Form NP

NEW PROGRAM PROPOSAL FORM

Sponsoring Institution(s): University of Missouri-Kansas City

Program Title: Master of Arts in Teaching

Degree/Certificate: Master of Arts in Teaching

Options: Middle School Science, Middle School Mathematics, Middle School Social Studies, and Middle School English. High School Science (Physics, Chemistry, Earth Science, and Biology), High School Mathematics, High School Social Studies, High School English

Delivery Site(s): University of Missouri-Kansas City
5100 Rockhill Road
Kansas City, Missouri 64110

CIP Classification: 131205

Implementation Date: Upon approval

Cooperative Partners:

Expected Date of First Graduation: Fall 2011

AUTHORIZATION

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Name and Title of Institutional Officer

Signature/Date

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Person to Contact for More Information Telephone
Introduction

The University of Missouri-Kansas City (UMKC) is one of the four main campuses of the University of Missouri system. Located in the second largest population center of the state, UMKC has both the opportunity and the obligation to serve the Kansas City region by developing programs most appropriate to its mission as an urban research university.

The School of Education (SOE), organized officially as a separate academic division in 1954, was an outgrowth of the University of Kansas City's involvement in professional education, which dates back to 1940. At that early date the university was offering an M.A. in education, with most classes conducted in the summer and evenings. An undergraduate major in elementary education was established in 1952. Two years later, the first University of Kansas City doctoral program, the Ph.D. in Education, was inaugurated with the formation of the school. Continuing its long history and established record of offering various degrees in education, the school has grown to include three disciplinary divisions with degrees including Bachelor of Arts, Master of Arts, Educational Specialist, and Doctorate of Education programs and participates in the campus-wide Interdisciplinary Doctor of Philosophy degree program overseen by the School of Graduate Studies. Faculty members of the School of Education collaborate to offer degree and certification programs in cooperation with the College of Arts and Sciences, the School of Biological Sciences, and the Conservatory of Music.

UMKC is committed to addressing Missouri’s societal needs by providing highly qualified teachers committed to teach in high-need urban districts. UMKC is physically located in the Kansas City Missouri School District (KCMSD), which is the area’s largest urban school district when charter schools are included, serving approximately 30,000 students (in 2008). KCMSD meets the federal definition of high need as defined by poverty, teacher quality, and student performance (retrieved March 28, 2008, http://www.dhe.mo.gov/index.shtml). Over 68% of the KCMSD students are enrolled in Medicaid, and 80% are eligible for the free and reduced lunch program. Increasing the district’s numbers of highly qualified teachers is critical to improving the performance of its students. UMKC teacher education programs are specifically geared to prepare graduates to work with diverse students, including English language learners, special needs students, and students from diverse racial/ethnic and socio-economic backgrounds.

The University of Missouri-Kansas City and the School of Education are committed to serving the urban community by enabling positive education, training, and life experiences for P-12 students and preparing them to make a difference in their families, workplaces, communities, organizations and society at large. The School of Education, College of Arts and Sciences, and School of Biological Sciences play a critical role on this campus by educating the next generation of teachers, and serving the community and even the state through undergraduate and graduate education. Since 2005, the Institute for Urban Education has been a leading force in promoting the campus as an urban-serving institution and has achieved national recognition for its efforts.

In alignment with its mission, UMKC has developed an aggressive and successful initiative to better prepare middle and high school teachers, specifically emphasizing urban education. In
order to enhance teachers’ knowledge and skills in urban education, UMKC has sought and received over $12 million in National Science Foundation and Department of Education funding.

To support the mission of UMKC and the School of Education, a Master of Arts in Teaching degree (MAT) is proposed to prepare middle and high school teacher candidates. The MAT is designed to attract new bachelor’s recipients with content area degrees and second-career professionals, enabling them to complete middle or high school certification in one year. The degree represents a transition from two post-baccalaureate programs (second bachelor’s or certificate with subsequent Master’s coursework) to a solely graduate program. That is, the MAT involves revising current undergraduate curriculum to create graduate level curriculum. Once the MAT is established, the post-baccalaureate programs will be phased out. This transition does not require new faculty, staff, equipment, library, or other resources, nor will the MAT require additional funding.

The decision to implement this degree program arose from UMKC’s long-term relationship with the Kansas City Missouri School District (KCMSD) and from the Chancellor’s vision and campus mission to address the critical shortage and need for highly qualified middle and high school teachers in under-resourced urban schools. The proposed MAT will bring together a diverse array of resources and expertise to offer a graduate program in the critical fields of math, science, social studies, and English, while aligning with UMKC’s mission, “to collaborate in urban issues and education.” Collaboration at UMKC will be achieved by drawing candidates with degrees from the College of Arts and Sciences and School of Biological Sciences, although we expect to attract bachelor’s degree recipients from other universities in the region as well.

The proposed MAT program prepares teacher candidates specifically for teaching in urban settings through coursework focused on cultural and linguistic diversity and special needs students, through intensive field experiences every semester in urban schools and communities, and through reflection on teaching practice in “capstone” classes, where teacher candidates study how their teaching impacts the learning of the diverse students with whom they engage. Coursework and fieldwork are intentionally integrated to allow for application of knowledge and reflection upon the impact of teaching practices and to create opportunities for candidates to better understand themselves and the culture of the schools and students with whom they work. Infused within content methodology and education courses is a focus on culturally-responsive practice to meet the needs of diverse student populations. By the constant interaction of practice and reflection, teacher candidates gain a much deeper understanding of urban classrooms and the cultural, personal, and societal factors that influence student learning.

The results of market analyses indicate a high demand for middle and high school teachers and Master’s level certification programs. Based on current trends, at least 1,200 and as many as 2,000 new teacher hires will be needed in the Kansas City metropolitan area over the next six years. The greatest need will be in under-resourced urban schools since many beginning teachers in those schools leave the profession for other careers after only one to two years. A commonly cited reason for urban teacher attrition is lack of adequate preparation and/or little to no exposure to the realities of urban schools and communities. Graduates of the proposed program will be uniquely prepared to meet the demand for teachers in these high-need areas. The immediate need for high-quality urban teachers in the Kansas City metro area is demonstrated by support letters
Teacher candidates enrolling in the MAT program will be able to select a middle school or a high school emphasis. Missouri teacher certification options available at UMKC include middle school science, mathematics, social studies, and English. High school options are biology, chemistry, physics, earth science, mathematics, social studies, and English. This degree program will offer students educational opportunities that are unavailable elsewhere in the State of Missouri, particularly related to training in urban education. The most closely related programs are a Master’s Degree in Education offered by the University of Missouri-St. Louis (UMSL), the Master’s Degree in Education offered by the University of Central Missouri (UCM), and the Master’s Degree in Education offered by the Truman State University (TSU). Unlike the programs offered by UMSL, UCM, and TSU, this proposed program requires UMKC students to complete internships in high-need urban schools located in the Kansas City metropolitan area. Because of its uniqueness, this proposed new program has the strong endorsement of superintendents from Kansas City districts.

**Fit with University Mission and Other Academic Programs**

**Alignment with Mission and Goals**

The teacher preparation programs at UMKC reflect the campus and system mission to serve the citizens of Missouri by developing a professional workforce with a regional emphasis on urban issues and teacher education. Our program supports Missouri’s citizens by developing life-long learners, thereby fostering economic development of our community, state, and nation. Our teacher preparation program reflects the discovery, dissemination, preservation, and application of knowledge, which has defined the mission of land grant universities like the University of Missouri system. These characteristics are seen in our efforts to strengthen academics, foster student success, improve the racial climate, and increase campus diversity. Further, our teacher preparation programs support the campus and system mission by empowering our students as reflective practitioners committed to a democratic society. The knowledge, skills and dispositions expected of our teacher candidates include academic excellence, inquiry leading to reflective decision-making and problem solving, and collaboration with others.

**Duplication and Collaboration Within Campus and Across System**

With the establishment of the Institute for Urban Education (IUE), UMKC has recently been recognized as a national leader in urban education. IUE is a collaborative effort involving the School of Education, College of Arts and Sciences, School of Biological Sciences and three partner urban school districts (Hickman Mills School District, Kansas City Kansas School District, and Kansas City Missouri School District). The traditional two-year teacher preparation program has fostered close partnerships between the UMKC School of Education and nine urban districts (Kansas City Missouri and its charter schools; Kansas City Kansas; Hickman Mills; Grandview; Center; North Kansas City; Turner; Raytown; and Independence). UMKC is the only university in the area and one of the few in the nation that focuses on urban teacher education. The proposed Master of Arts in Teaching is the culmination of efforts over the past
two years to create new courses and revise old ones to address the specific needs of urban teachers and students. This program is unique in the State of Missouri.

Most of UMKC’s students are commuters, living in the metropolitan area, which has a population of over two million. The Kansas City metropolitan area stretches across five counties in Missouri and two counties in Kansas. Travel to the University of Missouri-Columbia or University of Missouri-St Louis, which have somewhat related degrees, is not an option for most of our students. There is a high need and demand for qualified teachers within our local area. For example, Jackson County has a dozen public school districts serving over 175,000 students, and market demand is currently not being met by other institutions in Missouri as reflected by the annual shortage of highly qualified middle and high school teachers reported in the Kansas City metro area. As reported in the market analysis below, over the next eight to ten years as many as 2,000 new teachers will be needed annually by Kansas City metro area school districts.

Business-Related Criteria and Justification

Program Need

According to the National Center for Education Statistics (NCES) (http://nces.ed.gov/programs/projections/projections2017/sec5a.asp), in the next ten years the number of teachers needed for America’s elementary, middle and secondary schools is projected to increase in both public and private schools. NCES forecasts record levels of school enrollment at least through 2017, reflecting a forecasted increase in the school-age population (http://nces.ed.gov/programs/digest/d07/).

At the same time, the numbers of school-age youth of color, low-income students, and English language learners are increasing. According to NCES (http://nces.ed.gov/programs/coe/press/highlights2.asp), minority students currently make up 43% of public school enrollment, and that figure is projected to increase. Demographers predict that children of color will constitute a statistical majority of the student population by 2035. At the same time, few teacher preparation programs have made the substantive changes necessary to prepare teachers to work with diverse populations (Hollins & Guzman, 2005).

Under the current reauthorization of the Elementary and Secondary Education Act (No Child Left Behind), public schools are required to assure that all learners are taught by “highly qualified” teachers, i.e. teachers certified in the content areas in which they teach. This makes the need for certified teachers at the middle and a secondary level even more pressing. This is true in all fields and is especially urgent in the areas of math and science.

The nation's schools will need to hire more than 2 million teachers between 2006 and 2017, including over 200,000 middle and high school mathematics and science teachers (National Commission on Mathematics and Science Teaching for the 21st Century, 2000; Committee on Prospering in the Global Economy of the 21st Century, 2006). The immediate need for highly qualified teachers nationally is reflected locally in the Kansas City metro area where, as noted before, as many as 2,000 new teachers will be needed annually. To assist in meeting the need,
the MAT is projected to enroll 45 candidates to start and be able to handle 60 students by Year 5 after it is introduced.

**Market Analysis**

Market analysis was conducted to describe and predict the demand for middle and high school teachers and Master’s level certification to prepare highly qualified teachers. The market analysis was conducted in five steps. First, local need for UMKC’s proposed MAT was assessed by seeking the opinions of local area superintendents. Second, data were collected on the number of teachers employed in the Kansas City metro area, and linear and log-linear projections were used to estimate the number of teachers that will be needed in the Kansas City metro area through 2016. Third, linear and log-linear projections of teacher turnover rates were used to estimate the new hires (of teachers) needed through 2016. Fourth, teacher job survey data from the Missouri Economic Research and Information Center were used to determine the current teacher job openings in the Kansas City metro area. Fifth, student population growth projections and current student-teacher ratios were used to provide additional evidence of projected teacher need. The figures reported below, unless indicated otherwise, refer to all classroom teachers, including all content areas and all grade levels. The proposed MAT will provide certification for middle and high school content areas, which represent about 45 percent of the reported classroom teacher populations that appear in Figures 1 and 2 below.

![Figure 1](http://www.dese.mo.gov/schooldata/ftpdata.html)
The immediate need for certified middle and high school teachers in the Kansas City metro area is demonstrated by the following evidence. First, support letters from superintendents from the Kansas City Missouri School District, the Hickman Mills School District, and the Center School District confirm the need (see Appendices, pp. 39-41). Former KCMSD Superintendent Clive Coleman expressed the difficulties in finding teachers with content area degrees, and indicated that the MAT would be an excellent way to attract highly qualified teachers. Similarly, former Missouri Commissioner of Education and current Superintendent of the Center School District, Robert Bartman, said that the MAT would encourage students to consider higher education and, “I can assure you that the Center School District would be very interested in hiring UMKC graduates of the MAT to teach in our schools.” Marge Williams, Hickman Mills Superintendent, said, “As a district, we continually seek teachers that possess bachelor degrees in their content areas, and I believe that the Master of Arts in Teaching represents an excellent way to attract the most qualified candidates to a career in teaching. As Superintendent, I would be very interested in hiring graduates of the MAT to teach in our schools.”

Second, the Kansas City metro area is conservatively made up of five counties with over 35 school districts plus charter schools. Between 2004 and 2008 the Kansas City metro area school districts employed 11,000 to 12,000 teachers, respectively. Assuming linear growth in the number of teachers over time, Kansas City metro area school districts will employ approximately 14,000 teachers by 2016, or 12,500 assuming more conservative logarithmic growth (Figure 1), 45% of whom will work as middle and high school teachers.

Third, the number of annual new hires required by Kansas City metro area school districts was estimated with teacher turnover data (new hires refer to employing new teachers and replacing
teachers that transfer to other districts). The National Center for Educational Statics reported a survey of public and private K–12 teachers who did not teach in the same school the following school year. The reasons for leaving are reported in Table 1. The two general categories of leaving were “transfer to another school” and “left the profession.” Total turnover by school has increased from 14.5 to 16.9 percent between the years 1987-2004, respectively. In 2004, transfer to another school accounted for 7.8 percent of the turnover. In many cases, teachers transfer from urban schools to suburban schools. Other reasons, including “retirement,” “family reasons,” “pursuit of further education,” and “took another job,” account for nine percent of the turnover in 2004. (retrieved July 18, 2009, http://nces.ed.gov/programs/coe/2008/section4/table.asp?tableID=918).

Linear and log-linear projections with 10 and 15 percent turnover rates were used to estimate the new hires annually from 2009 to 2016 for KC metro area school districts. These values are based on the assumption that KC metro area school districts’ turnover rates are consistent with the National Center for Educational Statics survey data reported in Table 1. It is also assumed that 10 percent of teachers will be leaving the profession and overall about 15 percent of teachers will turn over in schools annually.

The number of teachers employed by Kansas City metro area school districts was derived from data provided from the Missouri Department of Elementary and Secondary Education (Figure 1). In 2008, 11,000 to 12,000 teachers were employed by the districts. At a conservative 10 percent turnover rate with logarithmic teacher population growth, the districts will need about 1,200 new teacher hires annually between the period 2009-2016 (Figure 2). As many as 2,000 new hires will be needed annually based on less conservative linear projections and 15 percent turnover rates.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Total turnover at the end of the year</td>
<td>14.5</td>
<td>13.2</td>
<td>14.2</td>
<td>15.9</td>
<td>16.9</td>
</tr>
<tr>
<td>Transfers at the end of the year</td>
<td>8.1</td>
<td>7.2</td>
<td>7.0</td>
<td>7.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Leavers</td>
<td>6.4</td>
<td>6.0</td>
<td>7.3</td>
<td>8.1</td>
<td>9.0</td>
</tr>
<tr>
<td>Took other job</td>
<td>2.4</td>
<td>1.9</td>
<td>3.1</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Pursued further education</td>
<td>0.4</td>
<td>0.5</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Left for family reasons</td>
<td>1.8</td>
<td>1.1</td>
<td>1.2</td>
<td>1.4</td>
<td>1.2</td>
</tr>
<tr>
<td>Retired</td>
<td>1.3</td>
<td>1.6</td>
<td>1.7</td>
<td>1.9</td>
<td>2.4</td>
</tr>
<tr>
<td>Other(^1)</td>
<td>0.5</td>
<td>0.9</td>
<td>1.0</td>
<td>0.8</td>
<td>1.3</td>
</tr>
</tbody>
</table>

1 Leavers in this category left teaching for a variety of personal reasons, ranging from “starting their own business” to becoming “a member of a contemplative religious community.” However, the most common reason reported by leavers who left for “other” reasons was to take a year-long sabbatical or leave of absence from teaching.

NOTE: The denominator used to calculate the percentage is the weighted number of Schools and Staffing Survey (SASS) teachers surveyed during the Teacher Follow-up Survey (TFS) year; SASS teachers who died or left the country are excluded. The “retired” category includes all teachers who reported retiring between the SASS and TFS year, including those 45 years old and younger who were excluded in earlier estimates. Detail may not sum to totals because of rounding.


The number of year-round positions currently available for Education, Training, and Library Occupations for Kansas City and the surrounding areas, as retrieved from the Missouri Economic Research and Information Center website on July 18, 2009 and shown in Table 2, was 1,321. Unfortunately, these data are not broken down by type of classroom teacher. The number of positions is consistent with estimates of about 1,200-2,000 new teacher hires needed annually reported above (Figure 2). Moreover, the shortage might be even more severe than suggested by the data, as many districts hire the following year’s teachers during the spring, not in July.

Finally, projected new teacher hires by Kansas City metro area school districts are supported by student population growth projections and student-teacher ratios. At present the local area has about 174,000 students. Linear growth projections estimate the number of students to be over 182,000 by 2016 (conservatively about 176,000 students, Figure 3).

In addition to the evidence cited above, the Bureau of Labor Statistics (retrieved July 18, 2009, [http://www.bls.gov/](http://www.bls.gov/)) estimated that teacher job opportunities will vary from good to excellent over the next 10 years. The majority of openings will be due to teacher attrition and retirement. The greatest need will be in under-resourced urban schools since many beginning teachers leave those schools for other careers after one to two years. This will be particularly true for areas with high numbers of alternatively certified teachers (i.e. Teach for America) where attrition is pronounced. Teacher employment will always be dependent on state and local expenditures and on legislation committed to maintaining and improving the quality of public education. At the
national level, there has been a large increase in funding for education, particularly for the hiring of qualified teachers in lower income areas.

<table>
<thead>
<tr>
<th>Table 2. Education, Training, and Library Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region: Kansas City &amp; Vicinity</td>
</tr>
<tr>
<td><strong>Hourly</strong></td>
</tr>
<tr>
<td>Full-time: 1142</td>
</tr>
<tr>
<td>Part-time: 313</td>
</tr>
<tr>
<td>Not specified: 1</td>
</tr>
<tr>
<td>Total: 1456</td>
</tr>
<tr>
<td><strong>Yearly</strong></td>
</tr>
<tr>
<td>Seasonal: 90</td>
</tr>
<tr>
<td>Year Round: 1321</td>
</tr>
<tr>
<td>Not specified: 45</td>
</tr>
<tr>
<td>Total: 1456</td>
</tr>
</tbody>
</table>


Even more, the student-teacher ratios have dropped from 17.5 to 16 during the past five years (Figure 4).
As indicated by the Kansas City Missouri School District Superintendent in fall 2008, the Master of Arts in Teaching is an excellent way to attract highly qualified teachers. It allows recent bachelor’s recipients and second-career professionals to complete middle or high school certification in one year.

While one may question the need for additional English and social studies teachers due to market saturation (when generalized data from across the state are considered), there continues to be a need for high quality teachers in all areas in urban schools. As has been shown in previous data, the greatest need for high quality teachers will be in under-resourced urban schools since many beginning teachers in those schools leave the profession for other careers after only one to two years. Graduates of the proposed program will be uniquely prepared to meet the demand for teachers in these high-need areas.

**Student Demand**

There is high demand among students for this type of MAT program. We currently have 86 student teachers seeking middle or high school certification and 55 of these teachers are post-baccalaureate. For the upcoming fall semester, 55 students have applied to our post-bachelor’s programs for Middle School and Secondary Education. These students would have been MAT candidates had the program been in place. Additionally, in the last six months, the School of Education had nearly 200 inquiries from post-baccalaureate students seeking certification. It is estimated that more than half of them would have been candidates for the program had it been available to them. In addition, National Science Foundation funding will provide a total of 28 full-tuition scholarships over the first five years of the new program. These scholarships will be instrumental in attracting high-quality students who will be valuable in establishing a solid program.

**Figure 4.** Source: [http://www.dese.mo.gov/schooldata/ftpdata.html](http://www.dese.mo.gov/schooldata/ftpdata.html)
Based on the current enrollment, the number of students inquiring about the program, and the opportunity to jumpstart enrollment with the NSF KC-Teach scholarships, we estimate that 45 students will enroll in the program in its first year, and the enrollment will grow to 60 by Year 4. While we anticipate that the program could grow further, we conservatively project that the enrollment will plateau at 60 students.

Since the program is essentially cost-neutral, it will be financially viable from the beginning (see next section). A conservative estimate of the critical mass of students needed for academic viability in Year 5 is 60 (55 full-time and 5 part-time).

**Student Enrollment Projections**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>Five</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL-TIME</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>PART-TIME</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>45</td>
<td>50</td>
<td>55</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

Enrollment at the end of Year 5 for the program to be Financially and Academically Viable

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Five</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL-TIME</td>
<td>55</td>
</tr>
<tr>
<td>PART-TIME</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>60</td>
</tr>
</tbody>
</table>

**Financial Projections (deleted)**

Overall enrollment projections for the MAT include all content areas, not just science, and are based on our current post-baccalaureate student enrollment numbers. We expect to increase the number of students in our program with the targeting of recruitment and outreach efforts, such as:

- Email to all UMKC students, and area businesses including brochures about the program;
- Campus National Public Radio appearances;
- Direct mail involving invitations and brochures about the program;
- Degree-specific websites; and
- Presentations to student organizations like the Biological Sciences Student Government and Arts and Sciences Student Council, local community groups, and business organizations.

**Institutional Capacity**
The School of Education has a long history of offering high quality programs, and will continue in this tradition with implementation of the MAT. We will simultaneously initiate the proposed MAT while phasing out our post-baccalaureate programs in middle and high school teacher education. That is, the MAT involves transforming current undergraduate curriculum into graduate level curriculum. Overall enrollment projections include all middle and high school content areas and are based on our current enrollment in post-baccalaureate certification programs. The MAT will be capped at 60 students per semester in order to maintain high quality. Because the proposed MAT will replace an existing program in courses and enrollment, the institution’s capacity to support this program will not be affected.

To summarize the benefits of the program, the MAT will:

- Address the national, state, and local shortage of highly qualified middle and high school teachers as indicated by the National Science Foundation-funded KC-TEACH scholarship program ([http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5733](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5733)).
- Meet the high demand for highly qualified middle and high school teachers as documented by area superintendents.
- Require certification candidates to be well qualified in their content area as evidenced by a bachelor’s degree in that area, thereby better preparing teachers.
- Streamline certification where candidates with bachelor’s degrees can obtain certification in one year.
- Prepare teachers with skills in culturally-responsive pedagogy equipped to meet the needs of diverse student populations.

**Program Characteristics**

**Program Structure (Form PS):** Middle School

Students may elect to be certified at the middle school or high school level. The courses unique to middle school certification are noted with an asterisk (*). See Appendices (pp. 28-32) for sample course outlines.

A. Total credits required for graduation: 55.
B. Residency requirements, if any: A minimum of 32 credit hours must be completed at UMKC.
C. General education: Total credits: None. However, applicants must have a bachelor’s degree.
D. Major requirements: Total credits: 55

<table>
<thead>
<tr>
<th>Certification/ Master of Arts- One Year Scope and Sequence</th>
<th>Credit hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester One Summer</td>
<td></td>
</tr>
<tr>
<td>EDCI 5589</td>
<td>Gateway to Teaching</td>
</tr>
<tr>
<td>*TCH-ED 5439</td>
<td>Reading in the Content Area</td>
</tr>
<tr>
<td>*TCH-ED 462</td>
<td>Middle School Curriculum</td>
</tr>
<tr>
<td>EDUC 428</td>
<td>Cultural Diversity in American Education</td>
</tr>
<tr>
<td>EDRP 5512</td>
<td>Adolescent Development</td>
</tr>
<tr>
<td>EDCI 5523</td>
<td>Practicum (urban community immersion)</td>
</tr>
<tr>
<td>*TCH-ED 460</td>
<td>Middle School Phil. And Org</td>
</tr>
<tr>
<td></td>
<td>18 credit hours for middle school</td>
</tr>
<tr>
<td>Semester Two Fall</td>
<td></td>
</tr>
<tr>
<td>EDUL 408</td>
<td>Adv. Social-Philosophical Foundations</td>
</tr>
</tbody>
</table>
EDRP 5502  Advanced Educational Psychology  3
TCH 55xx  Special Methods I  3
TCH-ED 5404  Education of the Exceptional Child and Youth  3
EDCI 5523  Practicum (urban schools)  0
EDUC 5585  Technology Applications in the Classroom  3

<table>
<thead>
<tr>
<th>Semester Three Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDCI 55xx  Special Methods II (Capstone for Urban Educators)  2</td>
</tr>
<tr>
<td>EDCI 55xx  Internship in Urban Education  8</td>
</tr>
</tbody>
</table>

**CERTIFICATION ACHIEVED**  Overall credit hours for certification: 43
The following courses should be completed within 3 years to complete the Masters of Arts in Teaching

| EDUL 5525, 5526 or 5527  Foundations Elective  3 |
| EDCI 5596 or EDRP 5522  Classroom Assessment  3 |
| EDCI 5561  Teaching Diverse Learners  3 |
| EDCI 5595  Action Research for Practitioners  3 |

Overall credit hours for MAT: 55

**Program Structure (Form PS):** High School
Students may elect to be certified at the middle school or high school level. The course unique to high school certification is noted with an asterisk (*). See Appendices (pp. 28-32) for sample course outlines.

A. Total credits required for graduation: 49.
B. Residency requirements, if any: A minimum of 32 credit hours must be completed at UMKC.
C. General education: Total credits: None. However, applicants must have a bachelor’s degree.
D. Major requirements: Total credits: 49

**Certification/ Master of Arts- One-Year Scope and Sequence**

<table>
<thead>
<tr>
<th>Semester One Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDCI 5589  Gateway to Teaching  3</td>
</tr>
<tr>
<td>*TCH-ED 5427  Reading in the Secondary School  3</td>
</tr>
<tr>
<td>EDUC 428  Cultural Diversity in American Education  3</td>
</tr>
<tr>
<td>EDRP 5512  Adolescent Development  3</td>
</tr>
<tr>
<td>EDCI 5523  Practicum (urban community immersion)  0</td>
</tr>
<tr>
<td><strong>12 credit hours for high school</strong></td>
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<table>
<thead>
<tr>
<th>Semester Two Fall</th>
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<tbody>
<tr>
<td>EDUL 408  Adv. Social-Philosophical Foundations  3</td>
</tr>
<tr>
<td>EDRP 5502  Advanced Educational Psychology  3</td>
</tr>
<tr>
<td>TCH 55xx  Special Methods I  3</td>
</tr>
<tr>
<td>TCH-ED 5404  Education of the Exceptional Child and Youth  3</td>
</tr>
<tr>
<td>EDCI 5523  Practicum (urban schools)  0</td>
</tr>
<tr>
<td>EDUC 5585  Technology Applications in the Classroom  3</td>
</tr>
<tr>
<td><strong>15 credit hours</strong></td>
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<p>| Semester Three Winter |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDCI 55xx</td>
<td>Special Methods II (Capstone for Urban Educators)</td>
<td>2</td>
</tr>
<tr>
<td>EDCI 55xx</td>
<td>Internship in Urban Education</td>
<td>8</td>
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</tbody>
</table>

**CERTIFICATION ACHIEVED**

Overall credit hours for certification: 37

The following courses should be completed within 3 years to complete the Masters of Arts in Teaching

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUL 5525, 5526, or 5527</td>
<td>Foundations Elective</td>
<td>3</td>
</tr>
<tr>
<td>EDCI 5596 or EDRP 5522</td>
<td>Classroom Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EDCI 5561</td>
<td>Teaching Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDCI 5595</td>
<td>Action Research for Practitioners</td>
<td>3</td>
</tr>
</tbody>
</table>

12 credit hours

Overall credit hours for MAT: 49

**Note: E, F and G are common for Middle School and High School certification.**

E. Free Elective Credits: None
F. Requirements for thesis, internship or other capstone experience: Master of Arts in Teaching candidates will be required to complete an internship, Teacher Work Sample (TWS), and action research project.

Teacher candidates enroll in supervised field experiences every semester after their acceptance into the MAT program. The first semester requires a minimum of 30-60 hours of fieldwork in which there is a focus on the school within the community. Candidates are immersed in the urban community in an effort to help them better understand the strengths and challenges of the urban community as well as the experiences with which their students come to school. The second semester requires a minimum of 60 hours of fieldwork in a carefully selected urban school, followed by student teaching during the final semester. The initial field work is listed under Program Characteristics above as “Practicum.” Student teaching is entitled “Internship” and requires at least 16 weeks of full-time work in an urban school. Student teachers are expected to follow the same daily routines and time schedules as their cooperating teachers. University supervisors follow the progress of student teachers by making both announced and unannounced visits to observe the candidates over time. Completion of student teaching is based on an entire semester of consecutive and successful student teaching.

The experience allows the student teacher to become familiar with the urban community and get acquainted with the policies and procedures of the host district, following these procedures as if a member of the faculty. Duties and responsibilities may include attendance at meetings of professional organizations, parent conferences, co-curricular activities, and such auxiliary duties of teachers as IEP meetings, bus loading, hall duty, lunch room, and playground supervision. According to the Missouri Department of Elementary and Secondary Education, there are approximately 3,300 middle and high school teachers in our nine Missouri partner districts (Retrieved April 30, 2009 [http://dese.mo.gov/directory/discnty.htm](http://dese.mo.gov/directory/discnty.htm).) Susan Adler, former Chair of Curriculum and
Instructional Leadership at UMKC, estimated that approximately 20 percent of the 3,300 teachers are classified as master teachers (personal communication on April 30, 2009). Further, our Director of Field Placement maintains assessment data about performance of our supervising teachers, allowing us to identify approximately 660 master teachers within our partner districts annually.

The TWS is a performance-based activity and assessment tool to help teacher candidates develop a focus on student learning as well as the candidate’s own behavior. Successful teachers make instructional decisions based on their students’ learning. Developing a TWS assists teacher candidates in linking student learning to their own teacher behavior and makes visible each teacher candidate’s ability to develop and implement culturally responsive curriculum and assess learning in authentic ways. Integral to the TWS, which is constructed during student teaching in an urban school, is the development of each teacher candidate’s understanding of the school and surrounding community in which s/he is student teaching. Thoroughly understanding the racial, cultural, and socio-economic characteristics of the urban community, its history and predicted future, as well as the values and mores of the community, provides the teacher candidate with important background information that is critical to successful urban teaching as s/he begins the planning process for her/is own classroom.

Action Research enables practitioners to engage in systematic inquiry into some aspect of their practice in order to find out more about that practice and eventually improve it. Candidates are expected to put their assumptions, ideas and practices to the test by gathering, analyzing and drawing conclusions from evidence. Candidates are encouraged to focus action research on the diverse needs of urban learners.

Finally, there are two special methods courses in the MAT. The first is entitled “Special Methods” and the second is entitled “Capstone.” Content-specific special methods courses are specific to curricular areas (i.e. science, math, English, and social studies) and are designed to prepare prospective content specialist teachers with the necessary background and knowledge to become effective professional teachers in their field. Infused throughout the curriculum is the theory and application of culturally responsive practice to meet the needs of a diverse student population.

Both types of special methods courses are integrated with field experiences, the latter with student teaching in an urban district. The integration is intended to help students apply knowledge and skills derived from content-specific special methods in an urban school setting. Students will have opportunities to apply the teaching strategies they are learning and analyze these for their effectiveness in facilitating the learning in diverse classrooms, to develop classroom management skills, to apply knowledge of teaching strategies in classroom settings, to develop skills in differentiated instruction, to become proficient at self-analysis of instruction, and to develop an understanding of diverse learners through teaching and analysis of instruction.

G. Any unique features such as interdepartmental cooperation:
The Teacher Education Coordinating Council (TECC) provides oversight and governance for the initial teacher preparation programs. TECC is composed of faculty within the School of Education and across the UMKC campus who are involved in the preparation of teachers. Members of the Council come from each of the three Divisions of the School of Education as well as representatives from the College of Arts & Sciences, the School of Biological Sciences, and the Conservatory of Music.

**Student Preparation**
The admissions criteria for the MAT are:
1. Evidence of a content bachelor’s degree from an accredited university (transcript)
2. A minimum grade of C in all content courses with an overall content GPA of 3.00
3. An overall GPA=3.00 in other course work
4. Passing scores on the College Basic Academic Subjects Examination
5. Passing scores on the PRAXIS content area examination
6. Transcripts which document completion of all Missouri content certification requirements
7. Three letters of recommendation (speaking to a candidate’s potential as an urban educator)
8. Background check by the Missouri State Police and FBI
9. Narrative statement describing a candidate’s desire to become a middle or high school teacher in a high-need district

The MAT is designed to allow recent bachelor’s recipients and second-career professionals to complete middle or high school certification in one year (note: Middle school certification may require more than one year to complete).

**Student and Program Outcomes**
- Number of graduates per annum at three years after implementation: Approximately 55-60
- Number of graduates total at five years after implementation: Approximately 270

**UMKC Teacher Preparation: Goals and Values**
The mission of the School of Education is that of empowering professionals as reflective practitioners committed to a more just and democratic society. This mission is centered on five key values which embody the knowledge, skills and dispositions expected of our candidates across the School of Education:
- academic excellence
- inquiry leading to reflective decision-making and problem solving
- skilled and knowledgeable professionals working together collaboratively
- democracy and social justice
- creating caring and safe environments.

In the UMKC teacher education program these five values are demonstrated through the achievement of the Missouri Standards for Teacher Education (MoSTEP); these standards serve
as the basis for the objectives and competencies in the teacher education program.

http://dese.mo.gov/divteachqual/teached/MoSTEP/

**Proportion of students who will achieve licensing, certification, or registration:** All graduates will receive Missouri teacher certification at the middle or high school level. We currently have 100% certification rate for our graduates.

**Performance on national and/or local assessments:** Passing scores on the College Basic Academic Subjects Examination and PRAXIS content area examination are required.

**Placement rates in related fields, in other fields, unemployed:** None expected

**Faculty**
There are 24 Teacher Education Coordinating Council faculty members in the School of Education. All graduate faculty members have a PhD or EdD degree and most have experience teaching at the university level and in middle and high school. A limited number of faculty members are assistant teaching professors, most of whom have a PhD or EdD and work closely with our graduate faculty. Most faculty have recent experience working with urban schools and communities. Approximately 80% of the coursework indicated in the degree proposal is taught by graduate faculty. Table 5 contains a current list of Teacher Education Coordinating Council faculty who provide instruction for the MAT degree coursework.

**Table 5. Teacher Education Coordinating Council Faculty**

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barger, Rita</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Bell, Clare</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Carlson, Judi</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Farrow, Mary Kay</td>
<td>Curriculum &amp; Instructional Leadership</td>
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<tr>
<td>George, John</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Grossman, Cheryl</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Kindle, Karen</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Linas, Maura</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Linville, Malcolm</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Loncar, Kathy</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Odom, Louis</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Rohs, Jovanna</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Russell, Donna</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Schmidt, Cynthia</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Ukpokodu, Omiunota</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Underwood, Ed</td>
<td>Urban Leadership &amp; Policy Studies in Education and Institute for Urban Education</td>
</tr>
<tr>
<td>Vartuli, Sue</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Waddell, Jennifer</td>
<td>Curriculum &amp; Instructional Leadership &amp; Institute for Urban Education</td>
</tr>
<tr>
<td>Wei, Michael</td>
<td>Curriculum &amp; Instructional Leadership</td>
</tr>
<tr>
<td>Belaustegui, Luis</td>
<td>College of Arts and Sciences</td>
</tr>
</tbody>
</table>
Assessment and Accreditation
Since 1954, the School of Education has grown to include a diverse faculty and student body. The School of Education is comprised of three disciplinary divisions and offers 16 programs and 32 certification areas. Degrees offered include the Bachelor of Arts, Master of Arts, Educational Specialist, Doctor of Education, Doctor of Philosophy, and interdisciplinary degree programs. Programs for the preparation of teachers and other school personnel are approved by both the Missouri Department of Elementary and Secondary Education (DESE) and the National Council for Accreditation of Teacher Education (NCATE). Accreditation includes the initial teacher education programs and advanced programs of education and will extend to the proposed program.

References


Appendices

Program Characteristics and Performance Goals

Student Admission Requirements and Preparation

1. Evidence of a content bachelor’s degree from an accredited university (transcript).
2. A minimum grade of C in all content courses with an overall content GPA of 3.00.
3. An overall GPA=3.00 in other course work.
4. Passing scores on the College Basic Academic Subjects Examination.
5. Passing scores on the PRAXIS content area examination.
6. Transcripts which document completion of all Missouri content certification requirements.
7. Three letters of recommendation (speaking to a candidate’s potential as an urban educator).
8. Background check by the Missouri State Police and FBI.
9. Narrative statement describing desire to become a middle or high school teacher in a high-need district.

The MAT will serve as a recent bachelor’s recipient /second-career program, enabling participants to complete middle or high school certification in one year (note: Middle school certification may require more than one year to complete).

Faculty Characteristics (more details above)

All graduate faculty have a PhD or EdD degree. Most have grades 5-12 urban and university teaching experience. A limited number of faculty are assistant teaching professors. Most have a PhD or EdD and work closely with our graduate faculty. Approximately 80% of the coursework indicated in the degree proposal is taught by graduate faculty.

Student and Program Outcomes

- Number of graduates per annum at three years after implementation: Approximately 55-60
- Number of graduates per annum at five years after implementation: Approximately 60

<table>
<thead>
<tr>
<th>YEAR</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<td>FULL-TIME</td>
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<td>50</td>
<td>55</td>
<td>55</td>
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<tr>
<td>PART-TIME</td>
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<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>45</td>
<td>50</td>
<td>55</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

UMKC Teacher Preparation: Goals and Values

The mission of the School of Education is that of empowering professionals as reflective practitioners committed to a more just and democratic society. This mission is centered on five
key values which embody the knowledge, skills and dispositions expected of our candidates across the School of Education:

- academic excellence
- inquiry leading to reflective decision-making and problem solving
- skilled and knowledgeable professionals working together collaboratively
- democracy and social justice
- creating caring and safe environments.

In the UMKC teacher education program these five values are demonstrated through the achievement of the Missouri Standards for Teacher Education; these goals constitute the goals of the UMKC teacher preparation program.

**Program Accreditation**

The teacher preparation programs at UMKC are fully accredited by both the National Council for Accreditation of Teacher Education (NCATE) and the Department of Elementary and Secondary Education (DESE) for the State of Missouri. Program goals and objectives focus on Missouri’s own customized standards that are aligned with the Interstate New Teacher Assessment and Support Consortium (INTASC) goals. Similarly, graduate programs are aligned with the goals of the National Board for Professional Teaching Standards.

**Alumni and Employer Survey**

Instruments to assess the satisfaction of alumni have been developed and piloted by the UMKC School of Education. The survey is administered each year by the Assessment Committee, a standing Dean’s committee. Additional surveys are mailed to alumni eighteen months and three years after graduation. Data are compiled, reviewed and analyzed by the Assessment Committee. Results are reported to the appropriate units for action.
Sample Course Descriptions

EDUC 428, Cultural Diversity in American Education (offered in both Middle School and High School programs)

Course Description
This course is intended to provide you with foundational knowledge needed for teaching in 21st century schools. It is expected that you will develop greater understanding about how students differ in their approaches to learning and the importance of creating instructional opportunities that are adapted to diverse learners. The course will ask you to explore the role of culture in shaping teaching and learning for teachers and students. You will be expected to reflect on yourself as a cultural being, and the impact culture has on how you live and learn. We will critically examine ourselves and our schools for a deeper understand about the role of diversity and culture in the teaching and learning process.

It is the expectation that throughout this course we become clearer on reflecting and analyzing the cultural content in our school environments. Think of this class as a deconstruction project that we will engage in as we critically examine ourselves and our schools for a deeper understanding about the role of our epistemology in the teaching and learning process.

The course will attempt to cover the following eight major areas: (a) immigrant culture, (b) language diversity, (c) special needs, (d) religion, (e) race/ethnicity (particularly White, Native American, Latina/o, African American, and Asian American), (f) sexuality, (g) gender, and (h) class (i.e., socio-economic status).

Course Goals
(a) To become more culturally conscious about the educational system as a diverse institution, but also as one that produces/reproduces a certain set of cultural values, beliefs, practices, tastes, morality, consciousness, and worldviews.

(b) To become more culturally conscious about ourselves as part of the educational process – with our own set of cultural beliefs and assumptions that we consider “normal,” or at least “mainstream.” Because these sets of beliefs and assumptions are so ingrained in what we do and how we believe, we hardly recognize them as abnormal. Some of these beliefs relate to our religion, socio-economic class, gender, race/ethnicity, and views about education.

(c) To become more culturally conscious about others. This includes social and cultural differences that we will address in class.

(d) To apply this cultural consciousness toward planning for teaching.

EDUL 408, Advanced Social-Philosophical Foundations of Education (offered in both Middle School and High School programs)

Course Description
The course will concentrate on the development of a philosophical, historical and social model to assist in understanding the complexities, strengths and problems of present day education. Prerequisite: Admission to the Teacher Education program as an undergraduate student (Source: Graduate Course Catalogue)

Course Overview

The institutions in our culture (i.e., family, government, media, and schools) shape the bulk of our social, cultural, political, and moral understandings. For this class, our interest is in the institution of education (cultural repository), particularly the schools in which we work and learn, and its relationship to teachers (culture bearers) and the curriculum (cultural content). In this triangular relationship:

1. The school serves our society as a change agent because what we learn on the idealistic side of our values and belief systems;
2. The teacher serves as the change agent because all new knowledge and progressive thinking is delivered through their values and beliefs; and
3. The curriculum is the written work that is presented as the “standards” in some cases, and the “truth” in others, and therefore serves as a blueprint of the values and beliefs that we hold and teach collectively.

It is the expectation that throughout this course the student will gain clarity on the specific functions of this triad and their effect on our ways of thinking, reflecting, and analyzing the content in our school environments. In essence, students should think of this class as a deconstruction project; where they will engage in a critical examination of themselves and school for a deeper understanding about the epistemology of the teaching and learning process.

TE 5535, Special Methods Teaching Middle & High School Science

Course Goals

The general goal of this course is to prepare prospective middle and high school science teachers with the necessary background knowledge and laboratory skills to become effective professional science teachers to meet the needs of children from all backgrounds. There will be emphasis on the philosophy of science, science teaching, and science learning. This course is pragmatic in nature to assist you in preparation for student teaching. Implicit is the belief that ALL children can learn and be successful in science and our nation must cultivate and harvest the minds of all children and provide the resources to do so.

Major Objectives (NSTA guidelines addressed)

- Expand your understanding of various dimensions of science and science teaching (5).
- Expand your understanding of the processes of scientific inquiry (5, 6, 7).
- Expand you capabilities for developing science activities (5, 6).
- Use technology to enhance curriculum, instruction, assessment, and communication of ideas (16).
• Understanding of the key issues in teaching science to all students--gender, ethnic background, and socioeconomic influences on science teaching (3), as defined by the NSTA position statement tenants:
  o Schools are to provide science education programs that nurture all children academically, physically, and in development of a positive self-concept;
  o Children from all cultures are to have equitable access to quality science education experiences that enhance success and provide the knowledge and opportunities required for them to become successful participants in our democratic society;
  o Curricular content must incorporate the contributions of many cultures to our knowledge of science;
  o Science teachers are knowledgeable about and use culturally-related ways of learning and instructional practices;
  o Science teachers have the responsibility to involve culturally-diverse children in science, technology and engineering career opportunities; and
  o Instructional strategies selected for use with all children must recognize and respect differences students bring based on their cultures.

• Increase your awareness of Piagetian and Ausubelian Psychology.
• Skill in concept mapping.
• Preparation of concept mapping lessons to be taught during practicum (6).
• Preparation of a concept mapping scoring guide and skill in using concept maps to assess conceptual understanding (5, 8, 14).
• Skill in constructing learning cycle lessons (5, 6, 7).
• Preparation of inquiry laboratory lessons to be taught during practicum. Expand your understanding of the various philosophies of science, science teaching, and science learning (5, 6).
• Expand your understanding of constructivism (5, 6).
• Increase your knowledge of selected content areas of science.
• Skill and knowledge about safety in the science classroom (2, 13).
• Review and summary of the science safety manual published by the State of Missouri (2, 13).
• Familiarity with local, state, and national organizations and resources relevant to improving science education (6, 14).
• Skill in using the Internet (16).
• Skill in teaching process skills and using scoring guides to assess process skills (5, 6, 7, 8, 15).
• Knowledge of selected periodicals and journals in science education (4).
• Read and summarize recent research/articles on science education issues (4, 11).
• Recognition of the key role of active learner involvement in the development of concepts, skills, and activities (10).
• Understanding of key issues in new science curricula, including a National Science Education Standards, Project 2061, and Science-Technology-Society approach (1, 9).
• Understanding of key issues in biology, earth, and physical science education (1). Knowledge of science and technology careers (12).
Construction and use of a website to enhance science planning, instruction, and assessment (16).

NATIONAL SCIENCE TEACHERS ASSOCIATION (guidelines for science methods.)

Instruction in science teaching methods for pre-service middle and high school teachers should be specifically related to the teaching and learning of science. Experiences should be based on research, planned collaboratively with professionals in education, science and science teaching, and include applications in classroom settings. This preparation should enable pre-service high school science teachers to:

1. Provide all high school students with a holistic and interdisciplinary understanding of science.
2. Understand their professional and legal obligations, and liabilities for maintaining a safe environment.
3. Work with students from different ethnic and cultural groups.
4. Relate science to current events, research results, and the high school students’ daily lives.
5. Adapt instructional approaches to the needs of a wide range of learner abilities, backgrounds and goals.
6. Use a variety of instructional strategies, science curriculum and community resources.
7. Design and implement laboratory and field-based learning activities.
8. Use alternative techniques for assessing high school student outcomes which are aligned with instructional goals and consistent with contemporary assessment goals.
9. Engender in high school students the use decision-making and value-analysis skills required to explore relationships and issues in science, technology, society, human issues and cultural values.
10. Use classroom management techniques to establish an environment conducive to learning science.
11. Apply contemporary research findings to the teaching and learning of science.
12. Provide career opportunity information for science fields.
13. Establish and maintain safety in all areas where science instruction occurs.
14. Plan instruction based on high school students’ prior knowledge, conceptualizations and misconceptions.
15. Apply basic statistical methods and processes of data analysis to science teaching.
16. Use electronic educational technology (computers, interactive video, telecommunications technology, etc.) for teaching science.

EDUC 489 MA, Capstone for Middle & High School Mathematics

Course Description
This seminar will work to develop academic excellence, inquiry and reflective problem solving, and the creation of caring and safe environments. Specifically it is designed to complement the student teaching experience through the discussion and analysis of school and school-based issues. It is intended to help you further develop a reflective, critical, and analytical approach to pedagogical decision making through supportive collaboration. You will be asked to use your knowledge of child/adolescent development, learning, classroom dynamics, society, history, culture and your subject area to analyze classroom situations, as well as to develop and defend
alternatives to observed teaching practices and problems. This seminar will provide the opportunity for you to develop your final Work Sample project required for completion of the program.

**Capstone Seminar Goals**
- demonstrate an ability to use classroom data and feedback to describe and analyze teaching situations with an emphasis on their impact on student learning
- propose and defend alternative actions and solutions to observed problems with particular attention to the ethical and social, as well as the immediate consequences of those solutions
- demonstrate an ability to work with peers in the analysis and discussion of situations.

**Teacher Work Sample**
An important part of refining and improving your teaching is developing the ability to assess how well (or poorly) the students are learning. For that reason, your required work sample assessment must show that you are able to assess your teaching using evidence from the students. In addition you must be able to reflect on how you might improve the lesson. The teacher work sample will demonstrate your ability to:
- Think more reflectively about your teaching practice
- Analyze the impact of your teaching on student learning for all students
- Reflect on ways to teach differently to assure success of as many students as possible
CBHE Clarifying Comments

1. Alignment with Institutional Mission
This degree program arose initially from the Chancellor’s vision to address the critical shortage and need for highly qualified middle and high school math and science teachers. UMKC has an opportunity to serve the region and the state by building on its existing strengths to develop education and research programs in the area of “urban education” (http://www.umkc.edu/chancellor/umkc-mission-vision.asp). The program also builds upon the School of Education’s proven initiatives to strengthen urban education in the Kansas City community. The MAT will be the first such degree program in the State of Missouri that will focus exclusively on urban education of teachers and will respond to identified regional, state-wide, and national need for high quality teacher education.

2. Student and Market Demand
There is high demand among students for this type of MAT program. We currently have 86 student teachers seeking middle or high school certification and 55 of these teachers are post-baccalaureate. For the upcoming fall semester, 55 students have applied to UMKC’s post-bachelor’s program for Middle School and Secondary Education. These students would have been MAT candidates had the program been in place. Additionally, in the last six months, the School of Education had nearly 200 inquiries from post-baccalaureate students seeking certification. It is estimated that more than half of them would have been candidates for the program had it been available to them.

The market demand for highly qualified middle and high school teachers is evident by the letters of support provided by area superintendents (see Appendices, pp. 39-41), and national reports provided by the National Center for Educational Statistics. The immediate national need for highly qualified teachers is reflected locally in the Kansas City area. Further, two-thirds of the district’s teachers are expected to retire or leave the profession over the coming decade. David Ketchum, Director of Math and Science, Kansas City Missouri School District, has indicated an annual need for approximately 50 middle and high school science teachers. Across all content areas, the Kansas City Missouri School District projects a need for over 100 middle and high school teachers annually.

As noted within the market analysis, many areas in Missouri are saturated with English and social studies teachers. However, as indicated in Table 1, school districts have a high teacher turnover rate due to retirement or leaving the profession. National studies have shown that the turnover rate is significantly higher in urban school districts. A commonly cited reason for teacher turnover in urban schools is lack of adequate preparation. Because the turnover problem is accentuated in urban school districts, finding high quality teachers in all subject areas will continue to be a challenge even as some districts may have to selectively downsize. The urban-focused MAT will help meet this need while contributing to increased retention of urban teachers.

3. Efficient Use of Resources
This new program represents a unique opportunity to combine existing resources from several departments and schools within UMKC to develop a program of national quality that meets the
needs of our students and the State of Missouri. Most of the courses for the proposed degree are currently being taught as part of existing degree programs housed in the participating schools and departments: Biology, Chemistry, Computer Science, Education, Engineering, Geology, History, English, Mathematics, Physics, Psychology, and Sociology.

4. Benefits of Collaborations
By drawing upon the resources and expertise from many departments and schools throughout UMKC, this MAT program has avoided duplication. Indeed, this program will be a model of efficiency and collaboration. Once established, students will have contact with and access to faculty members in a diverse range of fields, and we anticipate that the interdisciplinary environment created by this program will result in new ideas, projects, research and educational opportunities. On a broader scale, the development effort for this program has already strengthened our partnerships with organizations, such as the Institute for Urban Education and the Kansas City Missouri School District.
The University of Missouri President’s Criteria

1. Implementation of the new program

The new Master of Arts in Teaching will not reduce the quality of existing programs. By building upon existing courses and fostering interdisciplinary collaborations, the new Master of Arts in Teaching degree program will strengthen existing programs and provide new opportunities for students and faculty members. Increasing the number of highly qualified teachers will improve the knowledge, skills, and literacy of middle and high school students in the Kansas City metropolitan area providing a positive feedback loop of students entering UMKC with increased knowledge and skills.

Requiring an undergraduate content degree not only raises the knowledge and skills base of students entering the Master of Arts in Teaching program, but it reflects the university’s philosophy that teacher education requires a university-level commitment and that all faculty are potential teacher educators. This broad participation by academic units and community partners reflects the interdisciplinary nature of the program and the need for students to acquire knowledge and skills in multiple fields.

2. Market Analysis

A verified market analysis has been conducted (see beginning on p. 9).

3. Business Plan (deleted)

A. Introduction

UMKC recognizes that it plays a critical role in the support of Kansas City through numerous educational activities, but one of the most important roles that the university plays in support of Kansas City is the preparation of new teachers. Institution-wide emphasis, collaboration, and projects attest to this belief. Most significant of these initiatives is the Institute for Urban Education (IUE), described above. The IUE clearly demonstrates the nature of UMKC’s financial commitment to teacher education in high-need schools. KC-TEACH is a National Science Foundation funded project involving the University of Missouri-Kansas City (UMKC) College of Arts and Sciences, Schools of Education and Biological Sciences, and the Kansas City Missouri School District (KCMSD), which seeks to increase the number of high school science teachers in the KCMSD. KC-TEACH will operate at the same level of institutional commitment that the IUE has over its four-year history.

B. Budget for the Master’s Degree (deleted)

C. Recruitment of Students

In order to attract a large and diverse pool of applicants to the Master of Arts in Teaching program, it is critical to reach out to students potentially interested in teaching careers. UMKC has adopted a comprehensive framework that builds on existing marketing and outreach efforts with the region’s high schools to provide a pipeline of interested students.
The Kansas City economy increasingly emphasizes science and technology and provides a wealth of candidates potentially interested in teaching as a second career. In the metropolitan area, companies such as Black & Veatch, Bayer, the Midwest Research Institute, the Stowers Institute, as well as more than 25 other science-related corporations, represent an employee pool from which we can draw. To attract and recruit second career professionals and recent graduates who may be interested in a teaching career, we will mail flyers, schedule visits, and maintain frequent contact with Human Resources Officers within these numerous corporations. These activities are already being done as part of regular marketing and also in conjunction with the KC-TEACH grant. In addition, National Science Foundation funding will provide a total of 28 full-tuition KC-TEACH scholarships over the first five years of the new program.

The School of Education’s marketing initiatives and previous experiences with recruiting teachers and students to participate in externally funded projects have helped UMKC refine recruitment strategies as described below. Announcements and presentations will be made via the UMKC National Public Radio affiliate station (KCUR) and for the American Chemical Society’s student affiliate group, the Biological Sciences Student Government Association, the African American and Hispanic Youth Days events, the College for a Day program, the Science Olympiad, the Science Knowledge Bowl, Science Pioneers meetings and trainings, as well as regional meetings of high school counselors. In addition, recruitment will take place at, the seven community colleges in the area and area college fairs. These costs are not reflected in the budget because these efforts are not conditional upon the approval of the MAT.

D. Student Retention and Assessment

Students entering the Master of Arts in Teaching will have completed all requirements for certification in their content area, but their development and preparation will continue on into the first three years of service as a teacher—a critical component for retention of early career teachers (Strage, Meyers, & Norris, 2002).

For these reasons, the Master of Arts in Teaching program was conceived of as combining both initial certification and subsequent induction support—where students complete four additional courses following the start of their teaching career.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUL 5525, 5526 or 5527</td>
<td>Foundations Elective</td>
<td>3</td>
</tr>
<tr>
<td>EDCI 5596 or EDRP 5522</td>
<td>Classroom Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EDCI 5561</td>
<td>Teaching Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDCI 5595</td>
<td>Action Research for Practitioners</td>
<td>3</td>
</tr>
</tbody>
</table>

12 credit hours
These courses cover advanced pedagogy and skills that will be best developed once teachers are in the field, including advanced classroom assessment and action research (Scott, Milam, Stuessy, Blount, & Bentz, 2006).

In addition to the course-based support, program completers will also participate in a three-year systematized program that provides ongoing professional development and mentoring for new teachers. This program is being modeled after premiere university-based programs such as the New Teacher Project (Johnson, 2007), and is designed to provide structured support that focuses on improving new teachers’ instructional, classroom management, and professional skills. New teachers will meet with mentors, receive ongoing professional development from university faculty, meet monthly as a cohort to problem-solve, learn new teaching strategies and receive feedback on their teaching. Because inadequate preparation and lack of formal support programs for new teachers are main causes for urban teacher turnover (Darling-Hammond, 2003; Ingersoll & Smith, 2003; Nieto, 2003), this initiative is critical to the overall success of the MAT program.

E. Employment

According to the National Science Foundation, the Nation's schools will need to hire more than 2 million teachers during the next decade, including over 200,000 middle and high school mathematics and science teachers (National Commission on Mathematics and Science Teaching for the 21st Century, 2000; Committee on Prospering in the Global Economy of the 21st Century, 2006). The immediate national need for highly qualified teachers is reflected locally in the Kansas City area. Further, two-thirds of the district’s teachers are expected to retire or leave the profession over the coming decade. David Ketchum, Director of Math and Science, Kansas City Missouri School District, has indicated an annual need for approximately 50 middle and high school science teachers. Across all content areas, the Kansas City Missouri School District projects a need for over 100 middle and high school teachers annually.

Summary Comments

The proposed Masters of Arts in Teaching degree will build upon the strengths of UMKC’s interdisciplinary culture with the vision that teacher education is the responsibility of the entire campus, not just the School of Education. Drawing upon students with bachelor’s degrees in biology, chemistry, physics, earth science, mathematics, social studies, and English, the proposed program will bring together a diverse array of resources and expertise to offer a graduate program in this important field while aligning with UMKC’s mission, “to collaborate in urban issues and education.” Requiring a bachelor’s degree for all students entering the MAT moves the responsibility of creating high quality teachers to the university, not just the School of Education. Unlike UMSL, UCM, and TSU that have similar degrees, this proposed program requires UMKC students to complete internships in high-need urban schools located in the Kansas City metropolitan area. This degree program will offer students educational opportunities that are unavailable elsewhere in the State of Missouri. The current need to produce high quality teachers willing to work in high-need urban districts is not being met by existing programs in Missouri, as evidenced by the shortage reported annually.
Letters of Support (available upon request)