Advanced Quantitative Reasoning for All

“What happens when we assume that certain children are less than brilliant? Our tendency is to teach less, to teach down, to teach for remediation.” (Delpit, 2012)
“In Advanced Quantitative Reasoning, students will develop and apply skills necessary for college, careers, and life. Course content consists primarily of applications of high school mathematics concepts to prepare students to become well-educated and highly informed 21st century citizens. Students will develop reasoning, planning, and communication to make decisions and solve problems in applied situations involving numerical reasoning, probability, statistical analysis, finance, mathematical selection, and modeling with algebra, geometry, trigonometry, and discrete mathematics.”
Each of has a story to tell...

• “Every point of view leads you into a different realm of truth. It depends on perspective.” – Thomas Dexter Jakes

• What is the effective of culture in mathematics? (Clarkson and Gullickson, 2018)

Race and culture are not only core to the learning process but also they are central forces that organize our society and determine access to high-quality mathematics instruction. (Nasir, 2016)
Participation has profound effect on sense of self.

Shaping of mathematical identity is a social construction.

Narrative factors – often racialized narratives.

K-12 schools have perpetuated such narratives (e.g. remedial courses)
Building and Influencing Positive Mathematics Identities

Diophantine Equations
10th Grade (AP Central website)

A gentleman Sent his Servant with £100 to buy 100 Cattle, with orders to give £5 for each Bullock, 20 Shillings for cows, and one Shilling for each Sheep, the question is to know what number of each sort he brought to his master.
References


References