CUI 4620
Research on Diversity, Equity, and Social Justice in Mathematics Education
(3 Credits)

Professor:
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303.871.2487
Nicole.joseph@du.edu
Mondays 4:00 – 5:30, and by appointment

Required Texts & Other Readings


APA Publication Manual (Please be sure to KNOW the rules for citations, both in text and references, as well as non-biased writing. You will be graded on your ability to align your writing to APA guidelines).

Course Description
The goal of this course is to help present and future mathematics education leaders understand the current context of issues of diversity, equity and social justice in mathematics education and explore its implications for access and opportunity for traditionally marginalized students. Two premises guide this course: One, social and political conditions in contemporary society are exerting intense pressures on the field of mathematics education and pose significant challenges to mathematics education leaders. Two, education in general, and mathematics education in particular are political, economic, and social endeavors that reflect social arrangements. This course will enable students to view their specialization as part of a complex and larger milieu; that is the U.S. educational system.
**Essential Questions**

The essential questions below will be examined in this course:

1. What are diversity, equity, and social justice in the field of mathematics education?
2. What are the current issues related to diversity, equity, and social justice in mathematics education?
3. How can developing an enhanced mathematics educational equity competence disrupt inequities?

**Learning Outcomes**

By the end of the quarter, students will be able to:

1. Describe and discuss the ways in which their social identities and lived experiences with privilege and/or oppression contribute to a more enhanced *mathematics educational equity competence*.
2. Critically analyze the literature on a specific topic of interest related to equity and mathematics education.
3. Write a journal manuscript that synthesizes a self-selected topic.

**Student Expectations**

1. Read all assigned materials;
2. Come to class having completed all readings and ready to engage in rich dialogue;
3. Type all papers Times New Roman 12-point font with 1 inch margins, double-spaced, and use APA guidelines;
4. Upload assignments to the CANVAS on time.

**Canvas**

At times our learning for this course will take place through Canvas, so it is crucial that you are familiar with how to access and navigate this site: [https://canvas.du.edu/](https://canvas.du.edu/). You must also have reliable and consistent access to the Internet. If you have trouble accessing Canvas or finding the course site, please email me immediately.

I strongly encourage you to log on to CANVAS often as I will use it to send out announcements or create discussion boards in between our face-to-face meetings.

The Announcements area can be found to the right of the page in the menu area.

The Assignments area provides full information including descriptions, criteria, and rubrics, and unless noted otherwise, it is where you will upload finished assignments.

The Discussions section will be used to capture comments from discussions related to particular questions.

**Summary of Course Assignments**

The course assignments are designed to help you engage in higher order learning from Bloom’s Taxonomy. You will write personal reflections of your learning and engagement with the readings, use your creativity to design a newsletter demonstrating critiques/arguments of particular issues, and write a journal manuscript that synthesizes an important equity related issue in mathematics education to be submitted to the *Mathematics Educator Journal*.
To Higher Order Learning

**Synthesizing (Creating):** The learner creates something new by synthesizing what they have learned

**Evaluating:** The learner renders a judgment of a phenomenon based on learned criteria

**Analyzing:** The learner deconstructs a phenomenon into its component parts

**Applying:** The learner applies concepts and frameworks to novel cases

**Understanding (Comprehension):** The learner explains something in their own words

**Remembering (Knowledge):** The learner recalls and repeats what was learned

From Lower Order Learning
(Cognitive Levels of Bloom’s Taxonomy)

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<thead>
<tr>
<th>Assignment</th>
<th>Upload Due Date</th>
<th>Points (100 total)</th>
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<tbody>
<tr>
<td>Reflection #1: Where and How I Enter the Work</td>
<td>March 30th by 11:59 p.m.</td>
<td>15</td>
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<tr>
<td>Critical Analysis Newsletter &amp; Reflection (midterm)</td>
<td>April 20th by 11:59 p.m.</td>
<td>30</td>
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<tr>
<td>Personal Reflection #2: What and I learning and How do I know? (written in first person)</td>
<td>May 4th by 11:59 p.m.</td>
<td>5</td>
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<tr>
<td>Journal Manuscript</td>
<td>May 27th by 11:59 p.m.</td>
<td>50</td>
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<tr>
<td>Manuscript should be submitted to <em>The Mathematics Educator</em> by June 1 by 11:59 p.m. (please forward the confirmation email to Dr. Joseph)</td>
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**Grading**
The following grades will be assigned on a 4.0 scale:

- A = 100-93
- A- = 92-90
- B+ = 89-87
- B = 86-83
- B- = 82-80
First Day Assignment!

**Personal Identity Cajita:** Connecting identities to academic work is of vital importance in Higher Education. The purpose of this assignment is to reflect on your identities and pay tribute to family members (however you define them), honor loved ones, make political statements, and express significant ideas related to your culture and background (however you define that) (Rendón, 2009). Rendon, L. I. (2009). Sentipensante pedagogy: Educating for wholeness, social justice, and liberation. Sterling, VA: Stylus

For the purposes of this assignment, please reflect on your socially constructed and other identities. In your *cajita*, please include ONE ARTIFACT of significance to you that represents your socially constructed and personal identities. In this class, I mean the “Big 8” socially constructed identities: race/ethnicity, sex/perceived gender, sexual orientation, ability, religion, nationality, gender identity, and socioeconomic status.

**Reflection #1: Where and How I Enter (15 points).**

5-7 pages (not including references)

The purpose of this paper is to provide you with an opportunity to meaningfully reflect on and evaluate your own lived experience. This form of self-assessment is critical in the development of a more enhanced mathematics educational equity competence. You are expected to draw on the course readings and other relevant literature as catalysts for your rethinking with regard to identifying the relevant constructs you will use to shape your paper. The exploration of our own lived experience is not an easy process. As such, I have developed a list of prompts that should be used in the framing of your analysis:

1. Describe how you identify using a minimum of three aspects of your social identity (i.e., race, ethnicity, gender, sexual orientation, age, etc.); what has been the impact and/or the significance of these identities on your self-concept; explain how you came to understand yourself as...(gay, muslim, etc.)
2. How congruent or incongruent is your identity/identities, with regard to how others perceive you? Why, why not, or how so?
3. How, if at all, has the visibility or invisibility of these identities affected your lived experience?
4. Describe experiences with privilege and/or oppression, given the context of your identity.
5. How, if at all, has your identity shown up in the classroom and/or in your work?
6. Explore the “so what factor”: what remains unclear? What is your responsibility?

**Critical Analysis Newsletter & Reflection (30 points). Midterm**

4 pages—front cover, two-page inside, and back cover

The purpose of this assignment is to choose a complicated topic and critique it using at least 3 of the journal articles or readings that we have used in the course. This is a creative assignment in that you will need to do this work by creating a newsletter.

You will also write no more than 3 double spaced pages on the process of this assignment. What worked for you and how do you now? What did not work and how do you know? What were you able to do or not do with this assignment that you may not have been able to do with a traditional 15 page paper?

**Reflection #2: What Am I Learning and How Do I know? (5 points)**

2-3 pages (not including references)

The purpose of this assignment is to reflect upon your learning in the class. What are you learning? What are you most excited about and what is giving you angst? You can also identify lingering or burning questions that you have about issues of diversity, equity and social justice related to mathematics education.
**Manuscript (50 points). Summative Assessment**
The purpose of this assignment is to choose a topic of interest within the context of diversity, equity, and social justice in mathematics education and write a maximum **25 page double-spaced journal article (including references)** to be submitted to *The Mathematics Educator*. TME is a student-produced journal published semiannually by the Mathematics Education Student Association (MESA) in the Department of Mathematics and Science Education at the University of Georgia. MESA is an affiliate of the National Council of Teachers of Mathematics (NCTM). Please see this website for more information on how to submit your article for publication [http://math.coe.uga.edu/tme/tmeonline.html](http://math.coe.uga.edu/tme/tmeonline.html).

*The Mathematics Educator* strives to provide a forum for collaboration of mathematics educators at varying levels of professional experience. Its purpose is to promote the interchange of ideas among the mathematics education community, locally, nationally, and internationally and to present a variety of viewpoints on a broad spectrum of issues related to mathematics education. *The Mathematics Educator* publishes a variety of types of manuscripts from students and other professionals in mathematics education including:

- reports of research (including experiments, case studies, surveys, and historical studies),
- descriptions of curriculum projects or classroom experiences;
- literature reviews;
- theoretical analyses;
- critiques of general articles, research reports, books, or software;
- commentaries on research methods in mathematics education;
- commentaries on public policies in mathematics education.

**Course Outline**

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<th>Date</th>
<th>Topic</th>
<th>Readings/Due Dates</th>
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| **Monday, March 23rd** | Building a Learning Community  
What is Equity in Mathematics Education? | **READ:**  
**First day of Class Assignment DUE:**  
What is diversity, equity, and social justice in mathematics education advanced graphic organizer. |


**DUE:** Reflection #1: Where and How I Enter the Work.


Preface, Chapters 1 - 4

**DUE:** Topic & Outline of Ideas for manuscript. You must meet with Dr. Joseph live or over Skype to discuss sometime during this week.


Chapters 5 – 8, Epilogue

**DUE:** Nothing!

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<tr>
<th>Date</th>
<th>Topic</th>
<th>Read</th>
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<tr>
<td>Date</td>
<td>Activity/Readings</td>
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<tr>
<td>Monday, May 11th</td>
<td>Guest Speaker: Dr. Danny B. Martin, PhD at 6:40 – 7:05</td>
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<td></td>
<td>Critical and Transformative Perspectives in Mathematics Education</td>
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<td>Monday, May 18th</td>
<td>Snacks &amp; Food! (No alcohol, sorry)</td>
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<td>Sharing and Celebrating our Learning</td>
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<td></td>
<td>(You will have <strong>15 minutes</strong> to present a presentation of your manuscript. Provide a one page handout for colleagues that includes: 1. Title 2. How and why you chose the topic 3. What did you do? 4. Where will you go next in your learning about this topic?)</td>
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<tr>
<td>Monday, May 25th</td>
<td>Memorial Day! NO CLASS</td>
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<tr>
<td>Wednesday, May 27th</td>
<td>Manuscripts are due to Dr. Joseph meaning uploaded to Canvas!</td>
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<tr>
<td>Monday, June 1st</td>
<td>DUE: Submission to The Mathematics Educator Journal!</td>
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DUE: Reflection #2 What am I learning and how do I know?
According to the revised Honor Code, Student Academic Misconduct is defined as:

- Plagiarism, including any representation of another's work or ideas as one's own in academic & educational submissions
- Cheating, including any actual or attempted use of resources not authorized by the instructor(s) for academic submissions
- Fabrication, including any falsification or creation of data, research or resources to support academic submissions.

Cases of academic misconduct will be referred to the Office of Student Conduct for adjudication. Possible penalties range from disciplinary warnings to dismissal from the university.