J. N. A. (2019). Three tips for giving a great research talk. Science (American
	Association for the Advancement of Science).
	https://doi.org/10.1126/science.caredit.aax7352
	Robinson, M. (August 4, 2016). How to present to keep your audience's attention.
	https://www.youtube.com/watch?v=BmEiZadVNWY
Due 12/12 at	Preregistration study idea: Dissemination effort
11:59 pm	

The fine print

(My idiosyncratic fine print)

Grading. This course is very much conceptualized as a team effort. If this is something you have struggled with historically (e.g., you prefer to approach your work independently), you will have to figure out some strategies to adapt (I'm happy to help you brainstorm). Because a dominant learning theory argues that learning is fundamentally social and schools are intrinsically social places—not to mention that the research strongly indicates that students learn more via cooperative learning—this is a strong norm. Of course, happy to hear evidence-based counterarguments!

Auditing. Auditing the course is fine. Auditors will not be getting feedback from peers or the teaching staff unless they are teaming up with a classmate who is taking the course for credit. Bear in mind that you will not get nearly as much out of the course if you decide to attend lectures but not do the work.

Citizenship. In a class where students depend upon each other to a significant extent for advice, critique, and inspiration, the effort and attitude of everybody matters critically—we are all on the same team. I expect everybody to participate, to listen, and to build off of each other's ideas. Thus, this component of your grade allows the teaching team to ensure that each of you does all the little things that help make each other better and are key to a productive learning experience for all.

Late Assignments. I deduct 5% of the total possible points per day that an assignment is late.

(SOE generic fine print)

Announcements

During the semester, the instructor may post announcements on Blackboard. It is your responsibility as a student to read all announcements and to contact the instructor with any questions that may arise as a result.

Policy Statements

Academic Conduct

The School of Education places the highest value on intellectual integrity and personal trust within our community. All SOE students assume an obligation to conduct themselves in a manner appropriate to the Johns Hopkins University's mission as an institution of higher education and with accepted standards of ethical and professional conduct. Students must demonstrate personal integrity and honesty at all times in completing classroom assignments and examinations, in carrying out their fieldwork or other applied learning activities, and in their interactions with others. Students are obligated to refrain from acts they know or, under the circumstances, have reason to know will impair their integrity or the integrity of the University. Refer to the school's website for more information regarding the academic misconduct policy.

Please note that student work may be submitted to an online plagiarism detection tool at the discretion of the course instructor. If student work is deemed plagiarized, the course instructor shall follow the policy and procedures governing academic misconduct as laid out in the School of Education's Academic Catalog.

Attendance/Participation

SOE Attendance/Participation Policy Statement:

Participation in lectures, discussions, and other activities is an essential part of the instructional process. Students are expected to attend class regularly; those who are compelled to miss a class should inform their instructor of the reasons for absences. Students who expect to miss several class sessions for personal, professional, religious or other reasons should consider enrolling in an alternative course section (if possible).

Academic Continuity

Please note that in the event of serious consequences arising from extreme weather conditions, communicable health problems, or other extraordinary circumstances, the School of Education may change the normal academic schedule and/or make appropriate changes to course structure, format, and delivery. (For example, a class session may be delivered online via Blackboard in the event that the regularly scheduled face-to-face class session is cancelled.) In the event such changes become necessary, information will be posted on the School of Education website and communicated to you via email and/or Blackboard.

Classroom Accommodations for Students with Disabilities

If you are a student with a documented disability who requires an academic adjustment, auxiliary aid or other similar accommodations, please contact Jennifer Eddinger in the Disability Services Office at 410-516-9734 or via email at soe.disabilityservices@jhu.edu.

For more information please visit the <u>School of Education's Disability Services website</u>.

Diversity

The Johns Hopkins School of Education (SOE) defines diversity as follows:

The United States is rich in diversity and its influence is global. Mindful of this, the SOE defines diversity in a myriad of ways: by ethnicity, religion, race, gender identity, age, national origin, exceptionalities, ideology, sexual orientation and socioeconomic status. The education of our candidates involves a respect for diversity, meaning that each individual should be recognized for his or her own abilities, interests, ideas and cultural identity.

Zoom

Your instructor may choose to record a synchronous class meeting in Zoom. Students may opt-out from identification in the recording by muting their audio, not enabling video, and not typing in the chat window. Class meetings recorded by the instructor may be shared with students in the class for instructional purposes related to this class. Students are not permitted to copy or share the recording with others.

Johns Hopkins University follows the Family Educational Rights and Privacy Act of 1974 (20 U.S.C. § 1232g; 34 CFR Part 99) (FERPA) regarding the protection of data and privacy of student education records. For more information see Office of the Registrar FERPA
Compliance.

Other Policies

This syllabus details certain key policies. You should refer to the <u>online syllabus supplement</u> <u>webpage</u> for a fuller listing of other important policies of which all students should be aware.

Course Evaluation

Please remember to complete an online course evaluation survey for this course. These evaluations are an important tool in the School of Education's ongoing efforts to improve instructional quality and strengthen its programs. The results of the course evaluations are kept anonymous - your instructor will only receive aggregated data and comments for the entire class. An email with a link to the online course evaluation form will be sent to your JHU email address towards the end of the course. Thereafter, you will be sent periodic email reminders until you complete the evaluation. There is also a module on the My Institution page where you can access the evaluation and prompts to complete the evaluation when you log into Blackboard. Please remember to activate your JHU email account and to check it regularly. (Please note that it is the School of Education's policy to send all faculty, staff, and student email communications to a JHU email address, rather than to personal or work email addresses.) If you are having difficulty accessing the course evaluation, you haven't received an email notification about the course evaluation, or if you have any questions in general about the course evaluation process, please contact SOEEvalKit@jhu.edu. (Please note that if a course has fewer than three enrolled students, SOE will not conduct an online course evaluation survey for the course.)

APPENDIX A

Dispositions of the School of Education

The goal of these dispositions is to illustrate our continued commitment, as a member of Johns Hopkins University, to produce candidates who are aware and ethical in pursuing their chosen practice.

All candidates who complete a certificate, master's degree, and/or doctorate in the School of Education will be:

1. Research Centered

1.1 Committed to Inquiry and Innovation

Candidates will a) be prepared to foster in others and engage in themselves the pursuit of life-long learning, continuous self-reflection, and research within their own practice or beyond; b) maintain fluency in scholarship in their field, professional knowledge, as well as in effective and ethical practices; c) evaluate and effectively implement appropriate new methods and tools; and d) incorporate appropriate knowledge-building technologies in their practice.

1.2 Committed to Being a Reflective Practitioner

Candidates will a) actively engage in critical, creative, and metacognitive thinking to support conceptual understanding; and b) engage in independent and interdependent problem solving and experiential approaches to learning.

1.3 Committed to Practice-Centered Research

Candidates will a) seek links between research in the field and application in professional practice; b) define their professional identity not only as scholars, but also as producers of research as a method of improving professional practice; and c) seek to understand the context of professional practice to deepen the understanding and application of their research.

2. Collaborative

2.1 Committed to Creating Positive Climates

Candidates will a) promote a climate in which learning is valued and on-going; b) provide choices to enable all to share in and contribute to social and intellectual life; and c) uphold fair and equitable standards for conduct that encourage responsibility, mutual respect, and civic values, and that safeguard the physical, intellectual, and emotional well-being of each and every member of the community.

2.2 Committed to Active Engagement

Candidates will a) actively engage in a community of learners that develop relationships, programs, and projects with colleagues in P-20 schools and educational agencies designed to improve the quality of education for each and every student and education professional; and b) contribute professionally to the field at local, regional, state, and national levels.

3. Socially and Culturally Conscious

3.1 Committed to Fostering Social Justice

Candidates will a) seek to understand their own privileges and/or prejudices, the stereotypes embedded in educational materials, rules/laws, policies and the cultural bias that exist in schools and other education-related or societal institutions; b) work toward a global society where equality is recognized as a basic human right; c) promote social and environmental responsibility; and d) empower self and others to identify opportunities for growth toward excellence and equity.

3.2 Committed to Developing Cross-Cultural Competence

Candidates will a) promote respect for self, students, families, and cultures; b) demonstrate a belief that everyone can learn and values human diversity and equity in the learning environment; and c) examine own biases and prejudices and develop necessary awareness, attitudes, knowledge, and skills for effectively and respectfully teaching and mentoring people whose culture differs from their own.

4. Ethical

4.1 Committed to Acting Responsibly

Candidates will a) act with integrity, are considerate, respectful, punctual, appropriate in appearance, conduct, and in all interactions with students, families, mentors, and colleagues; and b) be creative and self-reliant in finding appropriate solutions to problems and managing dilemmas.

4.2 Committed to Acting with Integrity

Candidates will a) conduct themselves in a professional manner; b) be honest, open to constructive feedback from others, manage situations of conflict and their own stress appropriately, and take responsibility for own actions; and c) conduct research and practice efforts intended to discover what is rather than to prove what may be anticipated.