The first goal of the Math TLC is to develop a shared vision of mathematics as a culturally rich subject in which K-12 mathematics proficiency is defined by shared community standards (e.g., state, NCTM policies). The courses of the Math TLC master's program are an integral part of achieving that goal. To that end, university faculty who teach courses of the master's program are required to attend to three facets of the teaching and learning of mathematics: (1) mathematics as a culturally rich subject, (2) culturally responsive mathematics pedagogy, and (3) shared community standards. Additionally, as is a requirement of all courses developed for the Math TLC, university faculty are required to attend to the quality of course activities. Each of these requirements is explained below.

**Mathematics as a Culturally Rich Subject Rubric (#1)**

The Math TLC is committed to mathematics courses in the master's program that will challenge the Euro-centric view of mathematics in that each instructor will devote at least 10% of course time to exploring the historical and cultural nature of "modern" mathematics. Additionally, the university faculty will jointly develop and embed activities in the master's program courses where participants collectively engage in experiencing, analyzing, debating and exploring mathematics as a culturally rich subject (Math TLC Strategic Plan Objective 1.2). To that end, all Math TLC master's courses will include the following:

- devote at least 10% of course time to exploring the historical and cultural nature of "modern" mathematics, and
- require participants to collectively engage in experiencing, analyzing, debating and exploring mathematics as a culturally rich subject

The following rubric is used by the Master's Program Team to determine the extent to which Course Development Teams were able meet these criteria.

| Category | Advanced (4) | Proficient (3) | Developing (2) | Beginning (1) | Score |
|---|---|---|---|---|---|
| All courses devote at least 10% of course time to exploring the historical and cultural nature of "modern" mathematics | Greater than 15% of total course time is spent exploring at least one of the following:<br>• mathematics embedded in culture,<br>• culture embedded in mathematics, and/or<br>• ethnomathematics[1] | 10–15% of total course time is spent exploring at least one of the following:<br>• mathematics embedded in culture,<br>• culture embedded in mathematics, and/or<br>• ethnomathematics[1] | 5–10% of total course time is spent exploring the historical and cultural nature of "modern" mathematics | At least one activity, but less than 5% of total course time is spent exploring the historical and cultural nature of "modern" mathematics | |

[1] *Ethnomathematics* is the study of mathematical techniques used by identifiable cultural groups in understanding, explaining, and managing problems and activities arising in their own environment (Gilmer, 1995)

| | | | | | |
|---|---|---|---|---|---|
| All courses require participants to collectively engage in experiencing, analyzing, debating and exploring mathematics as a culturally rich subject | At least three-fourths of the activities that explore the cultural nature of "modern" mathematics require participants to collectively experience, analyze, debate, and explore mathematics as a culturally rich subject and convince participants that mathematics is a subject informed by identifiable cultural groups of non-European origins | At least half the activities that explore the cultural nature of "modern" mathematics require participants to collectively experience, analyze, debate, and explore mathematics as a culturally rich subject that aim to convince participants that mathematics is a subject informed by identifiable cultural groups of non-European origins | At least one-fourth of the activities that explore the cultural nature of "modern" mathematics require participants to collectively experience, analyze, debate, and explore mathematics as a culturally rich subject | At least one activity, but fewer than one-fourth, allow participants to collectively experience, analyze, debate, and explore mathematics as a culturally rich subject | |

Course Development Teams are required to identify all course activities that they deem appropriate for exploring the historical and cultural nature of "modern" mathematics and estimate the total percent of class time spent on these activities. Additionally, for each of these activities, the Course Development Teams are required to identify (e.g., through lesson objectives or by explaining the intention of essential questions) the nature and extent to which participants will experience, analyze, debate, and explore mathematics as a culturally rich subject.