M in STEM Landscape Analysis

Components	Designing	Davalanina	Integrating	Concreting and
Components	Beginning	Developing	Integrating	Generating and Sustaining
Extent to which	Program is	Program	Program	Program provides
mathematics and	seeking to	provides limited	provides	multiple opportunities
science content and	provide	opportunities	multiple	for students to
mathematics and	opportunities	for students to	opportunities	experience integrated
science methods are	for students to	experience	for students to	mathematics and
integrated	experience	either	experience	science content and
teg.uteu	integrated	integrated	integrated	integrated mathematics
	mathematics	mathematics	mathematics	and science methods,
	and science	and science	and science	and for preservice
	content, or	content or	content and	teachers to consider
	integrated	integrated	integrated	when and how content
	mathematics	mathematics	mathematics	should be integrated
	and science	and science	and science	for greatest student
	methods	methods.	methods.	benefit.
	courses.			
Extent to which the	Program is	Program is	Program is	Program is completely
Association of	seeking to align	partially aligned	mostly aligned	aligned with the AMTE
Mathematics	with the AMTE	with the AMTE	with the AMTE	SPTMs C 1-4 regarding
Teacher Educators	SPTMs C 1-4	SPTMs C 1-4	SPTMs C 1-4	candidate knowledge,
(AMTE) Standards	regarding	regarding	regarding	skills, and dispositions,
for Preparing	candidate	candidate	candidate	or, if partially aligned,
Teachers of	knowledge,	knowledge,	knowledge,	has an action plan to
Mathematics	skills, and	skills, and	skills, and	become better aligned.
(SPTMs) are	dispositions.	dispositions.	dispositions.	
reflected in the				
program				
C 1: Mathematics	Seeking to align	Partially aligned	Mostly aligned	Completely aligned
Concepts, Practices,				
and Curriculum				
Well-prepared				
beginning teachers of				
mathematics possess				
robust knowledge of				
mathematical and				
statistical concepts				
that underlie what				
they encounter in				
teaching. They				
engage in				
appropriate mathematical and				
statistical practices				
and support their				
students in doing the				
same. They can read, analyze, and discuss				
curriculum,				
·				
assessment, and				
standards documents				

as well as students'				
mathematical				
productions.	Carlina to alian	Dantially alianasi	NAthl'l	Canadatahadianad
C2: Pedagogical	Seeking to align	Partially aligned	Mostly aligned	Completely aligned
Knowledge and				
Practices for				
Teaching				
Mathematics Well-				
prepared beginning				
teachers of				
mathematics have				
foundations of				
pedagogical				
knowledge, effective				
and equitable				
mathematics				
teaching practices,				
and positive and				
productive				
dispositions toward				
teaching				
mathematics to				
support students'				
sense making,				
understanding, and				
reasoning.				
C3: Students as	Seeking to align	Partially aligned	Mostly aligned	Completely aligned
Learners of				
Mathematics Well-				
prepared beginning				
teachers of				
mathematics have				
foundational				
understandings of				
students'				
mathematical				
knowledge, skills, and				
dispositions. They				
also know how these				
understandings can				
contribute to				
effective teaching				
and are committed to				
expanding and				
deepening their				
knowledge of				
students as learners				
of mathematics.				
C4: Social Contexts	Seeking to align	Partially aligned	Mostly aligned	Completely aligned
of Mathematics				
Teaching and				
Learning Well-				

prepared beginning teachers of mathematics realize that the social, historical, and institutional contexts of mathematics affect teaching and learning and know about and are committed to their critical roles as advocates for each and every student.				
Extent to which program prepares teacher candidates to support diverse learners	Program is seeking to prepare teacher candidates to support diverse learners.	Program provides limited opportunities for teacher candidates to consider teaching practices to support diverse learners.	Program provides multiple opportunities for teacher candidates to consider teaching practices to support diverse learners.	Program provides multiple opportunities for teacher candidates to consider teaching practices to support diverse learners and for teacher candidates to implement these practices in field placements.
Extent to which barriers to success for teacher candidates from traditionally underrepresented groups are addressed	Program is seeking to better support teacher candidates from traditionally underrepresent ed groups	Program provides limited supports for teacher candidates from traditionally underrepresent ed groups	Program provides extensive supports for teacher candidates from traditionally underrepresent ed groups	Program provides extensive supports for teacher candidates from traditionally underrepresented groups at all phases of their teacher preparation (including before admission to the teacher prep program) and provides supports in the early phases of graduates' careers.
Extent to which mathematics education faculty are involved in all phases of mathematics teacher preparation	Program is seeking to involve mathematics education faculty in phases of mathematics teacher preparation beyond the courses those faculty teach	Program involves mathematics education faculty in some aspects of mathematics teacher preparation beyond the courses those faculty teach. Possible examples	Program involves mathematics education faculty in most aspects of mathematics teacher preparation beyond the courses those faculty teach. Possible examples	Program involves mathematics education faculty in all aspects of mathematics teacher preparation beyond the courses those faculty teach. Possible examples include coordinating with faculty who teach other teacher preparation courses to better align content, co-teaching courses with other

include	include	teacher preparation
coordinating	coordinating	faculty, or assisting in
with faculty	with faculty	teacher candidate field
who teach other	who teach other	placement or
teacher	teacher	supervision.
preparation	preparation	
courses to	courses to	
better align	better align	
content, co-	content, co-	
teaching	teaching	
courses with	courses with	
other teacher	other teacher	
preparation	preparation	
faculty, or	faculty, or	
assisting in	assisting in	
teacher	teacher	
candidate field	candidate field	
placement or	placement or	
supervision.	supervision.	