

Applicant Name: _____
 Date: _____

Content Preparation Update Worksheet - Mathematics Teacher Preparation Program

At the time of your admission into the program, you were asked to complete an “Admissions Transcript Review Worksheet”, to help evaluate the extent to which your content preparation fulfilled both New York State certification requirements and relevant professional organization standards and, when needed, to let you know what additional coursework and/or other experiences would need to be completed by graduation. As you are now at the end of your program, we would like you to use this “Update” worksheet to document that you have completed all the additional experiences agreed upon at the time of admissions (if any), and also to identify other learning opportunities you had throughout your program to deepen your proficiency in specific content preparation standards. This will give the reviewer a complete picture of your content preparation at completion of your teacher preparation program.

(A) Relevant Subject Matter Coursework since Admission Review

In the table below, please report the required information for ALL the relevant subject matter coursework that you have completed and/or taken since your admission review, if any (this should include courses M.A.T. students have taken in The College):

Notes	Course Number	Course Title	Sem. Hours	Grade	Sem. taken	Institution where the course was taken

Current cumulative total # credit hours in math: _____

(Include in this total relevant credits taken prior to matriculation in the program, as well as those listed in the table above)

(B) Professional Organization Recommendations

In the table below, please indicate relevant experiences that occurred after your admission into the teacher preparation and contributed to your learning with respect to each of the content preparation standards identified by the National Council of Teachers of Mathematics (NCTM):

<p>Content Standards: <i>(NOTE: items apply to both 5-9 and 7-12 grade levels unless otherwise indicated.)</i> Prospective mathematics teachers should be able to:</p>	<p>Relevant coursework or other experiences:</p>	<p>Comments</p>
<p>1. apply concepts of number, number theory, and number systems;</p>	<p><i>(Addressed in part in EDU436-Theory&Practice in Teaching & Learning Mathematics)</i></p>	
<p>2. apply numerical computation and estimation techniques and extend them to algebraic expressions;</p>	<p><i>(Addressed in part in EDU436-Theory&Practice in Teaching & Learning Mathematics)</i></p>	
<p>3. apply the process of measurement to two-and three-dimensional objects using customary and metric units;</p>	<p><i>(Addressed in part in EDU436-Theory&Practice in Teaching & Learning Mathematics and EDU444- Implementing Innovation in Mathematics Education)</i></p>	
<p>4. use geometric concepts and relationships to describe and model mathematical ideas and real-world constructs;</p>	<p><i>(Addressed in part in EDU436-Theory&Practice in Teaching & Learning Mathematics)</i></p>	

Content Standard:	Relevant coursework or other experiences:	Comments
5. understand the major concepts of Euclidean geometry from a variety of perspectives including coordinate & transformational (grades 5-9)		
6. understand the major concepts of Euclidean and other geometries (grades 7-12) ;	<i>(Addressed in part in EDU483-Integrating Mathematics & Technology and EDU482-Integrating Mathematics & Literacy)</i>	
7. use both descriptive and inferential statistics to analyze data, make predictions, and make decisions;	<i>(Addressed in part in EDU444-Implementing Innovation in Mathematics Education)</i>	
8. interpret probability in real-world situations, construct sample spaces, model and compare experimental probabilities with mathematical expectations, use probability to make predications (grades 5-9) ;	<i>(Addressed in part in EDU436-Theory&Practice in Teaching & Learning Mathematics)</i>	

Content Standard:	Relevant coursework or other experiences:	Comments
9. understand the concepts of random variable, distribution functions, and theoretical versus simulated probability and apply them to real-world situations (grades 7-12) ;	<i>(Addressed in part in EDU436-Theory&Practice in Teaching & Learning Mathematics)</i>	
10. use algebra to describe patterns, relations, and functions, and to model and solve problems;	<i>(Addressed in part in EDU436-Theory&Practice in Teaching & Learning Mathematics & in EDU444-Implementing Innovation in Mathematics Education)</i>	
11. understand the role of axiomatic systems and proofs in different branches of mathematics, such as algebra and geometry;	<i>(Addressed in part in EDU436-Theory&Practice in Teaching & Learning Mathematics)</i>	
12. understand calculus as modeling dynamic change, including an intuitive understanding of differentiation and integration and apply calculus concepts to real-world settings (grades 5-9) ;		

Content Standard:	Relevant coursework or other experiences:	Comments
13. have a firm conceptual grasp of limit, continuity, differentiation and integration, and a thorough background in the techniques and application of calculus (grades 7-12) ;		
14. use counting to enumerate and order; use matrices, finite graphs, and trees to model problem situations; describe basic algorithms for accomplishing tasks (grades 5-9) ;	<i>(Addressed in part in EDU436-Theory & Practice in Teaching & Learning Mathematics)</i>	
15. have a knowledge of the concepts and applications of graph theory, recurrence relations, linear programming, difference equations, matrices, and combinatorics (grades 7-12) ;	<i>(Addressed in part in EDU483-Integrating Mathematics & Technology)</i>	
16. use mathematical modeling to solve real-world problems (grades 5-9) ;	<i>(Addressed in part in EDU444-Implementing Innovation in Mathematics Education)</i>	

Content Standard:	Relevant coursework or other experiences:	Comments
17. use mathematical modeling to solve problems from fields such as natural sciences, social sciences, business, and engineering (grades 7-12);	<i>(Addressed in part in EDU444-Implementing Innovation in Mathematics Education)</i>	
18. understand and apply the concepts of linear algebra (grades 7-12);	<i>(Addressed in part in EDU483-Integrating Mathematics & Technology)</i>	
19. understand and apply the major concepts of abstract algebra (grades 7-12);	<i>(Addressed in part in EDU483-Integrating Mathematics & Technology)</i>	
20. understand and apply the concepts of proportional reasoning (grades 5-9);	<i>(Addressed in part in EDU444-Implementing Innovation in Mathematics Education)</i>	
21. have a knowledge of historical development in mathematics that includes the contributions of underrepresented groups and diverse cultures.	<i>(Addressed in part in EDU436-Theory&Practice in Teaching & Learning Mathematics and EDU444-Implementing Innovation in Mathematics Education)</i>	