Program Description

Masters of Science in Education in Technology for Learning
To Be Offered by Indiana University at Indianapolis
(Date: 3-8-2014)

1. Characteristics of the Program

a. Campus(es) Offering Program: **Indiana University-Purdue University Indianapolis**

b. Scope of Delivery (Specific Sites or Statewide): **Statewide**

c. Mode of Delivery (Classroom, Blended, or Online): **Online**

d. Other Delivery Aspects (Co-ops, Internships, Clinicals, Practica, etc.): **Webinars**

e. Academic Unit(s) Offering Program: **IUPUI School of Education**

2. Rationale for the Program

a. Institutional Rationale (Alignment with Institutional Mission and Strengths)

Technology is rapidly revolutionizing society, making it imperative that educators of all kinds learn to use digital tools to strengthen their teaching and improve student learning. The *Masters of Science in Education in Technology for Learning* will engage students in a technology-infused curriculum that requires them to use and evaluate a wide-variety of digital tools used in educational environments. Students will consider how they can teach differently in the technology-enhanced environments of today. They will develop new technology skill sets and critical perspectives about the affordances of different technologies for teaching and learning.

As the United States strive to develop a globally competitive workforce, demand is high for educators who can engage learners in 21st century skills and mindsets. The *Masters of Science in Education in Technology for Learning* curriculum connects theory to practice, preparing educators to design learning experiences that promote creativity and active learning through the integration of digital tools. It prepares professionals to critique the current educational technology innovations and related research and immerses them in learning engagements that promote global connections, instant feedback, and communication with authentic audiences.

The Indiana University School of Education at IUPUI converted this particular masters degree program to distance delivery because of its close alignment with the mission of

IUPUI which seeks to develop distinctive programs that promote educational, cultural, and economic development through innovative collaborations, external partnerships, and strong commitment to diversity. Our faculty members have collaborated on technology education grants with public school district leaders and development teams to educate cohorts of instructional coordinators who provide leadership in the districts as work to create technology-infused learning environments. Our ability to offer this distinctive program is directly linked to our context. This degree program focuses on the technologies and learning environments appropriate to schools and forefronts the institutional values of IUPUI including diversity, equity, civic engagement, and interdisciplinary collaboration. Students learn not only to infuse technology into teaching, but also to consider how every student can be well served.

IUPUI has offered master degrees in *Elementary Education* and *Secondary Education* for about 40 years. This masters program developed as a track of these two degree programs in response to two urban school districts who wanted to prepare teachers to implement the most current educational technology to serve diverse learners. Pilot versions of the courses were first taught onsite in computer labs at local schools, but IUPUI professors gradually transitioned to teaching these courses online using learning management systems like Angel and OnCourse. The program needed to be for all teachers P-Grade 12, so early childhood and secondary teachers worked side-by-side in pilot versions of this program to learn about new technologies. They designed and implemented new forms of digital instruction at their own level and in their own classrooms as they progressed through the program.

At the same time as the online courses about teaching with technology were in development, the IU School of Education at IUPUI took advantage of three small curriculum grants offered by the Center for Teaching and Learning (IUPUI) to develop online courses with an urban education focus to serve teachers whose hectic schedules make it more attractive to take their masters courses online. The *MS in Education in Technology for Learning* brings these two strands of development together. The program delivers a focus on technology for teaching and learning along with knowledge needed by teachers in urban contexts.

This online degree program is designed for practicing teachers or educators in varied contexts who want to advance their careers by increasing their capacity to teach using technology. The program will appeal to graduate students who want the flexibility of an online program. It will appeal to educators with an interest in moving into positions such as instructional coordinators, master teachers, technology coaches, technology integration specialists, virtual educators, or technology leaders in various contexts. By virtue of being online, the program can have a national and even international reach.

*See Appendix 1: **Institutional Rationale** for additional detail*

b. State Rationale

This program addresses the goals of *Indiana's Reaching Higher, Achieving More* because it was designed to meet the requirements for graduate program financial aid. Students take 6 credit hours each semester so they are eligible for the financial aid available to graduate students. They also go through the program in two years and in cohorts to help with their persistence and completion of the program. The program results in a significant upgrade to their knowledge and skills in technology, leading to career advancement and to better Indiana schools and worker preparation.

c. Evidence of Labor Market Need

i. National, State, or Regional Need

This program originated to serve local Indianapolis schools, but it will have state and national appeal as all educational systems in the nation need technology coordinators. The demand for these graduates is stronger in Indiana than in the nation, perhaps because Indiana is making such deliberate steps toward improving the education of its citizens.

The program will be marketed to local school districts who are trying to improve the skills and expertise of their teachers and administrators in using technology for teaching and learning as well as to university and public audiences. The School of Education has a history of cooperating with districts to write grants for professional development to develop their skills with technology infusion and will draw on the successes of those teachers and schools to provide examples of best practices. One of the innovative features that did grow out of school-based work are the student-presented webinars included in the core courses. Students do research on technology innovations and present webinars for that are advertised by the School of Education Office of Professional Development for teachers in the field.

ii. Preparation for Graduate Programs or Other Benefits

This masters degree will enable teachers who have a bachelors degree to take a step up the career ladder if they take jobs as instructional coordinators. This could mean a pay increase of $5,000 to $9,000 per year, depending on the educational context and job responsibilities.

iii. Summary of Indiana DWD and/or U.S. Department of Labor Data

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At the national level, the growth in demand (looking ahead to 2022) for instructional coordinators is 13% and in Indiana, the growth in demand (looking ahead to 2020) for instructional coordinators is 22.1%. At the national level, elementary, middle school, and secondary teachers make an average of $53,000-55,000 per year, and Instructional Coordinators make an average of $60,050. In Indiana, the regular classroom teachers make an average of $45,539 per year, while instructional coordinators make an average of $54,066. This analysis suggests that program graduates should see a significant gain of income as a result of completing this degree.

> *See Appendix 2:* **Summary of Indiana Department of Workforce Development and/or U.S. Department of Labor Data** *for additional detail.*

iv. Surveys of Employers or Students and Analyses of Job Postings

Our best evidence of market demand for this degree program comes from the local school districts' continued interest in professional development to prepare technology savvy teachers and our pilot of the program. In 2009, we recruited a cohort of 18 students (a combination of elementary and secondary teachers) for a two-year cohort version of this program. In 2010, the state passed legislation taking away the school districts' right to offer teachers raises based on earned masters degrees, and we immediately enrolled 48 teachers in this online program because they could complete it in 2 years and have their degrees before the window closed on pay increases. None of our face-to-face masters programs drew similar enrollment. So we know from firsthand experience that many teachers prefer online programs. This makes sense given the fact that teachers complete their masters degrees while continuing to work full time. They need the flexibility of asynchronous course delivery so they can work around their meetings, coaching, grading, and family obligations.

v. Letters of Support

We originally sought approval for this program as an existing program that gradually went online. We were not thinking of it as a new program, but we learned that we could not request online approval for tracks of an existing program. So we have modified our proposal. The letter of support in our packet comes from the Department of Instructional Systems Technology at Indiana University in Bloomington. The letter was written by Dr. Thomas Brush after several exchanges between his department and the IUPUI School of Education about the development of the program. There are some reminders in the letter about our discussions and ways we will be working to continue to improve the program once it has been approved.

> *See Appendix 3 for* **Letters of Support**.

3. Cost of and Support for the Program

    a.   Costs

        i.   Faculty and Staff

IUPUI has been very proactive in its stance toward online education and provided many support systems to faculty who want to learn to teach in the online context. Many faculty members in the School of Education have actively pursued the skill set needed to teach online, and there are thirteen full-time faculty who serve on the Technology Committee and teach courses in this program. The program also requires the services of a full-time technology integration specialist who works with faculty to prepare online courses and manages the online delivery systems and the guidance of the full-time Director of Technology.

The School of Education will need to need to hire an Assistant Professor of Educational Technology with educational technology experience to direct and anchor the program. We need a full-time faculty member whose expertise is specifically in the area of this program.

*See Appendix 4: **Faculty and Staff** for additional detail.*

        ii.   Facilities

This program will not require any renovations or new space.

        iii.   Other Capital Costs (e.g. Equipment)

The School of Education has already offered this program on a pilot basis using existing resources. No additional capital costs are required.

    b.   Support

        i.   Nature of Support (New, Existing, or Reallocated)

The IU School of Education at IUPUI continually invests in current technologies so the faculty is equipped with basic equipment like video camera, laptop computers, scanners, and more. The program requires the services of a technology integration specialist who works with faculty members to prepare online courses and manages the online delivery systems. When we developed the program, we had a Director of Online Programs who collaborated with the

Chair of Graduate Programs to help faculty develop the program curriculum, assessments, and student advising resources. When this program was put on hiatus pending formal approval, this director was recruited by a local school district. This leaves us positioned to hire a full-time tenure track faculty member when we reinstate the program.

    ii. Special Fees above Baseline Tuition

Currently, IUPUI charges a Distance Education Fee of $39/per credit hour in addition to the resident and non-resident tuition rate.

4. Similar and Related Programs

    a. List of Programs and Degrees Conferred

        i. Similar Programs at Other Institutions

Campuses offering (on-campus or distance education) programs that are similar:

There are a handful of other masters degree in educational technology in Indiana, but none of these is exactly like this degree program. IUPUI is the only program that focuses on the urban education theme of reaching all learners and preparing teachers to be instructional technology coordinators.

Indiana University in Bloomington has an M.S.ED in Instructional Systems Technology, a Certificate in Instructional Systems Technology, and a Certificate in Learning Sciences, Media, and Technology. None of these is nearly as teacher and school oriented as this IUPUI program which was developed through work with school districts.

Programs are also available from:
- **Western Governors University--Masters of Education, Learning and Technology which focuses on instructional design, technology integration, and research fundamentals.**
- **Purdue University--Masters of Science in Education in Learning Design and Technology**
- **University of Indianapolis --Technology Certificate Graduate Program**
- **Ball State University -- Master of Arts in Curriculum and Educational Technology**

    b. List of Similar Programs Outside Indiana

There are many universities outside of Indiana which offer similar online masters degree programs. The following programs would be competitors to this degree program:

- **University of Colorado, Denver – MA in Information and Learning Technologies with emphasis on K-12 Teaching**
- **Pepperdine University – Masters of Arts in Learning Technologies**
- **Stanford University – Masters in Learning, Design and Technology**
- **Penn State University--Master of Education in Learning, Design, and Technology**
- **Harrisburg University—Masters of Science Learning Technologies**
- **DeVry--Master's Degree in Educational Technology**

c. Collaboration with Similar or Related Programs on Other Campuses

The program most like this one is the *Computer Education License* offered by the Instructional Systems Technology (IST) Department at IU Bloomington. Their licensure program is designed for teachers with some of the same technology goals as our program, but theirs does not include the focus on urban school settings. The Bloomington IST department also offers an *Instructional Systems Technology Certificate* and a *MS in Instructional Systems Technology*. These programs are both residential and online programs designed to prepare e-learning developers, instructional designers, corporate trainers, researchers, and education content developers, entrepreneurs in training and development, and technology leaders in schools. Our programs share a focus on technology, but the programs have totally different courses and outcomes.

We requested and received approval for this program in 2012 from the IU Bloomington-IUPUI Core Campus Graduate Studies Committee and the Policy Council. The degree program was approved as a residential program and as subplans of the MS in Elementary Education and Secondary Education. Approval for this program as a new and online program is pending with both of these committee.

5. Quality and Other Aspects of the Program

a. Credit Hours Required/Time To Completion

The program consists of 36 credit hours of coursework taken two courses a semester for six semesters. These courses are offered completely online via Oncourse. Students will be admitted in cohort groups and must take the sequence of courses according to the program plan, but students can transfer up to nine graduate credit hours into the program with the permission of an advisor.

*See Appendix 5: **Credit Hours Required/Time to Completion** for additional detail.*

b. Program Competencies or Learning Outcomes

The Indiana University School of Education at IUPUI expects all masters degree students to demonstrate competence in the following areas.

- **Professional Expertise--develop comprehensive knowledge, skills, values, and ethics required to achieve excellence in his or her educational role.**

- **Praxis--apply what they know through ongoing praxis, reflectively engaging theories, assessments, applications, and research to support rigorous and relevant student learning and innovative educational practices.**

- **Critical Perspectives-- analyze and critique systems of power and contextual influences in education realizing that contradictions and tensions are inherent in professional and personal stances.**

- **Collaborative with the Community--collaborate with people of many abilities and beliefs to respectfully learn from all members of a community.**

- **Inclusion--include, value, and promote diverse perspectives, experiences, languages, cultures, and abilities; recognize the global nature of society; appraise the role and impact of family, culture, and community on learners.**

- **Leadership--create a culture of inquiry and collaboration that enables all students and teachers to learn for their own sake and for the good of a culturally diverse democratic society in an interdependent world.**

In addition, *Technology for Learning* students will:

- **Formulate a rationale for infusion of technology in learning environments.**

- **Evaluate web-based tools for functionality and educational value.**

- **Utilize a variety of digital tools to engage in social learning including blogs, wikis, and podcasts.**

- **Participate in and document their involvement in collaborative, reflective learning communities.**

- **Design technology-integrated instruction that promotes 21st century learning in the areas of: critical thinking, collaborative learning, global awareness, students as knowledge constructors, and media literacy.**

- **Develop learning environments and that promote students' motivation, higher-order thinking, and creativity.**

- **Plan for the assessment of student learning in online and blended learning environments.**

- **Synthesize research in the field of educational technology to develop deeper knowledge of innovative practices and their strengths/weaknesses and affordances.**

- **Design and deliver effective presentations to authentic audiences using multimedia and online networks.**

c. Assessment

Students' performances and progress will be assessed at the course level by evaluating their mastery of course objectives with performance assessments. Course Instructors will expect students to demonstrate mastery (>80%) of each objective and will provide formative feedback as the courses unfold so students are well aware of the rigorous expectations and supported in their striving to meet them.

The School of Education Graduate Advisor will review students' cumulative course grades at the end of each semester and determine if there are students who need to be placed on probation or counseled out of the program because they are not earning the 3.3 GPA required by the degree. The advisor will report the outcome of these audits to the Technology Committee which meets bi-monthly and communicate with students in danger of academic failure.

Students will be adding course projects and assessments from their technology courses (the 5 W courses) to their E-Portfolios and the Technology Committee of the School of Education will review the content of these portfolios at an annual program review meeting every spring semester. They will analyze how well the students are using technology as a tool to support cognitively complex learning, as well as ask if the newest forms of technology are in use. This program evaluation session will end with the formulation of recommendations/action steps to be supervised by the Technology Committee and faculty teaching the courses.

In addition, the School of Education Graduate Programs Committee collects student assessment data from the rubrics used to grade their final projects in the Inquiry courses: Y520 Literature Review, Y510 Action Research Plan, and T590 Action Research Practicum. Information gathered through this assessment process will be used to help determine the summative effectiveness of the program in meeting its intended learning outcomes and to inform any adjustments that are determined to be needed to help with continuous programmatic improvement. The School of Education also

surveys graduates of masters' programs and their employers to get data about the impact of their advanced learning.

The following chart outlines the student outcomes to be assessed, the context for developing the skills and knowledge, the assessment of the outcome, its relationship to the university standards for graduate education, and the assessment setting.

Student Outcome	Where will students learn this knowledge or skill?	How will student achievement of the outcome be assessed?	Relationship to IUPUI Principles of Graduate and Professional Learning (PGPL)? IU Core Campus Beliefs (Core)?	In what setting will the assessment take place?
Develop comprehensive knowledge, skills, values, and ethics required to achieve excellence in his or her educational role.	Courses T531, J500, Y520	Personal Stance Assignment Literature Review	PGPL #1 Core #1	Online classes Forums Diigo
Apply what they know through ongoing praxis, reflectively engaging theories, assessments, applications, and research to support rigorous and relevant student learning and innovative educational practices.	Y510, T590	Action Research Plan Action Research Project Presentation	PGPL #1 Core #2	Y510 Action Research T590 Action Research Practicum OnCourse Chatrooms
Analyze and critique systems of power and contextual influences in education realizing that contradictions and tensions are inherent in professional and personal stances.	J500, T531, T524, Y520	Critical Essay Literature Review	PGPL #2	Online classes Forums Adobe Connect Small Group Rooms Diigo
Collaborate with people of many abilities and beliefs to respectfully learn from all members of a community.	T524, J500	Families Plan Assessment Plans	PGPL #3	Forums Adobe Connect Small Group Rooms

				T590 Action Research Practicum
Include, value, and promote diverse perspectives, experiences, languages, cultures, and abilities; recognize the global nature of society; appraise the role and impact of family, culture, and community on learners.	P507, T531, T524,	Personal Stance Assignment Family Involvement Plan Assessment Plans Personal Web Pages	Core #3	Online Classes Blogs Adobe Connect Small Group Rooms
Create a culture of inquiry and collaboration that enables all students and teachers to learn for their own sake and for the good of a culturally diverse democratic society in an interdependent world.	W515, W550	Action Research Plan Action Research Project Presentation Case Study	PGPL #3 Core #3 Core #4	Online Classes Adobe Connect Small Group Rooms
Formulate a rationale for infusion of technology in learning environments.	W531	Personal Stance Assignment: Written statement describing the key reasons that technology is essential to high quality learning environments and optimum student engagement.	PGPL #2 PGPL #3	Online Classes Webpages Blogs
Evaluate web-based tools for functionality and educational value.	W515, W520, W531,	Digital Toolbox Assignment: Personal webpage with links to a variety of digital tools for teaching and learning with evaluative commentary about the strengths/weakness and affordances of the tools.	PGPL #2	Online Classes Webpages Blogs
Utilize a variety of digital tools to engage in social learning including blogs, wikis, and podcasts.	W531, W515	Social Networking Assignment: Blog about own learning/experiences in utilizing and applying new digital tools.	PGPL #2 PGPL #3 Core #4	Online Classes Blogs
Participate in and document their involvement in collaborative, reflective learning communities.	W531, W540, Y510, T590	Final Reflection and Presentation: Create a presentation for the class that illustrates how the ISTE standards can be met in K-12 schools or other educational environments.	PGPL #3 Core #4	Online Classes Twitter E-Portfolios
Design technology-integrated instruction that promotes 21st century	W531, W540	Portfolio of Best-Practices: Design lesson plans aligned to major themes in 21st century	PGPL #1 PGPL #2 Core #1	Online Classes Twitter

			Core #2	E-Portfolios
learning in the areas of: critical thinking, collaborative learning, global awareness, students as knowledge constructors, and media literacy.		learning: critical thinking, collaborative learning, global awareness, students as knowledge constructors, and media literacy. Explain how the instructional plans will develop learning environments that promote students' motivation, higher-order thinking, and creativity. Include plans for assessment of student learning.		
Develop learning environments and that promote students' motivation, higher-order thinking, and creativity.	W520, W540	Portfolio of Best-Practices Personal Web Pages	PGPL #1 Core #1 Core #2 Core #3	Online Classes Twitter E-Portfolios
Plan for the assessment of student learning in online and blended learning environments.	P507, W540	Assessment Plans Personal Web Pages	PGPL #1 Core #1 Core #2	Online Classes Forums E-Portfolio
Synthesize research in the field of educational technology to develop deeper knowledge of innovative practices and their strengths/weaknesses and affordances.	W550, Y520	Literature Review Professional Development Webinar: Design a presentation about a technology innovation for teaching and host a webinar for other teachers to introduce and critique the new tools and techniques.	PGPL #1 Core #1 Core #2 Core #4	Online Classes Open-access Webinar Presentations
Design and deliver effective presentations to authentic audiences using multimedia and online networks.	W550, T590	Culminating Project Presentations	PGPL #3 Core #4	Multimedia Presentations

d. Licensure and Certification

This degree does not prepare graduates for a license or certification.

e. Placement of Graduates

The majority of the program completers will be teachers who will find jobs as instructional coordinators, instructional coaches, technology coaches, technology

integration specialists, virtual educators, or technology leaders at the school or school district level. In addition to school teachers, we expect to serve those interested in teaching diverse learners at the university level, either at the community college level or in programs such as informatics, liberal arts, or the sciences. The degree would also be useful to informal educators such as museum studies, after school program providers, and adult education instructors.

f. Accreditation

All degrees and licensure programs offered by the School of Education will be evaluated for national accreditation by the Council for the Accreditation of Educator Preparation (CAEP) in 2017.

6. Projected Headcount and FTE Enrollments and Degrees Conferred

The program is designed to start a cohort of 20 masters students in the spring semester of each year. Students in the program complete 6 credits each semester for 6 semesters.   Once the program is fully operating, we should be enrolling and graduating 20 students each year.

6. Projected Headcount and FTE Enrollments and Degrees Conferred						
30-Jan-14						
Institution/Location: IUPUI						
Program: Masters of Science in Technology for Learning						
		Year 1	Year 2	Year 3	Year 4	Year 5
		FY2015	FY2016	FY2017	FY2018	FY2019
Enrollment Projections (Headcount)						
	Full-Time	0	0	0	0	0
	Part-Time	20	40	40	40	40
	Total	20	40	40	40	40
Enrollment Projections (FTE)						
	Full-Time	0	0	0	0	0
	Part-Time	20	40	40	40	40
	Total	20	40	40	40	40
Degrees Conferred Projections		0	20	20	20	20
CHE Code: 12-XX						
Campus Code: XXXX						
County: XXXX						
Degree Level: XXX						
CIP Code: Federal - 000000; State - 000000						

Appendix 1: Institutional Rationale

The Vision and Mission of IUPUI

IUPUI is Indiana's premier urban research university. The campus enrolls more than 30,000 students in 21 schools and academic units. The vision of IUPUI is to be one of the best urban universities, recognized locally, nationally, and internationally for its achievements.

IUPUI's mission is to advance the State of Indiana and the intellectual growth of its citizens to the highest levels nationally and internationally through research and creative activity, teaching and learning, and civic engagement. By offering a distinctive range of bachelor's, master's, professional, and Ph.D. degrees, IUPUI promotes the educational, cultural, and economic development of central Indiana and beyond through innovative collaborations, external partnerships, and a strong commitment to diversity.

IUPUI values the commitment of students to learning; of faculty to the highest standards of teaching, scholarship, and service; and of staff to the highest standards of service. IUPUI recognizes students as partners in learning and values the opportunities afforded by its location in Indiana's capital city. IUPUI responds to the needs of the community, providing educational programs, working with a wide array of community partners who serve Indianapolis and Central Indiana, offering expert care and assistance to patients and clients, and engaging in field research spanning virtually every academic discipline.

As a leader in fostering collaborative relationships, IUPUI values collegiality, cooperation, creativity, innovation, and entrepreneurship as well as honesty, integrity, and support for open inquiry and dissemination of findings. IUPUI is committed to the personal and professional development of a diverse campus community of students, faculty, and staff; to continuous improvement of its programs and services; and to building a strong, welcoming campus community for all.

The Vision and Mission of the School of Education

The School of Education at IUPUI is one of eight locations in the state where students can participate in programs offered by Indiana University. The mission of the Indiana University School of Education is to improve teaching, learning, and human development in a global, diverse, rapidly changing, and increasingly technological society. The IU School of Education:
- prepares reflective, caring, and highly skilled educational practitioners and scholars who lead in their chosen professions;
- informs educational theory and practice through research; and
- works in partnership with a range of constituents to effect change from the local to national levels throughout the world.

At IUPUI, the IU School of Education shares the IUPUI campus commitment to being the best of urban universities. Our vision is to make significant contributions to the improvement of urban education locally, nationally, and internationally through our educational programs and translational research. Urban Education is a national concern because the demographic and economic shifts experienced in the USA happen first and most intensely in urban contexts.

Our mission is to prepare educators and researchers to think in complex ways about existing conditions in urban education and to take action to enable urban schools and communities to meet challenging demands. We believe that innovative urban education requires broad understandings of systems of impact like policies, practices, and conditions and relevant theoretical frames like the socio-cultural, the economic, and the political, all of which allow for interdisciplinary analyses of resources development and distribution in urban educational settings. Urban educators also need research-based knowledge of content, pedagogy, and the role of culture in the teaching and learning. We envision the preparation of teachers, leaders, and researchers who are student-centered, community-centered, and responsive leaders. Our graduates will be educators with highly-developed expertise who continually demonstrate excellence as they teach, assess, research, innovate, and contribute to the success of urban schools and communities.

Our campus is located at the center of Indianapolis, and we are surrounded by neighborhoods and schools where educators are working to solve authentic challenges every day. We value the complex array of public and charter schools around us because our learning community is rich with diverse perspectives and experiences. We have many school and community partners with whom we engage in interesting research and community-building projects. We also have rich dialogues with our students as we practice critical social analysis and question the systems of power and privilege that produce the contradictions and tensions inherent in schools as social institutions that fail to equitably serve all students. We value our urban context for its complexity and believe that all educators, even suburban and rural, can benefit from the kinds of questions and expertise that develops here.

At IUPUI, we help educators advance in their careers by offering a variety of master's degree programs. These include programs for teachers and other educational professionals. For teachers, we offer advanced study in the areas of early childhood, elementary education, English as a second language (ESL), language education, reading, special education, secondary education, technology, and urban education. Teachers can add licenses in ESL, reading, or special education through these programs or take a new career path by studying educational leadership and earning a principal's license or school counseling and earning a school counselor's license. Our program for higher education and student affairs prepares graduates to work at the university in student and program support positions. In 2012 we are added a PhD in urban education. Universities want advanced scholars with experience in research-based, collaboration with schools that serve culturally, linguistically, or socio-economically diverse populations.

The school's Center for Urban and Multicultural Education (CUME) is a hub for collaborative evaluation and research projects that build on the synergy of interdisciplinary partnerships within the university as well as diverse community partnerships designed to solve problems and foster school reform. CUME works with many local stakeholders to support inquiry, facilitate public discussion, and work toward improved practices, assessment, leadership and policy within and across diverse educational settings. Numerous partnerships have developed from CUME´s work, including the Latino Initiative. This effort involves an ongoing collaboration with community partners who work directly with the growing Latino population in Central Indiana.

High School Teachers

High school teachers prepare students for life after graduation by teaching lessons and skills students will need to attend college or enter the job market.

Quick Facts: High School Teachers	
2012 Median Pay	$55,050 per year
Entry-Level Education	Bachelor's degree
Work Experience in a Related Occupation	None
On-the-job Training	Internship/residency
Number of Jobs, 2012	955,800
Job Outlook, 2012-22	6% (Slower than average)
Employment Change, 2012-22	52,900

http://www.bls.gov/ooh/education-training-and-library/high-school-teachers.htm

Middle School Teachers

Middle school teachers help students build on the fundamentals they learned in elementary schools to prepare them for the more difficult subjects and lessons in high school

Quick Facts: Middle School Teachers	
2012 Median Pay	$53,430 per year
Entry-Level Education	Bachelor's degree
Work Experience in a Related Occupation	None
On-the-job Training	Internship/residency
Number of Jobs, 2012	614,400
Job Outlook, 2012-22	12% (As fast as average)
Employment Change, 2012-22	76,000

http://www.bls.gov/ooh/education-training-and-library/middle-school-teachers.htm

Kindergarten and Elementary Teachers

Kindergarten and elementary school teachers teach basic subjects, such as math and reading.

Quick Facts: Kindergarten and Elementary School Teachers	
2012 Median Pay	$53,090 per year
Entry-Level Education	Bachelor's degree
Work Experience in a Related Occupation	None
On-the-job Training	Internship/residency
Number of Jobs, 2012	1,519,700
Job Outlook, 2012-22	12% (As fast as average)
Employment Change, 2012-22	188,400

http://www.bls.gov/ooh/education-training-and-library/kindergarten-and-elementary-school-teachers.htm

Instructional Coordinators

Instructional coordinators work with teachers and school administrators to implement curriculums.

Quick Facts: Instructional Coordinators	
2012 Median Pay	$60,050 per year $28.87 per hour
Entry-Level Education	Master's degree
Work Experience in a Related Occupation	5 years or more
On-the-job Training	None
Number of Jobs, 2012	147,700
Job Outlook, 2012-22	13% (As fast as average)
Employment Change, 2012-22	18,500

http://www.bls.gov/ooh/education-training-and-library/instructional-coordinators.htm

Indiana Data

Quick Facts: Primary, Secondary, Special Education Teachers	
2010 Employment	80,194
2012 Projection	82,971
Percent Change	3.5%
Annual Wage	$45,539

http://www.hoosierdata.in.gov/docs/state/stproj/2010/stprojbian10.pdf

Quick Facts: Instructional Coordinator

Quick Facts: Instructional Coordinator	
2010 Employment	1,102
2012 Projection	1,159
Percent Change	5.2%
2020 Projection	1,346
Percent Change	22.1%
Annual Wage	$54,066

http://www.hoosierdata.in.gov/docs/state/stproj/2010/stprojbian10.pdf

Appendix 3: Letters of Support

From: Brush, Thomas A.

To: Berghoff, Beth A. Cc: Boling, Elizabeth; Avital Deskalo

Subject: Support for Online Masters Programs Date: Monday, September 30, 2013 10:50:01 AM

Beth, based on the information you have provided me, the IST department at the IU-Bloomington School of Education is in support of your proposal to offer your current Masters of Elementary and Secondary Education with technology emphasis as online degrees. As you have stated, once your program has been approved you will work towards:

Identifying and/or hiring a full-time coordinator for the program who is a tenure-line faculty member and has experience and research interests in the field of educational technology.

Ensuring that current tenure-line faculty are responsible for teaching the core classes in the program.

Revisiting the titles of some of your core classes (particularly W550) and providing course titles that more actively reflect the content of the course(s).

Let me know if you need any additional information from me.

Thomas Brush Barbara B. Jacobs Chair in Education and Technology Chair, Instructional Systems Technology Department School of Education Room 2276 Indiana University 201 N. Rose Ave. Bloomington, IN 47405

Phone: 812-856-8458

Faculty Involved in the Masters of Science in Technology for Learning
IU School of Education at IUPUI

Beth Berghoff, Associate Professor of Literacy, Culture, and Language Education, Ph.D., Indiana University, Chair of Elementary Teacher Education; Past Chair of Graduate Programs. Teaches classes in literacy and reading at undergraduate and graduate level. Works with teachers in P-12 schools on action research projects and teach online courses for practicing teachers in urban education. Grant projects include the IUPUI Reading and Writing Workshop. Numerous scholarly publications: critical literacy, urban school reform, arts/literacy integration, Presentations at American Educational Research Association (AERA), National Council Teachers of English (NCTE), and Literacy Research Association (LRA). Leadership: NCTE Commission on Arts and Literacy and LRA Yearbook Editorial Board.
(Developed and taught an online version of T531 Organizational Change in Culturally and Linguistically Diverse Schools and led the curriculum development to take these masters programs online)

Jacqueline Blackwell, Associate Professor of Early Childhood/Coordinator of EC Programs. PhD. from University of Maryland. She teaches courses in curriculum, classroom learning environments, evaluation of learner behavior, and family involvement. Interests include early childhood education, online learning, and pre-teacher education. From 2003-2005, Jacqueline served as President of the Association for Childhood Education International, an organization focused on children birth to age 13. She was selected for the 2009 Fulbright Scholar Study Abroad Kenya. Dr. Blackwell serves on many boards and committees including the IUPUI Center for Young Children Advisory Board and Indiana Association for Childhood Education Governing Board. Dr. Blackwell leads the IUPUI SOE Technology Committee and has been teaching distance and online classes for many years.
(Developed as a new course and taught online version of T524 Diverse Perspectives on Families)

Natasha Flowers, Clinical Assistant Professor, PhD from Indiana State University. Teaches courses in multicultural education, diversity and learning, and school reform. Specializes in professional and organizational development, multimedia education, and critical race theory. Has directed funded projects for the Office for Multicultural Professional Development. Previously worked for the Center for Teaching and Learning at IUPUI.
(Developed J500 Instruction in the Context of Curriculum)

Robert J. Helfenbein, Associate Professor of Curriculum and Instruction, Ph.D. from University of North Carolina-Chapel Hill. Specialization: Curriculum Theory, Teacher Education, Social Studies Education, Cultural Studies of Education, Qualitative Methods, Social Foundations. Professional and scholarly accomplishments**:** Outstanding Paper 2004, AERA Research in Social Studies SIG, AERA SIG Critical Issues in Curriculum and Cultural Studies (2005-2006) Early Career Award: Robert J. Helfenbein, Jr. & Karen Ferneding [shared]; book contributor and author of numerous professional journal articles.

Crystal Hill, Assistant Professor, Ph.D. University of North Carolina- Chapel Hill. Specialization: Mathematics Education, Cultural Studies, Gender Issues, Teacher Education. Relevant publications and presentations include: *Adding Integers: From the Classroom to the Field, Making the Invisible Visible: African American Students and Problem Solving.* Recent professional service includes: membership on the Network on Racial and Ethnic Inequality and Reviewer for *The Urban Review* and *The High School Journal*. Relevant professional experience includes curriculum specialist at the University of North Carolina- Chapel Hill Institute of African American Research on Minority Access to Revolutionary Instructional project (Matrix) (an innovative approach to improving the academic achievement of students and empowering parents to advocate better for their children) and secondary mathematics teacher with documented success in teaching populations labeled at-risk, special needs, English Language Learners, and gifted. (Developed P507 Assessment in Schools)

Sharon Jamison, Clinical Lecturer in Teacher Education, Secondary Partnership Schools Coordinator. MS Curriculum and Instruction. University of Illinois. Specializes in academic literacy and new literacy studies, especially how we can better prepare young learners to take part in our digital society. She has created five online courses that are currently offered and worked with teacher-leaders in the Indianapolis Public Schools for a number of years. She works closely with public school teachers and administrators, often providing professional development for other area schools.
(Developed W515 Technology Leadership)

Paula Magee, Clinical Associate Professor. PhD. Teaches courses in science, technology and research methods in the elementary teacher education and graduate program. Research interests include understanding how people learn and also how issues of race, equity and power impact that learning and those learning experiences in school settings. Interested in using inquiry-based teaching methods to help students interrogate their ideas about science, technology, society and education.
(Developed W531 Computers in Education)

Anastasia S. Morrone is Associate Professor of Educational Psychology in the School of Education at IUPUI and Associate Dean for Learning Technologies in the Office of the Vice President for Information Technology at Indiana University. Previously Morrone served as Executive Director of the Center for Teaching and Learning at IUPUI and as Executive Editor of the Journal of Educational Research. Her research interests center around instructional practices that promote college student motivation and learning. As Associate Dean, Anastasia Morrone provides leadership in several important university-wide initiatives that are designed to create a rich learning environment that will help promote the transformation of teaching and learning through the innovative use of technology.
(Provided online and curriculum development support.)

David Nickolich, Clinical Assistant Professor Ph.D. in Adult, Higher, and Community Education. Cognate: Educational Leadership, has a joint appointment to the IU School of Education and the Purdue Computer, Information, and Leadership Technology (CILT) Department. Dr. Nickolich has many years of experience in business and in education. He has taught Introduction to Engineering Design (IED) and the Principles of Engineering for *Project*

Lead the Way. Other courses include: Industrial Organization, Statistical Quality Control, Engineering Economy (Finance,) Introduction to Computers and Technology, Applied Leadership, Critical Thinking, Project Management, Organizational Ethics, Organizational Behavior, Leadership Theories and Processes, and Systems and Design for Purdue programs. David has the SPHR, the highest human resources professional credential. (The School of Education has an agreement with CILT department that Dr. Nickoich will teach one course a year for us. He will be teaching W520 Instructional Technology.)

Thu Suong Nguyen, Assistant Professor of Educational Leadership and Policy Studies. PhD from University of Texas at Austin. Teaches classes in critical leadership studies, cultural studies, educational policy, and research. Interests include spatial and cultural (re)production, vulnerable populations and practices of place-making in and around school settings, and the treatment of difference. Her current work centers on the intersections of diaspora, placemaking, and school governance. She has published in Educational Policy, Educational Management, Administration & Leadership, International Journal of Leadership in Education, and the International Journal of Urban Education Leadership.
(Developed Y520 Strategies for Educational Inquiry)

Brian Plankis, Assistant Professor of Science Education. MS Educational Technology (Purdue), Ph.D. Curriculum and Instruction (University of Houston). Teaches science methods, science inquiry, and technology integration into the K-12 environment. Research interests include understanding how people learn, how people understand the nature of science, and how teaching and education can influence environmental literacy and sustainability.
Publications in *School Science and Mathematics*, *Handbook of Research on Practices and Outcomes in Virtual Worlds and Environments*, *Science Scope*.
(Dr. Plankis joined us after all the online courses were developed. He will be teaching W550 Research in Instructional Computing.)

Elizabeth (Elee) Wood, Assistant Professor and Public Scholar of Museums, Families, and Learning, full time. Ph.D., University of Minnesota. Informal learning in community, role of objects in learning, and museum education. Going Public: Setting an Example for Museum Civic Engagement, submitted to Institute for Museum and Library Services [$400,000]; Organizer, Indianapolis Museum Evaluation Roundtable, "Meaning and Matter through Objects from Childhood", Conference on Technologies of Memory in the Arts, Nijmegen, the Netherlands, May 2006. "Playing at Hull House", History of Youth and Community Work, Minneapolis, MN, June 2006. (Dr. Wood developed an online course that is not taught in this program, but she was a leader in the online development process. We often looked to her online course for examples of content organization and interactive strategies.)

Gina Yoder, Clinical Assistant Professor in Curriculum and Instruction. PhD. from Indiana University Bloomington. Teaches courses in mathematics education for teacher education and graduate students. Interests include issues of equity and educational change in mathematics and language education as they relate to pedagogy, policy, and teacher education. She focuses on projects dealing with equity for English Language Learners (ELLs) and their teachers. Publications in Teaching Children Mathematics, and Journal of Thought.

Staff:

Michaels Howell, Technical Support for Online Learning
Michaels manages all the OnCourse and Blackboard accounts, loads content like videos and surveys, keeps data on the online programs, provide technical support as needed by individual instructors.

Jon McMahel, SOE Director of Technology, MS in Secondary Education, IUPUI
This link connects to a story written about Jon's work with the elementary teacher education program where he is serving as the "in-field tech expert".
http://education.iupui.edu/news/news_collaborativetechroom.php
(Teaches W540 Computers in the Curriculum)

Appendix 5: Credit Hours Required/Time to Completion

The program consists of 36 credit hours of coursework taken two courses a semester for six semesters. These courses are offered completely online via Oncourse. Students are admitted in cohort groups and must take the sequence of courses according to the program plan, but students can transfer up to nine graduate credit hours into the program with the permission of an advisor.

The admission requirements include: 1) baccalaureate degree, 2) minimum 2.50/4.0 GPA in undergraduate or 3.0/4.0 GPA in graduate coursework, 3) two letters of recommendation, 4) personal goal statement. Students will apply using the Graduate Admission portal (eApp) and designate Masters of Science in Technology for Learning as their program of choice. The degree will be awarded to candidates who complete coursework with a 3.3 GPA.

Semester	Course 1	Course 2
Spring	T531 Organizational Change in Diverse Schools	W531 Computers in Education
Summer	T524 Diverse Perspectives on Families	P507 Assessment in Schools
Fall	Y520 Strategies for Educational Inquiry	W540 Computers in the Curriculum
Spring	Y510 Action Research	W550 Research in Instructional Technology
Summer	J500 Instruction in the Context of the Curriculum	W515 Technology Leadership
Fall	T590 Inquiry Practicum	W520 Instructional Technology

Philosophy of the Program
The IU School of Education is committed to providing programs of study that prepare teachers to be catalysts for positive change in urban schools. High student achievement depends on high quality teachers. Teachers need to develop increasingly complex content knowledge as well as the capacity to offer well-designed, motivational instruction. They must understand the historical, social, and political dimensions of schools and be competent collaborators with other educators, families, and community organizations. In addition, teaching in the 21st century demands that teachers be effective users of technology.

The program enables students to move ahead as professionals in all of these areas by focusing on three strands of development:

Inquiry (9 credits)
Courses will prepare teachers to be critical readers of educational research and to engage in action research of their own design to improve their teaching.

Y520 Strategies for Educational Inquiry (3 cr.)
People often read published reports of educational research without understanding the process or design used to conduct the inquiry. This course introduces the educational research process, and explores and compares various forms of design. Students will practice generally accepted procedures for generating, analyzing and interpreting data to develop greater comfort in reading, reviewing, and critiquing research results.

Y510 Action Research (3 cr.)
Action research strives to improve classroom instruction through a philosophy of inquiry and corresponding research methods. Students will learn to select an area of focus, collect, organize, analyze and interpret data, and take action based on empirical findings. Putting theory into practice, they will design an action research project and write a formal proposal for that study.

T590 Research Practicum- Action Research Learning Community
In this third course the class becomes a community of inquirers to support one another as students initiate their inquiry projects, carry-out their data-collection and analysis, and report on their own inquiries.

Inclusive Pedagogy (12 credits)
Courses will deepen teachers' knowledge of effective teaching and learning in relationship to the content demands of today's standards and assessments. The focus of this strand will be on instruction that meets the needs of all learners, including those with unique learner profiles and culturally and linguistically diverse backgrounds.

J500 Instruction in the Context of the Curriculum (3 cr.)

Curriculum and instruction have a profound impact on social contexts, learning theories, and schooling practices. While they serve essentially the same function in most educational environments, the concepts and definitions may vary based on the context. Students will enhance their understanding of the roles which curriculum and instruction serve by studying elementary and secondary contexts.

P507 Assessment in Schools (3 cr.)

Students will learn to use an array of assessment tools in diverse learning contexts. To better develop skills in application and evaluation, learners will incorporate formal and informal assessment instruments including multiple choice, essay, performance and portfolio tools. Contexts will include traditional classrooms, e-learning, educational games, educational social networks. The purpose of this course is to learn how quality educational assessment can be used to ensure achievement gains.

T524—Diverse Perspectives on Families (3 cr.)

This introductory graduate course provides an overview of diverse perspectives on all families while focusing on working with all P-12 students and their families in formal and informal environments. Graduate students will construct understanding of students and their families in the larger educational continuum while identifying and analyzing critical issues. Topics include historical perspectives and trends; policies and legislation at local to international levels; developing and sustaining relationships, partnerships, and alliances; and innovative strategies, skills, and dispositions for supporting, nurturing, and involving different types of families.

T531 Organizational Change in Culturally and Linguistically Diverse Schools (3 cr.)

Factors which impede and facilitate change in education at the community, district, school and classroom levels are constantly evolving. This course approaches organizational development and reform from a legal perspective. Students will investigate administrative strategies, evaluation techniques and staff development models as they relate to schools' ability to define and fulfill their purpose in a democratic society.

Technology for Learning (15 credits)
Courses will develop teachers' capacity to infuse technology in their instruction and to use it to network and communicate in an increasingly global society.

W515 Technology Leadership and Professional Development (3 cr.)

(This title and description replaces W515 Technology Leadership)

This course is about providing leadership in support of technology for learning. Students will study theories and examples of technology leadership, evaluate standards for teacher effectiveness and professional development frameworks, critique policies and procedures, conduct data analysis, and assess the needs of adult learners. Students will create plans for professional development designed to advance the use of technology in learning environments.

W520 - Planning for Technology Infrastructure (3 cr.)

(This title and description replaces W520 Instructional Technology)

This course addresses topics pertinent to planning for and sustaining technology infrastructures such as strategic planning, budgeting, vendors and contracts, grant writing, Acceptable Use Policy, classroom technology, wireless access, Student Information Systems, Learning Management Systems, and Total Cost of Ownership. Students will assess the technology needs of a specific learning environment and write a proposal to upgrade the technology support for teachers and learners.

W531 Technology for Teaching and Learning (3 cr.)

(This title and description replaces W531 Computers in Education)

A survey of technology used for teaching and learning which explores technologies in learning environments. Students will critically examine topics such as 21st century learning, new literacies, digital divides, digital citizens, technology in classrooms, web-based tools, mobile technologies, game-based learning, and technology innovations. Students will evaluate educational technology tools and engage in social networking and collaborative learning.

W540 Technology-infused Curriculum (3 cr.)

(This title and description replaces W540 Computers in the Curriculum)

Course focuses on technology integration to promote critical thinking, global awareness, constructivist learning, collaboration, media literacy, high student motivation, higher-level thinking, and creativity. Students will learn about universal design, differentiation, instructional and assessment strategies, and planning techniques. Students will set curricular goals and design lessons for their own contexts.

W550 Current Technology Trends (3 cr.)

(This title and description replaces W550 Research in Instructional Computing)

This course investigates innovations, emerging technologies, and technology's role in education reform. Students will collaborate to search out, evaluate, and synthesize research studies and verifiable information about promising educational technologies. They will present their findings in a webinar for other professionals.

Appendix 6: Proposal Approval Process

February 7, 2014 -- Approved by *Graduate and Professional Programs Committee* of Indiana University School of Education at IUPUI.

March 5, 2014 – Approved by *Graduate Studies Committee* of Indiana University, Bloomington.