Educational Policies Committee Program Proposal, Emma Eccles Jones College of Education and Human Services, January 11, 2019

Utah State University

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ITEM FOR ACTION

Utah State University’s School of Teacher Education and Leadership in the Emma Eccles Jones College of Education and Human Services proposes offering an Elementary Mathematics Specialist Certificate in the manner described below.

EXECUTIVE SUMMARY

The School of Teacher Education and Leadership in the Emma Eccles Jones College of Education and Human Services proposes offering an Elementary Mathematics Specialist Certificate.

RECOMMENDATION

The President and Provost recommend that the Board of Trustees approve the proposal to offer an Elementary Mathematics Specialist Certificate in the Emma Eccles Jones College of Education and Human Services’ School of Teacher Education and Leadership.
WHEREAS, Utah State University’s School of Teacher Education and Leadership in the Emma Eccles Jones College of Education and Human Services proposes offering an Elementary Mathematics Specialist Certificate, and

WHEREAS, The proposed Elementary Mathematics Specialist Certificate will provide post-baccalaureate elementary mathematics specialists with an on-line certificate program, and

WHEREAS, The proposal has been approved by the academic dean, the Educational Policies Committee, and the USU Faculty Senate, and

WHEREAS, The proposal has been approved by the President and Provost of Utah State University;

NOW THEREFORE BE IT RESOLVED, That the Utah State University Board of Trustees hereby approve the proposal to offer an Elementary Mathematics Specialist Certificate in the Emma Eccles Jones College of Education and Human Services’ School of Teacher Education and Leadership and that notification of this proposal be forwarded to the Utah State Board of Regents of the Utah System of Higher Education.

RESOLUTION APPROVED BY THE BOARD OF TRUSTEES

DATE:
Institution Submitting Request: Utah State University
Proposed or Current Program Title: Elementary Mathematics Specialist Certificate
Sponsoring School, College, or Division: College of Education and Human Services
Sponsoring Academic Department(s) or Unit(s): School of Teacher Education and Leadership
Classification of Instructional Program Code: 13.1299
Min/Max Credit Hours Required of Full Program: 24 credits / 24 credits
Proposed Beginning Term: Summer 2019

Certificate of Proficiency
Certificate of Completion
Minor
Graduate Certificate
K-12 Endorsement Program
NEW Emphasis for Regent-Approved Program
Out of Service Area Delivery Program

Chief Academic Officer (or Designee) Signature:
I, the Chief Academic Officer or Designee, certify that all required institutional approvals have been obtained prior to submitting this request to the Office of the Commissioner.

Please type your first and last name Date:

I understand that checking this box constitutes my legal signature.

2 “Proposed Beginning Term” refers to first term after Regent approval that students may declare this program.
Utah System of Higher Education
Program Description - Abbreviated Template

Section I: The Request

Utah State University requests approval to offer the following Graduate Certificate: Elementary Mathematics Specialist Certificate effective Summer 2019. This program was approved by the institutional Board of Trustees on.

Section II: Program Proposal/Needs Assessment

Program Description/Rationale

Present a brief program description. Describe the institutional procedures used to arrive at a decision to offer the program. Briefly indicate why such a program should be initiated. State how the institution and the USHE benefit by offering the proposed program. Provide evidence of student interest and demand that supports potential program enrollment.

The School of Teacher Education and Leadership is requesting approval of an online Post Baccalaureate Certificate for Elementary Mathematics Specialists. Elementary Mathematics Specialists are defined by the Association of Mathematics Teacher Educators (AMTE) as “teachers, teacher leaders, or coaches who are responsible for supporting effective mathematics instruction and student learning at the classroom, school, district, or state levels.” This program will provide the opportunity for professionals with bachelor's degrees and teacher certification to obtain the requisite education to become certified mathematics leaders at the elementary level. The purpose of this proposal is to organize existing elementary mathematics education courses, and add one new elementary mathematics education course, in the current Elementary Mathematics Education program into a Post Baccalaureate Certificate that meets the national standards for Elementary Mathematics Specialists. This proposed certificate program will benefit Utah State University and the USHE system by providing the only Post Baccalaureate Certificate for Elementary Mathematics Specialists in the state of Utah delivered entirely online.

A number of national education reports indicate that elementary school teachers are not adequately prepared to take on the demands of teaching mathematics at the K-6 elementary school level (National Council of Teachers of Mathematics, 2000; National Mathematics Advisory Panel, 2008). To respond to the need to strengthen elementary school teachers' mathematics knowledge for teaching, many states, including Utah, have developed Elementary Mathematics Endorsement Programs. In Utah, this sequence of 6 courses is designed to improve the mathematics knowledge of K-6 elementary school teachers. As of May 2018, only 10% of elementary educators (840 of 8364) in Utah schools had earned an Elementary Mathematics Endorsement. According to the Bureau of Labor Statistics, there is a greater need in the elementary school for Instructional Coordinators and Leaders of Mathematics. There is a need to strengthen mathematics leadership among elementary school teachers and leaders, so that they can take on the role as mathematics teacher leaders and coaches that support other elementary teachers and provide leadership for selecting mathematics curriculum and designing mathematics assessments. To address this need for elementary-level mathematics leaders, the Association of Mathematics Teacher Educators (AMTE) developed standards for the certification and training of Elementary Mathematics Specialists.
The proposed Post Baccalaureate Certificate for Elementary Mathematics Specialists program will build on seven existing courses at Utah State University that meet the AMTE certification guidelines, and add one new course that focuses on strengthening teacher leadership at the elementary level. This set of eight courses (24 credits) directly aligns with the AMTE Standards for Elementary Mathematics Specialists. The proposed certificate provides Utah teachers with the opportunity to strengthen their own mathematics knowledge at the elementary level, and to also provide leadership and support to colleagues in their schools that strengthens mathematics teaching for the children in their schools. For example, the AMTE Standards report the following information about Elementary Mathematics Specialists:

Recent studies of states with a corps of EMS professionals show evidence of a positive impact on student learning. For example, the Vermont Mathematics Initiative (VMI) has built a corps of K-8 mathematics teacher leaders across the state who can support other teachers in their schools and districts (Kessel, 2009, pp. 36-38). (AMTE, EMS Standards, 2013, p. 2)

The AMTE Standards provide clear guidelines and standards for establishing Elementary Mathematics Specialists programs (AMTE, 2013). The prerequisites for entering the program are teacher certification and three years of mathematics teaching experience. The recommended program content is 24 credit hours focused on content knowledge for teaching elementary mathematics, pedagogical knowledge for teaching elementary mathematics, and leadership knowledge and skills. To obtain the Post Baccalaureate Certificate as an Elementary Mathematics Specialist, students in USU’s proposed program will complete the following graduate-level coursework: TEAL 6521: Mathematics for Teaching K-8 Numbers and Operations (3 credits), TEAL 6522: Mathematics for Teaching K-8 Rational Numbers and Proportional Reasoning (3 credits), TEAL 6523: Mathematics for Teaching K-8 Algebraic Reasoning (3 credits), TEAL 6524: Mathematics for Teaching K-8 Geometry and Measurement (3 credits), TEAL 6525: Mathematics for Teaching K-8 Data Analysis and Problem Solving (3 credits), TEAL 6300: Workshop in Mathematics Education (3 credits), TEAL 6551: Mathematics for Teaching K-8 Assessment and Intervention (3 credits), and TEAL 6552: Mathematics Education Leadership Knowledge and Skills (3 credits). All of these courses are existing courses, except TEAL 6552, which will be a newly developed course to address the requirements of the AMTE Standards. All of these courses are offered online every semester, which provides great flexibility for busy professionals interested in developing their knowledge and skills in elementary mathematics and leadership.

Labor Market Demand

Provide local, state, and/or national labor market data that speak to the need for this program. Occupational demand, wage, and number of annual openings information may be found at sources such as Utah DWS Occupation Information Data Viewer (jobs.utah.gov/jsp/wi/utalmis/gotoOccinfo.do) and the Occupation Outlook Handbook (www.bls.gov/oco).

In the AMTE 2015 report, only 20 states offered the EMS license or certificate, even though these leaders are needed in every state throughout the country. In Utah, these elementary mathematics leaders are called “Education Specialists” and “Curriculum Specialists” because there is currently no certification for Elementary Mathematics Specialists. By establishing a Post Baccalaureate Certificate for Elementary Mathematics Specialists, this provides incentives for elementary teachers to strengthen their mathematics knowledge and leadership skills. It will also bring teacher leaders formal recognition that they
have met national guidelines for Elementary Mathematics Specialists. Schools in, and beyond, Utah will be better able to fill leadership positions in their schools by being able to identify highly-qualified personnel that have met the national guidelines for Elementary Mathematics Specialist Certification.

Elementary Mathematics Specialists fall under the broader general heading of Instructional Coordinators. According to the Bureau of Labor Statistics, the employment of Instructional Coordinators is projected to grow 11% from 2016 to 2026 (faster than average for all occupations). Data by state indicates that Utah is #2 in the country with the highest concentration of jobs and location quotients in the occupation of Instructional Coordinators. Data by metropolitan areas indicates that Salt Lake City is #10 in the country with the highest employment level for the occupation of Instructional Coordinators. The Utah Department of Workforce Services states the following information about the occupation, Instructional Coordinators: “This occupation is expected to experience about average employment growth with a moderate volume of annual job openings. Expansion, as opposed to the need for replacements, will provide the majority of job openings in the coming decade. Employment growth is expected as schools focus on evaluating and improving curricula and teachers’ effectiveness.” Note that this estimate is only for individuals who have the title of Instructional Coordinators as their full-time positions, and it does not account for the many teachers and teacher leaders in Utah schools who serve in these positions as Elementary Mathematics Specialists in addition to their regular instructional duties. In other words, many teachers and teacher leaders need the training and skills to support their schools as Elementary Mathematics Specialists, even though they do not have the job title as a full-time Elementary Mathematics Specialist.

Utah State University (USU) has been offering the six required courses in the EME program since 2011 when the program was launched by the Utah State Board of Education (USBE). The EME program includes the following six courses at USU: TEAL 6521, 6522, 6523, 6524, 6525, 6551. In 2015, USU began offering these six EME courses online. Offering the courses online meets the needs of busy Utah teachers and allows them much greater flexibility to earn the endorsement. Since launching the six courses online, there has been a steady number of teachers enrolled in the program and USU has partnered with several school districts to acquire grants and offer the EME courses to teachers (e.g., Logan SD, Cache County SD, Weber SD). As of spring 2018, over 200 teachers participated in USU’s EME courses online, with an average of 43 teachers per semester enrolling in the courses. The proposed Certificate for Elementary Mathematics Specialists will include these six EME courses. These six courses, offered completely online, have shown steady enrollment over the past four years, demonstrating that Utah teachers are interested in the quality and availability of courses in USU’s online format. Past interest in the six EME courses at USU is a strong predictor of interest in the Elementary Mathematics Specialist (EMS) Certificate because these six courses make up 75% of the proposed Certificate program.

The proposed Post Baccalaureate Certificate for Elementary Mathematics Specialists program meets a need that is not currently being met for the elementary teachers of the state. In addition, by offering the courses in the program in an online format, teachers outside of Utah may also be interested in earning the Post Baccalaureate Certificate. For example, many states do not offer Elementary Mathematics Specialist programs. This Post Baccalaureate Certificate could support the needs of teachers in other states as well. There are also many job opportunities for educators with elementary mathematics leadership training. For example, in a recent search on Google, there were position announcements for Math Specialist Teaching, Elementary Licensed Specialist, Elementary Math Instructional Specialist, Instructional Coach – Elementary Math, and Math Enrichment Tutor. These job titles are all the types of positions that a person with a Certificate as an Elementary Mathematics Specialists would be qualified to fill, and demonstrate the high need for individuals with this training and skills. The interest by teachers in Utah State University’s current Elementary Mathematics courses for professional development, and the national and state trends showing the growing need for Instructional Coordinators in elementary mathematics provides strong evidence of the labor market demand for the proposed Post Baccalaureate Certificate for Elementary Mathematics Specialists that will be provided by the Utah State University EMS program.

Consistency with Institutional Mission/Impact on Other USHE Institutions

Explain how the program is consistent with the institution’s Regents-approved mission, roles, and goals. Institutional mission and roles may be found at higheredutah.org/policies/policyr312/. Indicate if the program will be delivered outside of designated service area; provide justification. Service areas are defined in higheredutah.org/policies/policyr315/.

Currently, various USHE institutions (including Weber State, UVU, and SUU) offer the
six courses that satisfy the USBE requirements for an Elementary Mathematics Endorsement (EME), but no USHE institutions offer the proposed Elementary Mathematics Specialist (EMS) Certificate. While various USHE institutions offer the EME courses face-to-face, Utah State University is the only USHE institution that offers the EME courses online. In summer 2018, the USBE began the two-year process of revising the six EME course frameworks and has plans to develop the course frameworks for the additional courses in the Elementary Mathematics Specialist Endorsement by 2020. Once these frameworks are established by USBE, other USHE institutions (including Weber State, UVU, and SUU) will begin offering the two new courses. However, no USHE institution has plans to offer the Elementary Mathematics Specialist Certificate online. When launched in summer 2019, Utah State University will be the first Post Baccalaureate Certificate for Elementary Mathematics Specialists in the state of Utah, and the only USHE institution that offers the Certificate online, thereby fulfilling our land-grant mission of outreach to all teacher populations and communities.

According to the Association of Mathematics Teacher Educators (https://amte.net/ems), only six of the thirteen states in the Western Interstate Commission for Higher Education (WICHE) region have an Elementary Mathematics Specialists or an Elementary Mathematics Endorsement program (e.g., Arizona, California, Idaho, Oregon, South Dakota, and Utah). Because the proposed Certificate for Elementary Mathematics Specialists program at USU will be offered completely online, this may provide additional professional development options for teachers and elementary leaders in states in the WICHE region that do not currently have the Elementary Mathematics Specialists program in their states. Teachers who choose to participate in USU’s Post Baccalaureate Certificate for Elementary Mathematics Specialists will be able to complete their certificate completely online.

As a land-grant institution, Utah State University serves the public, and in particular, serves public schools, by supporting the mathematics professional development of elementary teachers and teacher leaders by providing high-quality instructional programs to educators in Utah and beyond. By providing mathematics education programs in the online environment, USU supports educators in reaching their professional development and professional advancement goals. The Certificate will expand employment opportunities for many elementary teachers to take on leadership roles in elementary mathematics in their local schools and at the Utah State Board of Education.

Finances

What costs or savings are anticipated in implementing the proposed program? If new funds are required, indicate expected sources of funds. Describe any budgetary impact on other programs or units within the institution.

There are no new funds required to add the proposed Post Baccalaureate Certificate to the existing Mathematics Education Programs in the School of Teacher Education and Leadership, and no additional faculty will be needed. Current online course offerings are supported by distance education tuition return to the department. A distance education contract will support the development of one new course required for the program to meet the national guidelines for Elementary Mathematics Specialists. The proposed certificate will not affect current base budgets or programs in the department or at the university. There are currently existing administrative processes in place that are sufficient to ensure the delivery of the proposed
certificate program, including registration, advising, instruction, and marketing. No new administrative structures, faculty or staff will be required to deliver the proposed certificate program.

The financial analysis below shows the projected enrollments each year for the next five years (approximately 30+ teachers per year). The distance education tuition return to the department covers the cost of instruction for the courses in the EMS Certificate program.

**Financial Analysis Form for Elementary Mathematics Specialist Certificate**

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projected Enrollments</td>
<td>30</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td>Projected Student Credit Hours (SCH)</td>
<td>90</td>
<td>93</td>
<td>96</td>
<td>99</td>
<td>102</td>
</tr>
<tr>
<td>Projected Tuition ¹</td>
<td>34,110</td>
<td>36,642</td>
<td>39,360</td>
<td>42,174</td>
<td>45,186</td>
</tr>
<tr>
<td><strong>Projected Tuition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Tuition</td>
<td>34,110</td>
<td>36,642</td>
<td>39,360</td>
<td>42,174</td>
<td>45,186</td>
</tr>
<tr>
<td>Tuition to Program ²</td>
<td>18,540</td>
<td>19,902</td>
<td>21,408</td>
<td>22,968</td>
<td>24,582</td>
</tr>
</tbody>
</table>

**5 Year Budget Projection**

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries &amp; Wages</td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Benefits</td>
<td>4,600</td>
<td>4,600</td>
<td>4,600</td>
<td>4,600</td>
<td>4,600</td>
</tr>
<tr>
<td>Total Personnel</td>
<td>14,600</td>
<td>14,600</td>
<td>14,600</td>
<td>14,600</td>
<td>14,600</td>
</tr>
<tr>
<td>Current Expense</td>
<td>3,940</td>
<td>5,302</td>
<td>6,808</td>
<td>8,368</td>
<td>9,982</td>
</tr>
<tr>
<td>Total Expense</td>
<td>18,540</td>
<td>19,902</td>
<td>21,408</td>
<td>22,968</td>
<td>24,582</td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition to Program</td>
<td>18,540</td>
<td>19,902</td>
<td>21,408</td>
<td>22,968</td>
<td>24,582</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>18,540</td>
<td>19,902</td>
<td>21,408</td>
<td>22,968</td>
<td>24,582</td>
</tr>
<tr>
<td><strong>Difference</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue - Expenses</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Comments**

¹ Gross Tuition based on current average per SCH tuition rate of 2017-2018 Elementary Math Endorsement enrollments of $355/SCH, with a 4% annual increase.
Tuition to program based on current 2018-2019 transfer rate of $198.50/SCH with a 4% increase each year. Actual increase will match the annual Board of Regents approved tuition increase.
Program Curriculum

List all courses, including new courses, to be offered in the proposed program by prefix, number, title, and credit hours (or credit equivalences). Indicate new courses with an X in the appropriate columns. The total number of credit hours should reflect the number of credits required to receive the award. **For NEW Emphases, skip to emphases tables below.**

For variable credits, please enter the minimum value in the table below for credit hours. To explain variable credit in detail as well as any additional information, use the narrative box below.

### Course List

<table>
<thead>
<tr>
<th>Course Number</th>
<th>NEW Course</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>General Education Courses (list specific courses if recommended for this program on Degree Map)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>General Education Credit Hour Sub-Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td>+ X</td>
<td>TEAL 6521</td>
<td>Mathematics for Teaching K-8: Numbers &amp; Operations</td>
<td>3</td>
</tr>
<tr>
<td>+ X</td>
<td>TEAL 6522</td>
<td>Mathematics for Teaching K-8: Rational Numbers &amp; Proportional</td>
<td>3</td>
</tr>
<tr>
<td>+ X</td>
<td>TEAL 6523</td>
<td>Mathematics for Teaching K-8: Algebraic Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>+ X</td>
<td>TEAL 6524</td>
<td>Mathematics for Teaching K-8: Geometry &amp; Measurement</td>
<td>3</td>
</tr>
<tr>
<td>+ X</td>
<td>TEAL 6525</td>
<td>Mathematics for Teaching K-8: Data Analysis &amp; Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>+ X</td>
<td>TEAL 6551</td>
<td>Mathematics for Teaching K-8: Assessment &amp; Intervention</td>
<td>3</td>
</tr>
<tr>
<td>+ X</td>
<td>TEAL 6552</td>
<td>Mathematics Education Leadership Knowledge &amp; Skills</td>
<td>3</td>
</tr>
<tr>
<td>+ X</td>
<td>TEAL 6300</td>
<td>Workshop in Math Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Required Course Credit Hour Sub-Total</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elective Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elective Credit Hour Sub-Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Core Curriculum Credit Hour Sub-Total</td>
<td>24</td>
</tr>
</tbody>
</table>

Program Curriculum Narrative

Describe any variable credits. You may also include additional curriculum information, as needed.
The AMTE Standards provide clear guidelines and standards for establishing Elementary Mathematics Specialists certification programs (AMTE, 2013). The prerequisites for entering the program are teacher certification and three years of mathematics teaching experience. The program content should be 24 credit hours focused on content knowledge for teaching elementary mathematics, pedagogical knowledge for teaching elementary mathematics, and leadership knowledge and skills. To obtain the Post Baccalaureate Certificate as an Elementary Mathematics Specialist, students will complete the following graduate-level coursework:

**TEAL 6521: Mathematics for Teaching K-8 Numbers and Operations (3 credits):** This course, for K-8 teachers, will cover the content of Number and Operations to develop comprehensive understanding of our number system and relate its structure to computation, arithmetic, algebra, and problem solving.

**TEAL 6522: Mathematics for Teaching K-8 Rational Numbers and Proportional Reasoning (3 credits):** This course, for K-8 teachers, will provide practicing teachers a deeper understanding of rational numbers, operations with rational numbers, and proportionality, and instructional strategies to facilitate the instruction of this content for elementary students.

**TEAL 6523: Mathematics for Teaching K-8 Algebraic Reasoning (3 credits):** This course, for K-8 teachers, will provide practicing teachers a deeper understanding of algebraic expressions, equations, functions, real numbers, and instructional strategies to facilitate the instruction of this content for elementary students.

**TEAL 6524: Mathematics for Teaching K-8 Geometry and Measurement (3 credits):** This course, for K-8 teachers, will provide practicing teachers a deeper understanding of the geometry and measurement context that exists in the state core and instructional strategies to facilitate the instruction of this content.

**TEAL 6525: Mathematics for Teaching K-8 Data Analysis and Problem Solving (3 credits):** This course, for K-8 teachers, will provide practicing teachers a deeper understanding of probability and data representation and analysis through problem solving.

**TEAL 6300: Workshop in Mathematics Education (3 credits):** This course, for K-8 teachers, will provide practicing teachers with pedagogical knowledge for teaching mathematics, including an understanding of elementary learners and learning, elementary teaching, and elementary mathematics curriculum.

**TEAL 6551: Mathematics for Teaching K-8 Assessment and Intervention (3 credits):** This course, for K-8 teachers, will provide practicing teachers a deeper understanding of the various types of assessment and their appropriate use for guiding instruction, intervention, and evaluation of student learning.
**TEAL 6552: Mathematics Education Leadership Knowledge and Skills (3 credits):** This course develops the following mathematics education leadership knowledge and skills: policy and curriculum issues; research informing instructional practice; implementation and evaluation of professional development; evaluation of educational structures that affect equity; and responsibilities of math coaches and mentors.

All of these course are existing courses, except TEAL 6552, which will be a newly developed course to address the requirements of the AMTE Standards for Elementary Mathematics Specialists. All of these courses are offered online every semester, which provides great flexibility for busy professionals interested in earning the certificate. Prospective students can complete the Certificate program in one or two years, depending on the number of courses they select to take each semester. Students can apply the coursework in the Certificate program to the Master's Degree in Education - Elementary Mathematics emphasis.
Degree Map

Degree maps pertain to undergraduate programs ONLY. Provide a degree map for proposed program. Degree Maps were approved by the State Board of Regents on July 17, 2014 as a degree completion measure. Degree maps or graduation plans are a suggested semester-by-semester class schedule that includes prefix, number, title, and semester hours. For more details see http://higheredutah.org/pdf/agendas/201407/TAB%20A%202014-7-18.pdf (Item #3).

Please cut-and-paste the degree map or manually enter the degree map in the table below