



EDUCATION, RESEARCH, AND SERVICE APPENDIX
June 25, 2020

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New Academic Program Proposal

Institution: University of Tennessee

College: Education, Health, and Human Sciences

Department: Theory and Practice in Teacher Education

Title of Degree: Bachelor of Science in Education

Formal Degree Abbreviation: ELED

CIP/THEC Code: 13.1202

CIP Code Title: Elementary Education

Proposed Implementation Date: Fall 2021

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THEC-Approved Letter of Notification Items

Background and Nature of the Program

Background and Purpose

There is a need to ensure a curriculum that consistently prepares teachers in literacy, math, science, ESL, classroom management, and technology at the elementary level. Currently, our students complete an undergraduate minor in Elementary Education along with a bachelor's degree in Arts and Sciences. The minor currently requires 25 hours, which is only five hours away from the minimum coursework required for a major. Over the previous last five years, we have graduated between 24 and 55 students each year with a minor in Elementary Education. These students have gone on to complete their Master of Science in Teacher Education (with an Elementary Education Professional Internship concentration) the following year.

Once the Elementary Education major is approved, UTK does not plan to retain the Elementary Education minor. We will continue to admit students into the minor until the major is approved. During a two-year transition time, we will provide coursework for students finishing the minor, as well as provide coursework for students pursuing the major. Since we propose admitting students to the new major after 45 credit hours, we do not anticipate much overlap in offering courses.

This curricular revision is necessary, driven by requirements set forth by the Tennessee Department of Education regarding issuing licensure to teach grades K-5 in the state of Tennessee. One of the four educational goals set forth by the Tennessee Department of Education is that 75% of Tennessee's third-graders will be proficient in reading by 2025.

Additionally, one of the state's four priorities addresses early foundations and literacy¹. By providing additional coursework in K-5 literacy, our graduates will be better prepared to instruct their students and ensure that all (i.e., ELL, economically disadvantaged) students are proficient in reading. The International Reading Association (ILA) has not officially addressed the minimum number of literacy courses that teacher candidates should take. In a joint statement with the National Council of Teachers of English (NCTE), they called for a focus on depth and breadth in coursework. They state, "An emphasis on depth and breadth of a well-defined knowledge base is a key indicator of quality preparation. Deep conceptual understanding of both content and pedagogical knowledge offers a framework for prospective literacy teachers' instructional and curricular decision-making required for effective teaching, increased confidence in their role as teachers, and understandings of more complex forms of instruction" (2017, p.4). It is not feasible to cover the depth and breadth described in one undergraduate literacy class. By expanding our coursework to three undergraduate courses, we will provide the conceptual understandings needed to be successful in the classroom.

Our coursework will align with the instruction the state mandates (*Teaching Literacy in Tennessee*) and will allow our students to practice with curricular materials and high-leverage instructional modes (questioning, assessment, etc.) through coursework (REED 430, REED 434, and REED

¹ <https://www.tn.gov/education>

428) and practicum experiences (ELED 351). According to the Tennessee Read to Be Ready website:

*Tennessee has made tremendous gains in student performance over the past several years – **except in reading**. Despite our educators' best efforts, reading skills in elementary school learners have failed to improve, and in some cases, have even declined. But these abilities are some of the most important ones our students need, and they are foundational to their success. This problem shows up early.*

*Overall, **less than half of our third and fourth graders are reading on grade level** based on state tests, and more rigorous national assessments suggest that only one-third of our fourth graders are proficient – an unacceptable outcome in a state that has prided itself on being the fastest improving in the nation. **Achievement gaps are also striking**: only one-third of economically disadvantaged students and just one in every five of our students with disabilities achieve proficiency by the end of third grade. English learners are not advancing as quickly as their native-speaking peers. On top of that, too often, students who start behind stay behind: state data tell us that less than 3 percent of students at the lowest reading performance level in third grade catch up by grade five. Over the long term, national research shows that children who are not reading proficiently by third grade are **four times less likely to graduate** from high school by age 19. Dropping out of high school severely damages earnings and job market appeal, and it impacts the chances of leading a healthy and productive life, in addition to increased odds of incarceration, poverty, and single parenting. This cripples not just our students' future, but our state's as well.”²*

Based on these data, we propose several changes to our program, in addition to providing a basis for literacy knowledge. We have devoted additional time (3 credit hours each) to the following content areas: science, social studies, and math. Our students need ample time not only to learn high-leverage pedagogy in these fields but also how to teach reading concurrently within with subject matter. Cross-discipline reading strategies are paramount to K-12 student success. From the changes in K-12 science standards in the Tennessee to Next Generation Science standards, there is also a need to spend more time instructing our candidates on how to meet the rigorous expectations of these standards. Since our candidates did not experience these standards while in elementary school, the pedagogical approach will be incongruent with their understanding of scientific approaches. The Next Generation Science Standards require knowledge and skills in three dimensions of science: practice, crosscutting concepts, and disciplinary core ideas. Candidates will have to unlearn what they believe about teaching content and then relearn this pedagogy.

Additionally, we focus on proficiency levels of English Language Learners (ELL) and economically disadvantaged students. Historically, we have given our candidates the option of adding on ELL coursework, but with this proposed major, we will require at least one course (WLEL 489: Content-Based ESL Methods) and encouraging more ELL coursework during the graduate internship. The state of Tennessee had identified ESL as a high needs teaching area, and we are encouraging our candidates to fill this void in the field. Our candidates are placed in low

² <https://www.tn.gov/readtobeready/why-read-to-be-ready-.html>

socio-economic schools in either urban or rural settings. In contrast, our candidates do not tend to come from these backgrounds. Therefore, we propose placing a greater emphasis on understanding diversity throughout the coursework so that candidates can examine their implicit biases and better serve students from a variety of cultures and economic backgrounds. Surveys from completers and hiring schools indicate that our candidates lack adequate preparation in the area of classroom management. Therefore, we require a course (SPED 452: Classroom Management) that, previously, was optional. We also plan to add other courses in special education to support our candidates understanding of the full range of attributes each student possesses when he or she arrives at school.

Nature of the Program

The Department of Theory and Practice in Teacher Education (TPTE) at the University of Tennessee, Knoxville (UTK), an Educator Preparation Provider (EPP), proposes an undergraduate program in Elementary Education, followed by a master's of science in Teacher Education (with an Elementary Education Professional Internship concentration) and state teaching licensure K-5 (code 120). The program consists of four years of undergraduate coursework (120 Hours) and one year of graduate coursework (36 hours). Our proposed program offers a BS in Elementary Education, a master's of science in Teacher Education (with an Elementary Education Professional Internship concentration), and requirements to apply for K-5 licensure. Students may stop after completing the BS, but they will not be eligible to apply for licensure in the state of Tennessee. Students must complete at least 30 of the 36 hours in the MS to apply for licensure in the state of Tennessee. If students complete the additional two elective classes (the difference between 30 and 36 hours), then they will earn a master's degree of science in Teacher Education (with an Elementary Education Professional Internship concentration).

The essence of the program is to integrate content and clinical experiences in a way that builds in intensity and expectations through the teacher candidate's undergraduate and graduate college career. The proposed Elementary Education program is a five-year program during which candidates begin with general curriculum during the first year, add introductory education courses during the sophomore year, take specialized courses with clinical experiences during their junior and/or senior year. Candidates finish with an intensive year-long graduate-level internship with diverse clinical experiences in both general education and at least one of the following: special education, ESL, or early literacy settings.

Once the program receives the required approvals, TPTE will select candidates with a strong disposition toward teaching diverse students of varied backgrounds and ability levels. Candidates will be admitted to the Elementary Education program after their first 45 hours of university-required general education courses (e.g., English, Biology, and Philosophy). For admission to the program, candidates must have a minimum GPA of 2.75 on a 4-point grading scale. They must also submit written responses to questions designed to give insight into their professional attitudes and dispositions, and they must participate in interviews conducted by a board comprising of individuals with elementary education teaching experience: UTK Elementary Education faculty, practicing Elementary Education teachers from local school systems, and advanced students in the UTK

Elementary Education programs. The College of Education, Health, and Human Sciences (CEHHS) has a website that explains admissions procedures³.

After admission to the program, candidates must complete courses that prepare them with the fundamentals of pedagogy (reading education, educational psychology, introduction to special education, introduction to teaching ELLs, and classroom management) and seminars geared towards the application of knowledge and skills in authentic contexts. During the graduate internship year, candidates will complete courses in reading, math, science, and social studies along with seminar courses that help them develop their teaching skills. Additionally, candidates will conduct a comprehensive review of the literature on a research topic influencing pedagogy in their placement school. Throughout the program, candidates will engage in performance-based authentic assessment both informally (e.g., course assignments) and formally (e.g., edTPA).

The Elementary Education program collaborates with local education agency (LEA) partners to provide clinical experiences that help develop strong pedagogical skills. TPTE clinical supervisors will visit candidates regularly and meet with LEA mentors. TPTE clinical supervisors also will provide candidates with informal and formal feedback for refining instruction using the state-approved TEAM evaluation system with fidelity. Candidates will have regular and systematic dispositional assessments and feedback aligned to InTASC standards included in our Professional Competencies, Attitudes, and Dispositions (ProCADs) framework⁴.

Alignment with State Master Plan and Institutional Mission

State Master Plan

Drive to 55 focuses not only on increased post-secondary graduation rates but also just as importantly, on meeting evolving workforce needs:

At its core, the Drive to 55 is informed by two primary components: 1) arriving at a target number of postsecondary degrees and certificates to achieve the Drive to 55 goals by the year 2025; and 2) distributing those awards in such a way that is responsive to the needs of the statewide, regional, and local economies (THEC, Decade of Decisions).

Recruitment of four historically underserved (adults, low income, academically underprepared, nonwhite) groups is part of the master plan and aligned to the recruitment and retention efforts at UTK. For those students who enter college academically unprepared, all Tennessee Board of Regents institutions have implemented the “co-requisite” model of instruction. This model allows students to take appropriate credit-bearing courses while simultaneously receiving supplemental instruction. Additionally, UTK is strategically working to enroll, retain, and graduate non-white students in the field of education.

³ <https://cehhsadvising.utk.edu/licensure/initial-licensure-new/>

⁴ <https://sites.google.com/prod/utk.edu/procadsforstudents/utk-procads-policy>

The University of Tennessee Institutional Mission and Visions

With direction and leadership from UT Interim President, Mr. Randy Boyd, and UTK Chancellor, Dr. Donde Plowman, we operate by the following University of Tennessee mission statement:

The University of Tennessee System, through its multiple campuses and institutes, serves the people of Tennessee and beyond through the discovery, communication, and application of knowledge. The System is committed to providing undergraduate, graduate, and professional education programs in a diverse learning environment that prepares students to be leaders in a global society. The UT System's delivery of education, discovery, outreach, and public service contributes to the economic, social, and environmental well-being of all Tennesseans⁵.

Educate: Our program produces well prepared elementary teachers which is illustrated by the fact that the average percentage of our graduates has exceeded the state average in the following areas for the last three years: percentage hired within the first year, percentage hired within three years, percentage retained for two years, and percentage retained for three years.

Discover: The University of Tennessee is committed to research to add to the body of knowledge and to provide solutions to everyday problems. TPTE faculty and students are engaged in research in the field rooted in a needs analysis performed in classrooms. Research is carried out in conjunction with mentor teachers. The presentation of research findings occurs regularly at local, regional, and national conferences.

Connect: Part of the University of Tennessee's institutional mission and vision is to connect with communities across the state. Our program requires extensive practicum (60 hours) and internship (minimum of 800 hours) experiences in local schools across several school systems (Anderson, Knox, Alcoa, and Lenoir City). Teacher candidates learn side-by-side with classroom teachers as they co-teach lessons daily. Also, TPTE faculty provide consultation and professional development to meet the needs of our partnering school systems.

College or Departmental Mission and Vision

Under the direction of the College of Education, Health, and Human Sciences (CEHHS) Dean, Dr. Robert Rider, Emeritus Associate Dean of Professional Licensure, Dr. Susan Benner, current Interim Associate Dean, Dr. David Cihak, and the Theory and Practice in Teacher Education (TPTE) Department Head, Dr. Sherry Bell, CEHHS and TPTE are ideally positioned to meet the statewide need for teachers in K-12 education. CEHHS and TPTE have a long history of offering programs in a variety of teacher licensure areas (e.g., secondary math, science, social studies, English, special education, and elementary education).

⁵ <https://tennessee.edu/mission-statements/>

The proposed Elementary Education major fully aligns with the TPTE mission of:

Preparing expert, culturally competent teachers, interpreters, researchers, and educational leaders who can meet the needs of all learners. Engaging in outreach and service designed to improve educational opportunities and outcomes for all learners, especially underserved populations.

We accomplish this mission through developing, modeling, and analyzing research-based practices in our teaching; advancing educational equity in inclusive, student-centered environments that provide opportunities for dialogue and multiple viewpoints; and promoting self-reflection in our students and ourselves for continued growth and life-long learning. Additionally, the university is creating and participating in mutually beneficial school and agency partnerships that promote equity and diversity (urban and rural practicum and internship placements).

Institutional Capacity for Program Delivery

TPTE already offers much of the coursework needed for a new Elementary Education major. Specifically, it offers EDPY 210 (Psychoeducational Issues in Human Development) and 401 (Professional Studies: Applied Educational Psychology); ELED 351 (Laboratory and Field Studies in Elementary Education) and 422 (Elementary Teaching Methods II); REED 330 (Using Children's Literature to Support Instructional Practices and Motivate Students to Read) and 430 (Elementary Literacy K-2); WLEL 489 (Content-Based ESL Methods); and SPED 402 (Professional Studies: Special Education and Diverse Learners), 415 (Foundations in Learning Disabilities and Other Academic Difficulties), and 452 (Classroom Management). We have recently hired a tenure track faculty in literacy (focus on writing) to teach REED 434 (Elementary Literacy 3-5) and REED 428 (Teaching Writing in the Elementary School). We have support from the content areas in TPTE to teach SSCE 421 (Introduction to Teaching Elementary Social Studies MEDU 430 (Teaching Mathematics in the Elementary School) and SCED 421 (Science Methods for the Elementary Classroom). The department of TPTE at the University of Tennessee, Knoxville, can support an Elementary Education undergraduate major by drawing on current resources and faculty expertise to offer a licensure program in this area.

Historically, the majority (about 90%) of our students have received their undergraduate degree in Psychology with a minor in Elementary Education before completing the master's degree in Elementary Teaching, which equates to about 30 students per academic year that would no longer be a part of the psychology department. A letter from the Psychology department in support of this change appears in Appendix C.

Existing Programs in Tennessee

Table 1

Similar Programs in Tennessee⁶

Institution Name	Program Title and Degree Designation	CIP Code	Description/ Focus of Program	Miles from UTK	*3-Year Degrees
Middle Tennessee State University	BS Elementary Education	13.1202	Elementary Education K-5 Licensure	172	550
Tennessee Technological University	M.A. / Ed.S. Curriculum and Instruction with Concentration in Elementary Education	13.1202	Elementary Education K-5 Licensure	103	700
Austin Peay University	BS Education	08.13.1206.00	Elementary Education K-5 Licensure	225	219
Belmont University	BS/BA Elementary Education		Elementary Education K-5 Licensure	180	90
Carson-Newman	BA Liberal Studies with Elementary Education		Elementary Education K-5 Licensure	29.5	60
Cumberland University	BS Child Growth and Learning		Elementary Education K-5 Licensure	152	N/A
East Tennessee State University	BS Early Childhood Development	12.19.0706.00	Elementary Education K-5 Licensure	42.9	300
Freed-Hardeman	BS in Interdisciplinary Studies		Elementary Education K-5 Licensure	313	90
Lee University	BS in Interdisciplinary Studies		Elementary Education K-5 Licensure	82.1	180
Lincoln Memorial	BS Elementary Education		Elementary Education Licensure K-5	56.5	36
Lipscomb University	BS/BA Interdisciplinary Studies in Education		Elementary Education Licensure K-5	183	75
Milligan College	BS Child and Youth Development		Elementary Education Licensure K-5	109	22

⁶ Descriptions of these Teacher Licensure programs appear in Appendix D

Tennessee State University	BS Early Childhood Development	08.13.1210.00	Elementary Education Licensure K-5	182	360
Trevecca Nazarene	BS Elementary Education		Elementary Education Licensure K-5	177	90
Union University	BS Interdisciplinary Studies in Education		Elementary Education Licensure K-5	309	75
University of Memphis	BS Elementary Education		Elementary Education Licensure K-5	207	57
University of Tennessee—Chattanooga	BS Interdisciplinary Educational Studies	08.13.1206.00	Elementary Education K-5 and English as a Second Language PreK-12	111	60
University of Tennessee—Martin	BS Integrated Studies	08.13.1206.00	Elementary Education Licensure K-5	333	300
Vanderbilt	BS Early Childhood and Elementary Education		Elementary Education Licensure K-5	180	90

*These numbers are estimates based on a search of EPP websites and www.tn.gov

Feasibility Study

Student Interest for the Proposed Academic Program

UTK is known locally and regionally for the strength of its program. Five-year trend data illustrate that we consistently attract high-quality candidates.

Table 2.

Five-Year Trend Data for Minors and Graduates in Elementary Education

Graduation Year	Minors	MS
2015	55	58
2016	24	55
2017	39	24
2018	28	39
2019	31	28

To determine interest in an undergraduate degree in Elementary Education at the University of Tennessee, Knoxville, an electronic survey⁷ was developed and sent to current undergraduate students through the university list serve as well as 243 students who had previous contact with the advising center and had conveyed possible interest in pursuing a TN teaching license. Of those surveyed, 62 (26%) completed the survey. The most student respondents (75.71%) came from the College of Arts and Sciences, and almost one-quarter were enrolled in the CEHHS. Among all respondents, 88.89% strongly agreed that a major in Elementary Education would be a valuable addition to the majors offered at UTK.

Concerning student interest specifically, students answered a series of items on a 5-point scale of 1=Strongly Disagree to 5=Strongly Agree. There was strong agreement among student respondents that an Elementary Education major would be valuable ($M=4.323$; $SD=1.037$), that students would be interested in taking classes as electives ($M=4.603$; $SD=0.834$), and that students would tell colleagues about this new program ($M=4.603$; $SD=0.853$). Moreover, they would be interested in completing this degree ($M=4.143$; $SD=1.148$), would have chosen this major if it had been offered ($M=4.84$; $SD=1.052$), and would likely tell their friends about the new major ($M=4.613$; $SD=0.817$). Complete survey data appear in Appendix B.

Focus Group

Additionally, we assembled a focus group to determine current Elementary Education students' perceptions of the proposed program. Six graduate students in the last semester of their internship participated in the focus group. These students had a diversity of undergraduate majors, as shown in Table 2, which could provide multiple viewpoints during the discussion. These students were also completing their internship placements at diverse school locations, which also provided a representative view of our students.

Table 3.

Summary of Focus Group Participants

Student Code	Undergraduate Major	Internship Placement
A	Psychology	Urban
B	Psychology	Suburban
C	Psychology	Rural
D	Psychology	Urban
E	Studio Art	Rural
F	Geology	Rural

⁷ <https://utkeducation.questionpro.com>

The discussion lasted approximately 50 minutes and was audiotaped and later analyzed. Dr. Jordan guided the discussion and focused on the advantages and disadvantages of the proposed program. Dr. Jordan reminded students of the coursework they completed and then went over the proposed program highlighting changes, additions, and deletions. The following quotes illustrate the students' perceptions of the proposed program:

Positive Comments:

1. Multiple participants reported that they knew in high school that they wanted to be an elementary teacher, but were forced to choose a different major and wait until their junior year to start on Elementary Education coursework. In particular, Student A and Student B discussed that they would have preferred to major in Elementary Education and start related coursework earlier in their program.

A: "I was also psychology, and whenever I remember when I entered into the university, I was frustrated because I knew I wanted to be an elementary teacher, and when I entered into the internship, I wasn't fully prepared. Because I didn't feel I had enough actual classroom experience. I think having more coursework and more field experiences each term would have been beneficial."

B: "I agree, I didn't know what I wanted to major in when I came, I knew I wanted to be an elementary teacher, but it wasn't a major. I majored in political science, which was something I enjoyed in high school, but I think a major in elementary ed would have been more beneficial."

2. Multiple participants noted that they thought additional classes in content areas (literacy, math, science, and social studies) would have benefitted them and would have helped them feel more prepared to teach all subject areas.

E: "I think they are really cool classes. I really like the writing and reading classes."

D: "I think it is really beneficial to offer the social studies, math, and science for a whole semester because I think we were all rushed in the six weeks. Now that I am in a master's class, I have learned so much more this semester. It was assignment after assignment, and we didn't get to learn the actual concepts of teaching in the six weeks."

B: "When I came into the internship, I felt like there was more to teaching than just reading. I was blind to the importance of Language Arts, so I was like, why isn't there a class for the other areas as well? I didn't realize how important it was. I would have benefitted from more coursework in ELL and the other subject areas."

F: "As a science person with a science endorsement I understand why it is so important to talk about reading at those early ages, but elementary school teachers need to know how to teach math and science, and I think a lot of them do not care as much because it is not framed as important."

3. Participants also discussed the need for multiple experiences in schools throughout the program. Some participants sought out these experiences on their own but agreed that having additional formal experiences built into the coursework would be beneficial.

E: “This is great for those that do not have access to schools. It gives a more formal opportunity to get into schools and have those opportunities.”

F: “I think the thing that prepared me the most to be a teacher was the internship year. The other thing that stands out to me is that it would have been amazing to build in opportunities throughout my coursework to work with kids. I did this on my own, and I was privileged financially that I was able to volunteer without pay such a large portion of my time. This is an expensive program, and it would have been amazing to get to work with kids and have that factored into the coursework.”

4. Participants also discussed the logistics of the program, including having to declare Elementary Education earlier in their coursework and the benefits of having coursework earlier, which would include candidates from multiple cohorts and would provide a space for dialogue.

C: “I was in business, switched to psychology in my sophomore year, and only had one class that I was missing. Everything seems to carry over.”

A: “All of these classes start earlier and there are more of them. This is a tough program, and it would be good to have a cohort to lean on earlier. We would have had time to learn from others who are not like us earlier on in our undergrad electives.”

D: “We would interact with each other more, and I think that would be beneficial.”

Overall, the participants agreed that the proposed changes would be beneficial for incoming students. They discussed how impactful some of the classes were in their majors, but followed up to explain that the new program seemed to address those areas as well.

Local and Regional Need/Demand

According to Darling-Hammond et al. (2016) in, *A Coming Crisis in Teaching? Teacher Supply, Demand, and Shortages in the U.S.*, there are several ways to mitigate present and future shortages of high-quality teachers. One suggestion is increasing supply in shortage fields and areas. The U.S. Department of Education has reported teacher shortages in Tennessee at the elementary level in Special Education and English as a Second Language⁸. Our proposed program increases the required coursework for all candidates from one SPED to three SPED classes and from zero ESL to one ESL course. As our candidates move into their graduate work, they choose between three paths: SPED, ELL, or Reading Specialist. Therefore, our candidates will be well rounded and be

⁸ <https://tsa.ed.gov>

prepared to work in high-need areas. Overall, Tennessee does not have a shortage of high-quality regular education teachers across the state. However, we know that certain geographical pockets do see greater shortages and instances of turnover. These areas tend to be in urban and rural areas, which are the areas of focus in our department. We place our candidates in high need schools located in urban and rural parts of East Tennessee. We not only prepare our students in pedagogy (SPED, ESL, Reading) but also prepare them culturally to teach children whose backgrounds tend to be different from their own. Most of our candidates come from middle and upper-middle-class suburban backgrounds and, through our program, we instill in them a social justice perspective and encourage them to accept employment in high needs areas (subject area and geographical). Another suggestion is improving teacher retention (Darling-Hammond, 2016). We are committed to training a high-quality workforce prepared to enter these challenging areas. Research has illustrated that teacher turnover harms student achievement (Ronfeldt et al., 2013) and that well-prepared candidates are more likely to stay in the classroom for several years and hone their practice over time to better serve their students (The National Academy of Education, 2005). Our program design builds candidate knowledge and skills over time by employing the gradual release of responsibility model (Pearson and Gallagher, 1983). Through concurrent coursework and practicum/internship placements, candidates practice, reflect, and modify their pedagogy over time with support from faculty and school-based partners. As candidates become more proficient in their craft, the supports are gradually removed.

Employer Need/Demand

An emerging body of research suggests that the design of teacher preparation programs can play an important role in teacher retention in the classroom (Goldhaber, 2019). UTK’s internal data analysis shows that our teacher candidates are hired and retained as teachers at higher rates than they are from other preparation programs in the state. According to the 2018 EPP report card, our program completers are employed at a rate of 76.6% in their first year (above the state average of 70%). Our program completers are also retained in Tennessee teaching positions and for longer than are completers of other teacher preparation programs in the state. Of the 76.6% who were employed in Tennessee public schools, their first year following completing our preparation programs, 98.7% of those were retained in Tennessee public schools the following year. Additionally, our third-year retention rate is 87.4%, well above the state average of 76%. These metrics (both first-year hire rates and retention rates of our program completers) have consistently been above the state average since the 2016 issue of the EPP report card – the first year that the state used first-year hire and beyond first-year retention rates in this reporting.

Table 4

UTK Elementary Ed Program Completers Employment and Retention 2013-16.

UTK Elementary Education Program Completers Employment and Retention: 2013-2016. Source: TNDOE: TNAtlas Insights Tool. 2016-2017 Data and the 2014-2017 average will be released March 18th. NOTE: This data only includes program completers teaching in Tennessee Public schools.								
Year	Percentage employed in first year		Percentage employed within three years		Percentage retained for two years		Percentage retained for three years	
	UTK	State Average	UTK	State Average	UTK	State Average	UTK	State Average
2013-2016	79.6	66.34	83.2	75.88	82.3	80.5	98.2	92.3
2015-2016	73.4	70.8	76.6	72.9	100	95.3	Data not available	
2014-2015	84.2	66	87.7	77	100	93	Data not available	
2013-2014	81.3	63.3	85.3	77.1	96.8	91.5	82.2	82.3

Future Sustainable Need

We do not anticipate the proposed program to change the number of candidates the University of Tennessee graduates each year, nor will these candidates require increased salaries since they will still complete the program at the level of a master's degree. Our students are hired and retained at a rate higher than the state average. We anticipate that this will not change with the proposed program changes. The students will be better prepared to enter the workforce and, therefore, will likely continue in the field of education longer than the national average of three years. Two of our community education partners have provided letters of support indicating the future sustainable need of this program. These employer support letters appear in Appendix C.

Program Costs and Revenues

Operating Expenses

As the anticipated number of graduates will not change, there will be no need to hire new faculty, staff, or graduate teaching assistants. Classrooms and equipment are already in place, and we do not plan to increase our marketing budget. There will be no financial impact on the department or college budget and no change in faculty workload. These changes do not require additional resources, such as facilities and materials. ELED 422 is a 6-credit course that covers social studies, science, and math content. We propose changing ELED 422 to a 3-credit course and having the content area faculty teach the newly proposed courses: SSCE 421, SCED 421, and MEDU 430. This will not change the faculty's course load. A faculty member hired in Fall 2018 will teach REED 428 and 434. A faculty member who has a background in children's literature and wants to design this course will teach REED 330. Graduate teaching assistants (GTAs) will teach ELED 322 and CSE 300. These GTAs already work with our graduate students in the field, so we feel having them teach these introductory courses will help build a relationship between instructor and student.

There is no financial impact since we are simply moving students around. Students who traditionally completed a BS in Psychology with a minor in Elementary Education will now complete a BS in Elementary Education. These same students will still be required to complete a master's of science in Teacher Education (with an Elementary Education Professional Internship concentration), so these numbers will remain constant as well. Tuition and hours will remain constant. These students have been required to complete the master's program for over 25 years, and we will continue to require this coursework. The financial projection form appears in Appendix A.

Revenues

Revenue will not change as we expect the same number of candidates paying tuition and fees at UTK. We do not anticipate any additional grants, gifts, or other revenues. Enrollment in the current program has varied over the last five years, from 24 to 58. We anticipate the enrollment to continue to fall in this range. It is possible that enrollment will increase, but we do not have data to support

this. The financial projection form has been updated with an average enrollment of 30 students per academic year.

Implementation Timeline

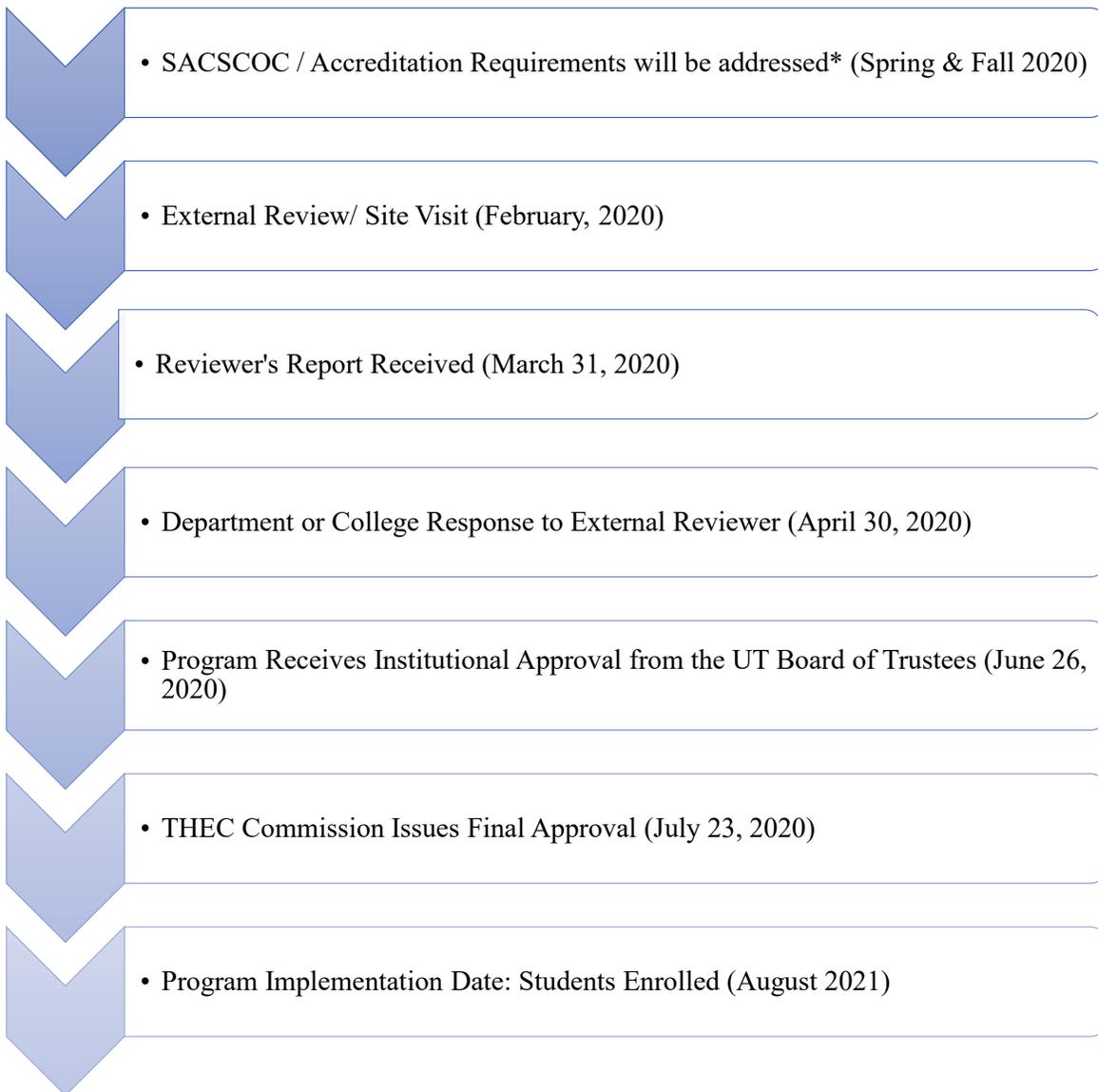


Figure 1: Timeline to Implementation

**Note: UTK's Self-Study report is due to CAEP spring 2020, and our next site visit will take place in the fall of 2020 (exact dates are pending approval from CAEP and TN DOE).*

Accreditation Considerations

UTK's teacher preparation programs were accredited by the National Council for Accreditation of Teacher Education in 2014 and then transitioned to accreditation through the Council of the Accreditation of Educator Preparation (CAEP) in 2014. CAEP accreditation involves annual reporting on data from the following measures: demonstrated impact on student learning, teacher effectiveness, satisfaction with the program from employers and program completers, and outcomes for program completers such as licensure, employment, and student loan default rates. These annual reports also ask the Educator Preparation Provider (EPP) to describe continuous improvement efforts based on the reported data. All of UTK's annual reports have been accepted and approved by CAEP.

In addition to annual reporting, CAEP conducts an in-depth program review on a seven-year cycle. This review includes the submission of a self-study report to CAEP, which must include multiple sources of data and evidence that the EPP meets the rigorous CAEP standards. Following the submission of the self-study report, CAEP will conduct a site visit along with the Tennessee Department of Education (TNDOE) to verify the information presented in the self-study report. The site visitors will author a report to submit to the CAEP accreditation council, who make the final accreditation decision. UTK's Self-Study report is due to CAEP spring 2020, and our next site visit will be fall 2020 (exact dates are pending approval from CAEP and TNDOE). More information regarding the CAEP accreditation process and timeline is available here: <http://caepnet.org/accreditation/caep-accreditation/accreditation-cycle>

The undergraduate major, like all academic programs at UTK, will be additionally accredited by SACS-COC (<https://sacs.utk.edu/>). Departments must report data annually through several open-ended dialogue boxes, providing information on assessment methods, results, and analyses of the assessments, and the actions taken. Regarding assessment methods, departments indicate who was assessed, how the assessed cohort reflects the entire program, the instrument used, and/or method(s) for conducting the direct and/or indirect assessment, and how the instrument(s) and/or method(s) identified one or more specific performance measures related to the Student Learner Outcomes (SLOs). Regarding results and analysis, departments report details about the data that were collected, how the data were examined, the results that emerged from the examination of the data, and an interpretation of how the results provide a relevant assessment of performance relative to the stated SLOs. For actions taken, information is provided on the concrete steps taken during the year to reach the current assessment point and the subsequent steps that will be taken based on the current year's results. For the Elementary Education undergraduate major, we will report on SLOs listed below in the program learning outcomes section.

There is no accrediting body for undergraduate Elementary Education programs. Therefore, no professional disciplinary accreditation organizations are identified.

Curriculum

Program Learning Outcomes

Upon completion of the Elementary Education undergraduate degree program, students will be able to demonstrate the skills and competencies noted in Table 5:

Table 5

Program Outcomes

1 Planning	Propose appropriate curricular objectives based on State and Common Core Standards.
2 Instruction	Develop instructional activities that take into account students' strengths, interests, and needs to enable each student to advance and accelerate his/her learning.
3 Assessment	Combine formative and summative assessment as appropriate to support, verify, and document learning.
4 Technology	Use current technologies to maximize content learning in varied contexts.
5 Learning Environments	Design a safe, positive learning climate of openness, mutual respect, support, and inquiry.

Table 6

Program Learning Outcomes by Course: Elementary Education

Learning Outcomes	EDPY 401	EDTEC 486	SPEd 402	REED 430	ELED 422
Students will propose appropriate curricular objectives based on State and Common Core Standards.			X		X
Students will develop instructional activities that take into account students' strengths, interests, and needs to enable each student to advance and accelerate his/her learning.			X	X	X
Students will combine formative and summative assessment as appropriate to support, verify, and document learning.			X		X
Students will use current technologies to maximize content learning in varied contexts.		X		X	
Students will Design a safe, positive learning climate of openness, mutual respect, support, and inquiry.	X				

Academic Program Requirements

Table 7

Program Curriculum

Course Prefix, #, and Title	Course Description	Credit Hours
General Education Course(s): 66 Hours		
Biological Sciences with Lab Electives	See University General Education Requirement	8
ENGL 101 or 118	See University General Education Requirement	3
POLS 101 or 102	See University General Education Requirement	3
Quantitative Reasoning Elective	Students are required to complete two math or statistics courses from the Quantitative Reasoning List See University General Education Requirement	6
ENGL 102	See University General Education Requirement	3
GEOG 101 or 121	See University General Education Requirement	3
Intermediate Foreign Language	Select six hours of the same foreign language at the intermediate level See University General Education Requirement	6
Physical Science Elective	Choose one of the following: ASTR 151, 152, or GEOL 104 See University General Education Requirement	3-4
PHIL 244	See University General Education Requirement	3
Non-U.S. History	Select a two-course sequence from AFST 235*, AFST 236*; HIEU 241*, HIEU 242*, HIEU 247*, HIEU 248*; HIST 255*, HIST 256*; LAC 251*, LAC 252* See University General Education Requirement	6
Unrestricted Elective		6
WC/AH Elective	Choose one of the following: ENGL 206, 207, 208, 209, 237, 238, 247, 248, 251, 252, 253, 254, 258; MUCO 210; PHIL 252; RUSS 221, 222; UNHO 258 See University General Education Requirement	3
ECON 201	See University General Education Requirement	3
ENGL 255, ENGL 295, ENGL 355, or ENGL 360	See University General Education Requirement	3
CSE 200	See University General Education Requirement	3
PSYC 435; SOCI 110; WGS 200; SOCI 225; SOCI 343	See University General Education Requirement	3

Core Classes: 39 Hours		
ELED 322	Elementary Teaching Methods I	3
ELED 422	Elementary Teaching Methods II	3
CSE 300	Social Justice, Education and Service Learning	3
REED 430	Elementary Literacy K-2	3
REED 330	Using Children's Literature to Support Instructional Practices and Motivate Students to Read	3
SPED 415	Foundations in Learning Disabilities and Other Academic Difficulties	3
SPED 452	Classroom Management	3
ELED 422	Elementary Teaching Methods II	3
MEDU 430	Teaching Mathematics in the Elementary School	3
SSCE 421	Introduction to Teaching Elementary Social Studies	3
REED 434	Elementary Literacy 3-5	3
REED 428	Teaching Writing in the Elementary School	3
SCED 421	Science Methods for the Elementary Classroom	3
WLEL 489	Content-Based ESL Methods	3
Practicum Hours : 3 Hours		
ELED 351	Laboratory and Field Studies in Elementary Education	3
Licensure Hours: 12 Hours		
EDPY 210	Psychoeducational Issues in Human Development	3
EDPY 401	Professional Studies: Applied Educational Psychology	3
SPED 402	Professional Studies: Special Education and Diverse Learners	3
ETEC 486	Integrating Technology into the Curriculum	3

Current Courses

Current courses are those appearing in Table 8.

Existing Institutional Programs

Historically, the majority (75%-90%) of our students have received their undergraduate degree in Psychology with a minor in Elementary Education before completing the master's degree in

Elementary Teaching, which equates to about 20-30 students per academic year that would no longer be a part of the Psychology Department. A letter from the Psychology Department in support of this change appears in Appendix C. We will suggest our students take the following Psychology courses as open electives as scheduling permits: PSYC 110 (General Psychology), PSYC 300 (Child Psychology), PSYC 310 (Learning and Thinking), and PSYC 482 (Childhood Psychopathologies). These courses align with the coursework proposed in the new Elementary Education undergraduate major, and we believe it would prepare our candidates well to enter the field of teaching.

New Courses Needed

No new courses are needed to deliver the proposed program.

Distance Learning

The BS in Education will only be offered face to face.

Course Syllabi

Syllabi for core and practicum courses (listed in Table 8 above), which are provided by the Elementary Education team, appear in Appendix D. Syllabi for courses provided by other programs, departments, and colleges are not included.

Academic Standards

Admissions

Candidates will apply to the Teacher Education program after accumulating 45 credit hours. Candidates must have a minimum GPA of 2.75 or higher on a 4-point scale. They must complete written responses to interview questions and participate in an interview conducted by an admissions board consisting of stakeholders in elementary education (ELED faculty, advanced students in the ELED internship program, elementary educators from local schools). Additionally, candidates complete a self-assessment using a tool used throughout the program, the Professional Competencies, Attitudes, and Dispositions Survey (ProCADS). Admission to the program is a holistic decision of the admissions board.

Retention

Our data indicate that, in general, Teacher Education retention rates are high. Over the last three years in which data were collected, the retention rates have been 85%, 84%, and 75%, respectively. While this is promising, data also indicate that diverse candidates withdraw from teacher preparation programs at disproportionately higher rates. For example, in 2017-2018, only 3.7% of our teacher candidates identified as Black or African American; however, over 15% of withdrawal candidates identified as Black or African American. This overrepresentation of diverse candidates among those who withdraw from teacher preparation programs makes the retention of diverse candidates a priority for our department.

Table 9

Teacher Education Program Withdrawal Percentages by Gender and Race

UTK Teacher Ed Program Withdrawal	UTK Teacher Ed Program Withdrawal: Baseline		
	2015-16	2016-17	2017-18
Total Withdrawals (% of candidates)	31 (14.8%)	32 (16%)	52 (25.1%)
Men (% of withdrawals)	9 (29%)	6 (19%)	9 (17.3%)
Women	22 (71%)	26 (81%)	43 (82.7%)
Native Hawaiian/Pacific Islander	0	0	0
Asian	0	0	1
Black/ African American	0	0	8 (15.4%)
Two or More Races	0	1 (3%)	0
Unknown	0	0	1
White	31 (100%)	31 (97%)	42 (80.8%)
Hispanic/Latino	0	0	0

We recognize that diverse teacher candidates have unique challenges and offer appropriate support for these challenges. By encouraging and supporting early and ongoing involvement in professional organizations, we hope to address and support the distinct needs of diverse candidates in teacher education. BET, for example, currently exists as a professional organization serving diverse teacher candidates and displays information about the organization on its website (<http://web.utk.edu/~bet/>).

The College of Education, Health, and Human Sciences (CEHHS) will identify multiple strategies to recruit diverse candidates into the BET organization. All teacher preparation students who meet the criteria to join this organization will be formally invited to join.

Additionally, we provide financial support often needed to persist throughout the teacher preparation program. \$200,000 in funding has been secured for the Teacher Minority Scholarship, and these funds will support 20 diverse candidates a year over the next two academic years as they matriculate through the teacher preparation program. The current funding level for each diverse candidate is \$10,000 a year, which, combined with other internal scholarship funds such as the James Lattimore Scholarship, reduces the financial burden on the teacher candidate during the

internship year from an estimated \$19,680 to \$4,580. Moreover, we are currently preparing for the Request for Proposals for the THEC Diversity in Teaching Grant.

Unfortunately, much of the funding we receive is largely non-recurring at this point. This means that although we can offer this funding to support current diverse candidates, we cannot advertise funding to recruit diverse candidates or offer funding to future candidates. Therefore, a future action item regarding this strategy is to explore funding options continually to ensure that this current level of funding continues and expands to recurring funding opportunities for diverse teacher candidates. If and when this funding becomes reoccurring, this implementation strategy can then also be classified as a part of our recruitment plan (in addition to our retention plan).

Graduation

Candidates are assessed throughout the program in multiple ways on knowledge and skills, as well as attitudes and dispositions. Several assessments have been defined by the Department of Theory and Practice in Teacher Education (TPTE), and others are assessments specific to the Elementary Education Program. Candidates submit artifacts in most major courses to an online portfolio system. During field experiences, candidates are observed and receive feedback, using indicators from the Tennessee Educator Acceleration Model (TEAM). This multifaceted assessment approach allows program faculty to review candidates' performance across content and experiences in multiple ways. To continue to the Professional Year Internship, Elementary Education candidates must pass the content area Praxis exam (#163).

Equity

The Bailey Graduate School of Education (BGSE), housed within CEHHS, recognizes the field of teacher education faces specific and unique challenges concerning diversity. Teaching is a field that displays a current and historical overrepresentation of white females when compared to both the student populations being taught as well as the surrounding communities. To create and sustain a teaching force representative of the increasing diversity of America's schoolchildren, the recruitment of males and individuals of color becomes a priority. Additionally, teaching shortages persist in high-needs subject areas, making recruiting teachers into these subjects a must to meet the staffing needs of our local school partners.

However, recruitment efforts into teacher education do not yield results if students do not persist through the teacher education program and into the classroom. Thus, retaining our candidates of color, our candidates who are male, and our candidates who are seeking certification in high-needs subject areas are the goals outlined and discussed in detail in this data-driven recruitment and retention plan.

Description of Recent Efforts

The unit is committed to sustaining and improving efforts to provide meaningful diversity experiences for candidates, and for retaining diverse students in our licensure programs. The Office of Student Services created a full-time position for Coordinator for Recruitment and Retention whose responsibilities include recruiting and supporting the retention of students

from diverse backgrounds. The coordinator represents the unit at recruiting events and serves as an academic advisor for minority students, as well as the Black Educators of Tomorrow student organization.

- *Recruitment Goal 1:* To recruit and select teacher candidates from a broad range of backgrounds and diverse populations who reflect the diversity of America's P-12 students.
- *Recruitment Goal 2:* To recruit and select teacher candidates from a broad range of backgrounds and diverse populations who reflect the diversity of America's P-12 students to teach in high-needs areas and hard to fill positions.
- *Retention Goal 1:* To support the completion of high-quality candidates from a broad range of backgrounds and diverse populations who reflect the diversity of America's P-12 students.
- *Retention Goal 2:* To support the completion of high-quality candidates from a broad range of backgrounds and diverse populations who reflect the diversity of America's P-12 students to teach in high-needs areas and hard to fill positions.

Program Enrollment and Graduates

Table 10 provides a five-year projection of students enrolled in the Elementary Education major as well as projected graduates.

Table 10

Projected Declared Majors and Program Graduates

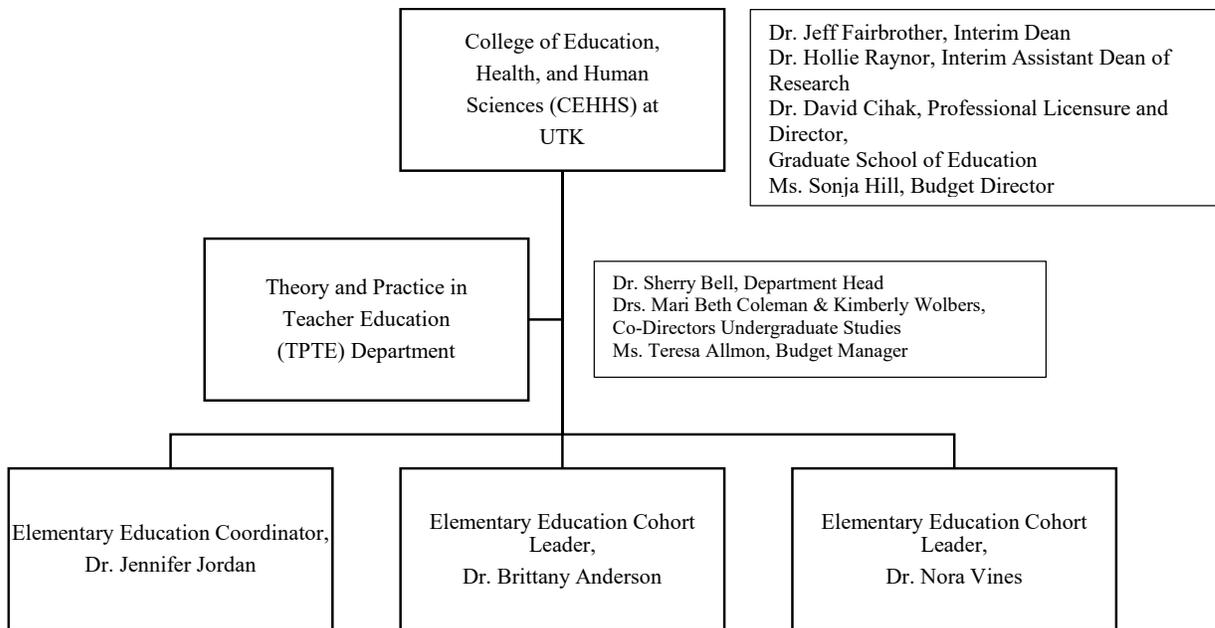
Year	Projected Declared Majors	Projected Program Graduates
YEAR 1 (AY 2021)	30	0
YEAR 2 (AY 2022)	30	0
YEAR 3 (AY 2023)	30	15
YEAR 4 (AY 2024)	30	30
YEAR 5 (AY 2025)	30	30

Historically, our program has graduated the following number of teacher candidates:

2015	58
2016	55
2017	24
2018	39
2019	28

The projected enrollment was calculated by finding the average of the last three years (30.33). We hope these numbers will increase, but we believe 30 candidates an academic year is a responsible estimate.

Administrative Structure



Organizational Structure

The proposed Elementary Education major will be housed within the Department of Theory and Practice in Teacher Education, along with other teacher licensure preparation programs such as Deaf Education, Science Education, Special Education, and World Languages/ESL Education. This department resides within the College of Education, Health, and Human Sciences, where Associate Dean David Cihak oversees Professional Licensure.

Faculty Resources

Current Faculty

Table 11 provides an overview of program faculty affiliated with the proposed program. Shortened curriculum vitae for each faculty member listed in Table 11 are available in Appendix E.

Table 11

Summary of Faculty Who Contribute to the Proposed Program

Faculty Name	Faculty Dept.	Rank or Title	Highest Degree	Role in Program
Jennifer Jordan	TPTE	Clinical Associate Professor	PhD	A, B, C
Nora Vines	TPTE	Clinical Assistant Professor	EdD	A, B, C
Brittany Anderson	TPTE	Assistant Professor	PhD	A, B, C
Stewart Waters	TPTE	Associate Professor	PhD	A, B
Frances Harper	TPTE	Assistant Professor	PhD	A, B
Kristin Rearden	TPTE	Clinical Professor	PhD	A, B
Deb Wooten	TPTE	Professor	PhD	A, B
Blanche O'Bannon	TPTE	Professor	EdD	A, B
Zoi Philippakos	TPTE	Associate Professor	PhD	A, B
Tara Moore	TPTE	Assistant Professor	PhD	A, B
Clara Lee Brown	TPTE	Associate Professor	PhD	A, B
Yujeong Park	TPTE	Assistant Professor	PhD	A, B

Note: As shown in Table 11, contributions to the program are keyed as follows:

A – Will teach in the program

B – Will design curriculum for the program

C – Will advise students in the program

Anticipated Faculty

No additional faculty are needed to begin the program.

Library and Information Technology Resources

The University of Tennessee consists of five campuses across the State of Tennessee. UT, Knoxville, is the flagship university in the system with an enrollment of over 28,000 and more than 300 degree programs. To serve students and faculty associated with these degree programs adequately, the university possesses three million library volumes, periodicals, and computer resources. This year, UT libraries were listed 23rd out of 124 public research universities belonging to the Association of Research Libraries. The Chronicle of Higher Education currently ranks UT Knoxville libraries 13th in the nation for the most money spent on subscriptions, with 69% of those being electronic subscriptions. In 2017, UT libraries received the 2017 John Cotton Dana Library Public Relations Award for outstanding library public relations, sponsored by the American Library Association, the H.W. Wilson Foundation, and EBSCO Information Services. Additionally, Digital Media Services (DMS) at UT provides various Information Technology services such as video production, digitization, and image or text scanning.

Acquisitions Needed

We do not identify additional library and information technology acquisitions needed at this time.

Support Resources

Evidence of Willingness to Partner

As shown through letters of support available in Appendix B, schools have agreed to collaborate with us to place practicum students and interns with mentor teachers in the discipline. Local partners include Anderson County Schools and Knox County Schools. Immediate teacher partners are available at the following elementary schools:

- Anderson County: Claxton Elementary, Grand Oaks Elementary, and Norris Elementary
- Knox County: Dogwood Elementary, Green Magnet Academy, Maynard Elementary, Lonsdale Elementary, and Sarah Moore Green Magnet Academy
- Alcoa City Schools: Alcoa Elementary and Alcoa Intermediate

Other Support Available

Applications to Teacher Education Programs, such as Elementary Education, are processed through the Office of School-Based Experiences (OSBE) in CEHHS. OSBE prepares the applications for the admission board committees and handles the scheduling of candidate interviews and decision notification. The advising center in CEHHS provides undergraduate program advising.

The UTK Student Success Center provides academic coaching, supplemental instruction, and one-on-one tutoring. Student Disability Services provides materials in alternative formats, interpreters, transcription, note-taking, testing accommodations, and video captioning to enhance access to facilities and programs. Student Support Services offers tutoring, academic advising, basic skills assessment, smaller academic courses, social networking, cultural enrichment, and group

activities. The Writing Center provides individual help to all students as they work on written assignments. Writing instructors help students become comfortable with writing while providing feedback on written work in all disciplines. The Department of Modern Foreign Languages and Literatures operates The Language Resource Center and provides students with extra help in studying foreign languages. The Thornton Center offers student-athletes academic counseling services, a career development program, a student development program, a comprehensive tutoring program, a writing lab, a math lab, a computer lab, and accommodations for students with special needs.

Other Support Needed

We do not identify any additional support needed at this time.

Facilities and Equipment

Existing Facilities and Equipment

The existing facility includes the Jane and David Bailey Education Complex (1122 Volunteer Boulevard, Knoxville, TN 37996), which is readily accessible and usable by persons with disabilities. Multiple entrances do not include stairs, and in addition, elevators run to every floor. Elevator buttons and door handles do not exceed 54 inches in height, and doorways are sufficiently wide to accommodate wheelchairs. Parking is located directly behind these adjoined buildings and provides labeled parking with an adequate number of accessible spaces (at least one is van accessible).

Existing equipment includes 14 classrooms with chairs and desks for students and a podium with smart board capabilities. These classrooms allow for desks and chairs to be moved into different configurations to optimize learning. The building also houses two computer labs, an art gallery, a Reading Clinic with 7 viewing rooms, 101 facility offices, meeting spaces, restrooms, water fountains, custodial closets, and workrooms/storage areas.

Additional Facilities and Equipment Required or Anticipated

No additional facilities or equipment will be required or anticipated.

Marketing and Recruitment Plan

Program Marketing

We will share information about the Elementary Education program on the TPTE departmental website. Interested candidates can learn more about the curriculum and required coursework by linking from the departmental website to the university catalog.

Program Recruitment

CEHHS advisors recruit students through all UTK sponsored admission events, which provides numerous opportunities to speak with high school students interested in our majors and minors. In addition to UTK sponsored admission events, the following will enhance student recruitment:

- The CEHHS advising center has a partnership with Pellissippi State Community College (PSCC), Hardin Valley Campus. The education advising centers at both institutions work to assist students with transitioning to UTK to ensure they are fulfilling the requirements for admission into a Teacher Education program.
- A partnership is also present with Roane State Community College, where CEHHS advisors participate in an Education Advising Night. Again, this partnership allows us to work with potential students at the community college and assist them with the transfer process.
- The college offers EDUC 100—a one-credit hour service-learning course—to help students decide if the teaching profession is one they would like to pursue. Program coordinators from each teacher education program in the department serve on a panel each semester to provide information to prospective students about their program and answer questions.
- All prospective students that visit UTK through Admissions/campus tour also have the opportunity to meet with a licensure advisor to discuss the admissions process and program requirements. They also receive a follow-up e-mail with an educational flyer related to their area of interest.
- Those who declare an undergraduate major in CEHHS receive additional attention. They receive e-mail blasts from the Dean’s Undergraduate Advisory Board (DUAB) members, which occurs in January, April, and May. The e-mails contain general information about the college and links to the online publication, “Accolades.” They also may receive a personal e-mail from DUAB members inviting them to connect with other students.

Assessment and Evaluation

Schedule of Program Assessments

Because the Elementary Education major is a Teacher Education pathway, program assessment occurs through the Council of the Accreditation of Educator Preparation (CAEP). This process involves annual reporting on data from the following measures: demonstrated impact on student learning, teacher effectiveness, satisfaction with the program from employers and program completers, and outcomes for program completers such as licensure, employment, and student loan default rates. These annual reports also ask the Educator Preparation Provider (EPP) to describe continuous improvement efforts based on the reported.

In addition to annual reporting, CAEP conducts an in-depth program review on a seven-year cycle. This review includes the submission of a self-study report to CAEP, which must include multiple sources of data and evidence that the EPP meets the rigorous CAEP standards. Following the submission of the self-study report, CAEP will conduct a site visit along with the Tennessee Department of Education (TNDOE) to verify the information presented in the self-study report. The site visitors will author a report to submit to the CAEP accreditation council, who make the

final accreditation decision. UTK's Self-Study report is due to CAEP spring of 2020, and our next site visit will take place in the fall of 2020 (exact dates are pending approval from CAEP and TNDOE).

For undergraduate majors, program assessment occurs regularly as a requirement for SACS-COC. Departments must report data annually through several open-ended dialogue boxes, and provide information about assessment methods, results, and analyses of the assessments, and the actions taken. Regarding assessment methods, departments indicate who was assessed, how the assessed cohort reflects the entire program, the instrument used, and the method(s) for conducting the direct and/or indirect assessment, as well as how the instrument(s) and/or method(s) collected one or more specific performance measures related to the Student Learner Outcomes (SLOs). Regarding results and analysis, departments report details about the data collected, the examination of these data, the results that emerged, and an interpretation of how the results provide a relevant assessment of performance relative to the stated SLOs.

Responsible Parties

Dr. David Cihak, Interim Associate Dean of Professional Licensure and Director of the David T. Bailey Graduate School of Education. Dr. Cihak has twenty years of experience in education as a teacher, a teacher trainer, and now in a college leadership role. He received his Ph.D. from Georgia State University and has worked for CEHHS since 2005, achieving the rank of professor in 2016. During his time at UTK, he has served as associate department head and director of undergraduate programs, as well as program coordinator for the Special Education and Educational Technology Program.

Dr. Sherry Mee Bell, Theory and Practice in Teacher Education Department Head. Dr. Bell has 40 years of experience as a teacher, school psychologist, teacher trainer, program coordinator, and now as department head. She received her Ph.D. from UTK and achieved the rank of professor in 2012.

Faculty members associated with each teacher licensure program or Educator Preparation Provider (EPP).

Results-Driven Plan

For actions taken, information is provided on the concrete steps taken during the year to reach the current assessment point and the subsequent steps that will be taken in response to the current year's results.

Accreditation

There is no accrediting body for undergraduate Elementary Education programs⁹. Therefore, no professional disciplinary accreditation organizations are identified.

⁹ CAEP is the accrediting body for elementary education/teacher education programs that lead to licensure. Our candidates will not be eligible to receive licensure at the completion of their ELED UG major. The EPP that houses the UG major will be CAEP-accredited.

Funding

Institutional Capacity to Deliver the Program

TPTE already offers much of the coursework needed for a new Elementary Education major. Specifically, it offers EDPY 210 (Psychoeducational Issues in Human Development) and 401 (Professional Studies: Applied Educational Psychology); ELED 351 (Laboratory and Field Studies in Elementary Education) and 422 (Elementary Teaching Methods II); REED 330 (Using Children’s Literature to Support Instructional Practices and Motivate Students to Read) and 430 (Elementary Literacy K-2); WLEL 489 (Content-Based ESL Methods); and SPED 402 (Professional Studies: Special Education and Diverse Learners), 415 (Foundations in Learning Disabilities and Other Academic Difficulties), and 452 (Classroom Management). We have recently hired a tenure track faculty in literacy (focus on writing) to teach REED 434 (Elementary Literacy 3-5) and REED 428 (Teaching Writing in the Elementary School). We have support from the content areas in TPTE to teach SSCE 421 (Introduction to Teaching Elementary Social Studies), MEDU 430 (Teaching Mathematics in the Elementary School), and SCED 421 (Science Methods for the Elementary Classroom). The department of TPTE at the University of Tennessee, Knoxville, can support an Elementary Education undergraduate major by drawing on current resources and faculty expertise to offer a licensure program in this area.

Current Department Budget

The new Elementary Education major will not affect the department’s budget.

Narrative of Projected Cost Estimates

N/A

Accreditation Costs

There are no additional accreditation costs to the department associated with the addition of another teacher education program.

External Consultant Costs

We paid \$1,200 for consultant/reviewer costs during the program development year. This expense is reflect in the notes in the financial projection form.

Grants and Gifts

There are no grants or gifts.

Appendices

Appendix A: THEC Financial Projection Form

**Tennessee Higher Education Commission
Attachment A: THEC Financial Projections
University of Tennessee
Bachelor of Science in Education (Elementary Education)**

Seven-year projections are required for doctoral programs.
Five-year projections are required for baccalaureate and Master's degree programs
Three-year projections are required for associate degrees and undergraduate certificates.
Projections should include cost of living increases per year.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
I. Expenditures							
A. One-time Expenditures							
New/Renovated Space	\$	\$	\$	\$	\$	\$ -	\$ -
Equipment						-	-
Library						-	-
Consultants	-					-	-
Travel						-	-
Other						-	-
Sub-Total One-time		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B. Recurring Expenditures							
Personnel							
Administration							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	-	-	-	-	-	-	-
Sub-Total Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Faculty							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	-	-	-	-	-	-	-
Sub-Total Faculty	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Support Staff							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	-	-	-	-	-	-	-
Sub-Total Support Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Graduate Assistants							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	-	-	-	-	-	-	-
Tuition and Fees* (See Below)	-	-	-	-	-	-	-
Sub-Total Graduate Assistants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating							
Travel	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Printing	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
Sub-Total Operating	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Recurring	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL EXPENDITURES (A + B)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

NOTE: An external consultant cost of \$1,200 was paid during the program development, but is not reflected in the post-implementation budget

***If tuition and fees for Graduate Assistants are included, please provide the following information.**

Base Tuition and Fees Rate	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Number of Graduate Assistants		-		-		-		-		-		-

	Year 1 (21-22)	Year 2 (22-23)	Year 3 (23-24)	Year 4 (24-25)	Year 5 (25-26)	Year 6	Year 7
II. Revenue							
Tuition and Fees ¹	414,000	422,280	430,740	439,350	448,140	-	-
Institutional Reallocations ²	(414,000)	(422,280)	(430,740)	(439,350)	(448,140)	-	-
Federal Grants ³							
Private Grants or Gifts ⁴							
Other ⁵							
BALANCED BUDGET LINE	\$ -	\$ -	\$ -				

Notes:

(1) In what year is tuition and fee revenue expected to be generated and explain any differential fees. Tuition and fees include maintenance fees, out-of-state tuition, and any applicable earmarked fees for the program.

Yearly tuition and fees rates are based on 2019-20 in-state tuition for fall and spring semester at 12+ credits each (\$6632 x 2 semesters). An annual 2% increase in tuition is applied.

(2) Please identify the source(s) of the institutional reallocations, and grant matching requirements if applicable.
N/A

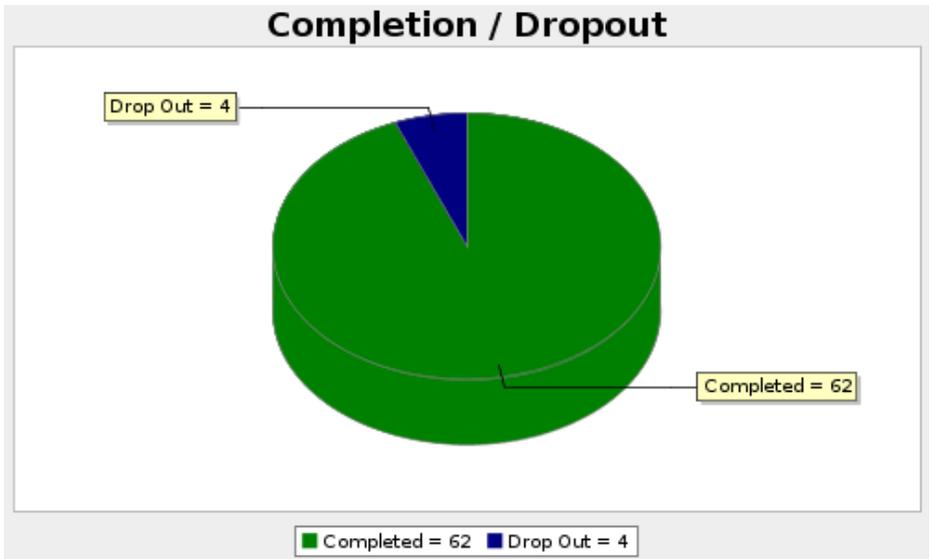
(3) Please provide the source(s) of the Federal Grant including the granting department and CFDA(Catalog of Federal Domestic Assistance) number.
N/A

(4) Please provide the name of the organization(s) or individual(s) providing grant(s) or gift(s).
N/A

(5) Please provide information regarding other sources of the funding.
N/A

Appendix B: Feasibility Study Survey Report

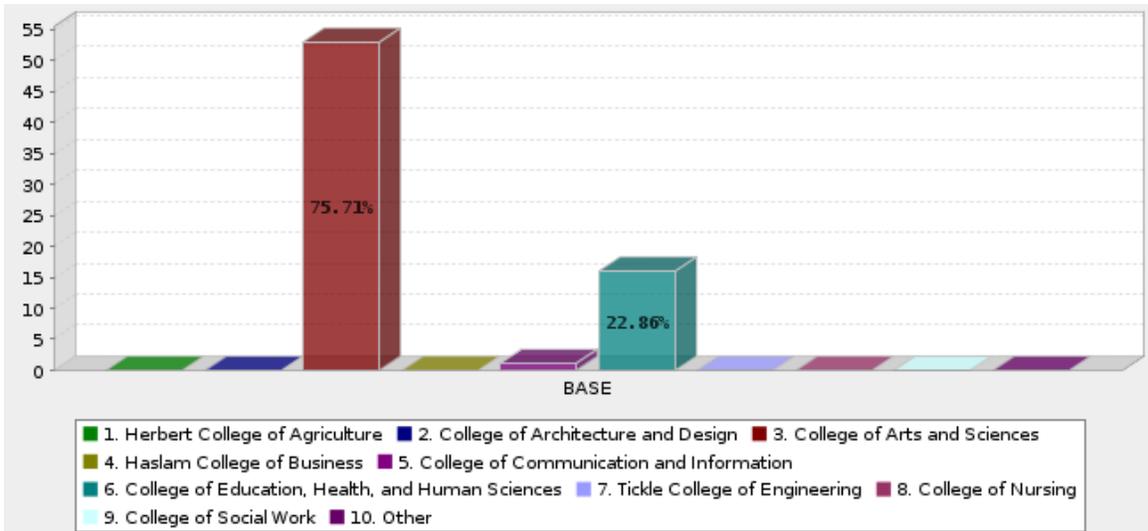
Survey Overview



Viewed	Started	Completed	Completion Rate	Drop Outs (After Starting)	Average Time to Complete Survey
116	66	62	93.94%	4	2 minutes

Q1. The University of Tennessee, Knoxville, is considering a new Bachelor of Science in Elementary Education program and we want to gauge student interest. The primary target audience for enrollment in the program includes those interested in teaching elementary aged students (grades K through 5) or those enrolled in majors that would benefit from coursework focused on elementary aged students. Currently, students interested in pursuing a license in elementary education complete a minor and M.S. in elementary education. To better prepare our graduates we are proposing a B.S. and M.S. in elementary education, which would lead to licensure. You have been identified as a current student who may be interested in pursuing a B.S. in Education degree or coursework in elementary education. The survey will take less than 5 minutes to complete. Would you be willing to offer your feedback?

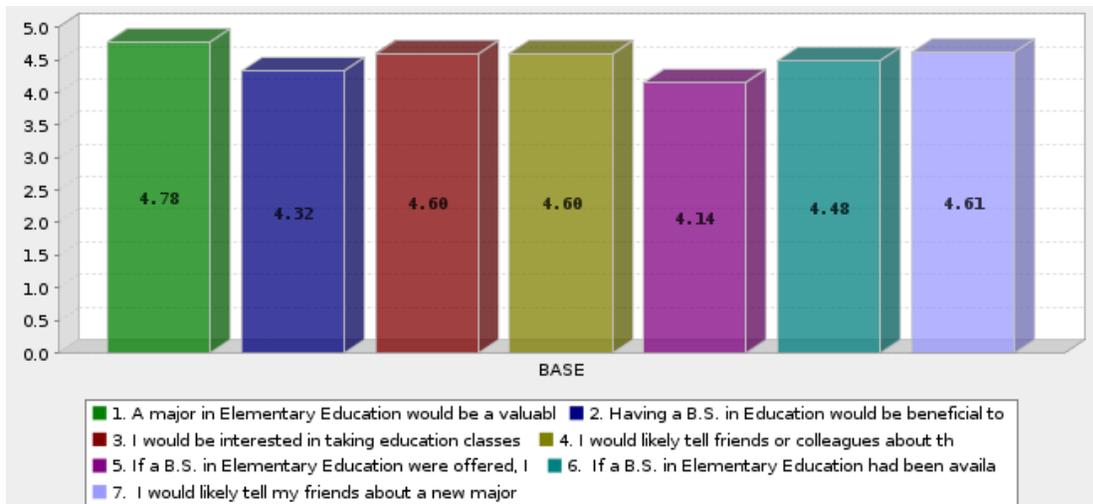
Q2. Please indicate the college in which your current major resides. (Select all that apply.)



	Answer	Count	Percent
	1. Herbert College of Agriculture	0	0.00%
	2. College of Architecture and Design	0	0.00%
	3. College of Arts and Sciences	53	75.71%
	4. Haslam College of Business	0	0.00%
	5. College of Communication and Information	1	1.43%
	6. College of Education, Health, and Human Sciences	16	22.86%
	7. Tickle College of Engineering	0	0.00%
	8. College of Nursing	0	0.00%
	9. College of Social Work	0	0.00%
	10. Other	0	0.00%
	Total	70	100%

Mean : 3.714	Confidence Interval @ 95% : [3.415 - 4.013]	Standard Deviation : 1.276	Standard Error : 0.152
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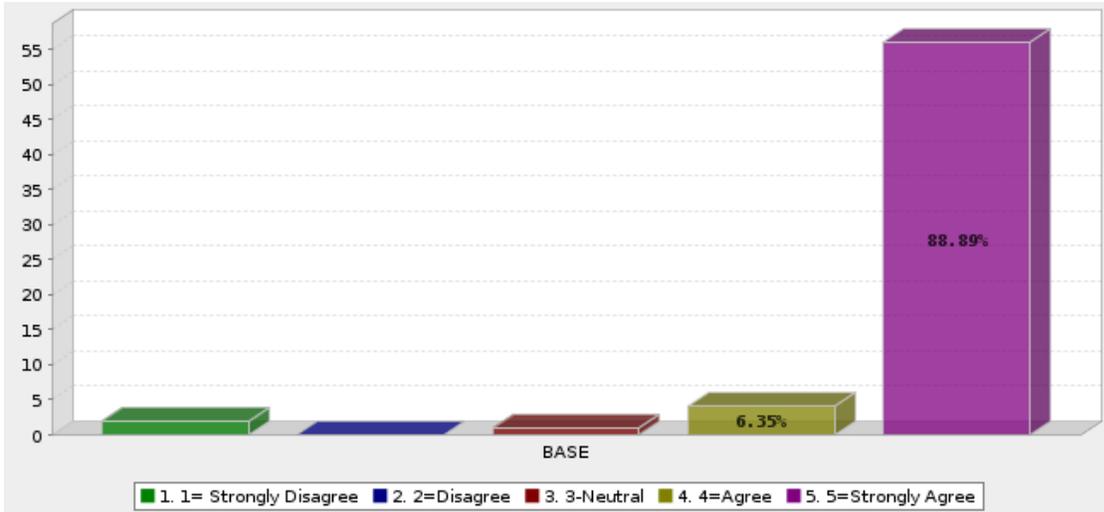
Q3. Using the scale given (1=Strongly Disagree to 5=Strongly Agree), please indicate the extent to which you agree with each statement.



Overall Matrix Scorecard: Using the scale given (1=Strongly Disagree to 5=Strongly Agree), please indicate the extent to which you agree with each statement.

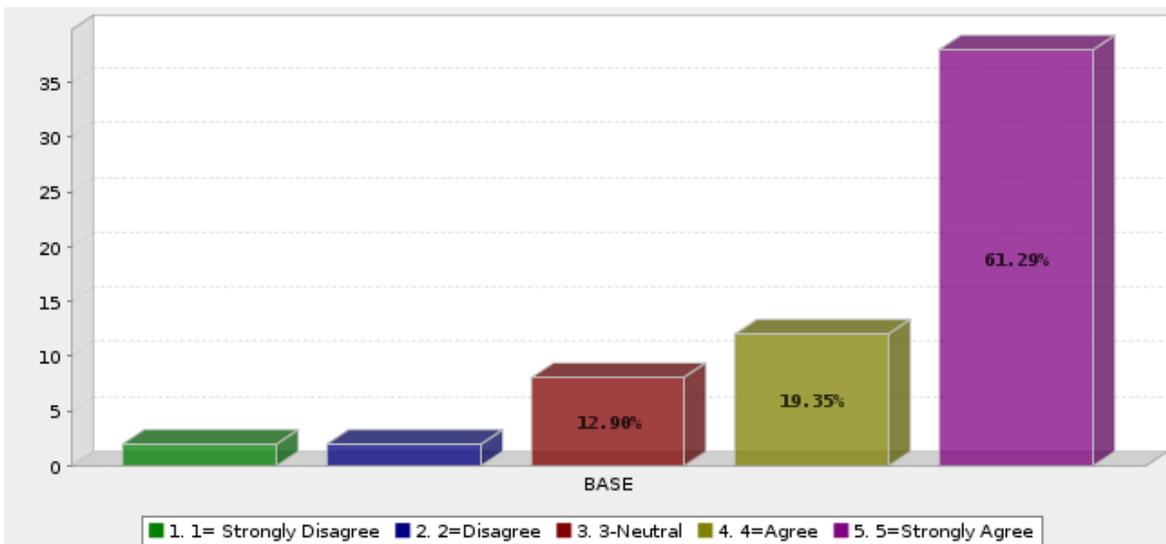
Question	Count	Score
1. A major in Elementary Education would be a valuable addition to the majors offered at UTK.	63	4.778
2. Having a B.S. in Education would be beneficial to my career goals.	62	4.323
3. I would be interested in taking education classes on cultural competency, special education, English language learner education, or elementary instruction as electives.	63	4.603
4. I would likely tell friends or colleagues about this new program.	63	4.603
5. If a B.S. in Elementary Education were offered, I would be interested in completing the program.	63	4.143
6. If a B.S. in Elementary Education had been available when I was choosing my major, I would have been interested in pursuing it.	62	4.484
7. I would likely tell my friends about a new major in Elementary Education being offered at UTK.	62	4.613
Average		4.507

A major in Elementary Education would be a valuable addition to the majors offered at UTK.



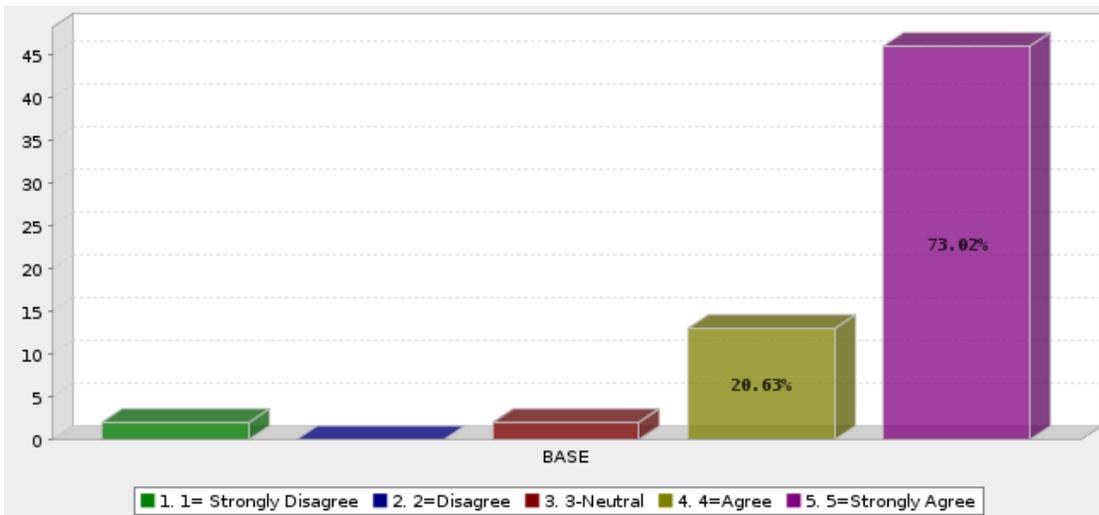
	Answer	Count	Percent
	1. 1= Strongly Disagree	2	3.17%
	2. 2=Disagree	0	0.00%
	3. 3=Neutral	1	1.59%
	4. 4=Agree	4	6.35%
	5. 5=Strongly Agree	56	88.89%
	Total	63	100%
Mean : 4.778	Confidence Interval @ 95% : [4.587 - 4.968]	Standard Deviation : 0.771	Standard Error : 0.097

Having a B.S. in Education would be beneficial to my career goals.



	Answer	Count	Percent
	1. 1= Strongly Disagree	2	3.23%
	2. 2=Disagree	2	3.23%
	3. 3-Neutral	8	12.90%
	4. 4=Agree	12	19.35%
	5. 5=Strongly Agree	38	61.29%
	Total	62	100%
Mean : 4.323	Confidence Interval @ 95% : [4.065 - 4.581]	Standard Deviation : 1.037	Standard Error : 0.132

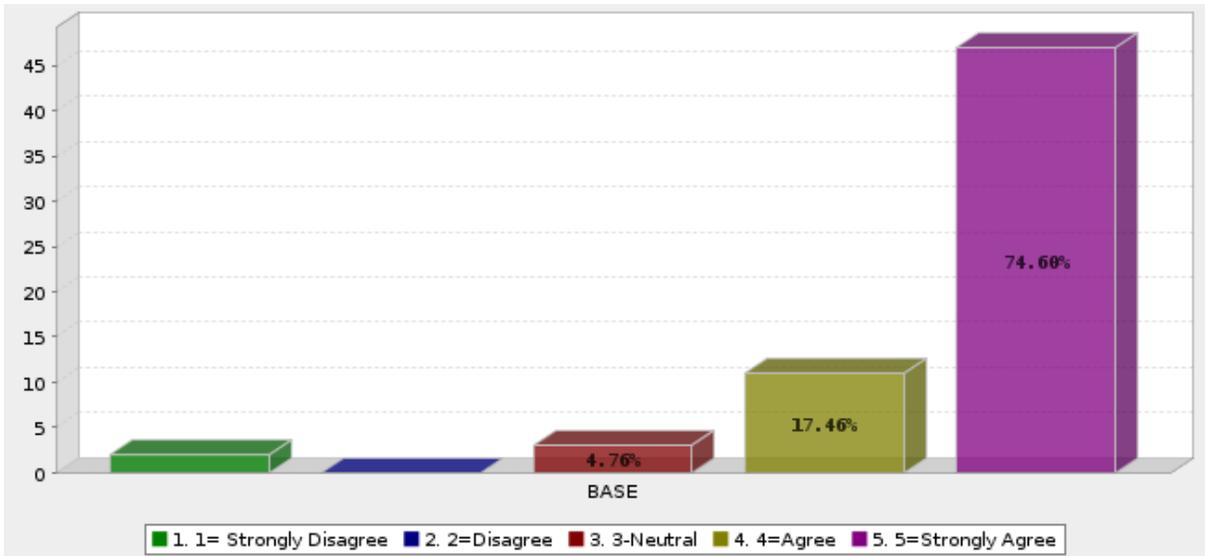
I would be interested in taking education classes on cultural competency, special education, English language learner education, or elementary instruction as electives.



	Answer	Count	Percent
1.	1= Strongly Disagree	2	3.17%
2.	2=Disagree	0	0.00%
3.	3-Neutral	2	3.17%
4.	4=Agree	13	20.63%
5.	5=Strongly Agree	46	73.02%
	Total	63	100%

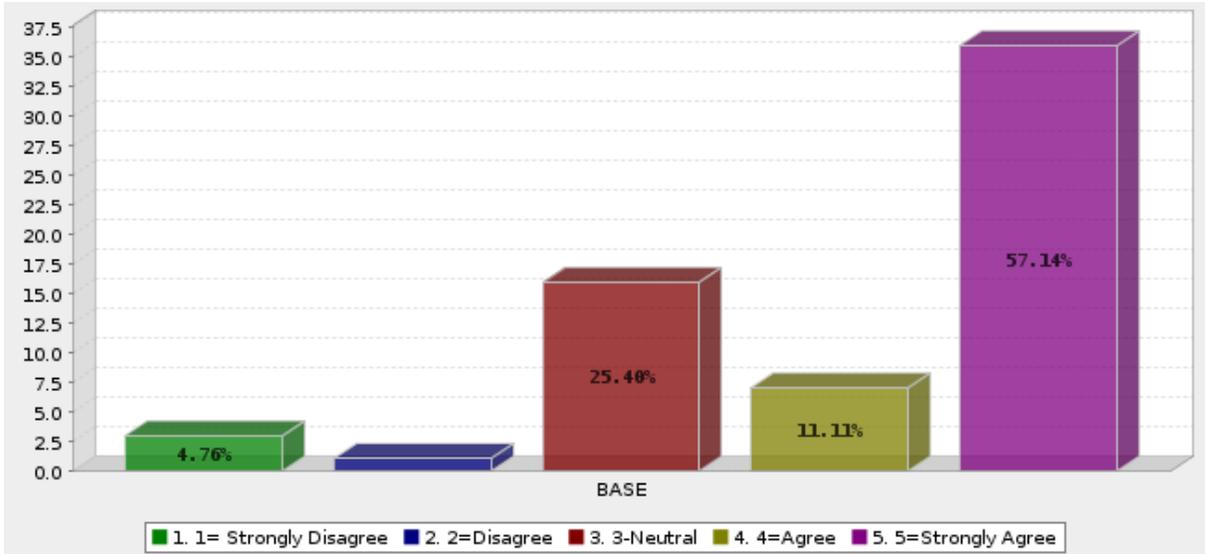
Mean : 4.603	Confidence Interval @ 95% : [4.397 - 4.809]	Standard Deviation : 0.834	Standard Error : 0.105
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I would likely tell friends or colleagues about this new program.



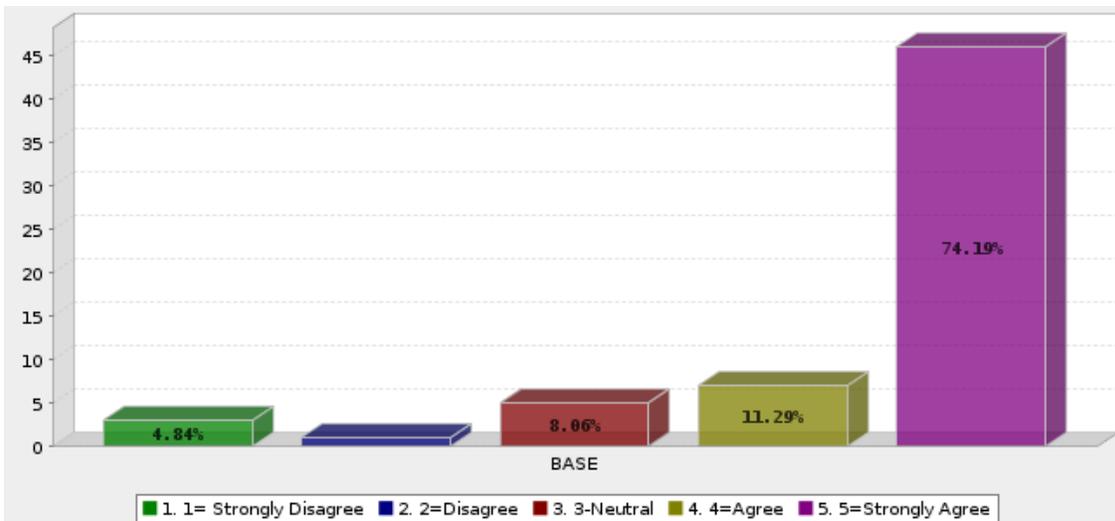
	Answer	Count	Percent
	1. 1= Strongly Disagree	2	3.17%
	2. 2=Disagree	0	0.00%
	3. 3-Neutral	3	4.76%
	4. 4=Agree	11	17.46%
	5. 5=Strongly Agree	47	74.60%
	Total	63	100%
Mean : 4.603	Confidence Interval @ 95% : [4.393 - 4.814]	Standard Deviation : 0.853	Standard Error : 0.107

If a B.S. in Elementary Education were offered, I would be interested in completing the program.



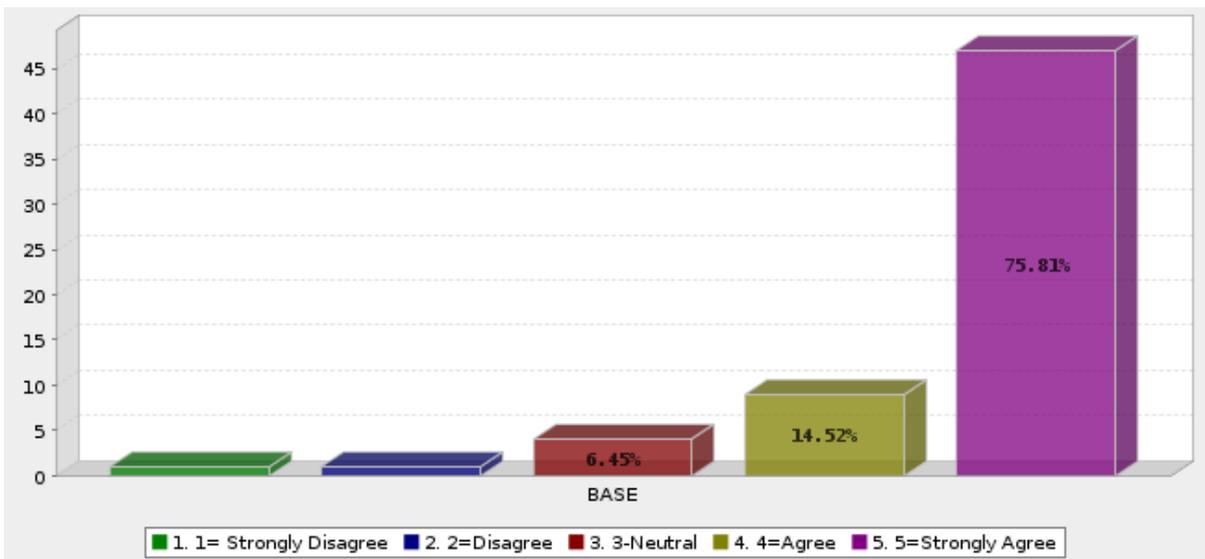
	Answer	Count	Percent
	1. 1= Strongly Disagree	3	4.76%
	2. 2=Disagree	1	1.59%
	3. 3-Neutral	16	25.40%
	4. 4=Agree	7	11.11%
	5. 5=Strongly Agree	36	57.14%
	Total	63	100%
Mean : 4.143	Confidence Interval @ 95% : [3.859 - 4.426]	Standard Deviation : 1.148	Standard Error : 0.145

If a B.S. in Elementary Education had been available when I was choosing my major, I would have been interested in pursuing it.



	Answer	Count	Percent
	1. 1= Strongly Disagree	3	4.84%
	2. 2=Disagree	1	1.61%
	3. 3-Neutral	5	8.06%
	4. 4=Agree	7	11.29%
	5. 5=Strongly Agree	46	74.19%
	Total	62	100%
Mean : 4.484	Confidence Interval @ 95% : [4.222 - 4.746]	Standard Deviation : 1.052	Standard Error : 0.134

I would likely tell my friends about a new major in Elementary Education being offered at UTK.



	Answer	Count	Percent
	1. 1= Strongly Disagree	1	1.61%
	2. 2=Disagree	1	1.61%
	3. 3=Neutral	4	6.45%
	4. 4=Agree	9	14.52%
	5. 5=Strongly Agree	47	75.81%
	Total	62	100%
Mean : 4.613	Confidence Interval @ 95% : [4.410 - 4.816]	Standard Deviation : 0.817	Standard Error : 0.104

Appendix C: Letters of Support



May 9, 2019

Mr. Randy Boyd, Interim President
University of Tennessee System
800 Andy Holt Tower
1331 Circle Park
Knoxville, TN 37996

Dear Mr. Boyd:

The University of Tennessee, Knoxville, proposes to develop a new Bachelor of Science degree in Education with a major in Elementary Education, to be offered beginning in Fall 2021. Students who successfully complete the requirements for this degree may then continue into the year-long teaching internship and Master's degree program as a Teacher Education major with an Elementary Education Professional Internship concentration. The undergraduate Elementary Education major is a necessary pathway for students who seek licensure as Elementary teachers. This curricular revision is necessary, and driven by requirements set forth by the Tennessee Department of Education concerning licensure to teach K-5 students in the state of Tennessee.

The university's department of Theory and Practice in Teacher Education (TPTE) already offers much of the coursework required for the proposed new major. This coursework will align with the instruction the state is mandating (Teaching Literacy in Tennessee) and will allow our students to practice with curricular materials and high-leverage instructional moves (questioning, assessment, etc.) through coursework (REED 430, REED 434, REED 428) and during practicum experiences (ELED 351).

The proposed Elementary Education major fully aligns with the TPTE mission to prepare "expert, culturally competent teachers, interpreters, researchers, and educational leaders who can meet the needs of all learners."

The TPTE department has the ability to meet the demand for elementary educators in the state by drawing on current resources and faculty expertise to offer a licensure program in this area. I am in full support of the new Elementary Education major, which would give undergraduate students a pathway to the post-baccalaureate Professional Internship concentration in Elementary Education.

Office of the Provost & Senior Vice Chancellor
527 Andy Holt Tower Knoxville, TN 37996-0152
865-974-2445 provost@utk.edu

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Please direct questions to the Academic Program Liaisons (APL), Jennifer Jordan (jjorda15@utk.edu) or Sherry Bell (sbell1@utk.edu).

Sincerely,

A handwritten signature in blue ink that reads "David Manderscheid". The signature is written in a cursive style with a large, stylized "D" and "M".

David C. Manderscheid
Provost and Senior Vice Chancellor

cc: Bob Rider
Jeff Fairbrother
Sherry Bell
Jennifer Jordan
Linda C. Martin
Karen Etzkorn
Wayne Davis

KNOX COUNTY SCHOOLS
ANDREW JOHNSON BUILDING

Bob Thomas, Superintendent



April 3, 2019

Dr. Jennifer Jordan
A118 Bailey Education Complex
Theory and Practice in Teacher Education
University of Tennessee
Knoxville, TN 37996-3442

Dear Dr. Jordan:

Knox County Schools hire numerous graduates of the 5-year Elementary Education program at the University of Tennessee. These graduates complete an undergraduate degree in Arts and Sciences and a minor in Elementary Education before earning a master's degree in Elementary Education. With the proposed changes to the Elementary Education curriculum, these candidates will earn a bachelor's of science in Elementary Education and a master's of science in Elementary Education.

We are excited to continue partnering with UTK in practicum and internship placements. The increase in undergraduate coursework centered on special education, ESL education, cultural studies, and content area disciplines will likely produce graduates with a stronger philosophical foundation as well as greater pedagogical-content knowledge. Our school system is continually impressed with the caliber of new teachers that come to us from UTK. Our school system is geographically quite large as well as expansive in the wide range of students we serve. Knox County students are representative of diversity seen across the state of Tennessee and the United States. We anticipate that those who receive an undergraduate degree in elementary education, in addition to the yearlong internship experience and a graduate degree, will be even better prepared to effectively assess, instruct, and support our diverse population of students.

We understand that UTK does not anticipate this curricular change making an impact on the number of students graduating from the program—that it will only deepen experiences and knowledge. We anticipate having openings in each of the next three years at the elementary level for candidates certified in Elementary Education, ELL, and Special Education. The proposed change in degree will not precipitate a salary increase since they will receive the same terminal degree (Masters of Science). UTK graduates enter our schools prepared professionally and we look forward to continuing the working relationship.

Sincerely,
Scott Bolton

Interim Executive Director of Human Resources
Knox County Schools

Deborah Welsh, Ph.D.
Professor and Head
Department of Psychology



212B Austin Peay, 1404 Circle Drive
Knoxville, TN 37996
TELEPHONE: (865) 974-8540
EMAIL: dwelsh@utk.edu

March 26, 2019

Dr. Jennifer Jordan
A118 Bailey Education Complex
Theory and Practice in Teacher Education
University of Tennessee
Knoxville, TN 37996-3442

Dr. Jordan,

It has come to my attention that the Department of Theory and Practice in Teacher Education is proposing a curriculum change from an undergraduate minor to an undergraduate major. This change will allow students to complete additional coursework in Elementary Education so that they are better prepared when they enter the profession.

Historically, about three-fourths of elementary education students have majored in Psychology with a minor in Elementary Education. This curriculum change will decrease the number of undergraduate students earning a degree in Psychology by about 20-25 students in each academic school year. Aggregated across the four-year degree, this change could decrease overall enrollment in the Psychology major by 10-15%. While this is not an insignificant change for the psychology department, we do understand and support the rationale for the shift.

Perhaps of larger concern, the new curriculum eliminates all psychology courses, including general psychology, from the elementary education degree path. Past education students have benefitted from specialized coursework in general psychology, learning and thinking, developmental psychology, and childhood psychopathologies, among others. While these courses will no longer be formal requirements for our education students, it is our hope that our colleagues in education will continue to consider these courses as valuable elective opportunities for their students.

All of this said, our colleagues in education have made a compelling case for the necessity of these changes. Therefore, we support the proposed curriculum change put forth by the Department of Theory and Practice in Teacher Education and wish their graduates the best. We look forward to exploring ways that we in psychology can continue to support our states' future teachers.

Sincerely,

Deborah Welsh, Ph.D.
Professor and Head
Department of Psychology

Appendix D: Course Syllabi

CSE 300: Social Justice, Education and Service Learning

COURSE DESCRIPTION

A study of selected concepts, theories and policies related to social justice within the American education system.

LEARNING OUTCOMES

All students will be able to:

- identify important contemporary social justice issues as they relate to racial and ethnic minority communities
- critically engage a broad range of policy issues and making policy recommendations impacting racial and ethnic minority communities
- thoughtfully engage various stakeholders in relation to social justice issues, their work, perspectives, and/or concerns

REQUIRED TEXT

- Calderón, J.Z. (2007). *Race, poverty and social justice: Multidisciplinary perspectives through service learning*. Sterling, VA: Stylus.

COURSE DESCRIPTION

Four decades after the civil rights movement, significant progress has been made in overcoming segregation and the most egregious forms of racism and discrimination in American society. Yet, race and ethnicity, in the words of Cornel West, still matter as a social construct and contribute significantly to the disparities between the mainstream and minority communities. Concentrated poverty, for example, impacts a disproportionate segment of the minority population. Instances of systematic hiring discrimination and denial of promotion continue. Racial and ethnic minorities get sick or die from certain illnesses in far greater numbers than whites. Serious inadequacies in public education, especially urban schools, disadvantage minority students more than their counterparts in the wealthy suburban schools. Minority group members are represented in the criminal justice system in numbers heavily disproportionate to their percentage in the general population. Environmental racism, both national and international, puts the safety and lives of communities of color in jeopardy. It is imperative for our nation to address those serious inequities in our social, political and educational system.

LEARNING OUTCOMES

- identify important contemporary social justice issues as they relate to racial and ethnic minority communities
- critically engage a broad range of policy issues and making policy recommendations impacting racial and ethnic minority communities
- thoughtfully engage various stakeholders in relation to social justice issues, their work, perspectives, and/or concerns

CLASS CALENDAR

<u>WEEK</u>	<u>TOPICS</u>
Week I	Course Introduction Essay Report Group Assignment
Week II	Ethnicity and Social Justice Questions/Concepts Reading: Calderón, Chapters 1-3
Week III	Wealth and Housing Discrimination Reading: Kaplan/Valls; Calderón, Chapters 4-6 Essay Report #1 on Kaplan/Valls
Week IV	The Criminal Justice System Reading: Walker; Calderón, Chapter 7 Essay Report #2 on Walker
Week V	Ethnicity & Welfare Reading: Lui; Calderón, Chapters 8-9 Essay Report #3 on Lui
Week VI	Civil Rights & Employment Reading: Rosette; Calderón, Chapter 10 Essay Report #4 on Rosette
Week VII	Environmental Racism Reading: Cole/Foster; Calderón, Chapter 11 Essay Report #5 on Cole/Foster
Week VIII	Disparities in Healthcare Reading: Perez; Calderón, Chapter 12 Essay Report #6 on Perez
Week IX	Social Justice Education Reading: Noguera; Calderón, Chapters 13-14 Essay Report #7 on Noguera
Week X	Individual Research Presentation

Individual Research Paper Due

Week XI

Take-Home Final ExamCOURSE REQUIREMENTS

1. Group essay report (30 points): Each student should pick one of the thematic essays (1-7) and form a study group with other students who are interested in the same piece of reading. The report will be due on the day the reading is assigned. Each study group will accomplish the following:
 - Read the essay individually
 - Meet at least one time to discuss the essay outside class
 - Discuss the essay and work on their group essay report online via Canvas (each group will have their own Discussion Forum and Wiki page)
 - Write a 5-page double-spaced typewritten report on the essay, summarizing its content, highlighting its thematic focus, and listing five significant questions for class discussion at the end
 - Each group will present the essay report and lead class discussions on the day the reading is assigned
 - Every student should contribute equally to the written report, class presentation and class discussion
 - The group will be evaluated by peers in class on the following areas:
 - 1) Organization (group dynamics)
 - 2) Content: *clarity of thesis; *accuracy of information; *depth of research; *logic of conclusion
 - 3) Visual aids
 - 4) Voice and demeanor
2. Final exam (30 points): The exam, given in a close-book, in-class format, will consist of two parts, identifications and short essay questions. The exams will be based on the readings, lectures, videos and discussions.
3. Individual research paper (30 points): Each student will research and write a 7-9 page paper that examines the role of race and ethnicity in poverty, employment, public health, education, housing, law enforcement or the environment. We encourage applied or community-based research that not only documents existing problems but also offers policy recommendations.
4. Class participation (10 points): Everyone is expected to attend class and participate fully in class activities, including discussions and exercises. Be sure to complete readings by the due date. Excessive absences without prior permission by the instructor will result in your grade lowered one letter point.

Reading Education 430

Department of Theory and Practice in Teacher Education

UT College of Education, Health and Human Sciences

Course Description

What is reading? How do children learn to read? What are the best ways to support that learning? How can I teach children to use reading as a tool to explore the world around them? How can I support and challenge every student in a timely way? How do I teach a “balanced literacy program?” How can I help my struggling readers? As future teachers, teaching children how to read will be among your greatest responsibilities. This course will explore many of the previous questions, as well as, help you to:

- Build and develop a knowledge base to aid you in making literacy decisions.
- Refine your professional approach to literacy instruction.
- Establish and pursue your professional literacy goals.

The work that we do in this course is designed to support the *State of Tennessee Reading Standards Integrated into the Elementary Education Licensure Standards*. As a culminating project for this class, you will be responsible for creating a novel study documents your learning in terms of each standard. The work that we do in this course is designed to support the *State of Tennessee Educational Preparation Policy Literacy Standards*. Standards addressed: 1.1; 1.2; 1.3; 1.4; 1.5; 1.6; 1.7; 2.2; 2.4; 2.5; 2.10; 3.6; 3.9; 3.10; 4.1; 4.2; 5.1; 5.3; 5.4.

Course Organization

This course is structured so that you will have regular opportunities to:

- explore your own literacy,
- read and respond to professional literature
- visit a number of classrooms via books, videos, and other experiences,
- be a member of a community of learners, and
- reflect on your experiences and how they impact your beliefs about teaching reading.

Each day's session will typically involve two kinds of activities: (1) experiencing for ourselves some of the instructional opportunities we will be talking about using in future classrooms; and (2) discussion of articles and other resources that will help us examine teaching, learning and evaluating structures that support children as readers, writers, and learners.

Required Materials

- 1) Morris, D. (2015). *Morris Informal Reading Inventory: Preprimer through grade 8*. Guilford Press.
- 2) Bear, D., Invernizzi, M., Templeton, S., & Johnston, F. (2015). *Words their way: Word study for phonics, vocabulary, and spelling instruction, 6th Edition*. Upper Saddle River, NJ: Prentice Hall.
- 3) TN Department of Education. (2018). *Teaching literacy in Tennessee*.
- 4) Other chapters and articles posted on Canvas

Optional Cunningham, P., & Allington, R.L. (2010). *Classrooms that work: They can all read and write*. (6th Ed). Boston: Allyn & Bacon.

Expectations

- I. Professional Expectations for Attendance, Punctuality, and Participation: As in all teacher education courses and fieldwork, you are expected to exhibit behavior consistent with the Professional Competencies, Attitudes, and Dispositions expected of UTK Students (ProCADS: <https://sites.google.com/utk.edu/procadsforstudents>). Attendance, punctuality, and participation are important to the overall quality of our class activities and discussions. As such, you are expected to participate in all aspects of our class, including attending, completing reading assignments *and* responses prior to class, actively participating in class discussions and group activities, and meeting deadlines for assignments.

Attendance at every class is expected, and I understand that emergencies happen. Therefore, you will be allowed one excused absence for the semester. In order for an absence to be considered excused, you will need to a) notify me *prior to* class, just as you would need to notify your principal in a school setting, **AND** b) provide written documentation explaining your absence (doctor’s note, court record, etc.) *More than one excused absence and any unexcused absences will result in a 25 point reduction for each absence, making it unlikely that you will be able to attain an “A” in this class.*** Tardiness will also result in a point reduction in the calculation of attendance & participation points. I expect you to arrive on time for class; that is, prepared and ready to start on time, not just walking through the door. Furthermore, in class you are expected to engage yourself in the interactive lectures, activities, and group discussions that take place.

Phones should be silenced upon entering the class, and you *should not text in class*. If you must answer a phone call, please be respectful and step out of class to answer and talk. Of course, you are welcome to take notes on a laptop, but checking email, browsing the Internet, or engaging in other non-class related activities are not acceptable, and if they occur, will result in a significant loss of participation points for the course.

Assignments

- I. Literacy History and Book Professional Club (Standard 1.1; 2.2; 5.1; 5.4): (45 points) Part of understanding how to best meet the needs of your future students comes from a deep understanding of yourself—who you are and how you got to this point in your life. For the purposes of this course, I’d like you to take some time to think about your own past literacy experiences. (Did someone read aloud to you when you were young? How did you learn to read? Did you read for fun? Do you now? Where? When? Did you go to the library often as a child? What emotions and memories come to mind when you think about reading? Did your feelings toward reading change over time? Why? Do you have experiences with teaching reading? What do you think teaching reading looks like?) Be sure you address:
- a. how you learned to read
 - b. in school and out of school memories associated with reading
 - c. any specific “literacy events” that stand out
 - d. your current understanding of how people learn to read
 - e. your experiences with teaching reading to others in and out of schools
- After meeting on Labor Day with your book club and reading either: *Other People’s Words* by Victoria Purcell-Gates or *The Skin That We Speak* by Lisa Delpit; you will consider your

classmates' experiences and viewpoints, and synthesis your learning in a paper (4-6 pages). You should follow APA format.

II. **Read Aloud Assignment (Standards 2.4; 2.5; 2.10; 3.9):** (55 pts) Reading aloud is a key practice in motivating students and developing a love of reading, and yet a good read aloud does not “just happen.” It takes forethought and practice. So, as part of this class, you will 1) **Read:** “Building on Windows and Mirrors: Encouraging the Disruption of “Single Stories” Through Children’s Literature” and **Watch:** Chimamanda Ngozi Adichie’s “The Danger of a Single Story,” 2) **collect** a variety of good books to read aloud, 3) have the opportunity for **practice** reading aloud, and 4) **write** a reflection about your text choice process and the texts you chose.

- 1) **Part 1 Building Background Knowledge** (10 points): Before you begin gathering books, **Read** “Building on Windows and Mirrors: Encouraging the Disruption of “Single Stories” Through Children’s Literature” (Tschida, Ryan, & Swenson-Ticknor, 2014) and **Watch** https://www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story You will submit a written response to the article and TedTalk (see the guidelines for reading responses below).
- 2) **Part 2 Book List Padlet** (25 pts): You will find 20 recent (2006-2018) picture books and/or chapter books that meet the criteria for a High Quality Read Aloud. You will fill out a google form to justify your selections. Your list will most likely include books that we have read in class, as well as some titles you find on your own. You will complete this assignment using Padlet and google forms (https://drive.google.com/open?id=1X9rV088Kdolkgem15yXI6KAvAHkXiiLEezyIct_pbcU). You will create a Grid Padlet and include:
 - a picture of the book cover
 - a brief synthesis (4-6 sentences) of the usefulness of the text (what skills-based and knowledge-based tasks would you pair with the text)
 - thoughts about who the book would be appropriate for (level and complexity)

I will read aloud a number of books and excerpts throughout the course of our class. We will discuss whom the book will be appropriate for and how it might be used to teach literacy related or content related tasks. Feel free to include some of these texts on your list if they are of interest to you.

- 3) **Part 3 Reading Aloud** (5 pts): You will select one of your high quality read alouds and sign up to read this text or section of the text aloud to our class. This read aloud should reflect how you would read the book to your future class. You can earn up to 5 points for your performance: five for the quality of your book choice and another five for your presentation. In order to earn these points you will need consider the qualitative and quantitative dimensions of text complexity rubrics
- 4) **Part 4 Reflection** (15 points): While this project is a great start for building a classroom library that reflects the diverse backgrounds and interests of your students, you will find that 20 books is not sufficient for including representations of all

students. After you have gathered, read, and analyzed your 20 texts, you will read **McNair, J. C. (2017). #WeNeedMirrorsAndWindows: Diverse classroom libraries for k-6 Students. *The Reading Teacher*, 70(3), 375-381** and write a brief reflective paper discussing similar themes across texts in your set, why you were drawn to these texts, and what your text set is missing. Are there entire populations not represented? Are there specific topics or groups for which you had difficulty finding representative texts? Suggested length 3-5 pages.

- III. **Reading Response Blog:** *Due weekly Sunday before class at 6pm* (100 pts) In order to fulfill this expectation, you will first need to read and transact with the required readings. Then, you will pull together your thoughts into a well-thought-out reflection, using this space as a way to help you organize, understand, question, connect, react, and comment on ideas found within the weeks’ readings. Use this interaction with text as an opportunity to explore your own thoughts as you contemplate new ideas in the readings. Remember that it is not meant to be a summary of what you’ve read, but rather a reaction to new concepts or theories, a comparison of the ideas of various authors, a linking of ideas from your reading to school and classroom practices you have experienced, and a means of developing questions about what you have read. I will provide guiding questions for each week. *Please note, your reflection needs to pull together the ideas from all of the assigned readings...you are not doing a blog response for each reading...you are doing one per week.* These are the types of reflective opportunities that are important for your professional growth and development. You will post your responses to canvas. I will read and grade each entry, but will only select a few each week to respond to directly.
- IV. **Weekly Class Reflections:** *Due weekly on Mondays after our class at 11:59pm* (50 pts) An important element of teaching is knowing your students and understanding what they know. In the elementary classroom, teachers often use various forms of formative assessments such as exit tickets, observation, or informal questioning, to stay up-to-date on their students’ understandings. For this class, each week after our class is over I need to know how things are going for you. What are your lingering questions? What are your new understandings? There will be a separate space for these reflections.
- V. **Final (Individual Conference)**
We will schedule a 15-minute conference during our final exam time. During this conference, we will discuss your Final Project and discuss if/how your view of literacy changed throughout the course.

Course Readings and Task Due Dates

Topic	Guiding Questions	Readings
Course Overview: Exploring Literacy	What do I know about literacy?	Sign up for Read Aloud Date
Intro to the Foundations of	What is literacy?	

<p>Literacy: Five Pillars of Reading</p> <p>Cultural Literacies</p> <p>Defining Literacy</p>	<p>How can a child’s family influence literacy acquisition and development?</p> <p>What is good literacy instruction?</p>	
<p>Labor Day</p>	<p>Book Club meetings on your own</p>	<p>Victoria Purcell-Gates, V. (1993). <i>Other People’s Words</i> OR Delpit, L. (2008). <i>The Skin That We Speak</i> Optional Readings* *Clay, M. (1991). Introducing a new storybook to young readers. <i>The Reading Teacher</i>, 45(4), 264-273. *Beck, I.L. & McKeown, M.G. (2001). Text Talk: Capturing the benefits of read-aloud experiences for young children. <i>The Reading Teacher</i>, 55, (1), 10-20. *Schleper, D. R. What is the best age to start reading to a deaf or hard of hearing child? 1-36.</p>
<p>Define Literacy</p>	<p>What is literacy?</p> <p>What makes up literacy instruction?</p>	<p>Ladson-Billings, G. (2000) Reading between the lines and beyond the pages: A Culturally relevant approach to literacy teaching. 139-152. In Gallego, M. A., & Hollingsworth, S. (Eds). <i>What Counts as Literacy: Challenging the School Standard</i>. New York, NY: Teachers College Press. Johnson, A. S. (2010). The Jones Family's culture of literacy. <i>The Reading Teacher</i>, 64 (1), 33-44. Walker-Dalhouse, D., & Risko, V.J. (2008). Homelessness, poverty, and children’s literacy development. <i>The Reading Teacher</i>, 62, 84-86.</p>
<p>The Foundations of Literacy: Phonemic Awareness & Phonics</p>	<p>What is Phonemic Awareness?</p> <p>How is Phonemic Awareness related to learning to read?</p>	<p>Afflerbach, P. (2016). Reading assessment: Looking ahead. <i>The Reading Teacher</i>, 69(4), 413-419. Reutzel, R. (2015). Early literacy research: Findings primary-grade teachers will want to know. <i>The Reading Teacher</i>, 69(1), 14-24. Yopp & Yopp. (2000). Supporting phonemic awareness development in the classroom. <i>The Reading Teacher</i>, 54, 130-143.</p>

	<p>What is decoding? How does decoding influence learning to read?</p> <p>How do I Assess Phonics & phonemic Awareness?</p>	<p>Optional*</p> <p>*IRA/NAEYC (1998). <i>Learning to read and write: A joint position statement of the International Reading Association and the National Association for the Education of Young Children</i>. Newark DE: International Reading Association.</p>
Fluency	<p>What is Fluency?</p> <p>How does fluency impact learning to read?</p> <p>How do I assess for fluency?</p>	<p>Deeney, T. A. (2010). One-minute fluency measures: Mixed messages in assessment and instruction. <i>The Reading Teacher, 63</i>, 440-450.</p> <p>Ness, M. (2017). "Is that how I really sound?": Using iPads for fluency practice. <i>The Reading Teacher, 70</i>(5), 611-615.</p>
Spelling/Orthographic Development	<p>What is the role of background information and vocabulary in comprehending a text?</p> <p>What is orthographic development?</p> <p>How do I assess a students' orthographic knowledge?</p>	<p>Bear, D., Invernizzi, M., Templeton, S., & Johnston, F. (2015). <i>Words their way: Word study for phonics, vocabulary, and spelling instruction, 6th Edition</i>. Upper Saddle River, NJ: Prentice Hall, 1-90.</p> <p>*Pick one of the following:</p> <p>*Ganske, K. (2016). SAIL: A framework for promotes next-generation word study. <i>The Reading Teacher, 70</i>(3), 337-346.</p> <p>*Yopp, R.H. & Yopp, H. K. (2007). Ten important words plus: A strategy for building word knowledge. <i>The Reading Teacher, 61</i>, 157-160.</p>
Reciprocal Relationship between Reading and Writing	<p>What is the relationship between reading and writing?</p>	<p>Duke, N. K., Purcell-Gates, V., Hall, L.A., & Tower, C. (2006/2007). Authentic literacy activities for developing comprehension and writing. <i>The Reading Teacher, 60</i>, 344-355.</p> <p>Anderson, N.L. & Briggs, C. (2011). Reciprocity between reading and writing: Strategic Processing as Common Ground. <i>The Reading Teacher, 64</i>, 546-549.</p>
Motivation	<p>How can you motivate children to become readers</p>	<p>Clark, S. K. & Lott, K. (2017). Integrating science inquiry and literacy instruction for young children. <i>The Reading Teacher, 70</i>(6), 701-710.</p>

	across their lifetime?	Gambrell, L. B. (2015). Getting Students Hooked on the Reading Habit. <i>The Reading Student</i> , 69(3), 259-263.
A Picture of a Reader: Learning to Read, Reading to learn	What do I know about my students as readers? How can I match assessment and instruction?	Frey, N., & Fisher, D. (2010). Identifying instructional moves during guided learning. <i>The Reading Teacher</i> , 64(2), 84-95. Rubin, J. (2011). Organizing and evaluating results from multiple reading assessments. <i>The Reading Teacher</i> , 64, 606-611.
Instructional Practice: Organizing for literacy	What are the classroom structures to support literacy?	TN Department of Education (2018). <i>Teaching Literacy in Tennessee</i> , 1-57. Caulkins, L. & Ehrenworth, M. (2016). Growing extraordinary writers: leadership decisions to raise writing across a school district. <i>The Reading Teacher</i> , 70(1), 7-18. Fountas, I. C. & Pinnell, G. S. (2012). Guided Reading: The romance and the reality. <i>The Reading Teacher</i> , 66(4), 268-284.
Differentiation, meeting students where they are	How can a child’s family influence their ability to learn to read? How do teachers ensure they are providing the best instruction for all their students?	Lose, M. K. (2007). A child’s response to intervention requires a responsive teacher of reading. <i>The Reading Teacher</i> , 61, 276-279. Schwartz, R. (2005). Decisions, Decisions Responding to primary students during guided reading. <i>The Reading Teacher</i> , 58(5), 436-443.
<u>Final Evaluation Conferences</u> To be scheduled individually—approximately 10-15 minutes each		Our official exam time is _____, so I will certainly make myself available for conferences at that time. However, I will also make myself available for conferences from _____ on that day. If that doesn’t work, we will make other arrangements.

Reading Education 434

Department of Theory and Practice in Teacher Education
UT College of Education, Health and Human Sciences

Course Description

What is reading? How do children become fluent readers and comprehend text? How do children learn content knowledge through cross discipline reading? What are the best ways to support that learning? How can I teach children to use reading as a tool to explore the world around them? How can I support and challenge every student in a timely way? How do I teach a “balanced literacy program?” How can I help my struggling readers? As future teachers, teaching children how to read will be among your greatest responsibilities. This course will explore many of the previous questions, as well as, help you to:

- Build and develop a knowledge base to aid you in making literacy decisions.
- Refine your professional approach to literacy instruction.
- Establish and pursue your professional literacy goals.

The work that we do in this course is designed to support the *State of Tennessee Reading Standards Integrated into the Elementary Education Licensure Standards*. As a culminating project for this class, you will be responsible for creating a novel study documents your learning in terms of each standard. The work that we do in this course is designed to support the *State of Tennessee Educational Preparation Policy Literacy Standards*. Standards addressed: 1.1; 1.2; 1.3; 1.4; 1.5; 1.6; 1.7; 2.2; 2.4; 2.5; 2.10; 3.6; 3.9; 3.10; 4.1; 4.2; 5.1; 5.3; 5.4.

Course Organization

This course is structured so that you will have regular opportunities to:

- explore your own literacy,
- read and respond to professional literature
- visit a number of classrooms via books, videos, and other experiences,
- be a member of a community of learners, and
- reflect on your experiences and how they impact your beliefs about teaching reading.

Each day's session will typically involve two kinds of activities: (1) experiencing for ourselves some of the instructional opportunities we will be talking about using in future classrooms; and (2) discussion of articles and other resources that will help us examine teaching, learning and evaluating structures that support children as readers, writers, and learners.

Required Materials

- 4) Morris, D. (2015). *Morris Informal Reading Inventory: Preprimer through grade 8*. Guilford Press.
- 5) Bear, D., Invernizzi, M., Templeton, S., & Johnston, F. (2015). *Words their way: Word study for phonics, vocabulary, and spelling instruction, 6th Edition*. Upper Saddle River, NJ: Prentice Hall.
- 6) TN Department of Education. (2018). *Teaching literacy in Tennessee*.
- 4) Other chapters and articles posted on Canvas

Optional Cunningham, P., & Allington, R.L. (2010). *Classrooms that work: They can all read and write*. (6th Ed). Boston: Allyn & Bacon.

Assignments

Reading Response Blog: *Due weekly Sunday before class at 6pm* (100 pts) In order to fulfill this expectation, you will first need to read and transact with the required readings. Then, you will pull together your thoughts into a well-thought-out reflection, using this space as a way to help you organize, understand, question, connect, react, and comment on ideas found within the weeks' readings. Use this interaction with text as an opportunity to explore your own thoughts as you contemplate new ideas in the readings. Remember that it is not meant to be a summary of what you've read, but rather a reaction to new concepts or theories, a comparison of the ideas of various authors, a linking of ideas from your reading to school and classroom practices you have experienced, and a means of developing questions about what you have read. I will provide guiding questions for each week. *Please note, your reflection needs to pull together the ideas from all of the assigned readings...you are not doing a blog response for each reading...you are doing one per week.* These are the types of reflective opportunities that are important for your professional growth and development. You will post your responses to canvas. I will read and grade each entry, but will only select a few each week to respond to directly.

Weekly Class Reflections: *Due weekly on Mondays after our class at 11:59pm* (50 pts) An important element of teaching is knowing your students and understanding what they know. In the elementary classroom, teachers often use various forms of formative assessments such as exit tickets, observation, or informal questioning, to stay up-to-date on their students' understandings. For this class, each week after our class is over I need to know how things are going for you. What are your lingering questions? What are your new understandings? There will be a separate space for these reflections.

Literacy Night: (Standards: 5.3; 5.5): Mid-November (40 pts) This semester you will have the opportunity to share what you are learning with parents and students at Copper Ridge Elementary school during a Literacy Night. One of the most important factors in motivation and learning is choice! In small groups of 2-4 you will choose a question or topic related to teaching reading in elementary school that interests you, research your chosen area in depth to be able to *conduct a literacy game* related to your topic with students and *create a hand-out to share helpful tips for parents*. We will generate a list of possible topics in class, and you will then have the opportunity to select your topic. This project will have three phases:

Phase 1-Proposal (5 pts): In this 1-2 page proposal, you should:

- Identify your general topic
- Identify 2-4 specific questions that you would like to answer
- Propose your timeline for investigating these questions
- Propose your resources for investigating these questions
- List any ideas you already have

Phase 2-In-class Presentation (10 pts): Teams will present their plans for literacy night. During your presentation, your group should identify the literacy piece you are focusing on, model or demonstrate the game, illustrate how the game supports

students' literacy development, and share the information you plan to provide for parents.

Phase 3-Literacy Night (15 pts): We will go to Copper Ridge Elementary School and set up our literacy night stations. Groups will run the literacy games with students, hand out helpful information to parents, and engage participants in positive talk about literacy.

Phase 4-Reflection (10 pts): You will conclude this project with an evaluation of your group, your contribution, and provide feedback on the project.

Novel Study and Instruction (Standards: 1.4; 1.5; 1.6; 1.7): (120 points) After we have completed our novel study of *The One and Only Ivan*, you will work with a partner, much like you would collaborate and co-plan with a grade level colleague, to:

- Create a text set of at least 6 books that you would use to teach and explore themes and content related to *The One and Only Ivan*. These books should span genres and reading levels as well as be appropriate for the grade level.
- Incorporate a variety of daily tasks based on readings of texts (What will your students do as they read the texts? What will they do to better understand and engage with the material? What tasks will you use to formatively assess throughout the study?). These tasks should include:
 - Skills-based Tasks (Foundational Skill integration):
 - Word composition/spelling
 - Fluency building
 - Phonological awareness (when appropriate)
 - Print concepts (when appropriate)
 - Phonics and word recognition (when appropriate)
 - Knowledge-based Tasks
 - Building background knowledge
 - Vocabulary acquisition
 - Comparing/contrasting texts
 - Comprehension strategies
 - Exploration of text structures
 - Internet Workshop
- You will also design a culminating task as an end-of-study assessment. How will you summarize, celebrate learning, and share what your students learned with others? How will you and your students evaluate learning?
- **Rationale:** For each task, write a paragraph explaining why you chose that particular task as evidence of learning for the text with which it is aligned. You should also include a rationale for the culminating task.

Final (Individual Conference)

We will schedule a 15-minute conference during our final exam time. During this conference, we will discuss your Final Project and discuss if/how your view of literacy changed throughout the course.

Course Readings and Task Due Dates

Topic	Guiding Questions	Readings
Text Complexity: Qualitative Dimensions, Quantitative Dimensions; and Reader and Task Considerations	<p>What is important about texts?</p> <p>How do developmentally appropriate books affect learning to read?</p> <p>Why is literature important?</p> <p>What is text complexity?</p>	<p>Tschida, C, Ryan, C. & Ticknor, A.S. (2014). Building on windows and mirrors: Encouraging the disruption of “single stories” through children’s literature. <i>Journal of Children’s Literature</i>, 40 (1), 28-39.</p> <p>Watch: https://www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story</p> <p>Fry, E. (2002). Readability versus leveling. <i>The Reading Teacher</i>, 56, 286-291.</p> <p>Glasswell, K., & Ford, M. P. (2010). Teaching flexibly with leveled texts: More power for your reading block. <i>The Reading Teacher</i>, 64, 57-60.</p> <p>Rog, R. J., & Burton, W. (2001/2002). Matching texts and readers: Leveling early reading materials for assessment and instruction. <i>The Reading Teacher</i>, 55, 348-356.</p>
Fluency	<p>What is Fluency?</p> <p>How does fluency impact learning to read?</p>	<p>Rasinski, T. (2004). Creating fluent readers. <i>Educational Leadership</i>, 46-51.</p> <p>Morris, D. (2015). <i>Morris Informal Reading Inventory: Preprimer through grade 8</i>. Guilford Press, 3-36 and 46-58</p>
Spelling/Orthographic Development	<p>What is the role of background information and vocabulary in comprehending a text?</p>	<p>Bear, D., Invernizzi, M., Templeton, S., & Johnston, F. (2015). <i>Words their way: Word study for phonics, vocabulary, and spelling instruction</i>, 6th Edition. Upper Saddle River, NJ: Prentice Hall, 1-90.</p>
Vocabulary The Role of Background Knowledge	<p>What is good vocabulary instruction?</p> <p>How do I assess a students’</p>	<p>Camp, D. (2000). It takes two: Teaching with twin texts of fact and fiction.</p> <p>Beck, I.L. & McKeown, M.G. (2001). Text talk: Capturing the benefits of read-aloud experiences for young children. <i>The Reading Teacher</i>, 55(1), 10-20.</p>

<p>Literature Circles</p> <p>Informational Texts</p>	<p>vocabulary knowledge?</p>	<p>Kucan, L. (2012). What is most important to know about vocabulary? <i>The Reading Teacher</i>, 65(6), 360-366.</p> <p>Applegate, K. (2015). <i>The One and Only Ivan</i>. NY: Harper Collins. [first half]</p> <p>Optional Reading*</p> <p>Andrews, J. F. (2012). Reading to deaf children who sign: A response to Williams (2012) and suggestions for future research. <i>American Annals of the Deaf</i>, 15(3), 307-319.</p> <p>*Lane, H. B., & Allen, S. A. (2010). The vocabulary-rich classroom: Modeling sophisticated word use to promote word consciousness and vocabulary growth. <i>The Reading Teacher</i>, 63, 362-370.</p>
<p>Understanding the Text: Teaching Comprehension</p>	<p>What is comprehension?</p> <p>How does comprehension affect learning to read?</p> <p>Why do children need opportunities to hear children's literature?</p>	<p>Anderson, N. L. & Kaye, E. L. (2017). Finding versus fixing: Self-monitoring for readers who struggle. <i>The Reading Teacher</i>, 70(5), 543-550.</p> <p>Pardo, L.S. (2004). What every teacher needs to know about comprehension. <i>The Reading Teacher</i>, 58, 272-280.</p> <p>Gill, S. R. (2008). The comprehension matrix: A tool for designing comprehension instruction. <i>The Reading Teacher</i>, 62, 106-113.</p> <p>Applegate, K. (2015). <i>The One and Only Ivan</i>. NY: Harper Collins. [second half]</p>
<p>Reciprocal Relationship between Reading and Writing</p>	<p>What is the relationship between reading and writing?</p>	<p>Laminack, L. (2017). Mentors and Mentor Texts: What, why, and how? <i>The Reading Teacher</i>, 70(6), 753-755.</p> <p>VanNess, A. R., Murren, T. J., & Bertelsen, C. D. (2013). Let me tell you a secret: Kindergarteners can write! <i>The Reading Teacher</i>, 66(7), 574-585.</p>
<p>Motivation</p>	<p>How can you motivate children to become readers across their lifetime?</p>	<p>Malloy, J. A. Marinak, B. A., Gambrell, L. B., & Mazzone, S. A. (2014). Assessing motivation to read: The motivation to read profile. <i>The Reading Teacher</i>, 67(4), 273-282.</p> <p>Souto-Manning, M. (2016). Honoring and building on the rich literacy practices of young bilingual and multilingual learners. <i>The Reading Teacher</i>, 70(3), 263-271.</p>

<p>A Picture of a Reader: Learning to Read, Reading to learn</p>	<p>What do I know about my students as readers?</p>	<p>Spear-Swerling, L. (2016). Common types of reading problems and how to help children who have them. <i>The Reading Teacher</i>, 69(5), 513-522.</p>
<p>Instructional Practice: Organizing for literacy</p>	<p>What are the classroom structures to support literacy?</p>	<p>Reutzel, D.R., Jones, C.D., Newman, T.H. (2010). Scaffolded silent reading: Improving the conditions of silent reading practice in classroom. In Hiebert, E.H. & Reutzel, R (Eds.) <i>Revisiting Silent Reading</i>, Newark, D: International Reading Association.</p> <p>Reutzel, D. R. & Clark, S. (2011). Organizing literacy classrooms for effective instruction. <i>The Reading Teacher</i>, 65(2), 96-109.</p>
<p>Differentiation, meeting students where they are</p>	<p>How can a child’s family influence their ability to learn to read?</p>	<p>Watts-Taffe, S., Laster, B. P., Broach, L., Marinak, B., Connor, C. M., & Walker-Dalhouse, D. (2013). Differentiated Instruction: making informed teacher decisions. <i>The Reading Teacher</i>, 66(4), 303-314.</p> <p>McNair, J. C. (2017). #WeNeedMirrorsAndWindows: Diverse classroom libraries for k-6 Students. <i>The Reading Teacher</i>, 70(3), 375-381.</p>
<p><u>Final Evaluation Conferences</u> To be scheduled individually—approximately 10-15 minutes each</p>		<p>Our official exam time is _____ _____, so I will certainly make myself available for conferences at that time. However, I will also make myself available for conferences from _____ on that day. If that doesn’t work, we will make other arrangements.</p>

REED 330

Using Children's Literature to Support Instructional Practices and Motivate Students to Read

a. and b. Learner Objectives and Major Topics

- * Broaden, deepen knowledge, and enjoyment of Children's and Young Adult Literature
- * Evaluate Children's and YA literature according to a series of appropriate guidelines
- * Explore multiple genres and subgenres of Children's and Young Adult Literature
- * Read and respond to Professional Publications about Children's YA Literature
- * Read literature that expresses awareness and understanding with diverse cultures, races, values, and ethnicities
- * Discuss explicit teaching strategies that work in concert with literature
- * Be a member of a community of learners.

c. Learning Activities

Assignments:

- * Author and Illustrator Paper and Presentation
- * Children's and Young Adult Literature Thematic Text Set Project
- * Children's and Young Adult Literature Genre Study Project

d. Learner Evaluation

Final grade will be determined from the following areas:

- * Attendance/Class Participation (see attendance policy)
- * Response to Assigned Readings via post-it approach (note taking)/response paper (10%)
- * Assigned Young Adult Literature readings and discussions/responses (20%)
- * Author and illustrator Presentation (20%)
- * Thematic Text Set (25%)
- * Genre Text Set (25%)

ELED 428: Teaching Language Arts in the Elementary School

Course Objectives:

Upon completing this course, students will:

- Understand how to establish a community of writers in a classroom
- Understand the process of starting a writers' workshop in a classroom
- Understand how to effectively manage the materials, scheduling, and classroom arrangement associated with writers' workshop
- Know the TNCore ELA Standards related to writing
- Develop a writing unit of study based on curriculum goals and objectives
- Have a working knowledge of tools effective in assessing students' writing growth within a workshop setting
- Understand how to meet and support the needs of individual students in a writer's workshop format
- Demonstrate their ability to assess and support orthographic development in the classroom

Major Topics:

- Writer's Workshop
- The Writing Process
- Writer's Notebook
- Integrating Reading and Writing
- Mentor Texts
- Orthographic Knowledge Development
- Word Study Instruction

Learning Formats:

I will use a variety of methods to deliver instruction and information including, but not limited to: lecture, hands-on activities, demonstrations, student and instructor-led discussion; online assignments, group and individual assignments.

This course focuses on three major components of teaching Language Arts: The teacher's identity as a writer; writer's workshop; orthographic development and instruction. We will begin the course with experiences that will help us "live writerly lives" through the use of notebooks and experiencing writer's workshop as students. Next, we will spend time learning about the organizational and instructional side of writer's workshop. Finally, we will spend time learning about orthographic development and using word study as spelling instruction.

Course Texts:

Required: Bear, D. R., Invernizzi, M., Templeton, S., & Johnston, F. (2011). *Words their Way: Word study for phonics, vocabulary, and spelling instruction* (5th Ed.). Upper Saddle River, NJ: Pearson.

Optional: Ray, K. W., & Cleaveland, L. B. (2004). *About the authors: Writing workshop with our youngest writers*. Portsmouth, NH: Heinemann. (K-1 emphasis)

Davis, J., & Hill, S. (2003). *The no-nonsense guide to teaching writing*. Portsmouth, NH: Heinemann. (2nd and up emphasis)

Assignments:**Weekly Readings**

We will not necessarily be discussing every reading in class, and yet they provide a very important shared knowledge base for class as scaffold for continued growth in the profession. Please complete all readings prior to class meetings.

Notebook & Becoming an Author Project

You will write in your writer's notebook on a daily basis, both in and out of class. On Tuesday, November 15th, you will be required to turn in your writer's notebook. You should have gathered a **minimum** of 50 entries over the semester, more if you hope to receive full credit. You also need to **complete the notebook evaluation rubric**, which can be found in the Notebook Assignment Packet from our first class meeting. These will be returned to you on Tuesday, November 22nd.

You will choose one of your entries to take through the writing process. You will complete the *Seed Idea* activity during class. You will be expected to turn in both this piece, in published format, **and your drafts of the piece** on Tuesday, November 8th. (Also, please mark your "seed entry" in your writer's notebook with a sticky note.) They will be returned to you Tuesday, November 15th, so that you can decide how you will present your work to the class at our Celebration on Tuesday, November 22nd.

Informed Instruction: Orthography

It is critical that teachers not only assess their students, but use that assessment to inform their instruction. In order to complete this project, you will be collecting and examining student work, identifying patterns in the work, and developing a plan for instruction based on this work.

Specifically, you will:

- ◆ Administer and score the Elementary Spelling Inventory in your class of elementary (K-5) students.
- ◆ Collect a set of language arts work samples from your class of elementary (K-5) students.
- ◆ Evaluate the samples according to the expectations set forth in the Elementary Spelling Inventory. (You will not need to provide a rationale for the use of the assessment tool.)

After you assess students' orthographic knowledge via the use of the Elementary Spelling Inventory, you will need to be sure to include:

- ◆ Each child's evaluation sheet
- ◆ The classroom composite sheet
- ◆ A narrative explaining your findings (supported by data) and your resulting plan for grouping students (supported by data)
- ◆ Your detailed description of two students with varying needs
- ◆ Your planned class schedule, detailing where word study fits in your school day and your language arts block
- ◆ 1 week of instructional plans, detailed, for every group

This project will be due on (or before) Tuesday, November 11th. Please submit via Canvas.

Planning for Writing Instruction

Writing instruction is often overlooked in elementary classrooms, and when it is taught it is far too often reduced to grammar practice and writing to a prompt. While both of these aspects are arguably important, effective writing instruction requires more. You will be developing a unit of study (minimum of 2 weeks) intended to be implemented in conjunction with writer's workshop. Requirements include:

- Specific goals and objectives tied to the TN ELA standards
- A series (10 minimum) of appropriate mini-lessons, plotted on a calendar
- An assessment plan, including a rubric to be used as a summative assessment and at least 2 additional forms of assessment
- Please include how you will 'celebrate'/wrap up your unit of study

Note: If you are planning your instruction for a K-2 classroom, Ray & Cleaveland's text *About the Authors* chapters 6 & 7 will be very helpful! For those planning for a 3+ classroom, Ray's *Wondrous Words* chapters 11-12 & 14 will be very helpful!

Grading

Active participation in class, completion of daily reading and writing assignments, and attendance will also be taken into consideration as part of the final course grade.

Grades will be weighted as follows:

Attendance & Participation	15
Notebook	50
Becoming an Author Project	35
Informed Instruction Project	75
Planning for Writing Project	75

ELED 351 Laboratory and Field Studies in Elementary Education

- Course Goals:**
- To provide an opportunity to observe, investigate, and apply concepts and skills from professional methods courses in actual classroom settings.
 - To familiarize pre-service teachers with issues in education that affect schools, teachers, and students.

Course Requirements and Expectations

- I. Professional Liability Insurance: UT requires that all students who complete a practicum in the schools have professional liability insurance. Insurance may be purchased in BEC 329. ***You must have proof of liability insurance before you receive your Field Experience placement.***
- II. Professional Expectations for Attendance, Punctuality, and Participation:
As in all teacher education courses and fieldwork, you are expected to exhibit behavior consistent with the departmental dispositions. More detailed information on specific dispositions can be found at <https://sites.google.com/utk.edu/procadsforstudents>. Please re-familiarize yourself with this set of dispositions and their implications, as you agreed to uphold them when you were admitted to the program.
- III. TVAAS (REQUIRED OF ELEMENTARY EDUCATION STUDENTS ONLY): Is the ability to understand and analyze assessment data to inform subsequent instruction important? The Tennessee Department of Education agrees with you and has developed online modules for you to build an understanding of how standardized test data should be applied to your instruction. You will need to request an account here: <https://tvaas.sas.com/>. Then you will complete the modules on your own time. These modules take about 15-18 hours to complete and require your undivided attention, so we advise you get started early in the semester and work in small chunks. After each module, we need you to take a screen shot of the final screen. Save all of these screen shots into one document and turn this in to Canvas on April 20th.
- IV. Rural Book Club: Knowing who your students are and where they are coming from is a key component to successful teaching. As part of the mission of the education program at UT you are expected to become a leader in the field and be a champion for those students who tend to be silenced. Across the United States, these students tend to have one thing in common: poverty. Therefore, we feel it is paramount that you understand the unique characteristics of these students (since for most of you these experiences do not match your own background). You and your peers will participate in a book club to explore *Teaching with Poverty in Mind* (Jensen, 2009, chapters 1-2). The book will be the topic of our discussion on February 23rd. Guiding questions for your discussion will be provided.
- V. Responses: Throughout the semester, we will be reflecting on the myriad of experiences that you will be involved with in both of your classroom placements. These experiences will be an essential resource as you move forward in your career as an educator. In order to properly access these experiences, you will be required to complete a series of reflective journals. The topics will vary based on your individual observations and will involve incorporating language and literacy standards (see module on Canvas). During our class time on Fridays, you will be sharing your experiences with your fellow educators. In addition, you will also be responsible for submitting

your journal reflection to your instructor via Canvas. All journal reflections are due by 8 am before class on Fridays. Examples are located on Canvas.

- VI. Attendance Log: Each of you is responsible for keeping a record of each school visit, complete with your mentoring teacher's signature as verification for each. (Falsification of teacher's signature will result in an unsatisfactory grade and no credit for the course.) You will turn in the attendance log at the completion of each of your placements. (The Attendance Log form is available on the class Canvas site.) ***You are responsible for logging a minimum of 24 hours in each placement.***
- VII. Mentoring Teachers' Evaluations (2): Each of your mentoring teachers will be required to complete an evaluation of your performance in their classrooms. These forms are available on Canvas. You should provide a copy to your mentor and an envelope. Then, your mentor will return them directly to you in the sealed, signed envelope. These evaluations must be completed in order for you to receive a credit for the course.
- VIII. Teacher Interview: One of the most important assets in your placement is your mentor teacher. In order to gain the most out of your field experience, you will be required to interview one of your mentor teachers (from either placement #1 or #2). The interview will have specific questions and content directed at language and literacy standards. An outline and specific requirements are available on Canvas in the modules section.

Procedures Specific to Field Experience Settings

Your field experience placements will begin on Wednesday, January 24th. Your last day in that placement will be February 28th. You will spend the mornings of Wednesday March 7th and Friday March 9th, visiting our internship placement schools (ELED students only). UT and Knox County share a spring break this year, so you will not be in schools on March 14th. You will pay your first visit to your second placement on March 21st and will remain there through April 24th.

Absences: You are responsible for notifying your mentor teacher and/or schools as soon as you know you are going to be absent. Calling the school office and leaving a message and/or calling your teacher will probably be sufficient, but please ask your mentoring teachers what procedures they would like you to follow. Of course, that also means you will need to have the school phone number easily accessible. Absences (and corresponding hours) ***must be*** made up. These ***make-up sessions must be scheduled with the cooperating teacher.*** You must also email me to let me know that you were not able to attend your school visit.

Professional Behavior: You are expected to be professional in your relationship with the schools, teachers, and students to whom you are assigned. Knox County Schools policy indicates that you should not be left alone with students, and, in fact, should not be working with students without supervision of a certified employee. Please adhere to these expectations. Remember that you will continue to be held accountable for the UT professional dispositions during your time in the schools. Dress professionally (no shorts, low-cut blouses, t-shirts, etc), be punctual (aka: a little early), be cooperative and dependable, and "follow through" on commitments made. Do your best to avoid speaking or communicating non-verbally in a negative manner about teachers, students, schools, politics, or anything else that might come out of the kinds of informal conversations that go on in schools. (You will have the opportunity to engage in critical reflection via course assignments and discussions.) Keep in mind that this is an official professional experience, and as such, you will be making an important first impression in the district and school, with the principal, mentoring teacher, and other school staff. You will want to always be at your best.

Remember, this class grade is Satisfactory/No Credit only. However, in order to receive a grade of “Satisfactory,” you must successfully complete both the in-class and practicum requirements.

SCHEDULE OF MEETING EXPECTATIONS AND ASSIGNMENTS

Date	Topic	Assignments Due
Jan 12	Introductions, Syllabus, Dispositions, Expectations	
Jan 19	TVAAS Module Overview	<i>STEA Insurance Deadline</i>
Jan 24	Placement #1—visit 1	
Jan 26	Language and Literacy Rich Environment (2.1, 2.2)	<i>Journal Reflection due by 8am</i>
Jan 31	Placement #1—visit 2	
Feb 02	Language and Literacy Rich Environment (2.3, 2.4)	<i>Journal Reflection due by 8am</i>
Feb 07	Placement #1—visit 3	
Feb 09	Language and Literacy Rich Environment (2.5, 2.6)	<i>Journal Reflection due by 8 am</i>
Feb 14	Placement #1—visit 4	
Feb 16	Language and Literacy Rich Environment (2.7, 2.8)	<i>Journal Reflection due by 8 am</i>
Feb 21	Placement #1—visit 5	
Feb 23	Language and Literacy Rich Environment (2.9, 2.10)	<i>Journal Reflection due by 8 am Rural Book Club</i>
Feb 28	Placement #1-visit 6 (final)	
Mar 02	Curriculum and Instruction (3.1, 3.2, 3.3)	<i>Attendance Form 1& mentor evaluation due in class Journal Reflection due by 8 am</i>
Mar 07	Internship School Site Visits for ELED only	
Mar 09	Internship School Site Visits for ELED only	
Mar 14	No Class: Spring Break	
Mar 16	No Class: Spring Break	
Mar 21	Placement #2—visit 1	

Mar 23	Curriculum and Instruction (3.4, 3.5, 3.6)	<i>Journal Reflection due by 8 am</i>
Mar 28	Placement #2—visit 2	
Mar 30	<i>No Class: Spring Recess</i>	
Apr 04	Placement #2—visit 3	
Apr 06	Curriculum and Instruction (3.7, 3.8, 3.9)	<i>Journal Reflection due by 8 am</i>
Apr 11	Placement #2—visit 4	
Apr 13	Curriculum and Instruction (3.10, 3.11, 3.12)	<i>Journal Reflection due by 8 am</i>
Apr 18	Placement #2—visit 5	
Apr 20	Curriculum and Instruction (3.13, 3.14)	<i>TVAAS Modules Due</i> <i>Journal Reflection due by 8 am</i>
Apr 25	Placement #2—visit 6 (final)	
Apr 27	Wrap- Up	<i>Attendance Form 2; mentor evaluation;</i> <i>Final Journal Reflection and Teacher</i> <i>Interview</i>

ELED 322: ELEMENTARY TEACHING METHODS I

COURSE DESCRIPTION Introduces elementary education from philosophical, theoretical, social, and historical perspectives. Emergent theories and philosophies are examined. This course introduces the philosophical, social, and historical roots of education in America as well as exploring current issues and challenges. Instruction will be in the areas of child development, teaching procedures and development of materials for learning activities in the classroom and school worksite.

COURSE GOALS This course is designed to enable students to do the following:

1. Describe the nature of U.S schools and today's diverse students and the issues they face;
2. Explain and demonstrate effective curriculum planning and delivery;
3. Identify the qualities and dispositions of effective teachers;
4. Begin to formulate a philosophy of teaching drawing from observations, readings and practice;
5. Explore job opportunities and expectations in education;
6. Discuss professionalism and reflect on their personal potential to contribute to the field of education.

- Creating a Safe and Healthy Environment
- Guiding Children
- Learning Experiences for Children
- A Career for You in Child Care
- Classroom Organization and Management
- Children as Learners
- Motivating Students: Effective Teaching Strategies
- Teaching kids to Care
- Home-School-Community Connections
- Thinking and Growing Professionally
- The First Days of School – “Five Units at a Glance”
- The Four Dimensions of Professionalism
- Foundations: History and Theories of Education
- Meeting the Special Needs of Young Children
- You: The Teacher of Tomorrow
- The Learner
- The School
- The Teacher
- Teaching: Your Chosen Profession
- Learning to Teach
- Ideas and Events That Have Shaped Education
- Teaching Diverse Learners
- Ethical and Legal Issues

COURSE DELIVERY METHOD This course is designed as a full face-to-face course. A variety of instructional methods are used to cover the subject matter. These methods include large and small group discussions, collaborative team learning, media, online assignments, lecture, and individual research.

ASSIGNMENTS

CLASS PARTICIPATION AND EXIT TICKETS: Students are expected to attend all classes, arrive on time, and stay until the end of class. Participation is expected and an essential part of class. Your participation will be broken into two parts: (1) Class participation - this is how you engage in the class activities and discussions. (2) Exit slips will be collected at the end of class or submitted online as stated by the professor.

EDUCATION TECHNOLOGY TOPIC PRESENTATION: Since technology is everywhere and a part of our culture, you are required to research and present a current technological tool that can be used in the classroom settings. This will help you develop your knowledge of a variety of technological tools to use in your own classroom. In groups of three, you will lead the class for 15 minutes. This presentation is not a lecture, but an interactive presentation. Your group will prepare a one-page handout including a reference list (minimum of three sources, APA style) that must be posted to Canvas before your presentation.

INSTRUCTIONAL STRATEGY EXPLORATION: Select one strategy from the list provided (you may select any strategy from the list, but each member of your Collaborative Team (CT) must explore a different strategy). Research the strategy and respond to the 4 prompts. Your responses should be thoughtful, thorough, and well-written. Please utilize at least 3 sources in researching your strategy and include a reference page for those sources in APA format. There is a sample project for you to view on Canvas if you have questions about the formatting, etc.

LESSON PLAN: Lesson plans are essential to the teaching and learning process, and planning your lessons will become a critical component in how you design, facilitate, and access the learning material. During this course, you will gain exposure in learning about the components of a lesson plan. With your Collaborative Team (CT) group, develop a lesson plan for a 30 minute interactive lesson for the grade level and content area your group has selected for the final project. The work you do for your lesson plan will be done in class and through various small group activities with your peers and instructor. The template that we will use for this activity is posted on Canvas.

LESSON PLAN TEACHING: With your Collaborative Team (CT) group, you will teach the lesson plan you developed to your classmates. Remember, from your lesson is a 30 minute interactive lesson and should utilize multiple teaching strategies discussed over the course of the class. Your final grade on this project will be a combination group and individual grade.

COURSE SCHEDULE

Course Overview Why teach? What are schools? Student-Centered 21st Century classrooms
Read the Syllabus “Asking Questions That Prompt Discussion” (Fisher & Frey) “A New Bloom: Transforming Learning” (Cochran, Conklin, & Modin)

Technology Integration “Learning 21st Century Skills Requires 21st Century Teaching” website
“Where The Story Never Ends”

Ongoing Professional Development “The 5 Habits of Highly Effective PLCs” “Teaching and Learning in a PostTruth World”

Supporting All Learners Special Needs Diversity/Differentiation “Understanding Differentiated Instruction” (Tomlinson & Allan) “Supporting Families in a Time of Fear” (Kugler, 2017)
“Inclusive Education” (Boroson)

Planning Instruction Instructional Strategies Standards “Lesson Plans and Unit Plans: The Basis for Instruction” (Cunningham) “Writing Learning-Centered Objectives” (Banset)

Planning Instruction Instructional Strategies “True – or Not? (Abolick) “A Planning Cycle for Integrating Digital Technology into Literacy Instruction” (Hutchinson & Woodward)

Assessment and Checking for Understanding “Formative Assessment in Seven Good Moves” (Duckor) “The Icing or the Cake” (Doubet & Hockett) Sunday, “Feedback is a Two Way Street” (Tovani) “How Am I Doing?” (Chappuis)

Building Relationships Classroom Management & Communication “The Keys to Classroom Management” (Marzano & Marzano) “Choosing to be Positive”

Classrooms Today Professionalism “What Students Really Need to Learn” (Munson)
“Disciplinary Literacy: Just the FAQs” (Shanahan & Shanahan)

“Start With Higher Order Thinking” (Brookhart) “Neurodiversity: The Future of Special Education” (Armstrong)

“Fundamentals of Creativity” (Beghetto & Kaufman) “The Writing Journey”(Gallagher)

“Inviting Uncertainty into the Classroom” (Beghetto) “How Did You Get to Harvard?” (Hehir)

Lesson Plan Group Teaching

Lesson Plan Group Teaching Course Wrap-Up

Elementary Ed 422—Elementary Teaching Methods

COURSE DESCRIPTION: This course is the second of the two parts and is inextricably linked to the required field experience component associated with ELED 351. In this portion of the methods class, we will focus on planning for student instruction and evaluation and related issues including getting to know your students, selecting appropriate curriculum materials, looking at curriculum standards, and considering teacher evaluation expectations.

Prerequisite: Admission to Teacher Education Program

REQUIRED COURSE MATERIALS:

Broemmel, A., Jordan, J., & Whitsett, B. (2015). *Learning to be teacher leaders: A framework for assessment, planning and instruction*. New York, NY: Routledge Publishers.

Other required reading will be available on Blackboard or provided in class.

Course Goals: To provide students with a heightened understanding of the role and expectations of classroom teachers. Specifically, students will gain knowledge of the recent history of federal involvement in public education policy and its impact on the development of the TN Core Curriculum Standards and redesign of in-service and pre-service teacher evaluation models. Students will also develop an understanding of how to:

- ❖ Establish effective environments for learning
- ❖ Consider the individual needs of learners
- ❖ Use language intentionally to support academic learning
- ❖ Plan for effective instruction
- ❖ Plan for effective assessment of learning

Assignments

1. **Attendance & Participation:** Many of the learning activities that you are required to complete will occur during class time. Therefore, it is imperative that you attend weekly class meetings in order to receive full credit for participation. (13@ 5 points each= 65 points)
2. **Response to Readings:** These are typically 2-3 page double-spaced commentaries on assigned readings. Your response is not meant to be a “book report” or summary of what you have read, but rather a reaction to new concepts or theories, a comparison of the ideas of various authors, a linking of ideas from your reading to school and classroom practices you have experienced, and a means of developing questions about what you have read. Use this interaction with text as an opportunity to explore your own thoughts as you contemplate new ideas in the readings. This type of reflective opportunity is important for your professional growth and development. (6 @ 5 points each= 30 points)
3. **Policy and Politics Discussion:** Teachers are often hesitant to get involved in discussions of policy and politics, despite the fact that any number of political policies shape their daily teaching lives. Search for at least one recent (2014-present) article (professional or mainstream news) that addresses politics and/or policy related to education. Read it and write a short paper reacting to what you’ve read (10 points) and come to class prepared to discuss what you read and respond to other classmates’ articles (5 points). (15 points total)
4. **Unit Plan:** You will work with a small group of colleagues to develop a unit plan for a subject area/grade level of your choice. Your group will present a brief overview of the unit and demonstrate part of one lesson (20 -25 minutes). You will be provided with a rubric and

template for your work. You will be required to turn in one group unit plan, an individual group assessment, and an individual reflection on the process (40 points)

- 5. **Lesson Plan:** You will be developing a lesson plan based on a class of students you have worked with or are currently working with. It may stem from the unit plan that your group created, but it does not have to. You will be provided with one or more lesson plan templates to guide your work, in addition to scoring details. (50 points)

Tentative Schedule

Topic	Assignment Due
Introductions, Syllabus Overview, Pre-assessment	
NCLB, RTtT, edTPA, TEAM and all sorts of other initials you need to know and begin to understand	Read: "What Do Teachers Need to Know?" Response to Readings #1
Understanding our Role in Creating Environments Conducive to Learning	Read: Broemmel, et al., Ch. 9 "Enriched Environments and the Brain" Response to Readings #2
Understanding Learners: Honoring the Development, Needs, and Motivation of Each	Read: Broemmel, et al., Ch. 5 "Every Student is at Risk" Response to Readings #3
Understanding Curriculum: Expectations	Read: Broemmel, et al., Ch. 4 Explore: Common Core Standards & TN Curriculum Standards
Understanding Assessment: Making Student Thinking Visible and Guiding Future Learning	Read: Broemmel, et al., Ch. 2 & 3 Response to Readings #4
Understanding Teaching: Effective Instruction	Read: Broemmel, et al., Ch. 6

	<p>“12 Things Teachers Must Know About Learning”</p> <p>“The Effective Teacher’s Guide”</p> <p>Response to Readings #5</p>
<p>Linking Learners and Instruction: Valuing the Language Students Bring and Developing Academic Language</p>	<p>Read:</p> <p>Broemmel, et al., Ch. 7</p> <p>Response to Readings #6</p>
No Class: AC/LC Rotation 3/8 and 3/10	
No Class: UT Spring Break	
<p>Structuring Unit and Lesson Plans: Putting all the Pieces Together</p>	<p>Revisit:</p> <p>Broemmel, et al., Ch. 4</p>
<p>Unit and/or Lesson Plan Workshop</p> <p>Part 1: Small Group Unit Planning A</p> <p>Part 2: Unit Plan Jigsaw</p> <p>Part 3: Small Group Unit Planning B</p> <p>Lesson Plan partner response (if there’s time)</p>	<p>Unit Plan Draft (by the end of class)</p>
<p>Policy & Politics Discussion</p>	<p>Policy & Politics Paper</p>
No Class: UT Spring Recess	
<p>Unit Plan Presentations</p>	<p>Unit Plan</p>
<p>Part 1: Linking TEAM and edTPA:</p> <p>The structures of strong teaching</p> <p>Part 2: Looking Back/Looking Forward:</p> <p>What We’ve “Got” and What We “Need”</p>	<p>Lesson Plan</p>

SSCE 421: Introduction to Teaching Elementary Social Studies

Course Description

The course is designed to provide students with an introduction to elementary school social studies curriculum, instruction, and assessment. We will cover best practices, strategies, methods, materials, and technology for teaching and learning social studies in the elementary school.

Course Objectives

The purpose of the course is to provide future educators with foundational knowledge about the teaching and learning of social studies in the elementary school setting. Students will examine curriculum standards, content, and resources essential to effective pedagogical practice. This course will also provide students with learning opportunities based on the Tennessee Licensure Standards (licensure standards are shown in parentheses following each description).

Students will ...

- use effective instructional strategies that integrate social studies content and knowledge (Social Studies Standard 1: Social Studies Processes)
 - understand and demonstrate appreciation of the variety of human cultures including the similarities and differences in beliefs, knowledge bases, changes, values and traditions (Social Studies Standard 2: Cultures)
 - understand basic economic concepts and recognize the effects of globalization, population growth, technological changes, and international competition for the production, distribution, and consumption of goods and services (Social Studies Standard 3: Economics)
 - use knowledge of geography to explain the web of relationships among people, places, and environments (Social Studies Standard 4: Geography)
 - understand the concepts of governance and civics (Social Studies Standard 5: Governance and Civics)
 - understand the importance of history and its relationship to informed decisions in contemporary life (Social Studies Standard 6: History)
 - understand that personal development and identity are shaped by factors including culture, groups, and institutions and highlight exploration, identification, and analysis of how individuals and groups work independently and cooperatively (Social Studies Standard 7: Individuals, Groups, and Interactions)
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Required Text

- Russell, W., Waters, S., & Turner, T. (2018). *Essentials of Elementary Social Studies, 5th Edition*. New York, NY: Routledge.

Assigned Readings

- National and State Curriculum Standards
- NCSS C3 Framework
- Other readings will be provided by Instructor

Course Requirements

Reading Assignments

Students are responsible for completing all reading assignments prior to the class meeting for which the readings are assigned.

Class Attendance and Participation (10%)

Students are expected to attend all classes and be prepared to actively participate in discussions, activities, and group work. Individuals and groups will be required to do various presentations and class activities.

Analyzing Public Issues (10%)

Students will locate a current news article or story (no more than three years old) that contains a public issue relating to the lives of elementary students. Students will then create a series of questions to help facilitate classroom discussions. A copy of the article used will also be turned in with the questions.

Social Studies Autobiography (Suggested Length: 2-4 double-spaced pages) (10%)

Students will write about their learning experiences in social studies throughout the course of their entire educational career (it's okay if you can't remember every detail, just spend some time reflecting to the best of your ability). Begin with elementary school, middle school, high school, and college level courses. Candidates will post their completed Social Studies Autobiography on Canvas. Candidates should consider the following questions:

1. What topics, lessons, teachers, incidents, or experiences had positive or negative impacts on how well you learned, and how you now perceive social studies instruction?
2. How did your perception and attitude towards social studies change (if at all) over the years?
3. Based on your experiences as a learner, what methods, tactics, beliefs and philosophies do you think are most important to you becoming an effective social studies teacher?

Curriculum Map (10%)

One of the first and most important activities any effective teacher engages in before school begins is the creation, evaluation, and modification of a curriculum map for the entire school year. Also known as a scope and sequence, this document outlines the entire curriculum that should be covered throughout the school year, thus allowing teachers to plan and pace instruction in an effort to cover all material. This assignment will require candidates to work together in cooperative learning groups to create a social studies curriculum map for ONE grade level for an entire school year. Additional directions will be provided in class. Each group will submit one completed curriculum map for the entire group to Canvas.

Best Practices (10%)

Students will research social studies teaching articles relevant to the schools and future students with which they plan on working with in the classroom (multicultural, urban, special education, elementary, etc.) for two (2) examples of best practices (effective teaching strategy and/or idea). Each article will be summarized in a narrative paper (2-3 Pages for each article). Include the main

points and describe the strategy, explaining why it is appropriate for the social studies classroom, and how you could use it with your students (or would use it). Each student will select one of the two best practices to present to the whole class. Students will explain and describe the significance of the best practice to the class.

Book Set (10%)

Students will create a list of five or more children’s literature titles (fiction or non-fiction) that could be used to teach a social studies theme or topic (Civil war, American revolution, family and community, character education, etc..) in the elementary classroom. Include a clear description of each piece of literature used, how it relates to the social studies topic and standards, and the correct APA citation. Students will share and discuss their book sets/topics with the rest of the class.

Pedagogic Creed (10%)

This assignment is designed to help you self-evaluate your own teaching philosophy in relation to social studies. (1) Begin by reading John Dewey’s Pedagogic Creed <http://dewey.pragmatism.org/creed.htm> for an example of what is being asked in this assignment. (2) Create a minimum of 5 statements about social studies that demonstrate what you believe regarding social studies content, instruction, or assessment. Under each statement (ex...“I believe that students need to know the history of the United States.”) write a paragraph explaining/expanding on why you hold this belief.

Expanding the Narrative Paper and Presentation (20%)

The final project for this course can be completed individually OR in groups of 2-3. Candidates will refer to the social studies standards, curriculum, and resources to construct an expanded narrative for teaching elementary social studies. The topic can be related to any person/persons, events, or perspectives traditionally considered part of social studies instruction. The objective of this assignment is for candidates to identify potential inaccuracies, biases, or marginalization of groups/events apparent in the implicit and/or explicit social studies curriculum and offer alternative resources/strategies elementary teachers could employ to offer a more complete historical narrative. Topics to explore could include, but is certainly not limited to the following:

1. Famous historical figures (Christopher Columbus, Thomas Jefferson, Nathan Bedford Forrest, Andrew Jackson, etc.)
2. Contributions of women and/or other minority groups not represented in the standards or curriculum.
3. Romanticizing or patriotic covering of historical events (Native American removal, Japanese Internment, etc.)

The completed paper should include (at a minimum) the following components:

- I. **Introduction** (What will you be discussing and why is this expanded narrative important in today’s elementary social studies classroom?) (1 page)
- II. **Historical Overview** (Briefly cover the historical background of your topic, how/why they are remembered, if at all, and how this topic is covered in schools today.) (1-2 pages)
- III. **Expanding the Narrative** (Explain the alternative perspective of your person/event, or provide a rationale for why a more complete narrative about the person or event is important. What is this new narrative?) (1-2 pages)
- IV. **Supplemental Resources and Activities** (Describe and explain multiple resources (children’s picture books, primary sources, films, websites, etc.) that could be used by elementary social studies teachers to address your expanded narrative topic in their

classroom. Provide a few suggested classroom activities that could be useful to explore the expanded narrative topic as well.) (2-3 pages).

- V. **Conclusion** (Connect all the components of your paper and explain again to readers why the topic of your expanded narrative is critical to contemporary elementary social studies instruction) (1 page).
- VI. **References** (Provide APA references for all sources cited and resources utilized in the paper).

Presentation

Each candidate or groups of candidates will present their project on the final day of class. You may display and share your information in any format that you choose (Prezi, PPT, etc.), so long as you cover the basic information referenced in requirements for the paper. This is an opportunity for each group to share their expanded narrative and resources/activities with classmates so that we all can have new perspectives and ideas about how to approach social studies instruction. Each presentation should last anywhere from 15-20 minutes.

Exam (10%)

Candidates will take a comprehensive final exam covering all course readings, activities, and materials.

Evaluation and Grading

NO LATE WORK WILL BE ACCEPTED! All assignments must be turned in at the beginning of class. All out of class assignments must be typed or word-processed using 12-pt. font, Times New Roman, and double-spacing. Furthermore all assignments require a title page (include name, assignment, and date). Points will be deducted for spelling, punctuation, grammatical, and format errors for all typewritten work.

Assignment	Percentage of Grade
Analyzing public issues	10%
Social Studies Autobiography	10%
Curriculum Map	10%
Pedagogic Creed	10%
Book Set	10%
Best Practices	10%
Expanding the Narrative Paper and Presentation	20%
Attendance, Participation	10%

Final exam	10%
Total	100%

Attendance Policy

Any candidate who misses 1 or more classes is subject to receive a failing grade in the course. Arriving 5 minutes late or leaving 5 minutes early constitutes an absence. This class is part of your professional preparation. Appropriate attitude, demeanor, and diligence are required. Attendance and participation in class is expected and very important. Candidates are responsible for all material covered when absent.

"An essential feature of The University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity." (Hilltopics: Student Handbook, 2007-2008, p. 12).

Tentative Course Calendar

This is a tentative course calendar, which means things appearing or not appearing on this calendar could change!

DATE	TOPIC	ASSIGNMENT
Week #1	Syllabus Expectations History of Social Studies Education	
Week #2	Contemporary Social Studies Planning Social Studies Standards Scope & Sequence	Read Chapter One (Russell) DUE: SS Autobiography
Week #3	Social Studies Resources Academic Vocabulary Issue-Centered Learning	Read Chapter Two, and Four (Russell) DUE: Analyzing Public Issues
Week #4	Assessment Teaching Diverse Students Best Practices in Social Studies	Read Chapter Five and Seven (Russell)
Week #5	Teaching elementary Case Studies and Concepts	Read Chapter Eight and Nine (Russell) DUE: Curriculum Map

Week #6	Utilizing the C3 Framework and Inquiry based instruction	DUE: Best Practices
Week #7	Cooperative Learning Games/Simulations Role Play	Read Chapter Ten and Six (Russell)
Week #8	Experiential learning Service Learning Projects Field Trips	Read Articles provided
Week #9	Reading and writing in Social Studies TN Literacy Connections	Read Chapter Six and Eleven (Russell)
Week #10	Technology and Media in Social Studies	Read Chapter Three (Russell)
Week #11	Multiple Perspectives of Literacy (Digital, Media, Visual)	Read Articles provided
Week #12	Character Education Citizenship Education What else is social studies?	Read Articles provided
Week #13	Using Children's Literature in Social Studies	Read Chapter Twelve (Russell) DUE: Book Set
Week #14	Expanding the narrative presentations	DUE: Expanding the narrative
Week #15	Expanding the narrative presentations	DUE: Expanding the narrative DUE: Pedagogic creed
Week #16	Final Exam	Final Exam

MEDU 430: Teaching Mathematics in the Elementary School

About the Course

Description:

Teaching mathematics to diverse learners at the elementary level. Investigating mathematics subject matter, how children learn mathematics, and instructional strategies to enhance that learning.

Objectives:

- **Learning Objective 1:** Develop and demonstrate knowledge of mathematics concepts, practices, and curriculum.
- **Learning Objective 2:** Develop and demonstrate pedagogical knowledge and practices for teaching mathematics.
- **Learning Objective 3:** Develop and demonstrate knowledge of students as learners of mathematics.
- **Learning Objective 4:** Develop and demonstrate awareness of social contexts of mathematics teaching and learning.

Course Materials

Required Texts:

Carpenter, T. P., Fennema, E., Franke, M. L., Levi, L., & Empson, S. B. (2014). *Children's mathematics: Cognitively guided instruction*. **2nd edition**. Heinemann Educational Books. (ebook or print version)

Stein, M. K. and Smith, M. S. (2011). *Five practices for orchestrating productive mathematics discussions*. Reston, VA: National Council of Teachers of Mathematics.

(ebook or print version)

Learning Activities and Learning Evaluation

Requirements and Assignments:

Assignments are intended to align with the goals of the course and provide learning experiences that introduce you to students' mathematics thinking and student-centered mathematics teaching. I believe that the most meaningful learning comes from experiences that challenge pre-existing notions and from struggles to integrate new ideas into existing ones. I expect assignments to be reflective and critical, rather than a regurgitation of readings and discussions.

Overview of Assignments and Evaluation:

- Community Engagement – 10% of total course grade
- Math Autobiography – 15% of total course grade
- Student Case Study – 35% of total course grade
- Lesson Plan – 40% of total course grade

Community Engagement (ongoing)

Teaching and learning require engaged and reflective participants. It is *essential* that you complete readings before class and come prepared to engage in discussion. The evaluation of your performance in the class will focus on two aspects: engagement and reflection.

Class Attendance and Participation (5% of total course grade): You should demonstrate understanding and familiarity with course readings during class meetings by contributing to class discussions and activities. Presentations, small group activities, and discussions will provide you with information not found in the readings. *Therefore, it is critical that you attend each class meeting and stay for its entirety.*

I will evaluate evidence of engagement and reflection during class based on the following standards (aligned with InTASC Standard #9):

<p>Quality participation is characterized by:</p>	<ul style="list-style-type: none"> · reflective and critical, rather than a regurgitation of readings and discussions · demonstrating your understanding of class readings by using what you've read to help explain or justify comments · asking thoughtful questions · responding to other students' comments in a responsible and constructive manner · leadership and active participation in small group activities, helping keep the group on task · relating concepts from class to your experiences as a teacher and as a learner
<p>Acceptable participation is characterized by:</p>	<ul style="list-style-type: none"> · reasonable participation and reasonably active listening in discussion and activities · demonstrating some knowledge of class readings in comments · asking clarification questions about readings and concepts
<p>Unacceptable participation is characterized by:</p>	<ul style="list-style-type: none"> · physical presence in class but cognitive absence (e.g., reading a newspaper, checking email/facebook, texting) · non-constructive responses to the comments of other students · no real attempt to complete tasks in a reasonable or thoughtful way · no participation in group activities or actual attempts to distract others · tardiness to class, or inappropriate use of laptops, iPads, smart phones, or computers

Active engagement with weekly readings and/or mathematics tasks (5% of total course grade): In order to contribute to class discussions and activities, you will need to engage actively with assigned readings and/or mathematics tasks prior to class. **You will submit an artifact demonstrating evidence of this active engagement by noon the day before class** (i.e., by noon on Sunday). This artifact will also give me an opportunity to see how you are making sense of ideas from the course, to adapt my instruction as necessary, and to provide you with formative feedback.

I will evaluate evidence of engagement and reflection *in preparation for* class based on the following standards (aligned with InTASC Standard #9):

<p>Work that exceeds</p>	<ul style="list-style-type: none"> · being reflective and critical, rather than regurgitating readings. · fully addressing all aspects of prompts or mathematics tasks.
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expectations is characterized by:	<ul style="list-style-type: none"> · making explicit reference to ideas from the readings (from current and previous weeks). · being submitted on time.
Work that meets expectations is characterized by:	<ul style="list-style-type: none"> · expressing some understanding of ideas from readings (e.g., summarizing ideas rather than reflecting on or synthesizing them). · addressing most aspects of prompts or mathematics tasks. · being submitted before class.
Work that does not meet expectations is characterized by:	<ul style="list-style-type: none"> · being submitted after class or not at all. · incompletely or incorrectly addressing the prompt or mathematics task. · failing to make any reference to ideas from the readings for the current week (i.e., it is questionable that the readings were completed).

Major Assignments

There are three major assignments for the course. Two will be completed individually, and one will be completed collaboratively with a partner.

Individual assignments:

<p>Mathography (Math Autobiography)</p> <p><i>You will be evaluated using a rubric that links this assignment to Learning Objective 4.</i></p>	<p>Whether we like it or not, good or bad, we all have a history with mathematics. In your quest to learn to teach mathematics, I am asking you to reflect on your history with mathematics and experiences in math classes by writing a mathography. A mathography is similar to an autobiography except it is focused on your personal history with mathematics. This is an opportunity for you to reflect on your personal history with math and consider how that history informs your vision for teaching and learning mathematics.</p>	<p>15% of total course grade</p>
<p>Student Case Study (CS)</p> <p><i>You will be evaluated using a rubric that links this assignment to Learning Objectives 1, 3, and 4.</i></p>	<p>This assignment focuses on student learning and identity and dispositions of a case study student from your placement school. In working with the case study student over the course of the semester, you will consider how to use this knowledge in mathematics instruction. This assignment includes four activities.</p> <p>(CS1) A “Getting to Know You” Interview – You will conduct an interview with one student at your placement school to become more familiar with the students’ activities and interests and the student’s home and community funds of knowledge and resources.</p> <p>(CS2) Shadow a Student – You will “shadow” a student for a period of time (ideally one full school day) in an effort to identify the child’s competencies across contexts.</p> <p>(CS3) Problem Solving Interviews – You will conduct problem solving interviews with one or more students at your placement school. These interviews provide an opportunity to practice eliciting, interpreting, and assessing students’ thinking about mathematics with a particular focus on children’s understanding of number concepts.</p>	<p>35% of total course grade</p>

	(CS4) Synthesizing & Connecting – This activity is designed to cut across the previous activities. You will reflect across the multiple interviews and observations that you completed with your case study student and consider how to use this knowledge in mathematics instruction.
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Collaborative assignment:

<p>Lesson Plan (LP)</p> <p><i>You will be evaluated using a rubric that links this assignment to Learning Objectives 1, 2, and 3.</i></p>	<p>An important part of teaching mathematics is understanding what is involved in the various stages of a problem-based, student-centered mathematics lesson. You and a partner will work throughout prepare for these various stages and design a problem-based lesson plan that centers and builds on student thinking. You will follow the guidelines for lesson planning outlined in the 5 practices text and use the LAUNCH-EXPLORE-SUMMARIZE format for the lesson.</p>	40% of total course grade
	<p>(LP1) Select a high cognitive demand math task – Cognitively demanding tasks encourage multiple solution paths and allow students to draw on various strengths to solve problems. These tasks are at the center of problem-based lessons because they allow you to build on student thinking throughout the lesson.</p>	
	<p>(LP2) Articulate learning goals – Articulating learning goals requires you to identify the mathematical thinking you want students to engage in, beyond what students will be doing. Beyond getting to an answer, you will consider the mathematical ideas that students will learn more deeply as a result of working on the task.</p>	
	<p>(LP3) Plan for lesson launch – In this stage of the lesson, you will present the task to the whole class, help students understand the mathematical context and the problem posed to them, and clarify goals and expectations.</p>	
	<p>(LP4) Plan for lesson explore – In this stage of the lesson, students work (often in small groups or pairs) to solve the task, shifting the onus of the mathematical work from the teacher to the students. The teacher’s role is to encourage students to “get messy” with the math and support them preserve in problem solving.</p>	
	<p>(LP5) Plan for lesson summary – This stage of the lesson is where the main <i>teaching</i> occurs. You will bring the whole class back together to follow up on students’ exploration and make mathematical connections towards your learning goal.</p>	

Major Course Topics

Week 1	What is mathematics? Who is it for? What purpose does it serve? What does student-centered math look like?
Week 2	Understanding children’s mathematical thinking
Week 3	Counting

Week 4	Responding to children's mathematical thinking Addition & Subtraction
Week 5	
Week 6	Engaging children with each others' ideas Multiplication & Division
Week 7	
Week 8	Base-ten number concepts & Multi-digit problems
Week 9	Laying the groundwork for mathematics lessons Algebraic thinking in the elementary grades
Week 10	Launch: Investigating the Five Practices in Action Algebraic thinking continued + graphing
Week 11	Explore: Anticipating student responses & Monitoring work Fractions
Week 12	
Week 13	Summary: Summarize & Connect
Week 14	Fractions & Decimals
Week 15	Course Wrap Up

SCED 421: Science Methods for the Elementary Classroom

Course Description:

The purpose of this course is to introduce strategies for planning, implementing, and assessing elementary science lessons. Three credit hours.

Learner objectives from the National Science Teachers Association (NSTA) Pre-service Teacher Preparation Standards:

Standard 1: Content Knowledge. Effective teachers of science understand and articulate the knowledge and practices of contemporary science. They interrelate and interpret important concepts, ideas, and applications in their fields of licensure.

Standard 2: Content Pedagogy. Effective teachers of science understand how students learn and develop scientific knowledge. Preservice teachers use scientific inquiry to develop this knowledge for all students.

Standard 3: Learning Environments. Effective teachers of science are able to plan for engaging all students in science learning by setting appropriate goals that are consistent with knowledge of how students learn science and are aligned with state and national standards. The plans reflect the nature and social context of science, inquiry, and appropriate safety considerations. Candidates design and select learning activities, instructional settings, and resources--including science-specific technology, to achieve those goals; and they plan fair and equitable assessment strategies to evaluate if the learning goals are met.

Standard 4: Safety. Effective teachers of science can, in a P-12 classroom setting, demonstrate and maintain chemical safety, safety procedures, and the ethical treatment of living organisms needed in the P-12 science classroom appropriate to their area of licensure.

Standard 5: Impact on Student Learning. Effective teachers of science provide evidence to show that P-12 students' understanding of major science concepts, principles, theories, and laws have changed as a result of instruction by the candidate and that student knowledge is at a level of understanding beyond memorization. Candidates provide evidence for the diversity of students they teach.

Standard 6: Professional Knowledge and Skills. Effective teachers of science strive continuously to improve their knowledge and understanding of the ever changing knowledge base of both content, and science pedagogy, including approaches for addressing inequities and inclusion for all students in science. They identify with and conduct themselves as part of the science education community.

Professional competencies, attitudes, and dispositions

All teacher candidates at UTK are expected to demonstrate commitment to the Professional Competencies, Attitudes and Dispositions ([ProCADs](#)) in coursework and field settings related to their preparation program. Instructors for targeted courses are asked to document that students have shown behavior indicating appropriate dispositions at the conclusion of the course. Instructors, supervisors,

and mentors (both public school and university) can report deficiencies at any time through the procedures detailed in the ProCADs website. Candidates and others are encouraged to visit the website for additional information.

Text

National Academies of Sciences, Engineering, and Medicine (2017). *Seeing students learn science: Integrating assessment and instruction in the classroom*. Washington, DC: The National Academies Press.

Additional Readings/Resources

American Chemical Society. (2003). *Inquiry in action*. Download from

<http://www.inquiryinaction.org/>

Herron, J., & Foster, A. (2017). Integrating math in a sea of science. *Science and Children*, 54(9), 52-58.

Longfield, J. (2006). Safety first! *Science and Children*, 43(5), 26-27.

Lovedahl, A. N., & Bricker, P. (2006). Using biographies in science class. *Science and Children*, 44(3), 38-43.

TN Academic Standards for Science

(<https://www.tn.gov/education/instruction/academic-standards.html>)

Trade books identified by the National Science Teachers Association as *Outstanding Science Trade Books* or *Best STEM books* (<http://www.nsta.org>)

Evaluation

Discussion Board Postings and Quizzes (due throughout the semester)

Discussion Board Postings will include specific criteria for completion and will pertain to science education experiences or reflections. Short quizzes on readings are given online or at the start of class. In addition to the written assessments, be prepared to discuss all readings. Consider:

What connections can you make with your experiences?

What connections can you make with other information you have read?

Designed to address NSTA Standards 1, 2, 3, and 6

Group Presentations: Connecting Literature with Earth, Physical, and Life Science

- Identify a standard from the TN Science Academic Standards for your assigned content area.
- Prepare and conduct a demonstration based on the standard and a high-quality trade book you have chosen. The demonstration should be something that for feasibility reasons (safety, live materials, limitation of materials, needed visual effects, etc.) would NOT be completed by students.
- Prepare and provide materials for the class members to carry out an activity that is based on the objective and the book you have chosen.

Designed to address Standards 1, 2, 4, and 4

Research and Practitioner connections

Choose two peer-reviewed science education articles related to a TN Academic Standard for science. One article will be from a **Teacher Practitioner Journal** and one article will be from a **Science Education Research Journal**. Examples of useful practitioner journals include *Science Scope*, *Science and Children*, and *The Science Teacher*. Useful science education research journals include *School Science and Mathematics*, *Journal of Research in Science Education*, *Elementary Science Education*, *Science Education*, and others. There must be a **science education** focus in the article. Pure scientific research articles are not appropriate for this assignment, nor are one-page (or similar) descriptions of activities from non-peer reviewed sources. For each article review, complete the following:

- APA reference
- A two-paragraph summary containing overview of the article, addressing the science content and pedagogy for practitioner articles or research focus and findings for research articles
- A paragraph that connects the information in this article to reflect how the article content informs planning for lessons addressing this content standard.

Designed to address Standards 1, 2, 3, 4, 5, and 6

Attendance and Participation (due throughout the semester):

Be prepared to discuss readings and participate in class activities.

Designed to address Standards 1 and 6

Date	Topic
Week 1	Course overview: Current status of science instruction
Week 2	Inquiry-based science <ul style="list-style-type: none"> • Overview of the TN Academic Standards for science • Defining the approach of three-dimensional learning in science
Week 3	Academic language <ul style="list-style-type: none"> • Language considerations in text-based readings and in the TN Academic Standards • Analyzing vocabulary, discourse and syntax in science readings
Week 4	Assessment in science <ul style="list-style-type: none"> • Diagnostic assessment data in planning • Components of effective feedback • Aligning objectives with assessments
Week 5	Connecting with Literacy <ul style="list-style-type: none"> • Interdisciplinary instruction to address the TN Literacy Standards • Science biographies to illustrate science and engineering practices
Week 6	Safety in science classrooms <ul style="list-style-type: none"> • Safety procedures • Lab practices
Week 7	Science and engineering practices <ul style="list-style-type: none"> • Enacting practices in lessons
Week 8	Planning for three-dimensional science <ul style="list-style-type: none"> • Instructional decisions for science content and science/engineering practices
Week 9	Assessing three-dimensional science <ul style="list-style-type: none"> • Diagnostic, formative and summative practices
Week 10	Lesson sequence designs <ul style="list-style-type: none"> • Considerations of lesson plan sequences
Week 11	TN Academic Standards: Content areas <ul style="list-style-type: none"> • Analyzing the Life Science standards • Group presentations in Life Science
Week 12	TN Academic Standards: Content areas <ul style="list-style-type: none"> • Analyzing the Physical Science standards • Group presentations in Physical Science
Week 13	TN Academic Standards: Content areas <ul style="list-style-type: none"> • Analyzing the Earth/Space Science standards • Group presentations in Earth/Space Science
Week 14	TN Academic Standards: Content areas <ul style="list-style-type: none"> • Analyzing the Engineering and Design standards

Date	Topic
Week 15	Wrapping up <ul style="list-style-type: none"><li>• Continuing your professional development in science education

SPED 452: CLASSROOM MANAGEMENT

Catalog Description:

Examines educational strategies and techniques for individual and class-wide behavior management as well as curriculum and teaching strategies for promoting the social and emotional development of students with emotional and behavioral disorders. Both reactive and proactive strategies for working with students are addressed.

(DE) Prerequisite(s): 402.

Registration Restriction(s): Admission to teacher education.

Learning Environment:

Course objectives will be met through the teaching strategies of lecture, discussion, readings, case study examples, as well as projects completed in P-12 classrooms.

Course Objectives:

Students will read assigned readings, attend class sessions, participate in in-class discussion and activities, respond to brief in-class quizzes (as assigned), and complete in and out of class assignments designed to assess learner progress toward increasing knowledge about issues and research related to classroom and behavior management. The following objectives are designed to assess progress.

Students will:

- engage in class discussion, work in groups effectively, complete assigned readings prior to class, provide quality of answers to questions raised in class, and provide quality responses to in-class/post-class quizzes;
- complete in-class/out-of-class assignments requiring them to practice, provide feedback related to, or reflect on classroom and behavior management practices;
- compile and submit an Application Portfolio demonstrating skill in applying research-based classroom and behavior management strategies

Required Readings

Students are expected to read assigned readings **before** they will be discussed in class and be prepared to be active participants in class discussion and activities. An incomplete list of readings is included in the class schedule below. Additional readings may be assigned.

Textbook: Kauffman, J.M., Pullen, P.L., Mostert, M.P., & Trent, S.C. (2011). Managing classroom behavior: A reflective case-based approach (5th ed.). Boston: Pearson Education, Inc.

Related Readings: Related readings will be assigned by the instructor. Some are listed in the class schedule below. Additional readings may be assigned by the instructor. Students will be notified via email or during class when additional (i.e., not listed on the syllabus) readings are assigned. In most cases, readings will be posted on Blackboard. Please check Blackboard regularly for updates.

Assessments

1. Quizzes. (100 possible points) Students are expected to read all assigned readings prior to coming to class. When assigned, students will complete announced and unannounced in-class quizzes. The final “quizzes” grade will be based on an average of all quiz grades.

2. Teaching observations. (100 possible points) Students will watch two videos of classroom instruction and provide thorough written responses to prompts to describe teacher and student behavior, to identify strengths and weaknesses demonstrated by the teacher in terms of implementation of classroom and behavior management, to reflect on the teachers’ implementation of research-based classroom and behavior management strategies, and to identify behaviors the teacher should continue and to identify behaviors to improve. Specific guidelines/expectations will be provided in class. Students may be asked to work independently, with a partner, or with a small group depending on the goals for each assignment. The final “teaching observations” grade will be based on the average of the two teaching observations. **Unless otherwise instructed, students will submit hard copies of work for this assignment.**

3. Application Portfolio. (200 possible points) Students will compile and submit an Application Portfolio demonstrating skill in applying research-based classroom and behavior management strategies. Specific guidelines will be provided during class and on Blackboard. **Unless otherwise instructed, students will submit an electronic copy of the portfolio through Blackboard.** Your portfolio should include a title page (it doesn’t have to be in APA style); the title page should include the title, “Application Portfolio of Research-based Classroom and Behavior Management Strategies” and your name.

COURSE SCHEDULE

Date	Topic and in-class activities	Readings and other activities due prior to class ^a
Week 1	Review of syllabus, introductions, and assessment of prior knowledge, introduction to Application Portfolio Part 1	
<i>Setting up the Classroom for Success</i>		
Week 2	Reading review What is PBIS? IRIS Center Module: Classroom Management (Part 1)	<ul style="list-style-type: none"> ● <i>Classroom Management Strategies: Are They Setting Events for Coercion</i> (Shores, Gunter, Jack) ● IES Practice Guide: <i>Reducing Problem Behaviors in Elementary School Classrooms</i> (pages 1 – 29)
Week 3	GBG and Color Wheel: to teach expectations IRIS Center Module: Classroom Management (Part 2)	<ul style="list-style-type: none"> ● Kauffman, Pullen, Mostert, & Trent, Chapters 2, & 3 ● <i>PBIS for the Classroom</i> (Conroy, Sutherland, Snyder, Marsh)

	IRIS CENTER CASE ENC APP BEH	<ul style="list-style-type: none"> ● <i>Get Them Back on Track...</i>(McKenna & Flower, 2014)
Week 4	<p>Additional research-based strategies</p> <p>Accountability, Self-monitoring, Motivation, Teacher –Student Relationships</p> <p>IRIS center module: 1 page—self-monitoring</p> <p>IRIS CENTER CASE FOSTERING ACCOUNTABILITY</p> <p>Teaching Observation: video #1 and in-class discussion</p>	<ul style="list-style-type: none"> ● Allday & Pakurar (2007) ● Allday, Bush, Ticknor, & Walker (2011) ● <i>Loud vs Quiet Praise...</i> (Blaze, et al., 2014) ● Due at end of class (on Tuesday): Teaching Observation #1
<i>What to do Once a Problem is Occurring</i>		
Week 5	<p>What to do once a behavior is occurring</p> <p>IRIS Center addressing disruptive and non-compliant behaviors part 1</p> <p>Introduction to Application Portfolio Part 2</p>	<ul style="list-style-type: none"> ● Kauffman, et al. Chapter 4 ● Maggin et al. (2011)
Week 6	NO CLASS—WORK ON APPLICATION PORTFOLIO PART I	
Week 7	<p>IRIS Center addressing disruptive and non-compliant behaviors part 2</p> <p>Behavior contracting</p>	<ul style="list-style-type: none"> ● Kauffman, et al. Chapter 5, 6, & 7 ● Bring Draft of Application Portfolio: Part 1 to class on Tuesday
Week 8	<p>IRIS Center addressing disruptive and non-compliant behaviors part 2</p> <p>OUT OF CLASS ASSIGNMENT</p>	<ul style="list-style-type: none"> ● <i>Submit answers to questions on IRIS Center Module</i>
Week 9	Functional Behavioral Assessment and Behavior Intervention Plans	<ul style="list-style-type: none"> ● <i>A Practical Guide to Functional Behavioral Assessment</i> (Shippen, Simpson, & Crites, 2003); ● <i>Function-based Thinking: A Systematic Way of Thinking about Function and Its Role in Changing Student Behavior Problems</i> (Hershfeldt, Rosenberg, & Bradshaw, 2010) ● <i>Increasing Academic Engagement...</i>, Aitken et al., 2011

Week 10	Functional Behavioral Assessment and Behavior Intervention Plans, cont.	<ul style="list-style-type: none"> • IES Practice Guide: <i>Reducing Problem Behaviors in Elementary School Classrooms</i> (pages 37-43) • Kauffman, et al. Chapters 8 & 9 • Example FBA for Nathan
Week 11	Catch-up, in class practice Teaching Observation: video #1 and in-class discussion	<ul style="list-style-type: none"> • Bring Draft of Application Portfolio: Parts 1 & 2 to class • Teaching Observation #2 Due in Class (on Thursday)
Week 12	Catch up, in class practice	•
School-wide Applications of PBIS & Continuums of Supports		
Week 13	Wrap around services and collaborating with others to support students School-wide PBIS Check in/Check out	<ul style="list-style-type: none"> • IES Practice Guide: <i>Reducing Problem Behaviors in Elementary School Classrooms</i> (pages 44-50) • Peruse the www.pbis.org website, pay particular attention to the “What is School-wide Positive Behavioral Interventions and Supports” link (in the middle column)
Week 14	<ul style="list-style-type: none"> • Due Application Portfolio Parts 1 and 2, Due by 10:00 am July 3rd. Submit to BB under “Assignments” tab, unless otherwise instructed 	

Note. ^aAdditional readings to be assigned by instructor.

SPED 458: Foundations in Learning Disabilities and Other Academic Difficulties

Catalog Description:

Provides foundational knowledge of learning needs, service delivery models, and critical issues in the education of students with learning disabilities and other academic difficulties. Introduction to evidence-based practices needed to help students with diverse learning needs under a Response to Intervention framework. (DE) Prerequisite(s): 402. Registration Restriction(s): Admission to teacher education.

Learning Environment:

Course objectives will be met through the teaching strategies of lecture, discussion, readings, case study examples, as well as projects completed in P-12 classrooms.

COURSE OVERVIEW

This course will center on characteristics of students with high incidence disabilities and the interrelatedness of these characteristics with the environment to enhance optimal development and learning. The focus of activities, discussions, and assignments is to create a knowledge base in support of teaching for understanding in accordance with general education content standards combined with a knowledge base in support of adaptive teaching so that all students can achieve success.

Course Learning Objectives

Upon completion of this course, learners will be able to demonstrate their understanding of

- Major causes of learning disabilities (LD) and other high incidence disabilities
- Models and types of assessments used to evaluate students for a possible LD
- Primary sources from which curriculum is derived for students with LD
- Major professional and parent pitfalls that impact the working relationship between parents and teachers

Course Requirements, Assessments, and Evaluations

a. Class Participation/Attendance/Punctuality (10 points):

To get full credit for participation, students must have excellent attendance in class and at the field sites and actively participate in (in-class and online) activities and discussions in both settings. Students are expected to refrain from engaging in non-course related tasks (e.g., texting, browsing the Internet, Facebook) during class and to participate to the fullest extent possible. Evidence of individual effort in group activities is required for full credit in participation/attendance. In addition to attendance, students are expected to arrive at class and field sites on time and to complete class readings and assignments on time. Punctuality and the ability to meet performance expectations in a timely manner are important characteristics of professional educators and are reflected the Professional Dispositions adopted by the UT College of Education, Health and Human Sciences. Excessive or habitual tardiness to class (or field sites) will be counted as absences. The instructors will document absences, tardies, and episodes during which participation is problematic (e.g.,

sleeping, texting, not participating in group activities). These behaviors will result in a reduction in participation points. See policies below for the full attendance and punctuation policy.

b. Daily Reading Assignments (3 points each, 45 points total):

Students will be given a homework assignment based on the readings or other sources that are appropriate for the topic to be covered in class. Homework assignments will be posted in CANVAS. Students need to download the homework assignment, complete it while doing the reading, and upload the assignment by 10:00 a.m. on the due date. If the homework was uploaded after 10:00 a.m., there will be a reduction in points. Homework cannot be made up for unexcused absences. In the event of a documented excused absence (see UT policy for types of absences that are considered excused), the student should make arrangements with the instructors to make up the homework assignments

c. Exams (100 points each, 300 points total):

Students will take three exams covering material from assigned readings and class instruction / activities / discussions. Exams will consist primarily of short answer and application questions (3-5 sentences) along with a few essay questions (longer than 5 sentences). Occasionally, there may be multiple choice or matching questions. Exams only can be made up for documented excused absences. If a student must miss an exam for an excused absence, he or she should make prior arrangements with the instructors to take the exam at an alternate time. Students who have unexcused absences on an exam day will receive a grade of 0 for the exam.

d. Article Reviews (15 points each, 30 points total):

Review 2 research articles on academic instructional strategies or behavioral interventions for students with high incidence disabilities from refereed journals in special education or a related field. Each review should include (a) bibliographic information (APA style), (b) a brief synopsis of the contents of the reading including the purpose, subjects, procedures, results, and discussion, and (c) instructional implications for practicing professionals. For this assignment, you must choose a quantitative research article (group design or single subject design) in which a study was conducted on academic instructional strategies or behavioral interventions for students with MID, LD, AD/HD, or EBD. You may not select articles focusing on students with autism or moderate, severe, or profound intellectual disabilities or in which the focus is not traditional academic instruction or behavioral interventions appropriate for a classroom with students who have high incidence disabilities.

e. IRIS Modules (10 points):

IRIS Modules are a project out of Vanderbilt University; these modules provide concise instruction and activity and thus provide an excellent resource for learning and professional development. Three out of six modules will be completed as part of this course (RTI and Behavior Intervention). Note: Some students may have completed one or both of these modules in prior classes. If that is the case for you, you may opt to choose a different IRIS module for your edification. In that case, please communicate with your instructors.

COURSE SCHEDULE

WEEK 1

Date	Topics / In Class Activities	Assigned Readings	DUE
	Introductions, course overview, 402 review, special education historical perspectives & legislation, ProCADs system	Syllabus, review course Canvas site, V&B Chapter 1.	<ul style="list-style-type: none">

WEEK 2

Date	Topics / In Class Activities	Assigned Readings	DUE
	RTI, TN Special Ed Framework & RTI ₂ , TN's	<ul style="list-style-type: none"> V&B Chapter 3, RTI IRIS Module 	<ul style="list-style-type: none"> Daily Reading Assignment (DRA)

WEEK 3

Date	Topics / In Class Activities	Assigned Readings	DUE
	Learning characteristics for students with specific learning disabilities and other high incidence disabilities	<ul style="list-style-type: none"> V&B Chapter 2, Readings on CANVAS 	<ul style="list-style-type: none"> DRA IRIS Module 1

WEEK 4

Date	Topics / In Class Activities		
	<ul style="list-style-type: none"> EXAM 		

WEEK 5

Date	Topics / In Class Activities	Assigned Readings	DUE
	<ul style="list-style-type: none"> Planning, Monitoring and Teaching for Understanding 	<ul style="list-style-type: none"> V&B Chapter 4, Readings on CANVAS 	<ul style="list-style-type: none"> DRA Article Review 1

WEEK 6

Date	Topics / In Class Activities	Assigned Readings	DUE
	<ul style="list-style-type: none"> Matching instruction and assessment to student needs 	<ul style="list-style-type: none"> V&B Chapter 5, Readings on CANVAS 	<ul style="list-style-type: none"> DRA

WEEK 7

Date	Topics / In Class Activities	Assigned Readings	DUE
	<ul style="list-style-type: none"> Research-based instruction Evidence-based practices/ high leverage practices 	<ul style="list-style-type: none"> V&B Chapter 6, Readings on CANVAS 	<ul style="list-style-type: none"> DRA IRIS Module 2

WEEK 8

	No Class: FALL BREAK		
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WEEK 9

Date	Topics / In Class Activities	Assigned Readings	DUE
	<ul style="list-style-type: none"> EXAM 2 	<ul style="list-style-type: none"> Readings on CANVAS 	<ul style="list-style-type: none">

WEEK 10

Date	Topics / In Class Activities	Assigned Readings	DUE
	<ul style="list-style-type: none"> Collaboration 	<ul style="list-style-type: none"> Readings on CANVAS 	<ul style="list-style-type: none"> DRA Article Review 2

WEEK 11

Date	Topics / In Class Activities	Assigned Readings	DUE
	<ul style="list-style-type: none"> Literacy for students with HID 	<ul style="list-style-type: none"> Readings on CANVAS 	<ul style="list-style-type: none"> DRA

WEEK 12

Date	Topics / In Class Activities	Assigned Readings	DUE
	Assessment (conceptual ideas for assessments, planning classroom assessments, constructing test items, content-specific assessments, standardized assessment)	<ul style="list-style-type: none"> Readings on CANVAS 	<ul style="list-style-type: none"> DRA IRIS Module 3

WEEK 13

Date	Topics / In Class Activities	Assigned Readings	DUE
	<ul style="list-style-type: none"> IEP planning for students with HID, EasyIEP 	<ul style="list-style-type: none"> Readings on CANVAS 	<ul style="list-style-type: none"> DRA

WEEK 14

Date	Topics / In Class Activities		
	<ul style="list-style-type: none"> EXAM 3 		

WLEL 489: Content-Based ESL

COURSE DESCRIPTION

WLEL 489 is designed to provide pre-service teachers with the theoretical and practical knowledge that is essential for delivering effective instructions to ESL students in k–12 settings. This course focuses on enhancing ESL learning, academic language in particular, through content areas and emphasizes the integration of reading and writing skills throughout all aspects of ESL teaching and student learning. Different models of content-based ESL are examined. Course learning activities and assignments will closely reflect the course rationale. Students in WLEL 489 are required to apply what they have learned to generate content based ESL lesson plans that reflect Tennessee State Standards for pre-k-12 students / WIDA standards.

COURSE OBJECTIVES

Upon completion of the course, the students in WLEL 489 will be able to:

- Identify critical issues related to ESL instruction;
- Demonstrate an in-depth understanding of effective instructional models for ESL students;
- Identify and effectively apply diverse instructional approaches in diverse learner settings;
- Develop/design effective content-based lesson plans based on Second Language Acquisition theories, aligned with the TESOL standards;
- Differentiate instructions in mixed-ability group settings;
- Design/apply appropriate scaffolding strategies in all ESL learning;
- Incorporate technology in classroom learning and language teaching;
- Analyze and synthesize reading from academic journals

COURSE ASSIGNMENTS

1. Synopsis Paper (10 points) Write a critical synopsis paper based on the assigned readings from weeks 2 and 3, as specified in the tentative course syllabus. A critical synopsis is not a summary of the texts, but an interpretation, critique or questioning. The synopsis should be between 3-5 pages. Use the “Header and Footer” format to write your name...etc., to maximize the writing space. Due: January 24th

2. ELL student portrait (20 points) By reading at least two portraits of ELLs, you will get a snapshot of their lives and school experiences. The texts will also help you understand some of the critical issues underlying ESL education. The outcomes of this assignment will provide you with a stronger sense of mission as an ESL teacher and emphasize that ESL classes must be a stepping stone for ESL students’ academic English. Everyone will read “My Trouble is My English,” but you choose one or two of the other portraits as additional resources. The paper should build on information from the student portraits and the theories from class readings and discussions to synthesize a response to the following:

1. Describe the students’ backgrounds, how they came to be in America, their dreams, and aspirations, giving particular attention to similarities.
2. Describe their experiences at school, making comparisons and drawing conclusions about the quality of their education, with particular attention to English literacy.
3. How will the experiences of these students inform your practice as an ESL teacher?
4. How do findings from this assignment help you prepare better mainstream ELL teachers?
5. The body of the paper should be 7-8 pages in length. Due: February 4th

3. Current trends in ESL (20 points) Research current trends in ESL in relevant academic journals (see list of highly recommended websites for an overview) and write a 6-8 pages paper. Describe trends in

research, teaching or policy development with regards to ESL education. Cite at least three recent articles (2008-) in addition to our course literature. Prepare a three-minute presentation for March 28th. If you plan on using slides, do not prepare more than three slides and upload your slides to Canvas by March 25th. Due: March 21st

4. Teaching demonstration portfolio: 20 points. The teaching demonstration portfolio consists of a description of three sub-units. A sub-unit should consist of between three and five lessons. For your portfolio, provide all lesson plans (3-5) for the sub-unit from which you are teaching a lesson in class.

- Pick a content area; preferably an area other than your major; • Design lessons for multi-level ESL classes i.e., low + intermediate or intermediate + high;

- Establish content objectives, language objectives, and learning strategy objectives (aligned with TNSS and WIDA Standards)

- The design of your lesson plans must demonstrate the following components:

1. Activities tap into students' prior knowledge / build background knowledge;
2. Scaffolding is critical;
3. The use of graphic organizers is highly encouraged;
4. Meaningful activities that help students achieve the learning objectives;
5. Worksheet activities need to address ELLs needs for scaffolding and differentiation;
6. Use of effective learning strategies to achieve either content objectives or language objectives;
7. Accommodation of different levels of learners;
8. Reading activities (expository/narrative);
9. Do not provide content-related information through oral explanations only;
10. Integrate teaching concepts and technical/key vocabulary of the lesson;
11. Attach all materials (handouts, visuals, etc.) to the teaching demonstration portfolio;
12. Include formative assessment components;

Due: Lesson plan materials due on day of presentation

5/6. Teaching demonstration (20 points) and reflections (10 points)—30 points You will (team) teach one of the lesson plans you designed. Your delivery of the lesson will be evaluated based on the SIOP Model Observation Protocol (Appendix A) • Prepare a 30-40 -minute teaching demonstration; • Crucial elements to demonstrate: a. Comprehensible Input b. Scaffolding and differentiation • You will be videotaped. After reviewing the teaching demo tape, you should reflect your performance. The reflection paper should be no more than three pages (10 points). Due: 7 days after presentation

Appendix E: Faculty CVs

Brittany N. Anderson, Ph.D.

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Email: bander62@utk.edu

EDUCATIONAL HISTORY

- Ph.D. (2017) **University of Georgia- Athens, GA**
College of Education
 Educational Psychology, specializing in Gifted and Creative Education
Certificates: Creativity and Innovation
- M.Ed. (2012) **University of North Texas- Denton, TX**
College of Education
 Major: Curriculum and Instruction
 Minor- Special Education
- B.S. (2008) **Baylor University- Waco, TX**
School of Education
 B.S.- Early Childhood – 4th Generalist
 Certifications: Early Childhood- 4th Grade, English as a Second Language (ESL)

PROFESSIONAL EXPERIENCE

- August 2017- present **Tenure-Track Assistant Professor**
Program Coordinator
 Urban-Multicultural Education Program
 Theory and Practice in Teacher Education
 University of Tennessee-Knoxville
- Spring 2018 **Gifted Education Specialist Consultant**
 Clarke County School District. Athens, GA
 Supervisor: Dr. Katherine Brown, Gifted Director
- February 2016-August 2016 **Academic Coordinator**
 Duke University Talent Identification Program (TIP)
 Rollins College- Orlando, Florida
- August 2008-May 2011 **Elementary Teacher**
 Andrews Elementary, Plano, Texas
 Kindergarten, Second Grade

LICENSURE/CERTIFICATION (Current or Past)

Licensed Teacher, Early Childhood-4th Grade Generalist, English as a Second Language (Texas State Board of Education)

ARTICLES PUBLISHED IN PEER REVIEWED JOURNALS

Anderson, B. N. (in-press). Understanding the Intersections and Continued Marginalization of Gifted Adolescent Black Girls in US Classrooms. *Gifted Child Today*. **(Invited- Special Issue)**

Coleman-King, C., **Anderson, B. N.**, Koerber, N. (in-press). Working with, not against: Examining Black-White allyship in an urban-multicultural teacher education program. *Frontiers in Education*.

Hines, M.E., Catalana, S.M., & **Anderson, B. N.** (2019). When learning sinks in: Using the Incubation Model of Teaching to address the multifaceted nature of creativity. *Gifted Child Today*, 42(1), 36-45.

Anderson, B. N., & Martin, J. A. (2018). The survival of the gifted Black girls: What K-12 educators need to know about teaching gifted Black girls battling perfectionism and stereotype threat. *Gifted Child Today*, 41(3), 117-124.

CONTRIBUTIONS TO EDITED VOLUMES BOOK CHAPTERS

Anderson, B.N. & Coleman-King (in-press). “Catch this magic!”: How schools get in the way of gifted Black girls. In Arki, S.J., Delano-Oriaran, B., Moore, E., Michael, A., Penick-Parks, M.W., & Swindell, O. *Teaching Brilliant and Beautiful Black Girls*. Washington, DC: Corwin Press.

Harper, F. K., & **Anderson, B. N.** (in-press). “I just get all stressed out”: Coping with perfectionism as a Black gifted girl in mathematics. In Joseph, N., *Understanding the Intersections of Race, Gender, and Gifted Education: An Anthology by and About Talented Black Girls and Women in STEM*. IAP Publishing.

Hines, M. E., **Anderson, B. N.**, & Grantham, T. C. (2017). Promoting opportunity, rigor, and achievement for underrepresented students. In Eckert, R. & Robins, J. (2nd ed.), *Designing Programs and Services for High-Ability Learners: A Guidebook for Gifted Education* (pp. 151-168). Washington, DC: Corwin Press and National Association for Gifted Children.

GRANTS AND CONTRACTS

Batisse, L. W. (PI), **Anderson, B.N. (co-PI)**, & Dukes, D. (co-PI). (May 2020-August 2020). *Meu Coco e Forte*: An exploration of music pedagogy, talent development, and identity in the musical genre of Coco. Submitted to Global Catalyst Program in University of Tennessee’s Center for *International Education and Office of Research and Engagement*. (Submitted-\$5,000)

Coleman-King, C. (PI), **Anderson, B. N. (co-PI)**, Destine, S. (co-PI), Groenke, S. (co-PI), & McFarlane, N. (co-PI) (May 2019-April 2021). Picking up STEAM: An interdisciplinary approach to designing and studying a culturally responsive curriculum. Submitted to Office of Research and Engagement at University of Tennessee’s *Interdisciplinary Research Seed Program*. (Not funded - \$75,000)

Anderson, B. N. (PI), Harper, F. K. (co-PI), & Coleman-King, C. (co-PI) (May 2019-April 2020). Advancing Critical and Culturally Relevant Experiential Learning: Preparing Future Educators in Collaboration with Cooperating Teachers to Support STEM Education in Urban Schools. Submitted to Office of Research and Engagement at University of Tennessee’s *Community Engaged Research Seed Program*. (Not funded- \$15,000)

Coleman-King, C., (PI) **Anderson, B. N.**, (co-PI) & Laughter, J. (co-PI) (Awarded December, 2017). Knox County Schools Cultural Competency Trainings (January 2018-December 2023)., Knox County Schools (\$855,000-funded).

INTERNATIONAL/NATIONAL SCHOLARLY PRESENTATIONS

Anderson, B.N. (November 10, 2019). *Critical & Culturally Relevant Experiential Learning: Integrated-STEM in Urban Schools*. Poster presentation at the annual meeting of National Association for Gifted Children, Albuquerque, New Mexico.

Anderson, B.N. (November 10, 2019). *The invisibility of Black girls in gifted education*. Poster presentation at the annual meeting of National Association for Gifted Children, Albuquerque, New Mexico.

Coleman-King, C., & **Anderson, B.N.**, Stumbo, Z., & Koerber, N. (2019, April). “Post-truth” teacher preparation: *Exploring urban teacher preparation at research intensive institutions across the US*. Paper presented at the meeting of the American Educational Research Association, Toronto, Canada.

Stumbo, Z., Koerber, N., **Anderson, B.**, and Coleman-King, C. (2019, April). *Allies in resistance: Black-White mentorship for engaging post-truth narratives within an urban education program*. Paper presented at the meeting of the American Educational Research Association, Toronto, Canada.

Anderson, B. N., & Harper, F. K. (2018). “I just get all stressed out”: *Coping with perfectionism as a Black gifted girl in mathematics*. Workshop presentation at the annual meeting of the National Association for Gifted Children, Minneapolis, Minnesota.

Anderson, B. N., & Coleman-King, C. (2018). *Freedom schools: A space of talent development and family engagement for underserved youth*. Poster presentation at the annual meeting of the National Association for Gifted Children, Minneapolis, Minnesota.

Catalana, S. M., & **Anderson, B. N.** (2018). *Uncovering the gifted: Implementing Frasier’s traits, aptitudes, and behaviors (TABs)*. Workshop presentation at the annual meeting of the National Association for Gifted Children, Minneapolis, Minnesota.

Plucker, J., Assouline, S., Dai, D., McBee, M., Synder, K. E., Amspaugh, C. M., **Anderson, B. N.**, & Seward, K. (2018). *Lightening talks: Research evidence for classroom use*. Workshop presentation at the annual meeting of the National Association for Gifted Children, Minneapolis, Minnesota.

Anderson, B. N., Coleman-King, C. (2018). *Disrupting oppressive urban educational environments: Using authentic and critical cultural competency trainings to foster healthy classrooms*. Paper presentation submitted for annual meeting of the International Conference on Urban Education, Nassau, Bahamas.

Coleman-King, C., **Anderson, B. N.**, Stumbo, Z., Koerber, N. D. (2018). *Preparing for the future of urban education: Interrogating U.S. urban teacher preparations programs’ practices*. Paper presentation submitted for annual meeting of the International Conference on Urban Education, Nassau, Bahamas.

Anderson, B. N. (2018). *Removing barriers for underserved students: Addressing issues of teacher referrals and programming*. Workshop presentation for the Texas Association for Gifted and Talented (Gifted+Equity Conference), San Antonio, Texas.

Clara Lee Brown, Ed.D.

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 College of Education, Health, and Human Sciences
 The University of Tennessee
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EDUCATION**Doctor of Education, May 2001**

Bilingual Special Education
 Graduate School of Education and Human Development
 The George Washington University, Washington D.C.

- **Recipient of Doctoral Fellowship from OBEMLA** (Office of Bilingual Education and Minority Languages Affairs, now **OELA**, office of English Language Acquisition), U.S. Department of Education, 1999–2001 (*\$35,000/year stipend*)

Master of Arts, June 1991

Instructional Systems Development, Bilingual/English as a Second Language (ESL)
 University of Maryland, Baltimore, Maryland.

WORK EXPERIENCE**Associate Professor**

Theory and Practice in Teacher Education
 College of Education, Health and Human Sciences
 The University of Tennessee, Knoxville
 2008-present

Assistant Professor

The University of Tennessee, Knoxville
 2002 – 2008

Adjunct Professor

American University, Washington, D.C.
 2001– 2002

**Consulting Research
Scientist**

The George Washington University
 2001

ESL Teacher

Montgomery County Public Schools, Maryland
 1991–2002

PUBLICATIONS in REFEREED JOURNALS

Brown, C. L., Ward, N., & Benjamin, N. (July, 2019). "Only English Counts": the impact of English hegemony on South-Korean athletes", *International Journal of Comparative Education and Development*, Vol. 21 No. 3, pp. 222-235.

Brown, C. L., Schell, R., Denton, R., & Knode, E. (July, 2019). Family literacy coaching: Partnering with parents for reading success. *School Community Journal*, 29(1).

Brown, C. L., Schell, R., & Ni, M. (September, 2018). Powerful Participatory Literacy for English Learner. *Journal of Adolescent & Adult Literacy*, Advance online publication.

- Brown, C. L., & Endo, R.** (2017, Summer). The challenges of differentiating Instruction for ELLs: An analysis of content-area lesson plans produced by pre-service language arts and social studies teachers. *Teacher Education and Practice, 30*(3), 372-385.
- Brown, C. L., Park, Y., Schell, R., & Benedict, A.** (2017). Portfolio assessment for English learners: A magnifier to look deep into students' learning needs in literacy. *New England Reading Association Journal, 52*(1), 81-93.
- Brown, C. L., & Park, Y.** (2014). Multi-dimensional perspectives to reduce inappropriate referrals of culturally and linguistically diverse learners in special education. *Journal of Special Children Education, 16*(2), 287-309.
- Brown, C. L.** (2011). Maintaining heritage language perspectives of Korean parents. *Multicultural Education, 20*(4), 31-37.
- Buck, C. C., Gilrane, C. P., **Brown, C. L.**, Hendricks, D. A., Rearden, K. T., & Wilson, N. (2011). There's hope in the story: Learning culture through international and intercultural children's and young adult literature. *New England Reading Association Journal, 47*(1), 49-59.
- Brown, C. L., & Broemmel, A.** (2011). Deep Scaffolding: Enhancing the reading experiences of English language learners. *New England Reading Association Journal, 46*(2), 34-39.
- Aydeniz, M., & **Brown, C. L.** (2010). Enhancing pre-service elementary school teacher's understanding of essential science concepts through a reflective conceptual change model. *International Electronic Journal of Elementary Education, 2*(2).
- Brown, C. L.** (2009). Heritage Language and Ethnic Identity: A Case Study of Korean-American College Students. *International Journal of Multicultural Education, 11*(1), 1-16.
- Brown, C. L., & Paulus, T.** (2008). Pre-service ESL teachers' constructed knowledge about using content-based ESL instruction and curriculum *Academic Exchange Extra*(November).
- Brown, C. L.** (2007). Strategies for making social studies texts more comprehensible for English language learners: Some strategies. *The Social Studies, 98*(5), 185-188.
- Brown, C. L.** (2007). Content-based ESL instruction and curriculum. *Academic Exchange Quarterly, 11*(1), 114-119.
- Brown, C. L.** (2007). Supporting English language learners in content-reading. *Reading Improvement, 44*(1), 32-39.
- Brown, C. L.** (2005). Equity of literacy-based math performance assessments of English language learners. *Bilingual Research Journal, 29*(2), 337-363.
- Brown, C. L.** (2005). Ways to help ELLs: ESL teachers as consultants. *Academic Exchange Quarterly, 9*(4), 255-260.
- Brown, C. L., Taylor, E. S., Perkins, E. G., & Krashen, S.** (2005). Art class and beginning English language learners: Art teachers' views, practices, and educational background in second language acquisition. *The International Journal of Foreign Language Teaching, 1*(2), 7-11.

BOOK CHAPTERS

- Brown, C. L., & Aydeniz, M.** (2017). Maximizing Science Teachers' Pedagogical Potential for Teaching Science Literacy to ELL. In L. C. de Oliveira & K. C. Wilcox (Eds.), *Teaching Science to English Language Learners* (pp. 83-110). New York: Palgrave/Macmillan.

- Brown, C. L., & Stairs, A.** (2012). Inclusion or intrusion? Reculturing schools for collaborative ESL instruction. In A. Honigsfeld & M. Dove (Eds.), *Co-teaching and Other Collaborative Practices in the EFL/ESL Classroom: Rationale, Research, Reflections and Recommendations* (pp. 27-35). Charlotte, NC: Information Age Publishing.
- Brown, C. L., Cady, J., & Lubinski, C. A.** (2011). Understanding mathematics achievement for English-language learners. In B. Atweh (Ed.), *Quality and Equity in Mathematics Education* (pp. 393-406). New York: Springer
- Brown, C. L.** (2009). How to create Thematic Unit Lesson Plan (TULPs). In (pp. 158-181). . In (pp. 158-181). Busan, Korea: Busan Metropolitan City Office of Education.
- Brown, C. L.** (2009). Supporting English language learners in content-reading. In (pp. 23-48). Busan, Korea: Busan Metropolitan City Office of Education.

PRESENTATIONS in REFEREED CONFERENCES

International Conferences:

- Brown, C. L., Ward, N., Galang, E., Thomason, B., & Schell, R.** (2019). *A secondary qualitative data analysis: Teacher resistance to educating English learners*. Paper presented at the American Educational Research Association (AERA), Toronto, Canada.
- Park, Y., **Brown, C. L.**, Park, J., & Koh, H. (2019). *Toward nonbiased diagnostic assessment based on shared reading features across first and second language learners*. Paper presented at the American Educational Research Association, Toronto, Canada. <https://convention2>.
- Brown, C. L., Thomason, B., & Ward, N.** (2018). *Expanding secondary science teachers' instructional practice to include English Learners through professional learning communities*. Paper presented at the American Educational Research Association (AERA), New York.
- Galang, E., & **Brown, C. L.** (2017, April). The push-in model: Reform, reality or rhetoric. Paper presented at the American Educational Research Association (AERA), San Antonio, TX.
- Kim, S. J., & **Brown, C. L.** (2016, October). Critical literacy practices as alternatives to traditional literacy instruction in South Korea. Paper presented at the Korea Teachers of English to Speakers of Other Languages (KOTESOL), Seoul, Korea.
- Kim, S. J., & **Brown, C. L.** (2016, October). An extended vision of literacy instruction for the 21st century learners. Paper presented at the International Conference on Education Research (ICER), Seoul, Korea.
- Brown, C. L., & Li, R.** (2016, April). *Reading education under the high-stakes testing: Problems and solutions*. Paper presented at the Korean American Educational Research Association (KAERA) in AERA, Washington, D.C.
- Park, Y., Kim, M. K., & **Brown, C. L.** (April 2016). *Determining the quality of evidence in reading fluency intervention for struggling readers in Korea*. Paper presented at the American Educational Research Association (AERA), Washington D.C.
- Brown, C. L., & Bishop, K.** (2015, April). *Meta-Analysis: Building Theory through Relationship between Content-Based Instruction and Grammar Accuracy*. Paper presented at the American Educational Research Association (AERA) Chicago, IL.

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PROFESSIONAL PREPARATION

Ph.D., Mathematics Education	<i>Michigan State University</i> , 2017
Graduate Certificate, Urban Education	<i>Michigan State University College of Education</i> , 2015
M.A., Curriculum Studies and Teacher Education	<i>Stanford Graduate School of Education</i> , 2012
A.L.M., Mathematics for Teaching	<i>Harvard University Extension School</i> , 2011
B.A., Classics	<i>Tufts University</i> , 2003

APPOINTMENTS

Assistant Professor	<i>University of Tennessee, Knoxville</i>	2017-present
Research Assistant	<i>Michigan State University</i>	2012-2017
Course Instructor	<i>Michigan State University</i>	2013-2016
Teaching Assistant	<i>Michigan State University</i>	2012-2013
Various teaching/educator positions in Tennessee, Massachusetts, and Isehara (Japan)		2003-2011

RESEARCH AND SCHOLARLY PUBLICATIONS

Articles published in refereed journals

- Crespo, S. & Harper, F. K. (2019). Learning to pose collaborative mathematics problems with secondary prospective teachers. *International Journal of Educational Research*. Advance online publication. <https://doi.org/10.1016/j.ijer.2019.05.003>
- Harper, F. K. (2019). A qualitative metasynthesis of teaching mathematics for social justice in action: Pitfalls and promises of practice. *Journal for Research in Mathematics Education*, 50(3), 268-310.
- Harper, F.K. (2019). Collaboration and critical mathematical inquiry: Negotiating mathematics engagement, identity, and agency. *Bank Street College of Education Occasional Paper Series*, 2019(41). Retrieved from <https://educate.bankstreet.edu/occasional-paper-series/vol2019/iss41/5>.
- Plumb, A., Roberts-Caudle, C. Harper, F. K., & Jones, D. A. (2017). Flint, Michigan, water crisis: Connecting to local issues in mathematics classrooms. *Teaching Children Mathematics*, 23(9), 518-520.

Contributions to edited volumes

- Harper, F. K. (in press). What's a fair housing wage? In R. B. Berry III, B. Conway IV, B. R. Lawler, & J. W. Staley (Eds.) *Social Justice Mathematics Lessons for Secondary*. Thousand Oaks, CA: Corwin.

- Harper, F. K., & Orr, S.** (in press). Literacy: What matters and why? In R. B. Berry III, B. Conway IV, B. R. Lawler, & J. W. Staley (Eds.) *Social Justice Mathematics Lessons for Secondary*. Thousand Oaks, CA: Corwin.
- Harper, F. K. & Anderson, B.** (in press). “I just get all stressed out”: Coping with perfectionism as a Black gifted girl in mathematics. In N. M. Joseph (Ed.) *Understanding the intersections of race, gender, and gifted education: An anthology by and about talented Black girls and women in STEM*. Charlotte, NC: Information Age Publishing. (Referred)
- Craig, J., Guzmán, L., & **Harper, F. K.** (2019). Quantitative literacy supporting informed citizenship: Efficient functions and/or disruptive action? In L. Tunstall, G. Karaali, & V. Piercey (Eds.), *Shifting contexts, stable core: Advancing quantitative literacy in higher education* (pp. 207-214). Mathematical Association of America. (Referred)
- Harper, F. K., Drake, C, Bartell, T. G., & Najjarro, E.** (2018). “How I want to teach the lesson”: Framing children’s multiple mathematical knowledge bases in the analysis and adaptation of existing curriculum materials. In T. G. Bartell (Ed.), *Toward equity and social justice in mathematics education* (pp. 241-262). Springer. (Invited; Refereed)
- Harper, F. K., Herbel-Eisenmann, B. & McCloskey, A.,** (2017). Diverse perspectives on sociopolitical framings for mathematics methods. In S. Kastberg, A. M. Tyminski, A. Lischka, & W. Sanchez (Eds.), *Building support for scholarly practices in mathematics methods* (pp. 99-114). Charlotte, NC: Information Age Publishing.
- Harper, F. K., Sanchez, W., & Herbel-Eisenmann, B.** (2017). Doing mathematics across languages: Exploring possibilities for supporting emergent bilinguals’ mathematical communication and engagement. In S. Kastberg, A. M. Tyminski, A. Lischka, & W. Sanchez (Eds.) *Building support for scholarly practices in mathematics methods* (pp. 263-277). Charlotte, NC: Information Age Publishing.
- Harper, F. K.** (2016). Changing patterns. Changing my world?: Using my personal evolution of critical race consciousness in mathematics teacher education. In N. M. Joseph, C. M. Haynes, & F. Cobb (Eds.) *Interrogating Whiteness and Relinquishing Power: White Faculty’s Commitment to Racial Consciousness in STEM Classrooms*. New York, NY: Peter Lang Publishing.
- Harper, F. K. & Orr, S.** (2015). Algebra and literacy: A social justice pairing. In J. C. Richards & K. Zenkov (Eds.) *Social justice, the Common Core and closing the instructional gap: Empowering diverse learners and their teachers*. Charlotte, NC: Information Age Publishing.

Manuscripts submitted for publication

- Harper, F. K. & Crespo, S.** (under review; submitted 6/15/2019). Learning to collaborate while learning mathematics. Submitted to *Mathematics Teacher: Learning and Teaching PK-12*.
- Johnson, K.R., **Harper, F. K., & Herbel-Eisenmann, B.A.** (under review; resubmitted 3/15/2019). Turning a poststructuralist lens on the generation of mathematics teacher beliefs. Submitted to *Journal of Mathematics Teacher Education*.
- Harper, F. K.** (under review; submitted 1/12/19). Geometry, grocery stores, and gardens: Learning mathematics and social justice in a project-based mathematics classroom. Submitted to *Journal of the Learning Sciences*

PROJECTS, GRANTS, COMMISSIONS, AND CONTRACTS

- Harper, F. K. (August 2018-July 2019). A lesson study supporting elementary teachers with exploring task design and student identity in mathematics. Funded by *SEC Visiting Faculty Travel Grant Program*. (\$1,143.26)
- Harper, F. K. (July 2018- June 2019). Partnering to support integrated STEM learning for minoritized youth and their future teachers. Funded by the Office of Community Engagement and Outreach at University of Tennessee, Knoxville's *Community Engagement Incentive Grant*. (\$1,900)
- Harper, F. K. (August 2016- July 2017). Piecing together equity in mathematics education with patchwork pedagogy: An investigation of students' mathematics experiences and identity development. Funded by CPM Educational Program's *Dissertation Fellowship Award*. (\$30,000)
- Harper, F. K. (August 2012- May 2017). Dean's Scholar Fellowship. Funded by Michigan State University College of Natural Science and College of Education. (\$40,000)
- Harper, F. K. (Spring 2017). Dissertation completion fellowship. Funded by Michigan State University College of Natural Science. (\$6,000)

PAPERS PRESENTED AT TECHNICAL AND PROFESSIONAL MEETINGS

- Harper, F. K. & Lee, J.** (2019, July). *"Rosy"-colored glasses: Looking at the nuances of a young Asian American woman's mathematics experiences*. Research presentation at the inaugural conference of the Tennessee Chapter of the National Association of Multicultural Education, Cookeville, TN. (Presenter; Abstract refereed)
- Ho, A., **Harper, F. K.** & Leyva, L. (2019, July). *A lesson study on the incorporation of an identity activity with a fractions task*. Research presentation at the inaugural conference of the Tennessee Chapter of the National Association of Multicultural Education, Cookeville, TN. (Presenter; Abstract refereed)
- Harper, F. K.** (2018, November). *STEM experiences for girls of Color in urban schools: Considerations for equitable mathematics engagement*. Paper presented at a roundtable at the biennial International Conference on Urban Education, Nassau, Bahamas. (Presenter; Abstract refereed)
- Anderson, B., & **Harper, F. K.** (2018, November). *"I just get all stressed out": Coping with perfectionism as a Black gifted girl in mathematics*. Paper presented at National Association for Gifted Children Convention, Minneapolis, MN. (Abstract refereed)
- Harper, F.K.** (2018, April). *Students' negotiation of equitable strategies for collaborative math*. Research report presented at the annual research conference of National Council of Teachers of Mathematics, Washington, D.C. (Presenter; Paper refereed)
- Harper, F.K.** (2017, April). Limiting pre-service teachers' English use to reveal the role of language in mathematics learning. With J. M. Martínez, Y. Bian, & G. Krause. *Learning to teach mathematics in bilingual classrooms: Considering pre-service teachers' past, present and future experiences*. Symposium session presented the American Educational Research Association Annual Conference, San Antonio, TX. (Paper refereed).

Jennifer Jordan

Clinical Associate Professor

University of Tennessee
College of Education, Health and Human Sciences
Department of Theory and Practice in Teacher Education
A 112 Jane and David Bailey Education Complex
Knoxville, TN 37996-3442
jjorda15@utk.edu

EDUCATION

- 2009 **Ph.D.** University of Tennessee, Knoxville, TN
Major: Theory and Practice in Teacher Education
Concentration: Literacy Studies; Specialization: Reading Education
GPA: 4.00, Summa Cum Laude
Advisors: Dr. Anne McGill-Franzen and Dr. Richard Allington
Dissertation Topic: Beyond Sharing the Pen: Dialogue in the Context of Interactive Writing
- 1999 **M.S.** University of Tennessee, Knoxville, TN
Major: Theory and Practice in Teacher Education
GPA: 4.00, Summa Cum Laude
- 1998 **B.A.** University of Tennessee, Knoxville, TN
Major: Sociology; Minor: Elementary Education
GPA: 3.73, Magna Cum Laude, Golden Key National Honor Society

PROFESSIONAL EXPERIENCE

Clinical Associate Professor, University of Tennessee, 2016-present

Clinical Assistant Professor, University of Tennessee, 2010-2016

Elementary Education Program Coordinator
Supervising Intern Teaching
Facilitating Communication between the University and Partnership Schools
Chairing and Serving on Master's and Doctoral Committees
Teaching Graduate and Undergraduate Courses
Chairing/Serving on Departmental Committees

PUBLICATIONS

Articles Published in Refereed Journals

- Vines, N.A., Jordan, J., & Broemmel, A. (Under Revision). Reclaiming spelling instruction: Developmental word study non-negotiables. *The Reading Teacher*.
- Broemmel, A.D., Jordan, J., & Rearden, K. (Under Review). Book clubs as a scaffold for

pre-service teachers' professional development. *Journal of Education*.

Hill, R., & Jordan, J. (Under Review). Graphic novels: Supporting students to write dialogue. *Tennessee Literacy Journal*.

Jordan, J. (2012, Spring/Summer). Exploring the experiences of first grade teachers and the teaching of expository writing. *Tennessee Reading Teacher*, 39 (2), 27-40.

Books

Broemmel, A., Jordan, J., & Whitsett, B. (2016). *Learning to be teacher leaders: A framework for assessment, planning and instruction*. New York, NY: Routledge Publishers.

Contributions to Edited Volumes

McGill-Franzen, A. & Jordan, J. (2011). Emergent literacy: What literacy leaders need to know. In R.L. Bean & A.S. Dagen (Eds.), *Best practices of literacy leaders: Keys to school improvement* (pp. 127-146). New York: Guilford

Articles Appearing in In-house Organs

Jordan, J. (2015). A photo is worth a thousand words: Motivating struggling writers. *International Literacy Association (ILA) Literacy Development in Young Children (LDYC) Newsletter*.

PRESENTATIONS/WORKSHOPS

International/National Scholarly Presentations

Jordan, J., Vines, N, and Norvell, C. (2019, October). *The ideal teacher: Transforming pre-service teacher identity*. Poster presented at the International Literacy Association (ILA). New Orleans, LA [P*]

Jordan, J., Vines, N.A., Coleman-King, C, and Anderson, B. (2019, February). *Reorienting Epistemology of Teacher Candidates: Mitigating Privilege and Understanding*. Paper presented at the American Association of Colleges for Teacher Education (AACTE). Lexington, KY. [P*]

Jordan, J., Vines, N.A., and Broemmel, A. (2018, December). *Equity through word study: Literacy impact on one rural community*. Paper presented at the Literacy Research Association (LRA), Indian River, CA. [P*]

Rigell, A., Vines, N.A., Broemmel, A., and Jordan, J. (2018, December). *Teacher identity re-imagined: Disrupting assumptions and deficit thinking*. Panel session presented at the American Reading Forum (ARF). Sanibel, FL. [P*]

Jordan, J. & Vines, N.A., Sharp, V, & Brock, D. (2017, December). *(Re)designing word study with rural second grade teachers*. Advancing literacy session presented at the American Reading Forum (ARF). Sanibel, FL. [P*]

Vines, N.A., Broemmel, A., Hundley, M., Jordan, J., and Pendergrass, E. (2017, December). *Designing Teacher Preparation: Lessons learned in the era of edTPA*. Panel session presented at the American Reading Forum (ARF). Sanibel, FL. [P*]

Jordan, J., Broemmel, A., Vines, N.A., Pendergrass, E., & Hundley, M. (2017). Just good teaching: Academic language as a strategic planning tool. Panel presented at the edTPA National Implementation Conference, San Jose, CA [P*]

Cihak, D., McAdams, D., Stengel, B., Jordan, J., Rakow, E., Massie, M., & Vance, A. (2017, June). Poster presented at the Collaboration for Effective Educator, Development, Accountability, and Reform Center Cross-State Convening (CEEDAR), Chicago, IL. [P*]

Jordan, J. & Broemmel, A. (2016, November). *Teacher empowerment: The juncture of*

- thinking and action*. Panel presented at the National Council of Teachers of English (NCTE), Atlanta, GA. [P*]
- Broemmel, A. & Jordan, J. (2016, April). *Responsive teaching: The recursive feedback loop*. Paper presented at the National edTPA Implementation Conference, Savannah, GA. [P*]
- Jordan, J. & Broemmel, A. (2016, July). *Academic language and vocabulary acquisition: Equity and access for all students*. Workshop presented at the International Literacy Association (ILA), Boston, MA. [P*]
- Jordan, J. (2016, July). *Utilizing wordless picture books to teach the Next Generation science standards*. Poster presented at the International Literacy Association (ILA), Boston, MA. [P*]
- Jordan, J. (2016, July). *Polaroid reboot: iPhoto's impact on writing engagement*. Session presented at the International Literacy Association (ILA), Boston, MA. [P*]

Tara C. Moore, PhD, BCBA-D

Education

Doctorate of Philosophy in Special Education
Peabody College of Vanderbilt University, Nashville, Tennessee (2010)

Master of Education in Special Education
Peabody College of Vanderbilt University, Nashville, Tennessee (2004)

Bachelor of Arts in Sociology
University of Tennessee, Knoxville (1999)

Professional Experience

Associate Professor, Special Education
Department of Theory and Practice in Teacher Education
College of Education, Health, and Human Sciences
University of Tennessee, Knoxville (2019 – Present)

Director and Principal Investigator, Tennessee Behavior Supports Project at the University of Tennessee (etbsp.utk.edu), a technical assistance project funded by the Tennessee Department of Education with the mission to provide training and consultation to personnel in east Tennessee public schools and districts to assist them in developing, implementing, and sustaining continuums of positive behavioral interventions and supports within a multi-tiered system of support framework (2010 – Present)

Program Coordinator, Behavior Analyst Certification Board, Inc. ® (BACB): Verified Course Sequence at the University of Tennessee. The Verified Course Sequence is a partnership between the Special Education and School Psychology programs. (2015 – Present)

GRANTS AND CONTRACTS

To date: \$ 4,949,214 and funding support provided for 17 graduate students

Funded and in progress

Moore, T. M. (2015 – 2020). Tennessee Behavior Supports Project at The University of Tennessee. Tennessee Department of Education, Division of Special Populations and Student Support.
Award: \$3,750,000

Role Project Management: Director, Principal Investigator

Role in Proposal Preparation: Solo Author

The purpose of this project is to provide training and consultation to personnel in east Tennessee public schools and districts to assist them in developing, implementing, and sustaining continuums of positive behavioral interventions and supports within a multi-tiered system of support framework.

Funding support provided for 14 graduate students to date.

Complete

Moore, T. M. (2012 – 2015). Connections for Education OUTReach at UTK: Professional Development and Technical Assistance to Implement Positive Behavioral Interventions and Supports. Tennessee Department of Education, Office of Special Education.
Award: \$900,000

Role Project Management: Director

Role in Proposal Preparation: Solo Author

The purpose of this project was to provide training and consultation to personnel in east Tennessee public schools and districts to assist them in developing, implementing, and sustaining continuums of positive behavioral interventions and supports.

Funding support provided for 2 graduate students.

Moore, T. M. (2011 – 2014). Mathematics and Science Partnerships: External Evaluator at UTK. Tennessee Department of Education, Division of College and Career Readiness. Awards: \$113, 568 (2011 – 2012); \$105,132 (2012 – 2013); \$80,514 (2013 – 2014)

Role Project Management: Director

The purpose of this project was to gather and analyze data and to summarize and report outcomes to the Tennessee Department of Education related to the Mathematics and Science Partnership grants across the state.

Funding support provided for 3 graduate students.

PUBLICATIONS**Peer-refereed Journal Articles Published: National/International Journals**

- Cazzell, S.**, Skinner, C., **Taylor, K.**, McCurdy, M., Ciancio, D., Cihak, D., Skinner, A., & Moore, T. (Online first, June, 2019). Evaluating and comparing computer-based sight word in elementary students with Intellectual Disability: Self-determined versus fixed response intervals. *Journal of Behavioral Education*.
- Park, Y., **Gordon, J. R.**, **Smith, J. A.**, Moore, T.C., & **Kim, B.** (Online first, October, 2018). Does locus of control matter for achievement of high school students with disabilities? Evidence from Special Education Elementary Longitudinal Study. *Educational Studies*.
- Moore, T.C., Maggin, D. M., **Thompson, K. M.**, **Gordon, J. R.**, **Lang, L. E.**, & **Daniels, S.** (2019). Evidence review for teacher praise to improve students' classroom behavior. *Journal of Positive Behavior Interventions*, 21, 3-18.
- Moore, T. C., **Alpers, A. J.**, **Rhyne, R.**, Coleman, M. B., **Gordon, J. R.**, **Daniels, S.**, Skinner, C. H., & Park, Y. (2019). Brief prompting to improve classroom behavior: A first-pass intervention option. *Journal of Positive Behavior Interventions*, 21, 30-41.
- Mize, M. K., Park, Y., & Moore, T. C. (2018). Computer-assisted vocabulary instruction for students with disabilities: Evidence from an effect size analysis of single-subject experimental design studies. *Journal of Computer Assisted Learning*, 34, 641-651.
- Scott, K. C.**, Skinner, C. H., Moore, T. C., McCurdy, M., Ciancio, D., & Cihak, D. (2017). Evaluating and comparing the effects of group contingencies on mathematics accuracy in a first-grade classroom: Class average criteria versus unknown small-group average criteria. *School Psychology Review*, 46, 262-271.
- Moore, T. C., Wehby, J. H., Oliver, R. M., Chow, J. C., **Gordon, J. R.**, & **Mahany, L. A.** (2017). Teachers' reported knowledge and implementation of research-based classroom and behavior management strategies. *Remedial and Special Education*, 38, 222-232.
- Park, Y., **Ambrose, G.**, Coleman, M. B., Moore, T. (2017). The effects of teacher-directed writing instruction combined with SOLO Literacy Suite. *Journal of Computer Assisted Learning*, 33, 20-34.
- Watson, T. L.**, Skinner, C. H., Skinner, A. L., **Cazzell, S.**, Aspiranti, K., Moore, T., & Coleman, M. (2016). Preventing disruptive behavior via classroom management: Validating the color wheel system in kindergarten classrooms. *Behavior Modification*, 40, 518-540.

- Moore, T. C., **Robinson, C.**, Coleman, M. B., Cihak, D. F., & Park, Y. (2016). Noncontingent reinforcement to improve classroom behavior of a student with developmental disability. *Behavior Modification, 40*, 640-657.
- McMahon, D., Wright, R.**, Cihak, D. F., Moore, T. C., & Lamb, R. (2016). Podcasts on mobile devices as a read aloud testing accommodation in secondary science assessment. *Journal Science Education and Technology, 25*, 263-273.
- Coleman, M. B., **Cherry, R.**, Moore, T. C., Park, Y., & Cihak, D. F. (2015). Teaching sight words to elementary students with moderate intellectual disabilities: A comparison of teacher-directed vs. computer-assisted simultaneous prompting. *Intellectual and Developmental Disabilities, 53*, 196-210.
- Johnson, L. D., Wehby, J. H., Symons, F. J., Moore, T. C., Maggin, D. M., & Sutherland, K. S. (2014). An analysis of preference relative to teacher implementation of intervention. *Journal of Special Education, 48*, 214-224.
- Moore, T. C., Wehby, J. H., Hollo, A., Robertson, R. E., & Maggin, D. M. (2014). Teacher reports of student health and its influence on students' school performance. *Journal of Positive Behavior Interventions, 16*.

PRESENTATIONS AT PROFESSIONAL CONFERENCES

Peer-refereed Professional Presentations: National/International Conferences

- Bertling, J., & Moore, T. (2019, April). *U.S. Art Teacher Education in the Age of the Anthropocene*. Presented at the annual meeting of the American Educational Research Association, Toronto, Canada.
- Jacquett, C.**, Skinner, C. H., Moore, T., **Ryan, K.**, McCurdy, M., & Cihak, D. (2019, February). *Interdependent group rewards: Rewarding on-task behavior versus academic performance in an Eighth-Grade classroom serving student with emotional and behavioral disorders*. Presented at the National Association of School Psychologists Annual Convention, Atlanta, GA.
- Wright S.**, Skinner, C. H., **Kirkpatrick, B. A.**, **Daniels, S.**, & Moore, T. (2019, February) *Generalizing social skills with a positive peer reporting intervention*. Poster session presented at the National Association of School Psychologists Annual Convention, Atlanta, GA.
- Moore, T. C. & Coleman, M. B. (2017, November). *Effective classroom and behavior management strategies: What do teachers know and need?* Poster presented at the Council for Exceptional Children's Teacher Education Division National Conference, Savannah, GA.
- Moore, T. C. & Coleman, M. B. (2017, November). *Preservice teachers' use of prompting strategies to improve classroom behavior*. Presented at the Council for Exceptional Children's Teacher Education Division National Conference, Savannah, GA.
- Skinner, C. H., **Scott, K.**, Moore, T. C., McCurdy, M., & Ciancio, D. (2017, May). *Effects of group contingencies on children's math accuracy: Class average versus randomly selected small-groups*. Presented at the Association for Behavior Analysis International Annual Convention, Denver, CO.
- Gordon, J.**, **Eshbaugh, J.**, Garrison-White, T., **O'Reilly, C.**, & Moore, T. C. (2017, March). *Tennessee school leadership teams' perceptions of behavioral MTSS statewide scale-up*. Presented at the International Conference on Positive Behavior Support, Denver, CO.

EDUCATION

- 1993 Doctor of Education (Curriculum and Instruction/Instructional Design and Technology. University of Memphis, Memphis, Tennessee)
- 1971 Master of Science (Education/Administration and Supervision)
The University of Tennessee, Knoxville, Tennessee
- 1969 Bachelor of Science (Fashion Merchandising/Business Administration)
The University of Tennessee, Knoxville, Tennessee

ACADEMIC EXPERIENCE

- 2015–Present Professor, Educational Technology, Department of Theory and Practice in Teacher Education, College of Education, Health and Human Sciences, The University of Tennessee, Knoxville, TN.
- 2008 - 2015 Associate Professor, Educational Technology, Department of Theory and Practice in Teacher Education, College of Education, Health and Human Sciences, The University of Tennessee, Knoxville, TN.
- 2000 - 2008 Associate Professor, Instructional Technology, Department of Instructional Technology, Health and Cultural Studies, College of Education, Health and Human Sciences, The University of Tennessee, Knoxville, TN. (Tenured Spring 2001)
- 1997 - 2000 Assistant Professor, Educational Technology, Division of Teaching and Learning, College of Education and Human Development, Bowling Green State University, Bowling Green, OH (Promoted to Associate and Tenured Spring 2000)
- 1993 - 1997 Assistant Professor, Instructional Technology, Department of Curriculum, Instruction and Leadership, College of Education, Louisiana Tech University, Ruston, LA

RESEARCH AND/OR SCHOLARLY PUBLICATIONS

Articles published in refereed journals

- O'Bannon, B.W., Waters, S., Lubke, J., Cady, J., & Rearden, K. (2017). Teachers and students poised to use mobile phones in the classroom. *Computers in the Schools, 34 (3)* 125-141.
- O'Bannon, B.W., Skolits, G., & Lubke, J. (2017). The influence of interactive textbook instruction on student learning preferences, outcomes, and motivation. *Journal of Research on Technology in Education, 49 (3-4)* 103-116.
- Thomas, K., O'Bannon, B. W. (2015). Looking Across the New Digital Divide: A Comparison of Inservice and Preservice Teacher Perceptions of Mobile Phone Integration. *Journal of Technology and Teacher Education 23 (4)*,561-581.

- O'Bannon, B.W., & Thomas, K. (2015). Mobile Phones in the Classroom: Preservice Teachers Answer the Call. *Computers and Education*. 85, 110-122.
- Thomas, K., O'Bannon, B. W., & *Britt, V. G. (2014). Standing in the schoolhouse door: Teacher Perceptions of Mobile Phones in the Classroom. *Journal of Research on Technology in Education* 46(4) 373-395.
- O'Bannon, B.W., *Britt, V. G. & *Beard, J. L. (2014). The writing on the wall: Using a Facebook group to promote student achievement. *Journal of Educational Multimedia & Hypermedia* 23(1) 29-54.
- O'Bannon, B.W., & Thomas, K. (2014) Teacher Perceptions of Using Mobile Phones in the Classroom: Age Matters!. *Computers and Education* 74C. 15-25.
- Thomas, K. O'Bannon, B. & Bolton, N. (2013) Cell Phones in the Classroom: Teachers' Perspectives of Inclusion, Benefits, and Barriers, *Computers in the Schools*, 30(4), 295-308.
- Thomas, K., & O'Bannon, B. (2013). Cell Phones in the Classroom: Preservice Teachers' Perceptions. *Journal of Digital Learning in Teacher Education* 30(1) 11-20.
- O'Bannon, B.W., *Beard, J. L. & *Britt, V. G. (2013). Using a Facebook Group as an Educational Tool: Effects on Student Achievement. *Computers in the Schools* 30(3), 229-247.

Books

- O'Bannon, B. & Anderson, M. (2014). *Engaging learners with interactive whiteboards: An introduction*. Cupertino, California: Apple.
- O'Bannon, B., & Puckett, K. (2010). *Preparing to use technology: A practical guide to curriculum integration 2/e*. Boston: Allyn and Bacon.
- O'Bannon, B., & Puckett, K. (2007). *Preparing to use technology: A practical guide to curriculum integration 1/e*. Boston: Allyn and Bacon.

Contributions to edited volumes

- Puckett, K. & O'Bannon B. (2012) Technology applications for students with special needs: Unlocking the potential, opening a world of possibilities. In Abromovich, S. (Ed.) *Computers in Education*. Hauppauge NY: Nova Science Publishers.
- Puckett, K. & O'Bannon B. (2011) Technology applications for students with dyslexia. In Wendling, B. & Mather, N., *Essentials of Dyslexia Assessment and Intervention*. (199-222) Hoboken, NJ: John Wiley & Sons, Inc.
- Judge, S. & O'Bannon, B. (2011). Integrating technology into field-based experiences: A model that fosters change. In Thomas, M. (Ed.). *Online Learning*. Europe: SAGE Publications Ltd
- O'Bannon, B., Puckett, K. & Rakes, G. (2006). Using technology to support visual learning strategies. In Maddux, C. & Johnson, D. (Ed.). *Type II Uses of Technology in Education: Projects, Case Studies, and Software Applications*. New York: The Haworth Press, Inc.

GRANTS AND CONTRACTS: Total \$ 3,308,579.00

- 2001-2005 *Project ImPACT: Implementing Partnerships Across the Curriculum with Technology -Implementation Grant* (with A. Nonis). US Department of Education \$ **1,278,233.00**. Project Director.
- 2000-2003 *Project PICT: Preservice Infusion of Computer Technology -Implementation Grant*. US Department of Education (with R. A. Vannatta). **\$1,477,800.00**.

Co-Project Director (Relocation to TN required change to Consultant status).

PAPERS PRESENTED AT PROFESSIONAL MEETINGS

Refereed International/National

- O'Bannon, B., Dunn, K., and Park, Y. (March, 2017). *Validation of Mobile Phone Use in the Classroom Survey*. Paper presented at *Society for Information Technology & Teacher Education International Conference 2017*. Austin, Texas.
- O'Bannon, B. & Thomas, K (July, 2015). *Using mobile phones in the classroom: Preservice and inservice teachers divided!*. Paper presented at the *International Society of Technology in Education Conference (ISTE) 2015*. Philadelphia, Pennsylvania.
- Thomas, K. & O'Bannon, B. (July, 2015). *Using mobile phones in the classroom: Preservice and inservice teachers divided!*. Paper presented at the *International Society of Technology in Education Conference (ISTE) 2015*. Philadelphia, Pennsylvania.
- O'Bannon, B. & Thomas, K. (July, 2014). *Using mobile phones in the classroom: Age Matters!*. Paper presented at the *International Society of Technology in Education Conference (ISTE) 2014*. Atlanta, Georgia.
- Thomas, K, & O'Bannon, B. (July, 2014). *Teacher perceptions of mobile phones in the classroom*. Paper presented at the *International Society of Technology in Education Conference (ISTE) 2014*. Atlanta, Georgia.
- O'Bannon, B. & Thomas, K. (March, 2014). *New technology-old barrier: Relationship of teachers' perceptions of mobile phone use and age*. Paper presented at the *Society for Information Technology & Teacher Education International Conference (SITE) 2014*. Jacksonville, Florida.

Dr. Blanch O'Bannon

EDUCATION

- 1993 Doctor of Education (Curriculum and Instruction/Instructional Design and Technology. University of Memphis, Memphis, Tennessee)
- 1971 Master of Science (Education/Administration and Supervision)
The University of Tennessee, Knoxville, Tennessee
- 1969 Bachelor of Science (Fashion Merchandising/Business Administration)
The University of Tennessee, Knoxville, Tennessee

ACADEMIC EXPERIENCE

- 2015–Present Professor, Educational Technology, Department of Theory and Practice in Teacher Education, College of Education, Health and Human Sciences, The University of Tennessee, Knoxville, TN.
- 2008 - 2015 Associate Professor, Educational Technology, Department of Theory and Practice in Teacher Education, College of Education, Health and Human Sciences, The University of Tennessee, Knoxville, TN.
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- O'Bannon, B.W., Skolits, G., & Lubke, J. (2017). The influence of interactive textbook instruction on student learning preferences, outcomes, and motivation. *Journal of Research on Technology in Education, 49 (3-4)* 103-116.
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- Judge, S. & O'Bannon, B. (2011). Integrating technology into field-based experiences: A model that fosters change. In Thomas, M. (Ed.). *Online Learning*. Europe: SAGE Publications Ltd
- O'Bannon, B., Puckett, K. & Rakes, G. (2006). Using technology to support visual learning strategies. In Maddux, C. & Johnson, D. (Ed.). *Type II Uses of Technology in Education: Projects, Case Studies, and Software Applications*. New York: The Haworth Press, Inc.

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- 2000-2003 *Project PICT: Preservice Infusion of Computer Technology -Implementation Grant*. US Department of Education (with R. A. Vannatta). **\$1,477,800.00**.

Co-Project Director (Relocation to TN required change to Consultant status).

PAPERS PRESENTED AT PROFESSIONAL MEETINGS

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- O'Bannon, B. & Thomas, K (July, 2015). *Using mobile phones in the classroom: Preservice and inservice teachers divided!*. Paper presented at the *International Society of Technology in Education Conference (ISTE) 2015*. Philadelphia, Pennsylvania.
- Thomas, K. & O'Bannon, B. (July, 2015). *Using mobile phones in the classroom: Preservice and inservice teachers divided!*. Paper presented at the *International Society of Technology in Education Conference (ISTE) 2015*. Philadelphia, Pennsylvania.
- O'Bannon, B. & Thomas, K. (July, 2014). *Using mobile phones in the classroom: Age Matters!*. Paper presented at the *International Society of Technology in Education Conference (ISTE) 2014*. Atlanta, Georgia.
- Thomas, K, & O'Bannon, B. (July, 2014). *Teacher perceptions of mobile phones in the classroom*. Paper presented at the *International Society of Technology in Education Conference (ISTE) 2014*. Atlanta, Georgia.
- O'Bannon, B. & Thomas, K. (March, 2014). *New technology-old barrier: Relationship of teachers' perceptions of mobile phone use and age*. Paper presented at the *Society for Information Technology & Teacher Education International Conference (SITE) 2014*. Jacksonville, Florida.

YUJEONG PARK, PH.D.**EDUCATION**

- Ph.D. University of Florida, Gainesville, FL, U.S. (August 2013)
- Major: Special Education (Areas of expertise: learning disabilities, reading intervention & assessment, teacher effectiveness)
 - Minor: Research and Evaluation Methodology (quantitative methodology)
 - Dissertation Title: The roles of cognitive and language abilities of third grade students with reading disabilities' responsiveness to morphological awareness intervention
 - Dissertation Committee: Mary T. Brownell (Chair), Linda J. Lombardino, James Algina, Cynthia C. Griffin
- M. A. Seoul National University, Seoul, S. Korea
- Major: Exceptional Children (learning disabilities concentration)
 - Thesis Chair: Dongil Kim
- B. A. Pusan National University, Pusan, S. Korea
Summa cum laude
- Major: Special Education
 - Minor: Korean Language and Literature

POSITIONS & EMPLOYMENT

- Aug. 2019– Associate professor, Special Education, Department of Theory and Practice in Teacher Education, The University of Tennessee, Knoxville
- Aug. 2013– Assistant professor, Special Education, Department of Theory and Practice in Teacher Education, The University of Tennessee, Knoxville
- 2011–2013 Research assistant, National Center to Inform Policy and Practice in Special Education Professional Development (NCIPP) (funded by Office of Special Education Programs), Supervisors: Drs. Mary T. Brownell, Paul T. Sindelar, and Erica D. McCray, University of Florida

RESEARCH AND/OR SCHOLARLY PUBLICATIONS

Articles Published in Refereed Journals

- Bell, S., **Park, Y.**, Martin, M.M., Smith, J., McCallum, S., Smyth, K., & Mingo, M. (2019: online first). Preventing summer reading loss for students in poverty: A comparison of tutoring and access to books. *Educational Studies*.
- Park, Y.**, Seo, D., Park, J., Kim, B., Choi, J. (2019: online first). The influence of behavioral and emotional characteristics on academic achievement of middle school students: A growth modeling approach. *School Psychology International*.
- Mize, M., **Park, Y.**[†], Schramm-Possinger, M., & Coleman, M. (2019: online first). Developing a rubric for evaluating reading applications for learners with reading difficulties. *Intervention in School and Clinic*.
- Park, Y.**, Kiely, M. T., Brownell, M. T. & Benedict, A. E. (2019). Relationships among special education teachers' knowledge, instructional practices and students' performance in reading fluency. *Learning Disabilities Research & Practice*, 34(2), 85-96.

- Park, Y.**, Martin, M., McCallum, S., & Bell, S. (2019). Monitoring Instructional Responsiveness–Reading (MIR:R): Preliminary validity and reliability with economically diverse learners. *Journal of Psychoeducational Assessment*, 37(5), 617-634.
- Park, Y.**, Brownell, M. T., Bettini, E., & Benedict, A. (2019). Multiple dimensions of instructional effectiveness in reading: A review of classroom observational studies and implications for special education classrooms. *Exceptionality: A Special Education Journal*, 27(1), 1-17.
- Bettini, E. F., Gurel, S., **Park, Y.**, Leite, W., & Mcleskey, J. (2019). Principals' qualifications in special education and students with and at risk for disabilities' reading achievement Growth in Kindergarten. *Exceptionality: A Special Education Journal*, 27(1), 18-31.
- Moore, T., Alpers, A. J., Rhyne, R., Coleman M., Gordon, J. R., Daniels, S., Sinner, C. H., & **Park, Y.** (2019). Brief prompting to improve classroom behavior: A first-pass intervention option. *Journal of Positive Behavior Interventions*, 21(1), 31-41.
- Park, Y.**, Gordon, J., Smith, J., Moore, T., & Kim, B. (2018: online first). Does locus of control matter for achievement of high school students with disabilities?: Evidence from Special Education Elementary Longitudinal Study. *Educational Studies*.
- Park, Y.**, Seo, D., Moore, E., & Kim, B. (2018). What contributes to low-achievement of middle school students: Evidence from multi-group structural equation modeling. *Journal of Educational Research*, 111(4), 404-416.
- Mize, M., **Park, Y.** †, & Moore, T. (2018). Computer-assisted vocabulary instruction for students with disabilities: Evidence from an effect size analysis of single-subject experimental design studies. *Journal of Computer Assisted Learning*, 34, 641-651.
- Bettini, E. F., & **Park, Y.** (2017: online first). Novice teachers' experiences in high-poverty schools: An integrative literature review. *Urban Education*.
- Kim, M., McKenna, J.W., & **Park, Y.** † (2017). The use of computer-assisted instruction to improve the reading comprehension of students with learning disabilities: An evaluation of the evidence base according to the What Works Clearinghouse Standards. *Remedial and Special Education*, 38(4), 233-245.
- Bettini, E., Jones, N., Brownell, M., Conroy, M., **Park, Y.**, Leite, W., Crockett, J., & Benedict, A. (2017). Workload manageability among novice special and general educators: Relationships with emotional exhaustion and career intentions. *Remedial and Special Education*, 38(4), 246–256.
- Kim, M., **Park, Y.** †, & Coleman, M. B. (2017). The quality of evidence in tablet-assisted interventions for students with disabilities. *Journal of Computer-Assisted Learning*, 33, 547-561
- Park, Y.**, Ambrose, G., Coleman, M. B., Moore, T. (2017). The effects of teacher-directed writing instruction combined with SOLO Literacy Suite. *Journal of Computer-Assisted Learning*, 33(1), 20-34. doi: 10.1111/jcal.12163
- Brown, C. L., **Park, Y.**, Schell, R., & Benedict, A. (2017). Portfolio assessment for English learners: A magnifier to look deep into students' learning needs in literacy. *New England Reading Association Journal*, 52, 81-93.
- Kim, M., Bryant, A., Bryant, R., & **Park, Y.** (2017). A synthesis of interventions for improving oral reading fluency of elementary students with learning disabilities. *Preventing School Failure: Alternative Education for Children and Youth*, 61(2), 116-125.
- Lauterbach, A., & **Park, Y.**, & Lombardino, L. J. (2017). The roles of cognitive and language abilities in predicting decoding and reading comprehension: Comparisons of dyslexia and specific language impairment. *Annals of Dyslexia*, 67(3), 201-218.
- Benedict, A. E., **Park, Y.**, Brownell, M. T., & Bettini, E. F. (2016). When knowing isn't enough: Understanding teachers' pedagogical content knowledge for teaching reading fluency to students with specific learning disabilities. *Journal of Postdoctoral Research*, 4(7), 5-15.

Contributions to Edited Volumes

- Klingner, J. K., Brownell, M. T., Mason, L. H., Sindelar, P. T., Benedict, A. E., Griffin, G. G., Lane, K., ... Park, Y. (2016). Teaching students with special needs in the new millenium. In D. Gitomer & C. Bell (Eds.), *Handbook of research on teaching* (5th ed., pp. 639–717). Washington, DC: American Educational Research Association.
- Brownell, M. T., Steinbrecher, T., Kimerling, J., **Park, Y.**, Bae, J., & Benedict, A. (2014). Dimensions of teacher quality in general and special education (*3rd to 6th authors are equally contributed*). In P. Sindelar, E. McCray (Ed.), *Handbook of Special Education Teacher Preparation* (pp. 423-444). Routledge, New York: Taylor & Fransis Group
- Kamman, M., Zimmerman, K., Israel, M., McCray, E., Brownell, M., Sindelar, P., ... **Park, Y.** (2012). *Mentor Handbook: Supporting beginning special educators*. Retrieved September 1, 2012 from University of Florida, National Center to Inform Policy and Practice in Special Education Professional Development Web Site: <http://www.ncipp.org>

PEER-REVIEWED NATIONAL AND INTERNATIONAL PRESENTATIONS

- Park, Y.** (2017, December). What you know doesn't guarantee what you do: The role of special education teacher knowledge in teaching students with disabilities. Presented at 2nd Asian Education Forum, Pusan, S. Korea
- Park, Y.**, Kim, M., & Brown, C. L. (2016, April). Determining the quality of evidence in reading fluency intervention for struggling readers in S. Korea. Presented at the 2016 AERA annual conference, Washington D.C.
- Tibi, S., Stall, P., Joshi, M., **Park, Y.**, & Hutchinson, N. (2014, July). The effects of self-efficacy on academic English writing by native Arabic-speaking teacher education students. Presented at the 2014 Scientific Studies of Reading Conference, Santa Fe, NM.
- Benedict, A. & **Park, Y.** (2014, April). Knowing isn't enough: Pedagogical content knowledge for teaching reading fluency to students with learning disabilities. Presented at the AERA annual conference, Philadelphia, PA.
- Park, Y.**, Kamman, M., & Lauterach, A. (2014, April). Using webinars to improve the induction of beginning special education teachers. Presented at the Council for Exceptional Children (CEC) Convention and Expo, Philadelphia, PA.

GRANTS/FUNDING

- Park, Y.**, Martin, M. & Puliatte, A. (2019). "Project GATHERS: A group-based approach to help and enhance readiness for school: focused on at-risk preschoolers." IES Low-Cost, Short-Duration Evaluation of Education Interventions. (not funded)
- Park, Y.** (2016). "Rejuvenating the bridge between knowledge and practice: A multi-dimensional approach to promote special education teachers' use of evidence-based practices." National Science Foundation CAREER. Award Amount: \$632,657.00. (not funded)
- Park, Y.**, & Kim, M. (2015). "Project GRASP: Tablet-assisted vocabulary instruction for growth in reading of at-risk students in poverty." Spencer Foundation. Award Amount: \$ 50,000.00 (not funded)
- Cihak, D.F., Gibbons, M.M., & **Park, Y.** (2015). "FUTURE 2: Postsecondary education (PSE) curriculum for college students with intellectual and developmental disabilities (I/DD)." U.S. Department of Education: Institute of Education Sciences. Award Amount: \$1,599,965.00. (not funded)

Zoi A. Traga Philippakos
 University of Tennessee, Knoxville
 College of Education, Health and Human Sciences
 zphilipp@utk.edu

EDUCATION AND PROFESSIONAL CREDENTIALS

Degrees	Date	College/University	Major
Ph.D.	2012	University of Delaware, DE	Education/Literacy
M. Ed.	2006	University of Delaware, DE	Reading Specialist
B.S.	2001	University of Thrace, Greece	Primary Education

PROFESSIONAL EXPERIENCE

Dates	Institution	Title/ responsibilities/nature of work
August 2018	University of Tennessee, Knoxville, TN	Assistant Professor
2015-2018	UNC Charlotte, Charlotte, NC	Assistant Professor
2014-2015	University of Delaware, DE	Instructor
2013-2014	Towson University, MD	Visiting Assistant Professor
2012-2013	University of Delaware, DE	Limited Term Researcher

National Grants

- Philippakos, Z. A. & MacArthur, C. A. (2018). *Developing a professional development model on genre-based writing strategy instruction for grades 3 to 5*. Proposal submitted to the Institute for Education Sciences, U. S. Department of Education (4 years, \$1,400,000; not funded).
- MacArthur, C. A., Philippakos, Z. A., & May, H. (2016). *Supporting Strategic Writers: Effects of an innovative developmental writing program on writing and reading outcomes*. Proposal funded by the Institute for Education Sciences, U. S. Department of Education (5 years, \$3,245,858). R305A160242.
- Philippakos, Z. A. (2016). *Developing strategic writers in grades K-2*. Proposal submitted to the Brady Foundation. (1 year; \$100,000; not funded).

Publications

Books

- Philippakos, Z. A., Pellegrino, A., & Howell, E. (Eds). (Under contract). *Design based research in education: Theory and applications*.
- Philippakos, Z. A., & MacArthur, C. A. (in press). *Developing strategic, young writers through genre instruction: Resources for grades K-2*. New York: Guilford Press.
- Walpole, S., McKenna, M., Philippakos Z.A., & Strong, J. (in press). *Differentiated reading instruction in grades 4 and 5: Strategies and resources*. (2nd Edition). New York: Guilford Press.
- Philippakos, Z. A., MacArthur, C. A. & Coker, D. L. (2015). *Developing strategic writers through genre instruction: Resources for grades 3-5*. New York: Guilford Press.

Walpole, S., McKenna, M., Philippakos Z.A. (2011). *Differentiated reading instruction in grades 4 and 5: Strategies and resources*. New York: Guilford Press.

Beauchat, K. A, Blamey, K. L. & Philippakos, Z. A. (2012). *Effective read alouds for early literacy: A teacher's guide for preK-1*. New York: Guilford Press.

Book Chapters

Traga Philippakos, Z. A. (invited). Reading and writing integration. In Parsons, S., & Vaughn, M. (Eds). *Principles of Effective Literacy Instruction*.

Traga Philippakos, Z.A. & Moore, N. (under review). Formative assessment on writing. In Christie Martin, Drew Polly, & Richard Lambert (Eds). *Handbook of Research on Formative Assessment in Pre-K through Elementary Classrooms*. (pp.). IGI-Global.

Traga Philippakos, Z. A. & MacArthur, C. A. (in press). Writing strategy instruction for low-skilled postsecondary students. In Perin, D. (Ed.). *Wiley Handbook on Adult Literacy Research*.

Philippakos, Z. A. & Moore, N. (2017). The literacy coach's role in supporting teachers' implementation of the common core state standards in writing. In Lawrence, S. (Ed.), *Literacy Program Evaluation and Development Initiatives for P-12 Teaching*, (pp. 114-137). IGI-Global. Doi: 10.4018/978-1-5225-0669-0.ch007

MacArthur, C. A., & Philippakos, Z. A. (2012). Strategy instruction with college basic writers: A design study. In Gelati, C., Arfé, B., & Mason, L. (Eds.), *Issues in writing research* (pp. 87-106). Padova: CLEUP.

MacArthur, C. A., Philippakos, Z. A., Graham, S. & Harris, K. R (2012). Writing instruction. In Wong, B. & Butler D. L. (Eds.), *Learning about learning disabilities* (4th edition) (pp. 243-270). San Diego, CA: Elsevier Science.

Articles in Peer Reviewed Journals

Traga Philippakos, Z. A., & Voggt, A. (invited, in preparation). The effects of a virtual professional development model on teachers' instruction and the quality of second graders' procedural writing.

Traga Philippakos, Z. (2019). Effects of strategy instruction with an emphasis on oral language and dramatization on the quality of first graders' procedural writing. *Reading & Writing Quarterly*, 1-18.

Traga Philippakos, Z. A. (2019). Sentence construction: Supporting elementary students' editing skills. *Language and Literacy Spectrum*. 1(29), 1-23.

Traga Philippakos, Z. A., & MacArthur, C. A. (in press). Integrating collaborative reasoning and strategy instruction to improve second graders' opinion writing. *Reading & Writing Quarterly*. DOI: 10.1080/10573569.2019.1650315;

Traga Philippakos, Z. A., Munsell, S. & Robinson, L., (in press). Combining strategy instruction and principles of dialogic pedagogy to support primary-grade students' story writing: Results from cycle 1 of design research. *Literacy Research and Instruction*.

Traga Philippakos, Z. A., Williams, L., McLurg, G., Robinson, L., & Munsell, S. (in press). Writing in Science: Integrating writing Strategy Instruction across the curriculum. *ALER Yearbook*.

Beach, K., McIntyre, E., Philippakos, Z., Mraz, M., Pilonieta, P., & Vintinner, J. (2018). Effects of a summer reading intervention on reading skills for low-income black and Hispanic students in elementary school. *Reading & Writing Quarterly*, 134 (3). 263-280.

- MacArthur, C., Jennings, A., & Philippakos, Z. (2018). Which linguistic features predict quality of argumentative writing for college basic writers, and how do those features change with instruction? *Reading and Writing*, 32(6), 1553-1574.
- Philippakos, Z. (2018). Using a task analysis process for reading and writing assignments. *Reading Teacher*, 72(1), 107-114.
- Philippakos, Z. A., Overly, M. Riches, C., Grace, L. & Jones, W. (2018). Supporting professional development on writing strategy instruction: Listening to the voices of collaborators as carriers of change. *School-University Partnerships*.
- Traga Philippakos & Fitzpatrick, (2018). A proposed tiered model of assessment in writing instruction: Supporting all student-writers. *Insights into Learning Disabilities: From prevailing theories to validated approaches*, 55(2), 149-174.
- Traga Philippakos, Z., MacArthur, C., & Munsell, S. (2018). Collaborative reasoning with strategy instruction for opinion writing in primary grades: Two cycles of design research. *Reading & Writing Quarterly*, 34(6), 485-504,
- Traga Philippakos, Z. A., MacArthur, C.A., & Munsell, S. (2018). College student writers' use and modification of planning and evaluation strategies after a semester of instruction. *Journal of Adolescent & Adult Literacy*, 63(2), 301-310.
- Traga Philippakos, Z. A., Munsel., S. & Robinson, L. (2018). Supporting primary students' story writing by including retellings, talk, and drama with strategy instruction. *The Language and Literacy Spectrum* 1(28), 1-22.

National Conferences

- Billings, J., & MacArthur, C. A., & Traga Philippakos Z. A., (2019, April). *Supporting strategic writers: An evidence-based approach*. Paper presented at the AACC annual conference. Orlando, FL.
- Traga Philippakos Z. A., & MacArthur, C. A. (2019, March). *The use of genre-specific evaluation criteria in reviewing: An approach for peer review that supports critical reading and revising*. Paper presented at the College English Association Conference (CEA). New Orleans, LA.
- Traga Philippakos Z. A., (2019, November). *Genre-based strategic writers and learners in grades k to 5: Combining cognitive and dialogic pedagogy*. Paper to be presented at Association of Literacy Educators and Researchers (ALER), Corpus Christi, TX.
- Traga Philippakos Z. A., (2019, November). *Genre-based strategic writers in grades k to 5: combining cognitive and dialogic pedagogy*. Paper to be presented Association of Literacy Educators and Researchers (ALER), Corpus Christi, TX.
- Traga Philippakos Z. A., (2019, November). *A professional development model to support genre-based strategy instruction in grades 3 to 5*. Paper to be presented Association of Literacy Educators and Researchers (ALER), Corpus Christi, TX.
- Traga Philippakos Z. A., (2019, November). *Developing strategic writers through genre instruction: Procedural writing with second graders*. Paper to be presented Association of Literacy Educators and Researchers (ALER), Corpus Christi, TX.
- Traga Philippakos Z. A., & Voggt, A. (2019, December). *Effects of genre-based and dialogic pedagogy professional development on teachers' fidelity and on second-graders' quality of procedural writing*. Paper to be presented at Literacy Research Association at Orlando, FL.

Kristin Theresa Rearden

Clinical Professor, Science and Middle Grades Education

EDUCATION

Texas A&M University, College Station TX

Ph.D., Curriculum and Instruction, 1998

Emphasis in Science Education

Marist College, Poughkeepsie NY

M.A., Educational Psychology, 1993

University of Dallas, Irving TX

B.A., Physics, 1989

PROFESSIONAL LICENSURE AND EXPERIENCE

Permanent Teaching Licensure in New York State

Mathematics 7-12

General Science 7-12

Physics

Clinical Professor, Science and Middle Grades Education, 2016 – present

University of Tennessee, Knoxville, TN

Clinical Associate Professor, Science Education, 2007 – 2016

University of Tennessee, Knoxville, TN

Assistant Professor, Elementary Science Education, 1999 – 2007

University of Tennessee, Knoxville, TN

Project Evaluator, Biotechnology Teacher Enhancement Project, 1997

Texas A&M University, College Station, TX

Research Assistant, Salish I Research Project, 1994-96

Texas A&M University, College Station, TX

Middle school science and mathematics instructor, 1989-1994

St. Martin de Porres School, Poughkeepsie, NY

RESEARCH AND SCHOLARLY PUBLICATIONS

Articles published in international/national refereed journals

Bertling, J., & Rearden, K. (2018). Professional development on a sustainable shoestring: Propagating place-based art education in fertile soil. *Discourse and Communication for Sustainable Education*, 9(2), 5-20.

O'Bannon, B., Waters, K.S., Lubke, J., Cady, J.A., & Rearden, K.T. (2017). Teachers and students poised to use mobile phones in the classroom. *Computers in the Schools*, 34(3), p. 125-141. doi: 10.1080/07380569.2017.1347454

Cady, J., Aydeniz, M., & Rearden K.T. (2011). E-Learning environments for math and science teachers. *Journal of Curriculum and Instruction*, 5(1), 17-33.

Cady, J.A., & Rearden, K.T. (2009). Delivering online professional development in mathematics to rural educators. *Journal of Technology and Teacher Education*, 17(3), 150-166.

Rearden, K. T., & Broemmel, A. (2008). Beyond the talking groundhogs: Trends in science trade books. *Journal of Elementary Science Education*, 20(2), 39-49.

Cady, J., & Rearden, K. T. (2007). Preservice teachers' beliefs about knowledge, mathematics, and science. *School Science and Mathematics, 107*, 237-245.

Books

Gilrane, C., & Rearden, K. (2015). *What counts as a good job in teaching? Becoming a teacher as we race to the top*. Lanham, MD: Rowman & Littlefield.

Book chapters

Rearden, K. T. (2018). From Point A to Point B: Using assessments to chart the path of integrated instruction. In C. Tai, R. M. Moran, L. Robertson, K. Keith, & H. Hong (Eds.), *Handbook of Research on Science Literacy Integration in Classroom Environments* (pp. 41-54). Hershey, PA: IGI Global.

Rearden, K. T., & Gilrane, C. (2017). Preparing exceptional teachers in a culture of evaluation checklists. In N. P. Gallavan & L. G. Putney (Eds.) *Association of Teacher Education Yearbook XXV: Building upon Inspirations and Aspirations with Hope, Courage, and Strength Through Teacher Educators' Commitment to Today's Teachers and Tomorrow's Leaders* (pp. 37-48). Lanham, MD: Rowman & Littlefield.

Scholarly and/or creative activity published through a refereed electronic venue

Rearden, K. T. (2015). [Review of the book *Animalium*] for *NSTA Recommends*. <http://www.nsta.org/recommends/ViewProduct.aspx?ProductID=22311>.

Rearden, K. T. (2015). [Review of the book *Drones: From insect spy drones to bomber drones*] for *NSTA Recommends*. <http://www.nsta.org/recommends/ViewProduct.aspx?ProductID=22335>.

Rearden, K. T. (2015). [Review of the book *Beetle busters: A rogue insect and the people who track it*] for *NSTA Recommends*. <http://www.nsta.org/recommends/ViewProduct.aspx?ProductID=22308>.

Rearden, K. T. (2015). [Review of the book *Freaky nature: Superpowers in nature*] for *NSTA Recommends*. <http://www.nsta.org/recommends/ViewProduct.aspx?ProductID=22506>.

Scholarly activity published through a refereed electronic venue

Mitchell, E., Rearden, K. T., & Stacey, D. (2011). Comedy Hour: Using audio files of joke recitations to improve elementary students' fluency. *Current Issues in Education* (Online), 14(2).

Rearden, K. T., Taylor, P. M., & Hopkins, T. (2005). Workshop Study: A modified lesson study model for analysis of professional development opportunities. *Current Issues in Education* (Online), 8(15).

PRESENTATIONS

National/International

Rearden, K.T. (2019, April). *John Deere, that's who!* Session presented at the National Science Teachers Association National Conference, St. Louis, MO.

Cady, J., & Rearden, K.T. (2019, February). *Overcoming challenges to guiding candidates through the edTPA*. Session presentation at the Association of Math Teacher Educators National Conference, Orlando, FL.

- Bertling, J., & Rearden, K. T. (2018, April). *Professional development on a sustainable shoestring: Propagating place-based art education in fertile soil*. Poster presented at the American Educational Research Association Conference, New York, NY.
- Rearden, K. T., & Broemmel, A., (2018, March) *Exploring the science of sound*. Session presented at the National Science Teachers Association National Conference, Atlanta, GA.
- Rearden, K.T., & Gilrane, C. (2017, February). *Preparing exceptional teachers in a culture of evaluation checklists*. Invited session for the Association of Teacher Education National Conference, Orlando, FL.
- Rearden, K. T., & Broemmel, A. (2016, April). *Rhythm and blues: Exploring the science of sound*. Session presented at the National Science Teachers Association National Conference, Nashville, TN.
- Thomas, J., Rearden, K.T., & Broemmel, A. (2016, April). *Presenting the best new children's books to use when teaching elementary science*. Session presented at the National Science Teachers Association National Conference, Nashville, TN.
- Broemmel, A.D., Rearden, K.T., & Whitsett, B.M. (2015, July). *Supporting disciplinary literacy: Exemplary science picture books worth celebrating*. Session presented at the 60th Annual Conference of the International Literacy Association, St. Louis, MO.
- Rearden, K.T., & Broemmel, A.D. (2015, March). *Just build it!* Session presented at Presentation at the national conference of the National Science Teachers Association, Chicago, IL.
- Gilrane, C., Rearden, K.T., McIntyre, E., Louderback, H., Covington, J., & Holt, J. (2015, February). *Designing and assessing with integrity while embracing the new landscape of teacher education*. American Association of Colleges of Teacher Education, Atlanta, GA.
- Rearden, K. T., & Broemmel, A. (2014, April). *Asking, imagining, arguing: Using books to provide examples of scientific practices in action*. Presentation at the National Science Teachers Association National Conference, Boston, MA.
- Rearden, K. T., Broemmel, A., Wiig, D., Stewart, M., Campbell, S., Launius, C., Saul, W., & Texley, J. (2014, April). *A real-life page turner: Award-winning trade book authors share their research strategies*. Presentation at the National Science Teachers Association National Conference, Boston, MA.
- Gilrane, C., Rearden, K.T., Louderback, H., Holt, J., & Covington, J. (2014, February). *Racing to the top while becoming a teacher: Taking charge of change while staying focused on deep understanding*. Paper presented at the American Association of Colleges for Teacher Education annual conference, Indianapolis, IN.
- Jordan, J., Broemmel, A., & Rearden, K. (2013, December). *Social media and book clubs as preservice professional development: "Like!"* Paper presented at the Literacy Research Association (LRA), Dallas, TX.
- Jordan, J., Broemmel, A., & Rearden, K.T. (2013, November). *Pre-service teachers' perceptions of book clubs as professional development*. Paper presented at the National Council of Teachers of English national conference, Boston, MA.

Nora A. Vines, Ed.D.

Clinical Assistant Professor, Theory and Practice in Teacher Education
University of Tennessee

EDUCATION AND PROFESSIONAL CREDENTIALS

Ed.D.	2015	Educational Leadership Specialization: Literacy Education Significant Coursework in Literacy Education Dissertation (Defended 3/2015): Identifying Predictors of Young Children's Reading Achievement Dissertation Committee: Woodrow Trathen, Ph.D. (Chair), Darrell Morris, Ed.D., Carla Meyer, Ph.D., Dr. Jennifer McGee, Ph.D.	Appalachian State University
Post-Masters Graduate Certificate	2010	Reading Education	Appalachian State University
M.A.	2008	Reading Education	Appalachian State University
B.A.	2004	Elementary Education NC Teaching License: Reading K-12 NC Teaching License: Elementary K-6 TN Teaching License: Elementary K-6 TN Teaching License: Reading Prek-12	Lees McRae College

PROFESSIONAL HISTORY

2016-Present **Clinical Assistant Professor** Theory and Practice in Teacher Education, University of Tennessee.

Faculty member with teaching and supervising responsibilities. Teach graduate and undergraduate courses in elementary education, language arts instruction, reading instruction, and developmental literacy. Supervision of elementary interns (rural education cohort).

2015-2016 **Lecturer** Theory and Practice in Teacher Education, University of Tennessee. Faculty member with teaching responsibilities. Teach graduate and undergraduate courses in elementary education, language arts instruction, reading instruction, and developmental literacy.

2010-2015 **Clinical Instructor** Reich College of Education, Appalachian State University. Faculty member with teaching and supervisory responsibilities. Teach graduate and undergraduate courses in developmental literacy, children's literature, emergent literacy, language arts instruction and curriculum, and instruction. Supervise students during internships prior to student teaching.

2013-2014 **Clinical Instructor** Division of Education, Lees McRae College. Faculty member with teaching responsibilities. Teach undergraduate courses in children's literature, language arts instruction and social studies instruction. Provided assistance with delivering professional development and creating a professional learning community for teaching literacy in content areas. Co-conducted professional development in-services with teacher participants.

SCHOLARLY PUBLICATIONS AND ACTIVITIES

Articles Published in Refereed Journals

- Vines, N.A.** & Jordan, J., & Broemmel, A. (In Press). Re-envisioning Spelling Instruction: Developmental Word Study Non-negotiables. *The Reading Teacher*.
- Vines, N.A.** (In press). Essential first grade reading assessments: Classroom-based tools. *Tennessee Literacy Journal*.
- Morris, D., Meyer, C.K., Trathen, W., McGee, J., **Vines, N.A.**, Stewart, T.T., Schlagal, R. & Gill, T. (2016). The "simple view," instructional level, and the plight of struggling fifth/sixth grade readers. *Reading & Writing: Overcoming Learning Difficulties*.
- Meyer, C.K., Stewart, T.T., & **Vines, N.A.** (2014). Empowering writers: Revisiting literary anthologies as a means of engaging middle grade boys in the writing process. *Reading in the Middle*.

Presentations/Workshops

International/National Scholarly Presentations

- Rigell, A. & **Vines, N.A.** (Accepted). Disrupting Assumptions and Deficit Thinking. Case Story session accepted for presentation at the American Association of Colleges for Teacher Education Annual Conference, Atlanta, GA. [P*]
- Vines, N.A.** & Jordan, J. (Accepted). Developmental Word Study: Supporting Classroom Teachers in Re-envisioning and Implementing Effective Spelling Instruction. Paper session accepted for presentation at the American Reading Forum Annual Conference, Sanibel, FL. [P*]
- Vines, N.A.** & Jordan, J. (Accepted). Bridging research and practice: The impact of developmental word study on contextual reading achievement. Workshop session accepted for presentation at the Association of Literacy Educators and Researchers Annual Conference, Corpus Christi, TX. [P*]
- Vines, N.A.**, Jordan, J. & Broemmel, A. (Accepted). Expert teachers: The bridge(s) from theory to practice. Paper session accepted for presentation at the Association of Literacy Educators and Researchers Annual Conference, Corpus Christi, TX. [P*]
- Jordan, J., **Vines, N.A.**, Norvell, C., & Buckner, C. (Accepted). The "ideal" teacher: Bridging pre-service to in-service teacher identity. Paper session accepted for presentation at the Association of Literacy Educators and Researchers Annual Conference, Corpus Christi, TX. [P*]
- Vines, N.A.**, Broemmel, A., & Wilson, N. (2019, October). *What's Happening at the American Reading Forum?* Co-sponsored session presented at the International Literacy Association Annual Conference, New Orleans, LA. [P*]
- Jordan, J., **Vines, N.A.**, Norvell, C. & Buckner, C. (2019, October). *The Ideal Teacher: Transforming Pre-service Teacher Identity*. Research Poster session presented at the International Literacy Association Annual Conference, New Orleans, LA. [P*]

- Coleman-King, C., Jordan, J., & **Vines, N.A.** (2019, February). Reorienting Epistemology of Teacher Candidates: Mitigating Privilege and Understanding. Paper session presented at the American Association of Colleges for Teacher Education Annual Conference, Louisville, KY. [P*]
- Rigell, A., **Vines, N. A.**, Broemel, A., & Jordan, J. (2018, December). Teacher identity re-imagined: Disrupting assumptions and deficit thinking. Paper session presented at the American Reading Forum Annual Conference, Sanibel Island, FL. [P*]
- Jordan, J., **Vines, N.A.**, Broemmel, A. (2018, December). Equity through word study: Literacy impact on one rural community. Paper session at the Literacy Research Association Annual Conference, Indian Wells, CA. [P*]
- Jordan, J., **Vines, N.A.**, Sharp, V. & Brock, D. (2017, December). (Re)designing Word Study with Rural Second Grade Teachers. Advancing Literacy session presented at the American Reading Forum Annual Conference, Sanibel Island, FL. [P*]
- Vines, N.A. (chair)**, Broemmel, A.D., Jordan, J.J., Hundley, M., & Pendergrass, E. (2017, December). Designing Teacher Preparation: Lessons Learned in the Era of EdTPA. Panel session presented at the American Reading Forum Annual Conference, Sanibel Island, FL. [P*]
- Jordan, J., Broemmel, A., **Vines, N.A.**, Pendergrass, E., & Hundley, M. (2017, December). Just Good Teaching: Academic Language as a Strategic Planning Tool. Panel presented at the EdTPA National Implementation Conference, San Jose, CA. [P*]
- Vines, N.A.** & Broemmel, D. (2016, December). Supporting pre-service and in-service elementary teachers' development of a writing identity. Paper presented at the American Reading Forum Annual Conference, Sanibel Island, FL. [P*]
- Vines, N.A.**, Wilson, A., & Davis, J.; Young, C.; Meyer, C.K. (2015, December). Children's Literature: Windows, Mirrors, and Sliding Glass Doors for Pre Service Teachers. Symposium organized by Nora Vines and presented at the Literacy Research Association Annual Conference, Carlsbad, CA. [P*]
- Vines, N.A.** (2014, December). Identifying predictors of young children's reading achievement. Paper presented at the American Reading Forum Annual Conference, Sanibel Island, FL. [P*]
- Vines, N.A.** (2014, December). Predicting early reading achievement: Identifying effective assessment tasks. Paper presented at the Literacy Research Association Annual Conference, San Marco Island, FL. [P*]
- Meyer, C.K., Trathen, W., Morris, D., McGee, J., Stewart, T.T., **Vines, N.A.**, Gill, T. (2013, December). Reading profiles of struggling middle school readers: What does it mean in the Common Core State Standards? Paper presented at the Literacy Research Association Annual Conference, Dallas, TX. [P*]
- Stewart, T.T., Meyer, C.K., & **Vines, N.A.** (2012, December). Engaging Writers: Exploring the role of the literary anthology as a means of creating dynamic texts. Paper presented at the American Reading Forum annual conference, Sanibel Island, FL. [P*]

CURRICULUM VITA

Stewart Waters

Associate Professor of Social Science Education
University Tennessee, Knoxville

Academic Background

Ph.D. Social Science Education (May, 2011)	The University of Central Florida, Orlando, FL
M.Ed. Educational Leadership (August, 2008)	Florida State University, Tallahassee, FL
B.S. Social Science Education (May, 2006)	Valdosta State University, Valdosta, GA

Professional Experience

Aug. 2017- Present	Associate Professor of Social Science Education University of Tennessee, Knoxville, College of Education, Health, and Human Sciences, Knoxville, TN.
Aug. 2011- 2017	Assistant Professor of Social Science Education University of Tennessee, Knoxville, College of Education, Health, and Human Sciences, Knoxville, TN.
Summer 2011	Visiting Instructor University of Central Florida, College of Education, Orlando, FL
2009-2011	Graduate Teaching Associate University of Central Florida, College of Education, Orlando, FL

Administrative Experience

2017- Present	Associate Editor- <i>The Journal of Social Studies Research</i>
Aug. 2011-	Assistant Editor- <i>The Journal of Social Studies Research</i>

2016

2008-Present Conference Coordinator – The International Society for the Social Studies Annual Conference

2008-July 2011 Editorial Assistant – *The Journal of Social Studies Research*

Professional Journal Articles (Refereed)

- Waters, S. & Hensley, M.** (In Press) A Practical Guide to the Benefits & Barriers to Mobile Technology Integration in Social Studies. *Curriculum and Teaching*. (Acceptance Rate: 15-20%, Per Editor)
- Waters, S. & Hensley, M.** (In Press). Twitter During the Trump Era: Practical Considerations for Secondary Social Studies Teachers. *Journal for the Liberal Arts and Sciences*. (Acceptance Rate: 35%, Per Editor)
- Waters, S.** (2019). Teaching about Populism with *The Wizard of Oz*. *Trends & Issues*. (Acceptance Rate: 40%, Per Editor)
- Waters, S. & Magliocca, A.** (2018) Times Up World History: Broadening the World History Narrative. *The Social Studies*. (Acceptance Rate: 25%, Per Editor)
- Waters, S. & Demoiny, S.** (2018) Using monuments and historic sites as a catalyst for race discussions in social studies. *The History Teacher*, 51(3), 367-386. (Acceptance Rate: 15-18%, Per Editor)
- O'Bannon, B.W., **Waters, S.**, Lubke, J., Cady, J., & Rearden, K. (2017). Teachers and students poised to use mobile phones in the classroom. *Computers in the Schools*, 34(3,) 125-141. <http://dx.doi.org/10.1080/07380569.2017.1347454>
- Waters, S.** (2017). Movie making apps and media literacy. Visual and Digital Texts, *Journal of Adolescent & Adult Literacy*. 61(1), 109-111. (Acceptance Rate: 20% Per Editor).
- Kenna, J. L. & **Waters, S.** (2017). Teaching geography through an animated lens. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 90 (4) 147-151. (Acceptance Rate: 20-25%, Per Cabell's)
- Waters, S. & Russell, W.** (2017). Utilizing film to explore global human rights violations. *Social Education*. 81(3), 174-177. (Flagship Journal - Acceptance Rate: 5-8%, Per Editor)
- Waters, S. & Mashburn, N.** (2017). An Investigation of Middle School Teachers' Perceptions on Bullying. *Journal of Social Science Education Research*, 8(1), 1-34. (Acceptance Rate: 18%, Per Editor)
- Kenna, J. L. & **Waters, S.** (2016). Women on America's historical landscape: Teaching with monuments and memorials. *Social Studies Research and Practice*, 11(3), 67-79 (Acceptance Rate: 9%, Per Editor).

- Russell, W. & **Waters, S.** (2016). Elementary social studies: A survey of what 3rd, 4th, and 5th grade students' like and dislike about social studies instruction. *International Journal of Historical Learning, Teaching and Research*, 14(1), 155-162. (Acceptance Rate: 30%, Per Editor)
- Waters, S.** & Stone, J. (2016) Learning beyond the classroom: Activities and resources for planning service learning projects in social studies. *Journal for the Liberal Arts and Sciences*, 21(1), 46-59. (Acceptance Rate: 35%, Per Editor)
- Waters, S.** & Russell, W. (2016). Virtually ready? Pre-service teachers perceptions of a virtual internship. *Research in Social Sciences and Technology*, 1(1), 1-23 (Acceptance Rate: 15% Per Editor)
- Waters, S.** & Watson, J. (2016). Examining the standardization of social studies content in the United States. *Curriculum and Teaching*, 31(1), 89-99. (Acceptance Rate: 15-20%, Per Editor)
- Waters, S.**, Kenna, J., & Bruce, D. (2016). Apps-olutely perfect! Apps to support Common Core in the social studies classroom. *The Social Studies*, 107(3) 115-121. (Acceptance Rate: 25%, Per Editor)
- Busey, C. & **Waters, S.** (2016). Who are we? The demographic and professional identity of social studies teacher educators. *The Journal of Social Studies Research*, 40(1), 71-83. (Acceptance Rate: 5%, Per Editor)
- Waters, S.** & Troy, P. (2015). Calling all teachers: Time to use cell phones in schools. *Information Technology, Education and Society*, 16(2), 17-27. (Acceptance Rate: 20%, Per Editor)
- Waters, S.** & Jenkins, L. (2015) Young adult historical fiction in the middle grades social studies classroom: Can literature increase student interest and test scores? *Learning and Teaching: An International Journal in Classroom Pedagogy*, 8(2), 39-61. (Acceptance Rate: 15%, Per Editor)
- Demoiny, S. & **Waters, S.** (2015). Document-Based questions: Scaffolding the process for middle school students. *The Southern Social Studies Journal*, 41 (2), 8-13. (Acceptance Rate: 35%, Per Editor)
- Waters, S.** & Edmondson, D. (2015). Making the most of movies in the social studies classroom. *Trends & Issues*, 7-8 (Acceptance Rate: 40%, Per Editor)

Books

- Waters, S.** & Russell, W. (In Press) *Movies and moral dilemmas: A practical guide to cinema based character development*. Charlotte, NC: Information Age Publishing.
- Russell, W., **Waters, S.**, & Turner, T. (2019). *Essentials of Middle and Secondary Social Studies, 2nd Edition*. New York, NY: Routledge.
- Russell, W., **Waters, S.**, & Turner, T. (2018). *Essentials of Elementary Social Studies, 5th Edition*. New York, NY: Routledge.

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EDUCATION

1992, Ph.D. in Elementary Education, New York University College of Education, New York NY

Thesis title: *The use of historical fiction trade books in collaboration with a social studies textbook and its relation to learning in the social studies classroom.*

Dissertation Chair: Bernice E. Cullinan, PhD

1985, Ed. S. in Elementary Education, William Carey College, Hattiesburg MS

Thesis title: *A comparative study of the reading and mathematics achievements of elementary children of military parents and non-military parents.*

Thesis advisor: Dorothy Wheeler, PhD

1981, M. A. in Elementary Education (K-8), William Carey College, Hattiesburg MS

1978, B. S. in Elementary Education (K-8), Mississippi College, Clinton MS

EMPLOYMENT

2018-present, Professor, Theory and Practice in Teacher Education, The University of Tennessee, Knoxville, TN

2008-2018, Associate Professor, Theory and Practice in Teacher Education, The University of Tennessee, Knoxville TN

2002-2008, Assistant Professor, Theory and Practice in Teacher Education, The University of Tennessee, Knoxville TN

ARTICLES PUBLISHED IN PEER REVIEWED JOURNALS

Clabough, J, Wooten, D., & E. Blackstock, (accepted/2020) Drama-Based Activities with Washington and Du Bois' Policies to Address Racial Discrimination to Address Racial Discrimination. *Ohio Social Studies Journal*.

Wooten, D. & Sherwood, E. (2019). *Wishtree* Text Set: An exploration of immigration and interdisciplinary literacy learning. *Illinois Reading Council Journal*. 48(1), 117-127

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Wilson, F., Wilson, S., Morton, T., **Wooten, D.**, Henderson, L., Oslick, M. E., Sakoi, J., Herbeck, J., Sui-Runyan, & Y., Zepf, (accepted). 2019 Notable Books for a Global Society: A Booklist for Grades PreK-12 Journeys of Self-Discovery. *Dragon Lode*.

- Schmidt, R., Wilson, F., Finan, K., Flood, N., Morton, T., Wilson, S., & **Wooten, D.** Oslick, M. Sakoi, J. (Spring, 2018). 2018 Notable Books for a Global Society. *Dragon Lode*, 36(2), 19-31.
- Schmidt, R., Wilson, F., Aziz, S., Finan, K., Flood, N., Morton, T., Sung, Y., Wilson, S., & **Wooten, D.** (Spring, 2017). 2017 Notable Books for a Global Society Award: Empathy, caring, and understanding from multiple perspectives. *Dragon Lode*, 35(2), 51-69.
- Clabough, J., **Wooten, D.** (2016). Bias, bigotry, and bungling: Teaching about the Port Chicago 50. *Social Education*, 80(3). 160-165.
- Clabough, J., **Wooten, D.** & Shelley, E. (2016). Discovering the inner strength of WW II POWs with NCSS award-winning trade books. *Tennessee Association of Middle Schools Journal*, 46(1), 1-16.
- Wooten, D.** & McCuiston, K. (2015). Children's literature book apps: Exploring new paths for books and literacy development. *Journal of Children's Literature*, 41(2), 26-30.
- Davis-Wiley, P. & **Wooten, D.** (2015). Enhancing metacognitive literacy: A research study using sticky notes in the classroom. *American International Journal of Contemporary Research*. 5(4), 1-9.
- Broemmel, A.D., Moran, M.J., & **Wooten, D.** (2015). The impact of electronic books (Moving Picture Books ®) on the vocabulary and language development of preschool-aged children in two school settings. *Early Childhood Research and Practice*, 17(1). Retrieved from <http://ecrp.uiuc.edu/v17n1/broemmel.html>

BOOKS

- Wooten, D.**, Liang, L., & Cullinan, B. (Eds.). (2018). *Children's literature in the reading program: Engaging young readers in the 21st century*. (5th ed). New York: NY: Guildford Press/"Cobrand" International Literacy Association.
- Wooten, D.** & Cullinan, B. (Eds.). (2015). *Children's literature in the reading program: Engaging young readers in the 21st century*. (4th ed). Newark, DE: International Literacy Association.
- Wooten, D.** (2009). *Valued voices: An interdisciplinary approach to teaching and learning*. Knoxville, TN: WandSC Publishing. (reprinted edition)
- Wooten, D.** & Cullinan, B. (Eds.). (2009) *Children's literature in the reading program: An invitation to read*. (3rd ed). Newark, DE: International Reading Association.
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CONTRIBUTIONS TO EDITED VOLUMES

- Wooten, D.** & Thomas, K. (2018). Biographical picture books are winning awards and teachers' and students' attention. In D. Wooten, L. Liang & B. Cullinan, (Eds.). *Children's literature in the reading program: Engaging young readers in the 21st century*. (5th edition). New York, NY: Guildford Press/"Cobrand" International Literacy Association.
- Wooten, D.**, Ewing, B., & McCuiston, K. (2017). Unwrapping *then* to understand *now*. In G. Hickey, & J. Clabough, *Digging deeper: Activities for enriching and expanding social studies instruction K-12*. (pp. 25-44). Charlotte, NC: Information Age Publishing.
- Wooten, D.** & McCuiston, K. (2015). Learning about legacies through biographical picture books. In D. A. Wooten & B. E. Cullinan, B. (Eds.). *Children's literature in the reading*

program: Engaging young readers in the 21st century. (4th edition). (pp. 35-52).
Newark, DE: International Literacy Association.

Roser, N., Palmer, D., E., Martinez, M., Greeter, E., & **Wooten, D.** (2015). "That isn't fair!"/"¡No es justo!" Process drama for children learning to think critically about picture books in English and Spanish. In D. Wooten & Cullinan, B. (Eds.). *Children's literature in the reading program: Engaging young readers in the 21st century.* (4th edition). (pp.128-149). Newark, DE: International Literacy Association.

RESEARCH REPORTS

International Literacy Association Literacy Teacher Preparation Task Force (including D. Wooten). (2015). *Preliminary report on teacher preparation for literacy instruction.* International Literacy Association website's *literacyworldwide.org*.
<http://literacyworldwide.org/docs/default-source/where-we-stand/teacher-preparation-report.pdf>

CREATIVE SCHOLARSHIP

Stephens, W., **Wooten, D.**, Russell, S., & Nesi, O. (March, 2014). *What's happening at the core? On Common Core 2014.* Sponsored Webcast by: Capstone, Biblioboard, HarperCollins Children's Books, Lerner Publishing Group and *School Library Journal.*

GRANTS

Funded

Center for Children's and Young Adult Literature
City of Knoxville Suffrage Seed Fund **2019**

\$2,100.00

Not Funded

Broemmel, A., Bell, S., Jordan, J., Park, Y., & Wooten, D. (2016). Ready to Read.
Submitted to: Tennessee Department of Education.

Completed

Wooten, D. (2013).

\$565.00

Professional Development Grant for Travel to The Tennessee Reading Association's Annual Conference.
Submitted to: TPTE

Accepted but not funded due to budget cuts

Barclay-McLaughlin, Davis J., Hagevik R., & **Wooten, D.** (2009). **\$18,557.00**
Research on Cultural Narratives as an Online Tool for Enhancing Social Justice, Equity, and International Exchange. Funded by the University of Tennessee Organized Research Units (ORU) Project.

Completed

Wooten, D. A. & Barclay-McLaughlin, G. (2007).

\$2,500.00

Using Cultural Autobiographies to Transform Curriculum, Instruction and Learning.

Appendix F: Program Descriptions

<i>Institution Name</i>	<i>Program Title and Degree Designation</i>	<i>Description of Program and Pathway(s) to Elementary Education Licensure</i>
Middle Tennessee State University	BS Elementary Education	The 4-year Elementary Education program specializes in preparing future educators for teaching learners in kindergarten through 5 th grade. Throughout this program, students are trained in content knowledge, instructional and assessment strategies, classroom management, and other relevant topics and practices. Students are provided opportunities throughout their programs to engage in experiential learning in elementary classrooms, which includes two residency requirements. As students progress to Residency 1, some students complete this intense field placement at Campus School, spending two days per week working alongside mentor teachers and their students at this historic school that has a long tradition of supporting MTSU teacher candidates. Residency I requires 15 hours of coursework and Residency II requires 12.
Tennessee Technological University	<i>M.A./Ed.S. Curriculum and Instruction with Concentration in Elementary Education</i>	The M.A./Ed.S. in education degree in Curriculum and Instruction with a concentration in elementary education is an advanced degree program at Tennessee Tech. The degree emphasizes a practical approach to teaching in K-12 classrooms. In addition to the education focused curriculum, a research core creates a strong graduate program.
<i>Austin Peay University</i>	<i>BS Education</i>	Austin Peay State University have been approved to offer 25 initial teaching endorsements. The programs offered are subject to change based on revision of standards by the Eriksson College of Education or the Tennessee Department of Education. This program is four-years and requires 124 hours to complete.
<i>Belmont University</i>	<i>BS/BA Elementary Education</i>	Belmont approaches Early Childhood Education and Elementary Education as the fundamental starting place for a child's life-long learner. The structure of the program for PK-3 and K-5 licensure curriculum is structured so that that in taking only one additional course, Methods and Materials for Early Childhood Education, our Elementary Education candidates are able to add-on an Early Childhood license. Further, because of the emphasis on advocacy for families and children, particularly those whose heritage language may not be English, with the addition of three courses

		<p>our Elementary Education candidates can add-on an English as a Second Language certification.</p> <p>A particular strength of the Early Childhood and Elementary Education programs is that our candidates also have a content major in addition to their education major. The strong liberal arts general education, plus the content major added to the Education licensure courses makes our candidates particularly strong teachers of content and teaching skills. This is why our candidates are in high-demand by school districts. The following is a list of partner content majors which can be combined with the Education licensure major: http://www.belmont.edu/education/undergraduate/early-childhood-elementary/index.html</p>
<p><i>Carson-Newman University</i></p>	<p><i>BA Liberal Studies with Elementary Education</i></p>	<p>All candidates for teacher licensure complete practicum experiences in P-12 settings, beginning with the first or second year of study. The program culminates in a semester-long student teaching experience. All programs can be completed in four years.</p>
<p><i>Cumberland University</i></p>	<p><i>BS Child Growth and Learning</i></p>	<p>The mission of the Child Growth and Learning program is to prepare candidates to meet the academic and developmental needs of all students grades K-5. The Bachelor of Science in Child Growth and Learning is designed with input from current practitioner partners specifically to incorporate coursework from the disciplines of psychology, education, and other disciplinary content areas to prepare the Cumberland University student for candidacy for a Tennessee Elementary Education (K-5) Teaching License.</p> <p>The program has been specifically designed to ensure graduating teacher candidates meet the academic and developmental needs of all students during their first year teaching and thereafter. Students in this program must be admitted to the Steps Through Educator Preparation Program (STEPP) to be considered a candidate for licensure, and must meet STEPP requirements at key checkpoints in their program. Cumberland University students who wish to become teacher candidates must see a Teacher Education Program advisor for more information on teacher candidacy.</p>

<i>East Tennessee State University</i>	<i>BS Early Childhood Development</i>	<p>Elementary Education (K-5) is designed for undergraduate students interested in becoming educators for kindergarten through 5th grade. Students in this program are eligible for licensure as K-5 teachers after admission to Teacher Education, successful completion of specific courses, construction of a professional portfolio, participation in professional field work, passing a criminal background check and meeting all state testing requirements.</p> <p>The Elementary Education program is evolving as a performance-based program aligned with standards that have been developed at the national level by professional organizations and learned societies. These standards enhance the philosophy, purposes and assumptions within the curriculum of the major in Elementary Education. The faculty of the Department of Curriculum and Instruction has adopted the following performance-based standards for the Elementary Education program.</p>
<i>Freed-Hardeman University</i>	<i>BS in Interdisciplinary Studies</i>	<p>FHU / Dickson at the Renaissance Center offers programs for students who desire to complete a bachelor's degree and who have completed an associate's degree or who have completed 60 or more credit hours from a regionally accredited college or university. For students just beginning their college coursework, Nashville State Community College offers classes at the Renaissance Center that lead to the completion of an associate's degree.</p> <p>The B.S. Major in Interdisciplinary Studies with a Concentration in Elementary Education (K-5) program is a professional preparation program that gives you an in-depth understanding of the theoretical and practical aspects of the physical, cognitive, language, social, emotional, and creative development of children in addition to the content knowledge and pedagogical skills required of teachers in today's classrooms.</p>
<i>Lee University</i>	<i>BS in Interdisciplinary Studies</i>	<p>A major in Interdisciplinary Studies prepares students for a profession as an elementary teacher (K- 5). Students may also choose to complete dual licenses in Human Development, Early Childhood and Interdisciplinary Studies.</p>

<p><i>Lincoln Memorial University</i></p>	<p><i>BS Elementary Education</i></p>	<p>LMU's undergraduate teacher education program for K-5 licensure offers courses leading to the Bachelor of Science degree with initial teacher licensure in all subjects, K-5, in compliance with Tennessee Department of Education licensure standards. This four-year professional program combines academic experiences in the university classroom with real-world practice in K-5 classrooms.</p> <p>Our faculty members have had extensive experience as classroom teachers and school administrators. Their diverse experience gives you the opportunity to learn practical information that can be applied in your own classroom. As a candidate for licensure in the programs, you will benefit from a wide range of clinical and field experiences, working alongside teachers in real classrooms</p>
<p><i>Lipscomb University</i></p>	<p><i>BS/BA Interdisciplinary Studies in Education</i></p>	<p>We work with other departments to help students prepare for teaching K-12 (art, theatre, health and physical education, instrumental and vocal music). We also offer endorsements in French, German and Spanish. Secondary education candidates will graduate with a teaching major in the subject area they want to teach. Students can also complete state requirements for endorsement in additional high school subjects. Most of our undergraduate students will graduation with either a Bachelor of Arts or a Bachelor of Science degree.</p> <p>Combined with an undergraduate major of your choosing, a minor in Education will help you to effectively share your knowledge with others. Learn from our accomplished faculty who will set you on the path to be a confident and competent teacher.</p>

Milligan College	BS Child and Youth Development	<p>Milligan College's teacher education program has expanded once again, to include an elementary education licensure at both the undergraduate and graduate levels. This is a broad licensure area for those wishing to teach in kindergarten through grade six.</p> <p>The licensure program was approved earlier this month by the Tennessee Board of Education, which establishes standards for the licensing of teachers and other educators in the state's public education system. The elementary education program is a comprehensive curriculum that integrates the general education core, professional education, an academic major, and a variety of field experiences in Milligan's public and private partner schools throughout the Tri-Cities area.</p> <p>Other licensure areas already offered by Milligan's teacher education program include early childhood education (preschool through grade three), middle grades (grades four through eight), secondary education (grades seven through 12), and K-12 specialty in physical education, music, theatre, and physical education.</p>
Tennessee State University	BS Early Childhood Development and M.Ed. in Elementary Education	<p>The B.S. in Elementary Education offers candidates the opportunity to prepare for a license to teach in Kindergarten through fifth grade. This means that the Tennessee Department of Education certifies that the individual is qualified to teach at those levels and thus is eligible to be hired by public school systems in the state. An endorsement for a given grade level means that the student is especially well prepared for those grades, but is also eligible to teach at whatever level the license includes. The concentration is child development and learning, with licensure for grades K-5.</p>
Trevecca Nazarene University	BS Elementary Education	<p>The Elementary Education program is designed to prepare students for a teaching career in grades K through fifth grade. The School of Education collaborates with area schools to provide students with observation and teaching experiences to enhance their learning. Students' education experience will culminate in student teaching.</p>
Union University	BS Interdisciplinary Studies in Education	<p>The Teaching and Learning major prepares teachers to teach typically developing elementary-age students. The major leads to initial licensure with the elementary K-5 endorsement and includes a year-long internship.</p>

		<p>Students have the option of adding the Early Childhood (PreK–3) endorsement. All students choosing the Teaching and Learning major must also complete Interdisciplinary Studies as a second major. The Interdisciplinary Studies major gives students the necessary content to teach in the elementary grades. The Special Education major prepares students to teach special needs youth as an interventionist in K–8 and/or 6–12 and Comprehensive Special Education (K-12) and includes a year-long internship. Completers of the Teaching and Learning major with the Interdisciplinary Studies major or the Special Education major with a professional education minor, together with the general education core, comprise the academic course requirements for a teaching degree at Union University. All transfer students must complete the year-long internship with co-requisite courses.</p>
<i>University of Memphis</i>	<i>BS Elementary Education</i>	<p>The University of Memphis Ready2Teach Educator Preparation Program, a nationally accredited and recognized program, is looking at the future of PreK-12 education. We have raised admission and exit standards, redesigned our curriculum to be practitioner oriented, built partnerships so our candidates complete their yearlong Residency in the classrooms of the best teachers and our candidates must demonstrate they can teach by submitting a successful edTPA, a nationally scored teacher performance assessment that is modeled after the National Board of Professional Standards.</p>

<i>University of Tennessee—Chattanooga</i>	<i>BS Interdisciplinary Educational Studies</i>	<p>Students pursuing teacher licensure through UTC’s teacher preparation program must meet requirements in four sequential checkpoints which control admission to the Teacher Education Program, admission to the induction experience (student teaching), and recommendation for licensure. Included in the checkpoint requirements are successful completion of specified coursework, achievement of appropriate grade point averages, and appropriate test scores on Praxis I as well as on the state-mandated Praxis II tests for the licensure area. In addition, specified paperwork must be submitted at each checkpoint. Success in meeting checkpoint requirements leads to success in completing the teacher preparation program.</p> <p>Applicants who demonstrate evidence of possessing qualifications and characteristics reasonably expected for entry into the teaching profession will be considered for admission to the teacher education program. For entry to the TEP, the candidate must meet all current admission standards set by UTC, the State Department of Education, and the College of Health, Education and Professional Studies. A student who has earned a degree or earned credit hours at another institution may be required to enroll in additional courses including the student teaching experience. This is to verify competency in those teaching fields for which initial teacher licensure or endorsement is being requested through a UTC recommendation. Additionally, any student seeking admission to the TEP should confer with a faculty adviser from the College of Health, Education, and Professional Studies to ensure that the appropriate coursework and admission requirements have been completed. 36 semester credit hours of graduate coursework is required including 24 hours of professional education, 9 hours of enhanced student teaching (Induction Experience), and 3 hours of Culminating Activity. In addition, students must complete the bridging content coursework identified by the program advisor; an applicant should consult the Certification Officer to initiate this process.</p>
<i>University of Tennessee—Martin</i>	<i>BS Integrated Studies</i>	<p>The mission of the education preparation program at the University of Tennessee at Martin is to prepare educators in initial and advanced programs as facilitators of active learning for P-12 learners in diverse and inclusive communities. This mission encompasses</p>

		<p>excellence in a variety of learning and field placement settings, fosters an innovative and student-focused learning community through coursework that is rigorous and standards-based, and integrates evidence-based educational practices in teaching and learning.</p> <p>Residency I provides opportunities for students to practice the theory from campus-based instruction in actual classroom settings; to work with various professionals in education for an extended period of time prior to Residency II (student teaching); and to see a complete picture of future responsibilities. Students will spend the equivalent of one (1) student teaching placement in P-12 classrooms and the remaining portion of the term will be spent in the University classroom linking course content with the day-to-day experiences of a classroom setting. Admission to and continuance in Residency II (student teaching) requires that the following procedures and policies be met and maintained.</p>
<p><i>Vanderbilt</i></p>	<p><i>BS Early Childhood and Elementary Education</i></p>	<p>Early Childhood and Elementary Education_ This program will prepare you to teach all curricular areas from pre-K through fifth grade. In this program, you will choose either an Early Childhood track, leading to teacher licensure for pre-K through third grade, or an Elementary Education track, leading to teacher licensure for kindergarten through fifth grade. Both tracks are field work intensive with a unique focus on children’s developmental thinking and reasoning in both school and non-school settings that involve teaching, advocacy, policy, and informal learning opportunities.</p>

University of Tennessee, Knoxville
Elementary Education, Bachelor of Science
External Reviewer Report
Aimee Morewood
February 20, 2020

I, Aimee Morewood, participated as the External Reviewer for the Elementary Education, Bachelor of Science at the University of Tennessee, Knoxville. This review included a two-step process prior to the completion of this written report.

The first step in this process occurred on January 9, 2020. On this date, I participated in a phone conference with Betty Dandridge Johnson, THEC Chief Academic Officer. During this call I was able to ask some preliminary questions about the written report I received from the University of Tennessee, Knoxville (UTK). The THEC Chief Academic Officer answered any direct questions I had about the report and explained the process for the scheduled off-site review.

The second step in this process involved an off-site review via a conference call (e.g., Zoom). The conference call was held on January 22, 2020 from 3-4:30pm EST. The meetings attendees came from various backgrounds and roles within the university, which demonstrated the support for this program and provided multiple perspectives about this proposal. The attendees on this conference call included:

1. Betty Dandridge Johnson: THEC Chief Academic Officer
2. Dr. Aimee Morewood: External Reviewer, West Virginia University
3. Dr. David Manderscheid: Provost
4. Dr. Karen Brinkley Etkorn: Director of Academic Affairs-UT System
5. Dr. David Cihak: Associate Dean of Professional Licensure and Director of the David T. Bailey Graduate School of Education
6. Dr. Sherry Bell: Department Head, Theory and Practice in Teacher Education
7. Dr. Jennifer Jordan (Leading the meeting): Elementary Education Coordinator

Below I explicitly address the 15 questions that were provided for this external review. And then I provide some additional thoughts regarding the possible consideration items for this review.

1. Does the proposed program appear to align with the stated goals of the state master plan and the institutional mission? Please identify any discrepancies.
-Yes. It appears from reading the written proposal and engaging in the conference call meeting, that this program does align with the stated goals of the stated master plan and the institutional mission.
2. Is the proposed curriculum for the program sufficiently extensive and sophisticated for a program in this field at this level of offering? If it is, what are its strengths? If it is not, where is the curriculum lacking and, most importantly, how can the proposed program be strengthened?
-Yes. This proposal includes incorporating more reading courses and content area course into this program (page 5 of the written report). This positions UTK as a leader in the field, as some programs look to cut credits in undergraduate teacher education, this proposal demonstrates the need for these additional courses to be added to the curriculum.

3. Are admission standards appropriate? If not, how should they be strengthened?
-Yes. The admissions standards seem appropriate and are even extended by including an interview (page 5 written report).
4. Are degree requirements sufficiently specific to ensure that the proposed program will meet stated objectives? If not, what additional degree requirements do you recommend?
-Yes. In my opinion the stated degree requirements in this proposed program will meet the stated objectives.
5. Are the level and quality of the faculty adequate to ensure that the proposed program will meet its stipulated objectives?
-Yes. I was impressed by the mix of faculty expertise and experiences provided in this report. This will support undergraduate learning in this program by providing the students with many opportunities to learn from various professionals.
6. There are other programs in this field available in the United States. As presently proposed, is this program appropriately distinctive to attract students from in-state and from out of state as well? Is there evidence to suggest, if not ensure, that there will be sufficient enrollments in the proposed program? Please comment on the proposed recruitment plan for the program and suggest marketing recommendations for consideration.
-Yes. It appears in this program proposal that there will be a shift in enrollment among programs (meaning currently students can only enroll in an education minor and with this proposal students will be able to enroll in a BS degree program). This change is necessary so that UTK can prepare teacher education students in an effective way. Based on the information in the written report on comparable universities within Tennessee, this proposed program would position UTK well within state school options. Given the shift of students between programs, this proposal does not suggest that there would be a decline in overall enrollment.
7. Are the projected number of enrollments in and graduates from the proposed program reasonable? If not, why and how should the projections be modified? If the attrition level proposed is not reflective of the field, please make recommendations for a more appropriate level.
-Yes. When retention rates were discussed during the second conference call, it was explained that UTK intended to provide more supports early for teacher education students to ensure retention in this program.
8. If the proposed program is to be offered via distance learning, is the faculty adequately trained in on-line delivery as described and are the institutional facilities and supports sufficient to provide quality delivery?
-N/A. This program is not offered at a distance.
9. Based on the supporting documentation provided and your knowledge of the field, is the level of national demand for graduates of such programs sufficient to ensure employment?
-Yes. The written report provided information regarding the national need for graduates from programs such as the one in this proposal.

10. Based on your review, does the curriculum provide sufficient opportunity for graduates to demonstrate both knowledge and skills needed for successful employment?
 -Yes. The structure of this proposed program provides the undergraduate students more time to learn the content and pedagogical skills needed to be an effective teacher. The quotes from both the student focus group and the conversation that took place during the conference call supported the need for this curriculum to be implemented.
11. Are the support services (e.g., advisement, financial aid advisement, available technology, library, etc.) adequate for the proposed program? If not, how may they be improved?
 -Yes. The support services outlined in this written proposal are sufficient for this program.
12. Are the facilities (e.g., physical space, equipment, etc.) adequate for the proposed program? If not, how may they be improved?
 -Yes. The facilities outlined in this written proposal are sufficient for this program.
13. Are the projected budgets adequate to support the proposed program and sustain development during the initial years to maturity (5 years)? If not, please suggest and explain appropriate adjustments.
 -Yes. The proposed budgets appear to be adequate to support the proposed program and sustain development during the initial years to maturity (5 years). Again, given the information in this proposal about the anticipated shift in the student population from the education minor to the education major, it does not appear that enrollment would fluctuate. Further, this proposal does not outline any additional costs associated with this new program.
14. Based on your best professional judgment, is the proposed program needed? If so, is the institution ready, in terms of faculty and other institutional resources, to successfully implement the proposed program?
 -Yes. This undergraduate program is needed so that teacher education candidates have the opportunity to take reading and writing content and pedagogy courses that will prepare them to be effective teachers. It seems from the information provided in this report that other state institutions already have BS degrees in place for their teacher education programs. In order for UTK to effectively prepare teachers who are ready to enter the profession, and stay competitive in within their state, they also must have a BS program in elementary education.
- Based on the written report and the conference call, I absolutely believe that the faculty at UTK is ready to implement this program and that it will be successful.
15. Do you recommend approval of the proposed program and why? If not, what modifications would be minimally required before you could professionally recommend approval?
 -Yes. I do recommend approval of this proposed program. The written report was detailed and extensive. UTK has been thoughtful and strategic in their approach when building this program proposal. This proposal provided information on various aspects that would impact new programs and UTK was able to address each aspect clearly. Further, during the phone meeting, UTK answered questions with ease and appear ready to start this undergraduate major in order to better prepare future teachers.

In addition to my direct responses to the questions as an external reviewer, I wanted to provide some additional information on various aspects of this proposal. First, it seems that the proposed addition of this program would add to the learning opportunities for those seeking initial teacher certification in elementary education. This proposal suggests adding more reading and content courses (SPED and ELL) as a part of this new major. Including these courses into a teacher preparation program will help to support and prepare those students enrolled in the program for future teaching environments by expanding the students' breadth and depth of knowledge.

The proposed program appears to have adequate resources given the nature of the shift from a minor to a major.

It is reported that traditionally that those students seeking teacher certification at UTK would major in psychology and then pursue an education minor. This proposal suggests that students would now major in elementary education. It is important to note that the Psychology Department supports this programmatic change (see Appendix C of the proposal for letter of support). This proposal suggests that elementary education majors will be advised to take psychology courses to fulfill open electives.

Finally, I feel it is important to note that this program is supported by various people within the UTK system. The proposal provided letters of support and those who attended the conference call meeting all provided different perspectives on why this new program was necessary. This proposal demonstrates the need for this program in order to support teacher education students at UTK and the benefits of producing effective teachers for the state of Tennessee.

It has been a pleasure reviewing the Bachelor of Science in Elementary Education program proposal for the University of Tennessee, Knoxville.

Aimee Morewood, PhD
Associate Professor
Outreach Coordinator, Literacy Education
Curriculum & Instruction/Literacy Studies/Social & Cultural Foundations
College of Education and Human Services
West Virginia University
304-293-8245

Tennessee Higher Education Commission
Coronavirus Impact on New Academic Programs
April 15, 2020



In light of the current Coronavirus pandemic, THEC is requesting additional information for new academic programs that are slated for the July 23, 2020 Commission meeting agenda. Please submit your response to the questions listed below by April 24, 2020. Any changes to expenditures and/or revenues will require a revised THEC Financial Projections Form.

Institution: University of Tennessee, Knoxville
Academic Program, Degree Designation: Elementary Education, B.S.
Proposed Implementation Date: Fall 2021

Questions: Coronavirus Impact on New Academic Programs
<p>Overall Program Need</p> <ul style="list-style-type: none"> ▪ Is this academic program as relevant as before the pandemic? <i>The new program provides an undergraduate pathway to become an elementary teacher, and it is not anticipated that the pandemic will impact the demand for elementary teachers in Tennessee in the long term. It will take four years for a student to complete the elementary education undergraduate degree, and an additional year to complete their teaching internship. The first licensed elementary teachers will appear on the job market in 2026. Our school partners have expressed enthusiasm for the new undergraduate pathway, and there is no reason to suspect that the interest or need would decline due to the pandemic.</i> ▪ Does this remain the most needed utilization of institutional resources in light of the pandemic? <i>The new academic program does not need additional institutional resources for implementation. It will draw on upon current resources (e.g., current Elementary and Teacher Licensure courses) as well as faculty expertise that already exists in the Department of Theory and Practice in Teacher Education (TPTE). The undergraduate program will not require any additional institutional resources beyond what is already allocated to the Elementary Education undergraduate minor and Masters of Science in Teacher Education (with an Elementary Education Professional Internship concentration) program.</i>
<p>Implementation Date, Admissions, and Enrollment</p> <ul style="list-style-type: none"> ▪ Any projected change in the proposed implementation date for the program? <i>No.</i> ▪ Will there be any adjustments needed in admission standards? <i>Admission Board interviews for entry into the program will be offered via Zoom until in-person interviews are reinstated. The admission standards have not changed.</i> ▪ Have enrollment projections shifted for the proposed program? If so, please provide an updated enrollment and graduation table and include an updated financial projections form. <i>No.</i>
<p>Program Delivery</p> <ul style="list-style-type: none"> ▪ What is the current delivery mode of the proposed academic program? <i>In-person.</i>

<ul style="list-style-type: none"> ▪ Are there plans to change the delivery mode for this program in light of the pandemic? <i>UTK has shifted all courses online for the summer 2020 semester, but no formal decisions have been made past that point. We are hopeful that by the Fall 2021 semester, we will be able to hold courses in-person.</i> ▪ What percentage of the curriculum is devoted to online delivery? <i>None of the proposed curriculum is devoted to online delivery.</i>
<p>Staffing and Placements</p> <ul style="list-style-type: none"> ▪ What faculty and staff searches are planned prior to implementing the proposed program? <i>There are no new faculty/staff positions needed for the Elementary Education academic program to begin. We will begin the program using current faculty resources.</i> ▪ Are any faculty and staff searches currently being advertised? If so, what is the anticipated hire date for these positions? Any challenges in hiring for these positions? <i>Dr. Pattie Davis-Wiley (Professor of World Languages, and named in this proposal) is retiring, and there is a faculty search underway to fill her vacated position. The position is advertised as Assistant Professor in World Language/ ESL Education (tenure track). The search committee has indicated that there is a satisfactory pool of applicants; they have since narrowed the pool to three candidates for interviewing. The hire date is August 2020.</i> ▪ If applicable, are there any special considerations that will need to be made for student placements in clinical and/or internship settings? <i>No; it will be a minimum of 3-4 years before the first students need a practicum experience.</i>
<p>Accreditation</p> <ul style="list-style-type: none"> ▪ Are there any accreditation considerations in light of the pandemic for the proposed program? <i>UTK's teacher preparation programs were accredited by the National Council for Accreditation of Teacher Education in 2014 and then transitioned to accreditation through the Council of the Accreditation of Educator Preparation (CAEP) in 2014.</i> <p><i>In addition to annual reporting, CAEP conducts an in-depth program review on a seven-year cycle. This review includes the submission of a self-study report to CAEP, which must include multiple sources of data and evidence that the EPP meets the rigorous CAEP standards. Following the submission of the self-study report, CAEP will conduct a site visit along with the Tennessee Department of Education (TNDOE) to verify the information presented in the self-study report. The site visitors will author a report to submit to the CAEP accreditation council, who make the final accreditation decision.</i></p> <p><i>UTK is undergoing an in-depth 7-year review. UTK's Self-Study report has been submitted to CAEP (https://sites.google.com/utk.edu/bgse-2020-caep-ssr/home?authuser=1), and the site visit is currently planned for October 2020.</i></p>
<p>Fiscal</p> <ul style="list-style-type: none"> ▪ If applicable, are there any renovation and/or equipment purchases that have been affected by the pandemic? <i>No.</i>

- How equipped is the proposed program to endure any significant institutional budget cuts?

Although the program is proposed to start in the fall of 2021, the department of Theory and Practice in Teacher Education (which houses Elementary Education) will not provide coursework until the fall 2023 semester. We do not anticipate any significant budget cuts at that time.

Other

- Are there any additional changes/considerations for the proposed academic program due to the pandemic?

Not at this time.

Academic Program Modification Proposal

Bachelor of Art in Cinema Studies

Submitted by

Interdisciplinary Program in Cinema Studies
College of Arts and Sciences
The University of Tennessee, Knoxville

Before the Proposed Change: Interdisciplinary Program Major, B.A. – Cinema Studies
Concentration CIP code: 30.9999

After the Proposed Change: Cinema Studies Major, BS CIP Code: 50.0601

Proposed Implementation Date of Proposed Program: Fall 2020

Proposed Termination Date of Current Concentration: Fall 2020

Anticipated Delivery Site: UT Knoxville Campus

Program and Department Liaisons and Contact Information

Academic Program Liaison: Linda C. Martin
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Updated May 15, 2020

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Cover Letter from Chief Academic Officer

April 14, 2020

Randy Boyd, President
University of Tennessee
800 Andy Holt Tower
1331 Circle Park
Knoxville, TN 37996

Dear President Boyd,

Please accept the attached Academic Program Modification for Cinema Studies at the University of Tennessee, Knoxville. Offered for many years as a minor, Cinema Studies became an Interdisciplinary Program (IDP) major in 2014 and has shown steady enrollment growth since that time. The program continues to be a highly successful concentration in the Interdisciplinary Programs major, housed in the College of Arts and Sciences. This growth, in addition to a growing demand for graduates, clearly supports elevating this concentration to a freestanding major.

As a result the growth of the program (from 30 majors when the program started in 2015 to close to 90 majors in 2020), the Cinema Studies program transitioned from an IDP to the School of Art—an organizational move that offers greater visibility—as well as access to additional resources, professional advisors, and recruiters. Graduates of the program have secured positions in the film industry, both locally and nationally, and have earned acceptance into prestigious graduate programs. Providing students with the opportunity to graduate with a BA in Cinema Studies (as opposed to a BA in Interdisciplinary Studies) will further enhance their profile after graduation and help faculty market the program more successfully. No comparable programs exist at any institution of public higher education in Tennessee, and the local media industry continues to have demand for broadly skilled employees. Importantly, this program modification will not require any additional resources.

The proposal for modification has undergone review and approval by all appropriate department, college, and campus bodies on the Knoxville campus, and has the full support of campus administration. At this time, we request transmission to the Board of Trustees for the next stage of approval. Please contact me if you have any questions or need additional documentation. Thank you in advance for your attention to this matter.

Sincerely,



David Manderscheid
Provost and Senior Vice Chancellor

CC: Donde Plowman, Theresa Lee, Maria Stehle, Linda Martin, Karen Etzkorn,

Current and Proposed Program Information

Cinema Studies Concentration, BA, (Interdisciplinary Programs Major), Cinema Studies Concentration, BA Honors, (Interdisciplinary Programs Major)

Table 1: Overview of Proposed Program Changes

Before Proposed Change			After Proposed Change		
<i>Title</i>	<i>Degree</i>	<i>CIP</i>	<i>Title</i>	<i>Degree</i>	<i>CIP</i>
Interdisciplinary Programs, Cinema Studies	BA	30.9999	Cinema Studies	BA	50.0601
Interdisciplinary Programs, Cinema Studies, Honors Concentration	BA	30.9999	Cinema Studies, Honors Concentration	BA	50.0601

Background on Proposed Academic Program Modification

History

The Cinema Studies Program at the University of Tennessee, Knoxville is an interdisciplinary major and minor devoted to studying the artistic, cultural, and political dimensions of motion pictures. Cinema Studies students take courses with internationally-recognized scholars and filmmakers. Among many other distinctions, our faculty have been nominated for the Pulitzer Prize, won awards at major film festivals (including Sundance), have been elected to leadership roles in the Society of Cinema and Media Studies, and have won numerous teaching and advising awards at UTK.

The Cinema Studies minor (15 hours) was established in the mid-1980s as an Interdisciplinary Minor. At this time, English offered three courses for the minor; a course in Art was listed (Art History and Production) as well as a course on German Cinema and some Broadcasting Production courses. The minor required an “Introduction to Cinema Studies” and a production class as well as three electives. The minor was housed in “Interdisciplinary Programs.” Based on student demand and faculty expertise, Dr. Maland, chair of the program at the time, proposed an Interdisciplinary Major in 2014/15 (30 hours). The major started with about 30 majors the first year; many of the students were double majors in English or Journalism and Electronic Media. Within two years, the program grew to around 70 majors (both first and second majors) and about 30 minors. It stabilized the following year and grew again slightly in 2019 to 86 majors while maintaining around 30 minors. In both the major and minor, students study the history and aesthetics of film and media while also undertaking their own productions. In addition to their coursework, many Cinema Studies students pursue internships at one of the many production companies based in Knoxville, while also participating in student filmmaking or cinema appreciation clubs. Our graduates go on to work in the film and television industry; study at top-ranked MFA and Ph.D. programs at leading film schools; or pursue broader goals (law school, the Peace Corps, etc.), thanks to the interdisciplinary approach that our program takes.

After Dr. Maland chaired the program for three years (and one full assessment cycle), Dr. Stehle became chair in the Fall of 2017 and Paul Harrill was appointed associate chair, a position created due to the growth of the program. In the last three years, we saw continued growth and student demand, specifically in the area of production. Due to this growth, we were encouraged by Dean Teresa Lee to move the program from Interdisciplinary Studies to the School of Art in order to give greater stability to the program and have stronger administrative support. The School of Art is the logical home for our program since most production courses are offered by faculty members in the School of Art. We wrote new bylaws that were approved by both the Cinema Studies and School of Art faculty. As mandated by the new bylaws, Paul Harrill was appointed co-chair, along with Dr. Stehle. The leadership of the program reflects the continued interdisciplinary commitment: one chair housed in the School of Art and one representing the theory/aesthetic/history emphasis of the program. In light of this structural change, we are applying for our own degree program, a BA in Cinema Studies.

Current Developments

As mentioned above, in the last year, our major has continued to grow. We now have cohorts of alumni of our program who have made their mark in the film industry or as academics in the field of film and media studies. Our program has followed a rigorous assessment cycle since it became a major. Every assessment has resulted in curricular adjustments to meet student needs better and to support the academic standards of the program. For example, after the last assessment cycle we instituted ART 102 as a pre-requisite for the major. This foundation class will ensure that students enter our introductory production class well prepared, similar to the way introductory English writing courses are a pre-requisite for CNST 281 Introduction to Cinema Studies. It will allow us to teach our required introduction class at a more advanced level and will ensure that students who enter the program in their first year immediately have classes to take in the major.

We also just passed a change to our theory/aesthetic/history courses. In the past, we have allowed students to fulfill their requirements for the theory/aesthetic/history course from a list of several classes that touch on the subject of cinema. We have now divided those courses into two groups: first, a group of core courses that are offered regularly and taught by core faculty in our program; and second, a list of courses that are offered less frequently. Students are required to take at least two classes from the first list; all other classes remain electives. In the past, core faculty in the program advised seniors and mentored majors and minors in their final two years. Since Fall of 2019, our professional advisor, shared with the School of Art, has taken over advising duties. Our students greatly benefit from a professional advisor who knows the program well. They are already advised during orientation, which helps us to recruit and retain the best students. Faculty now serve as mentors to students in their final two years in our program.

Our program is unique in that it offers training in Cinema Studies that places equal emphasis on production and the historical and aesthetic study of film. We are not a film school and our program is not a BFA. We offer liberal arts education that emphasizes critical analytical thinking, historical knowledge, and writing skills, together with teaching technical skills and artistic-creative expression. This combination appeals to our students and prepares them for careers that often require flexibility in skill and training. Some community colleges in the area offer training in production and a few private schools list programs that cover aspects similar to our interdisciplinary focus. There are no comparable degrees offered at public higher institutions in Tennessee. Our region has a thriving, growing film and media industry which further emphasizes the need for our program and allows our students to find internships and professional positions in the region.

Administrative Structure

The Cinema Studies program is housed in the School of Art, and supported by their administrative and staff resources. As an interdisciplinary program, Cinema Studies recognizes its strong ties to other academic departments, including English and Modern Foreign Languages and Literatures. That department owns enrollment numbers for Cinema Studies courses cross-listed in other departments.

Co-chairs who are tenured or tenure-track faculty lead the Cinema Studies program. To reflect the program's dual emphasis on history/theory/aesthetics and production, one co-chair is a Cinema

Studies core faculty member whose home department is the School of Art; the other is a core faculty member from outside the School of Art. The program co-chairs oversee the day-to-day functioning of the program, manage the budget, ensure that program activities are conducted in accord with the bylaws, and prepare annual reports summarizing the program's activities and objectives for the Director of the School of Art and the Dean of the College. Additional administrative duties specific to each co-chair may be enumerated in the letter of appointment. The Dean of the College appoints the co-chairs from a slate of one or more candidates approved by the core faculty. If the core faculty cannot nominate candidates who are tenured or tenure-track, or if there are no candidates from both the history/theory/aesthetics and production areas of the program, the Dean will determine the appropriate leadership for the program until such candidates become available. The co-chairs ordinarily serve for a term of three years. With the approval of the core faculty, each co-chair can be reappointed for subsequent terms with mutual agreement from the Dean of the College. Each co-chair teaches with a load reduction as assigned by the Dean of the College of Arts and Sciences.

The Cinema Studies program includes both core and affiliated faculty. Core faculty normally are drawn from faculty who teach courses on a regular basis that are a part of the Cinema Studies curriculum. Other faculty members may request to the co-chairs to be considered for inclusion to the core faculty. The main right of core faculty is to vote on matters of Cinema Studies curriculum, program policy, and other issues that come before them. The main responsibilities of core faculty are to attend Cinema Studies Committee meetings and to work with the program co-chairs to support the mission of the program as detailed below.

Any faculty member with an interest in film may request to the co-chairs of Cinema Studies to become a member of its affiliated faculty. The co-chairs will include affiliated faculty in communications about Cinema Studies activities; however, affiliated faculty will not be expected to attend Cinema Studies meetings and may not vote on program matters. At the end of each academic year, the co-chairs will contact core faculty to determine whether they wish to continue as core members in the next academic year. The program's co-chairs shall inform the Dean of the College or designated Associate Dean of any changes in the program's membership. Members of the core faculty provide advice to the co-chairs regarding the administration of the program and the allocation of the program's budget. They constitute the voting members of the Cinema Studies program. The core faculty review the bylaws on a regular basis and may approve amendments to them. The core faculty also help the co-chairs assess the program's major learning outcomes and recommend changes aimed to strengthen the program. Each member of the core faculty is expected to:

- serve on at least one of the three assessment committees of the three-year assessment cycle;
- serve as faculty mentors for majors and minors;
- teach a Cinema Studies course once a year (with the exception in years when faculty take any form of leave);
- attend Cinema Studies Committee meetings.

The core faculty meet at least once during each semester, and more as needed. The co-chairs prepare an agenda for each Cinema Studies Committee meeting and distribute it by electronic mail

to members of the core faculty at least three days before the date of the Cinema Studies Committee meeting. These meetings are open to all program members. The co-chairs ensure that minutes of all Cinema Studies Committee meetings are sent to the program's members, the Director of the School of Art, and to the Dean of the College or designated Associate Dean in a timely fashion. Cinema Studies core faculty oversee and propose changes to the program's curriculum. Consideration of changes to the curriculum, such as new courses, revised course titles and descriptions, dropped courses, revised major requirements, etc. may be initiated by any Cinema Studies faculty member by contacting the co-chairs. To be enacted, any changes to the curriculum must be brought before the Cinema Studies core faculty at a regularly announced meeting for discussion and a positive vote. If any proposals potentially impact the School of Art at-large, they are transmitted by the co-chairs to the School of Art Undergraduate Curriculum Committee for approval. In cases where the Cinema Studies curriculum changes do not impact the School of Art (e.g., regarding history/aesthetics courses) such proposals are passed forward to the appropriate divisional Curriculum Committee(s) of the College for further review and approval.

Cinema Studies program funding (for course buyouts, student programming, etc.) is supplied by the College and maintained in a distinct account in the School of Art. The Cinema Studies co-chairs, in consultation with the Director of the School of Art as appropriate, authorize spending from the account. The Director of the School of Art, if not a core or affiliated member of the Cinema Studies faculty, may attend Cinema Studies meetings in an *ex officio, non-voting* capacity. Likewise, the co-chair of Cinema Studies whose home department is outside the School of Art may attend Art faculty meetings in an *ex officio, non-voting* capacity.

Campus Approval

The core faculty of the Cinema Studies program and the faculty of the School of Art have accepted the new bylaws of the program. Curricular changes were submitted to the College of Arts and Sciences Curriculum Committee and were subsequently approved by the UTK/UTIA Undergraduate Council and Faculty Senate.

Need for the Program

In the short time that the Cinema Studies major has been offered through Interdisciplinary Programs, it has proven itself to be one of the most popular of these programs and a significant growth area in the College. Following Dean Teresa Lee's recommendation, we are pursuing this academic modification proposal to allow for even more growth. Creating a bachelor's degree in Cinema Studies from an existing degree concentration advances the UTK mission and values by preparing students for the many types of careers that value both critical analysis and creative and technical skills. Our students are scholars as well as creatives; they gain skills in research, writing, and critical thinking as well as production, marketing, and communications.

The state of Tennessee plays a major role in the creative industries of entertainment, television, and film, and Knoxville is home to Discovery, Inc., one of the largest media corporations in the United States. Making permanent a course of study that serves these industries furthers UTK's mission as the state's land grant university, which is to "move forward the frontiers of human

knowledge and enrich and elevate the citizens of the state of Tennessee, the nation and the world...[UTK] embodies the spirit of excellence in teaching, research, scholarship, creative activity, outreach, and engagement.”

Our Interdisciplinary Program has graduated majors in Cinema Studies students since 2016. Within just five years, our graduates have entered nationally ranked graduate programs in Cinema Studies and Cinema Production at Columbia, Florida State, and Temple University. Other graduates have began careers in the industry. They work locally as script writers, directors, producers, and editors on cable television productions. Nationally, our graduates are working in production and post-production in New York and Los Angeles. They have participated in the production of films that premiered at the Sundance Film Festival and were released internationally, they work for Marvel film productions, and one of our graduates, Ben Murphy, became an editor for James Cameron’s Avatar Sequel.

Technical, creative, and critical skills are in high demand in creative fields, in film and video production but also in related fields such as video games, app development, advertising, and marketing. Knoxville is a leader in cable television production and Tennessee is a center for entertainment nation wide. This has created many opportunities for our graduates who are well positioned to enter these competitive industries.

Furthermore, the proposed Cinema Studies degree meets the strategies of the Journey to the Top 25 by “adding value to the State of Tennessee by preparing students to thrive in a global economy, through creative work that improves the quality of life in Tennessee.” Positions that require integrated approaches to issues affected by different political, economic, and cultural policies are growing locally, nationally and globally.

Size and Growth

We currently have 86 majors and 28 minors enrolled in our program (Fall 2019). We anticipate the program will continue to grow at a similar pace in the next five years (see Table 3a and b).

Resources

As an IDP, the Cinema Studies program has drawn on departments such as Art, English, and MFL as well as faculty from other units inside and outside the College of Arts and Sciences (Sociology, History, Journalism and Electronic Media). By joining the School of Art, Cinema Studies will retain those faculty in an interdisciplinary capacity while taking advantage of the resources offered by the School of Art, notably, a professional academic advisor as well as other administrative support.

We have an allocated course release for the chair of the program as well as administrative stipends for the chair and associate chair. Our annual programming budget is \$4000. We have resources for one course buy out for the year.

Potential Impact of Modification on Current Programs

We do not expect any adverse effects for any other IDP concentrations or other majors in the College. If anything, raising the visibility of Cinema Studies will likely serve to increase College and University-wide interest from students. Moreover, students may be attracted by the possibility of either double-majoring or minoring in Cinema Studies and related degrees in the College of Arts and Sciences, such as English, Art, MFLL, Theater, Music, or History or the College of Communication's Journalism and Electronic Media program. Since our program is, per definition, interdisciplinary, we have close contact with faculty across campus and work closely with programs that offer synergies for our students.

Existing Programs Offered at Public and Private TN Institutions

Table 2 provides an overview of all other programs of this type in the state of Tennessee. Our program is the only BA Cinema Studies program at a public research university in the state of Tennessee.

Table 2: Overview of Existing Programs in Tennessee

Institution Name	Program Title and Degree Designation	CIP Code	Description/ Focus of Program	Miles from UT Campus
Pellissippi State Community College	Media Technologies/ Video Production Technology Concentration, AAS	50.0601	Offers only an Associate's degree, 2-year college	16 miles
ETSU	Film Studies, Minor	50.0601	Seems to only offer a minor	105 miles
MTSU	Video and Film Production, B.S.	50.0601	Only offers a BS	160 miles
Vanderbilt University	Cinema and Video Arts: A program in Theory, Production, History, BA	50.0601	Private school with a somewhat similar degree; fewer production classes	180 miles
Belmont	Motion Pictures, BA and BFA.	50.0601	Private liberal arts college with a somewhat similar degree	180 miles
Rhodes College	Film and Media Studies, Minor	50.0601	Private liberal arts college, only has a minor	380 miles
University of Memphis	Communications with a concentration in Film and Video Production, BA and MFA	50.0601	Major is in Communications with a concentration in Film	380 miles

Enrollment and Degrees Awarded by Concentration

Tables 3a and b and Table 4 provide enrollment data and a four-year projection for the program's enrollment and anticipated graduates. Table 5 gives an overview of enrollment data in all IDPs at the University of Tennessee and illustrates, again, the growth of our program.

Table 3a: Enrollments: Cinema Studies Major, Second Major, and Minor

Year	Majors	Second Majors	Minors
2019	76	10	27
2018	71	4	37
2017	58	6	20
2016	62	9	21
2015	52	10	24

Table 3b: Graduation Data Cinema Studies Major, Second Major, and Minor

Academic Year	Majors	Second Majors	Minors
2018-19	14	1	35
2017-18	15	4	21
2016-17	11	5	16
2015-16	3	2	20
2014-15	0	9	21
2013-14	0	0	30
TOTAL	43	21	143

Table 4: 5-Year Projected Enrollment & Graduation (Includes Primary and Secondary Majors)

Year	Enrollment (Majors)	Annual Graduates
1	85	20
2	90	25
3	95	30
4	100	32

Table 5: Enrollment and Degrees Awarded by Concentration (including second majors)

Concentration	Fall Headcount Enrollment				Degrees Awarded			
	2017	2018	2019	3-Year Average	17/18	18/19	19/20*	3-Year Average
Cinema Studies	64	75	86	75	15	19	15	16
Linguistics	75	57	70	67	17	18	10	15
Asian Studies	13	11	12	12	6	2	6	5
Africana Studies	15	9	7	10	7	8	5	7
Women, Gender & Sexuality	9	10	12	10	1	3	3	2
Medieval Studies	4	4	3	4	0	0	4	1
Middle Eastern Studies	1	6	2	3	0	1	4	2
Judaic Studies	3	4	5	4	1	0	1	1
Latin American Studies	0	2	2	1	2	0	1	1
Total Program	184	178	199	187	49	51	49	50

*Graduation numbers reflect Summer 2019 and Fall 2020 ONLY.

Student Learning Outcomes

Students graduating with a bachelor's degree in Cinema Studies will be able to:

1. Demonstrate knowledge of the historical and technological development of film as an art form and cultural product.
2. Demonstrate an ability to analyze and evaluate films, and to connect films to their cultural, historical, industrial, and generic contexts.
3. Demonstrate the ability to employ research skills, including the use of appropriate print and electronic sources in the discipline, and to integrate the results of that research into research essays.
4. Demonstrate skills in the practice of film/video production, including a familiarity with the elements of narrative form and of film style (mise-en-scene, cinematography, editing, and sound).

Assessment

Assessment Schedule

2014-15:	Outcomes 2 and 3, based on student research papers
2015-16:	Outcome 4, based on student videos
2016-17:	Outcome 1, based on student answers to specific questions and grades in selected upper-division history/theory classes
2017-18:	Outcomes 2 and 3, based on student research papers
2018-19:	Outcome 4, based on student videos
2019-20:	Outcome 1, based on imbedded data from three core history/aesthetics classes

Each year, we assess a different learning outcome. Based on assessment outcomes, we make program modifications. Assessment rubrics and reports appear in Appendix B.

Current and Proposed Curriculum Requirements

Current Curriculum

Table 6: Summary of the Program's Current Curriculum

Course Number and Title	Course Description	Credit Hours
Core Classes		
CNST 281	Introduction to Cinema Studies	3
CNST 236	Introduction to Cinema and Video Art	3
CNST 435, 436 or JREM 436	400-level production class	3
Complete 21 Additional Hours, at least two in the History/Theory/Aesthetics Category and at least one in the Production group		
History/Theory/Aesthetics		
At least two in this category	CNST 312: Popular Culture and American Politics CNST 314: Food, Fiction, and Film in Modern Japan CNST 315: Asian Film CNST 321: Japanese Graphic Novel/Anime CNST 323: German Film Survey CNST 325: Russian Film CNST 326: Brazilian Cinema CNST 334: Film and American Culture CNST 366: Hollywood and the 20th Century CNST 400: Special Topics CNST 420: French Cinema CNST 422: Topics in Italian Cinema CNST 423: Themes and Genres in German Cinema CNST 433: History of Film and Modern and Contemporary Art CNST 434: Hispanic Culture Through Film CNST 465: Latin American Film and Culture CNST 469: Sexuality and Cinema CNST 482: Special Topics in Global Cinema CNST 489: Special Topics in Film CNST 495: Modern China in Film	All 3-hours classes
Production		
At least one in this category	ARTC 401: Experiments in Sequencing ARTC 439: Special Topics in Four-Dimensional Arts CNST 365: Writing the Screenplay CNST 431: The Business of Cinema CNST 435: Narrative Filmmaking CNST 436: Video Art JREM 336: Video Production JREM 436: Advanced Video Production JREM 446: Documentary Video Production JREM 480: Media Programming in the Digital Era	Some 3, some 4-hour classes

Other		
	CNST 490: Internship CNST 491: Foreign Study CNST 492: Off-Campus Study CNST 493: Independent Study	

Proposed Curriculum

Table 7: Proposed Program Curriculum as of Fall 2020

Course Number and Title	Course Description	Credit Hours
Prerequisite Course(s)		
ART 102	Introduction to 4D Studio Art	3
Core Classes		
CNST 281	Introduction to Cinema Studies	3
CNST 236	Introduction to Cinema and Video Art	3
CNST 435, 436 or JREM 436	400-level production class	3
Core Courses – select 2 courses from the Core Studies Group, 6 credit hours		
Select two of the following	CNST 320 – Middle Eastern Film CNST 323 - German Film Survey CNST 326 - Brazilian Cinema CNST 334 - Film and American Culture CNST 420 - French Cinema CNST 422 - Topics in Italian Cinema CNST 423 - Themes and Genres in German Cinema CNST 469 - Sexuality and Cinema CNST 482 - Special Topics in Global Cinema CNST 489 – Special Topics	All 3-hour classes
Select at least one more class from Production		
At least one in the Production category	ARTC 401: Experiments in Sequencing ARTC 439: Special Topics in Four-Dimensional Arts CNST 365: Writing the Screenplay CNST 431: The Business of Cinema CNST 435: Narrative Filmmaking CNST 436: Video Art JREM 336: Video Production JREM 436: Advanced Video Production JREM 446: Documentary Video Production JREM 480: Media Programming in the Digital Era	Some 3, some 4-hours

Complete 15 additional hours form History/Theory/Aesthetics, Production, or Other	
	CNST 312: Popular Culture and American Politics CNST 314: Food, Fiction, and Film in Modern Japan CNST 315: Asian Film CNST 321: Japanese Graphic Novel/Anime CNST 323: German Film Survey CNST 325: Russian Film CNST 326: Brazilian Cinema CNST 334: Film and American Culture CNST 365: Writing the Screenplay CNST 366: Hollywood and the 20th Century CNST 431: The Business of Cinema CNST 435: Narrative Filmmaking CNST 436: Video Art CNST 490: Internship CNST 491: Foreign Study CNST 492: Off-Campus Study CNST 493: Independent Study CNST 400: Special Topics CNST 420: French Cinema CNST 422: Topics in Italian Cinema CNST 423: Themes and Genres in German Cinema CNST 433: History of Film and Modern and Contemporary Art CNST 434: Hispanic Culture Through Film CNST 465: Latin American Film and Culture CNST 469: Sexuality and Cinema CNST 482: Special Topics in Global Cinema CNST 489: Special Topics in Film CNST 495: Modern China in Film JREM 336: Video Production JREM 436: Advanced Video Production JREM 446: Documentary Video Production JREM 480: Media Programming in the Digital Era ARTC 401: Experiments in Sequencing ARTC 439: Special Topics in Four-Dimensional Arts

Crosswalk of Changes for the Proposed Modification

Table 8 provides a complete crosswalk of the current curriculum with the proposed curriculum.

Table 8: Crosswalk of Course Changes

	IDS Major with Concentration in Cinema Studies	Bachelor of Arts in Cinema Studies Major
PREREQ	Complete the Following: 0 Hours <i>For the concentration, students do not complete any prerequisites.</i>	Complete the Following: 3 Hours <i>For the major, students now complete <u>1</u> prerequisite as noted below.</i>
		ART 102: Introduction to 4D Studio Art
CORE	Core: Complete 9 Hours <i>There are no changes to the curriculum for the core courses.</i>	Core: Complete 9 Hours <i>There are no changes to the curriculum for the core courses.</i>
	CNST 281: Introduction to Cinema Studies (3)	CNST 281: Introduction to Cinema Studies (3)
	CNST 236: Introduction to Cinema and Video Art (3)	CNST 236: Introduction to Cinema and Video Art (3)
	CHST 435: Narrative Filmmaking; 436: Video Art; or JREM 436 : Advanced Video Production (3)	CHST 435: Narrative Filmmaking; 436: Video Art; or JREM 436 : Advanced Video Production (3)
CORE STUDIES	Core Studies: Complete 0 hours <i>As part of the concentration, students do not complete any additional core classes of their choosing.</i>	Core Studies: Complete 6 Hours <i>As part of the new BA curriculum, students will now <u>choose two additional core studies courses</u> from the following list*</i>
		CNST 320 – Middle Eastern Film (3)
		CNST 323 - German Film Survey (3)
		CNST 326 - Brazilian Cinema (3)
		CNST 334 - Film and American Culture (3)
		CNST 420 - French Cinema (3)
		CNST 422 - Topics in Italian Cinema (3)
		CNST 423 - Themes and Genres in German Cinema (3)
		CNST 469 - Sexuality and Cinema (3)
		CNST 482 - Special Topics in Global Cinema (3)
	CNST 489 – Special Topics (3)	
	<i>*Note: Although the courses in this category are not newly designed, they represent a NEW CATEGORY of courses (Core Studies) that did not exist as part of the concentration.</i>	

	H/T/A Courses: Complete 6-18 Hours	H/T/A Courses: Complete 0 Hours
ELECTIVES: History/Theory/Aesthetics	<i>Complete at least 6 hours from History/Theory/Aesthetics and at least 3 from Production to achieve 21 hours.</i>	<i>For the major, there is no longer a separate History/Theory/Aesthetics selection of courses.</i>
	CNST 312: Popular Culture and American Politics (3)	
	CNST 314: Food, Fiction, and Film in Modern Japan (3)	
	CNST 315: Asian Film (3)	
	CNST 321: Japanese Graphic Novel/Anime (3)	
	CNST 323: German Film Survey (3)	
	CNST 325: Russian Film (3)	
	CNST 326: Brazilian Cinema (3)	
	CNST 334: Film and American Culture (3)	
	CNST 366: Hollywood and the 20th Century (3)	
	CNST 400: Special Topics (3)	
	CNST 420: French Cinema (3)	
	CNST 422: Topics in Italian Cinema (3)	
	CNST 423: Themes and Genres in German Cinema (3)	
	CNST 433: History of Film and Modern and Contemporary Art (3)	
	CNST 434: Hispanic Culture Through Film (3)	
	CNST 465: Latin American Film and Culture (3)	
CNST 469: Sexuality and Cinema (3)		
CNST 482: Special Topics in Global Cinema (3)		
CNST 489: Special Topics in Film (3)		
CNST 495: Modern China in Film (3)		
ELECTIVES: Production	Production Courses: Complete 3-15 Hours	Production Courses: Complete 3+ Hours
	<i>Complete at least 6 hours from History/Theory/Aesthetics and at least 3 from Production to achieve 21 hours.</i>	<i>For the proposed major, students will then select <u>at least one Production course</u> from the following list.</i>
	ARTC 401: Experiments in Sequencing	ARTC 401: Experiments in Sequencing
	ARTC 439: Special Topics in Four-Dimensional Arts	ARTC 439: Special Topics in Four-Dimensional Arts
	CNST 365: Writing the Screenplay	CNST 365: Writing the Screenplay
	CNST 431: The Business of Cinema	CNST 431: The Business of Cinema
	CNST 435: Narrative Filmmaking	CNST 435: Narrative Filmmaking
	CNST 436: Video Art	CNST 436: Video Art
	JREM 336: Video Production	JREM 336: Video Production
	JREM 436: Advanced Video Production	JREM 436: Advanced Video Production
	JREM 446: Documentary Video Production	JREM 446: Documentary Video Production
JREM 480: Media Programming in the Digital Era	JREM 480: Media Programming in the Digital Era	

ELECTIVES: Additional Courses	Remaining Electives: Complete 0 Hours	Remaining Electives: Complete 15 Hours
	<i>Under the curriculum for the concentration, students <u>do not have a third category</u> from which to choose additional courses.</i>	<i>Under the revised curriculum for the major, students can now <u>choose five additional</u> courses (15 hours) from additional electives, which include History/Theory/Aesthetics, Production, and Other Courses.</i>
		ARTC 401: Experiments in Sequencing
		ARTC 439: Special Topics in Four-Dimensional Arts
		CNST 365: Writing the Screenplay (3)
		CNST 431: The Business of Cinema (3)
		CNST 435: Narrative Filmmaking
		CNST 436: Video Art
		JREM 336: Video Production
		JREM 436: Advanced Video Production
		JREM 446: Documentary Video Production
		CNST 312: Popular Culture and American Politics (3)
		CNST 314: Food, Fiction, and Film in Modern Japan (3)
		CNST 315: Asian Film (3)
		CNST 321: Japanese Graphic Novel/Anime (3)
		CNST 323: German Film Survey (3)
		CNST 325: Russian Film (3)
		CNST 326: Brazilian Cinema (3)
		CNST 334: Film and American Culture (3)
		CNST 366: Hollywood and the 20th Century (3)
		CNST 400: Special Topics (3)
		CNST 420: French Cinema (3)
		CNST 422: Topics in Italian Cinema (3)
		CNST 423: Themes and Genres in German Cinema (3)
		CNST 433: History of Film and Modern/Contemporary Art (3)
		CNST 434: Hispanic Culture Through Film (3)
		CNST 465: Latin American Film and Culture (3)
		CNST 469: Sexuality and Cinema (3)
		CNST 482: Special Topics in Global Cinema (3)
		CNST 489: Special Topics in Film (3)
		CNST 495: Modern China in Film (3)

Total hours: 30

Total hours: 30

New Courses Needed

The courses we are proposing in the new curriculum for Fall 2020 are already part of our curriculum. We do not anticipate that we will need any new courses. As our assessment reports suggest, we plan to institute a capstone course for seniors. With our growing number of majors and the addition of a new faculty member in film production in the School of Art starting in fall 2020, we will have the capacity to offer this class every year. We plan to propose this change in the coming curricular cycle. Instituting a capstone would not increase the overall hours for the major; we will propose to reduce the hour of electives from 15 to 12 and add a 3 credit hour senior capstone experience. This class would be a combined production and studies class and allow students, depending on their plans after graduation, further refine their skills in the different areas of our program, production, studies, writing, etc.

Curriculum Crosswalk for Accreditation Competencies

Table 9: Program Curriculum Alignment to Student Learning Outcomes

Student Learning Outcomes	Intro to Cinema, 3 Credit Hours	Introduction to Cinema and Video Art, 3 Credit Hours	CNST 435, 436 4 Credit Hours; JREM 436, 3 Credit Hours	Additional Production Courses and Electives, at least 3 Hours	2 Additional Studies Courses & Electives, at least 6 credit hours	Internship (optional)
Demonstrate knowledge of the historical and technological development of film as an art form and cultural product.	X				X	
Demonstrate an ability to analyze and evaluate films, and to connect films to their cultural, historical, industrial, and generic contexts.	X				X	
Demonstrate ability to employ research skills, including the use of appropriate print and electronic sources in the discipline, and to integrate the results of that research in research essays.	X				X	
Demonstrate skills in the practice of film/video production, including a familiarity with the elements of narrative form and of film style (mise-en-scene, cinematography, editing, and sound).		X	X	X		X

Distance Learning

Some courses are offered periodically as online courses, but this program will not be available via distance learning.

Admission, Retention, and Graduation Policies

Policies pertaining to admission, retention, and graduation for the BA in Cinema Studies will not differ from those for all other undergraduate degrees at UTK. These policies are easily accessible to students in the Undergraduate Catalog and Hilltopics, the student handbook of the University of Tennessee, Knoxville.

Retention

The advisor of Cinema Studies will initially meet all Cinema Studies undergraduate students. In their junior year, students will also choose a faculty mentor, typically drawn from the core faculty of the program. Students who declared Cinema Studies majors select courses, ensuring that their goals for the degree will be and are being met. The co-chairs of the program organize a student meeting once each semester where they distribute important information and they send out weekly announcements and information about opportunities.

Graduation

To earn a Bachelor of Arts degree, several requirements must be met. Students must complete all University of Tennessee degree requirements stated in the [UT Undergraduate Catalog](#), including those listed in the table below:

UTK College of Arts and Sciences Graduation Requirements:

Required Curriculum Required Hours

- Minimum total hours 120 hrs
- Credit hours in Major 30-48 hrs
- Credit hours at 300 level or above 42 hrs
- General Education requirements 43-45 hrs
- Credit hours in one or more optional minors 15-28 hrs
- Credit hours in U.S. History (H.S. credit applies) 6 hrs
- Minimum credit hours in major taken at UT 9 hrs
- Minimum credit hours in minor taken at UT 6 hrs
- Credit hours at a four-year institution 60 hrs
- Final credit hours at UT 30 hrs

Please note: In any area outside the major, minor, Foundations, Perspectives, and Upper Level Distribution requirements, students may take up to 20 credit hours of course work graded Satisfactory/No Credit.

Current Program Faculty

Table 10: Summary of Faculty Who Currently Contribute to the Proposed Program

Core faculty:				
Faculty Name	Faculty Dept.	Rank or Title	Highest Degree	Role in Program
Harrill, Paul	Art	Associate Professor	MFA	A, B, C, D
Stehle, Maria	MFLL, German	Associate Professor	PhD	A, B, C, D
Bivens, Emily	Art, 4D	Associate Professor	MFA	A,B,C, D
Brizio, Flavia	MFLL, Italian	Professor	PhD	A,B,C
Horiguchi, Noriko	MFLL, Japanese and Asian Studies	Associate Professor	PhD	A,B,C
Kelley, John	Art, 4D	Assistant Professor	MFA	A,B, C, D
Larsen, Bill	English	Distinguished Lecturer	PhD	A, B
Legg, Bob	Communications	Associate Professor	PhD	A, B
Magilow, Daniel	MFLL, German	Professor	PhD	A, B, C
Maland, Chuck	English	Professor	PhD	A, B, C, D
Palis, Eleni	English	Assistant Professor	PhD	A, B, C, D
Paul, Drew	MFLL, Arabic and Middle Eastern Studies	Assistant Professor	PhD	A, B, C
Silva, Euridice	MFLL, Portuguese	Associate Professor	PhD	A, B, C
Wilson, David	Art	Professor	MFA	
Wu, Shellen	History	Associate Professor	PhD	A, B, C

Affiliated Faculty:				
Faculty Name	Faculty Dept.	Rank or Title	Highest Degree	Role in Program
Avila, Jacqueline	Music	Associate Professor	PhD	A, C
Cano, Luis	MFLL, Hispanic Studies	Professor	PhD	A
Cruz-Camara, Nuria	MFLL, Hispanic Studies	Professor	PhD	A
Dahm, Harry	Sociology	Professor	PhD	A, C
Di Salvo, Gina	Theater	Assistant Professor	PhD	A
Duke, Dawn	MFLL, Portuguese and Hispanic Studies	Associate Professor	PhD	A, C
Elias, Amy	English	Professor	PhD	A
Fitzgerald, Mike	Sociology	Professor	PhD	A
Geidner, Nicholas	Communications	Associate Professor	PhD	A, C
Kaplan, Greg	MFLL, Hispanic Studies	Professor	PhD	A
Klenk, Rebecca	Anthropology	Lecturer	PhD	A
Hawkins, Heather	Art	Lecturer	MFA	A, C

Note: As shown in Table 9, contributions to the program are keyed as:

- A – Will teach in the program
- B – Will design curriculum for the program
- C – Will conduct related research
- D – Will advise students in the program

Resources and Financial Projections

No new costs are anticipated because the degree is being established from an existing concentration and will be housed in an existing academic department at UTK.

Academic and Career Resources

Our students have access to all resources students have on our campus through the Center for Career Development (<https://career.utk.edu/>). In addition, we offer the following:

- All students have a professional academic advisor that guides them through their four years of study in the major.
- Starting in their junior year, majors are assigned a core faculty member to serve their professional mentors.
- We offer an internship workshop every semester, which provides information to students about how to pursue professional opportunities as part of their academic career. (For internship documents, see Appendix C).
- We maintain an active student listserv, which allows us to disseminate professional opportunities to students throughout each semester.

Student Advising

Our students are advised by a professional advisor shared with the School of Art. Core faculty serve as mentors in the program. Students meet their academic advisor at least once each semester, more often if needed, and seek out a mentor as they reach their third year in the program. The co-chairs send weekly information emails to all students, serve as contacts for all academic questions, and set up meetings with students as needed.

Financial Projections

The THEC Financial Projection form (Excel sheet) has been included as a separate attachment. The College of Arts and Sciences provides the funds for this program. No additional expenses are expected or requested.

Appendix A – Financial Projection Form

Tennessee Higher Education Commission
 Attachment A: THEC Financial Projections
 University of Tennessee Knoxville
 Cinema Studies, BA

Seven-year projections are required for doctoral programs.
 Five-year projections are required for baccalaureate and Master's degree programs
 Three-year projections are required for associate degrees and undergraduate certificates.
 Projections should include cost of living increases per year.

	Year 1	Year 2	Year 3	Year 4	Year 5		
I. Expenditures							
A. One-time Expenditures							
New/Renovated Space	\$ -	\$ -	\$ -	\$ -	\$ -		
Equipment	-	-	-	-	-		
Library	-	-	-	-	-		
Consultants	-	-	-	-	-		
Travel	-	-	-	-	-		
Other	-	-	-	-	-		
Sub-Total One-time	\$ -	\$ -	\$ -	\$ -	\$ -		
B. Recurring Expenditures							
Personnel							
Administration							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -		
Benefits	-	-	-	-	-		
Sub-Total Administration	\$ -	\$ -	\$ -	\$ -	\$ -		
Faculty							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -		
Benefits	-	-	-	-	-		
Sub-Total Faculty	\$ -	\$ -	\$ -	\$ -	\$ -		
Support Staff							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -		
Benefits	-	-	-	-	-		
Sub-Total Support Staff	\$ -	\$ -	\$ -	\$ -	\$ -		
Graduate Assistants							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -		
Benefits	-	-	-	-	-		
Tuition and Fees* (See Below)	-	-	-	-	-		
Sub-Total Graduate Assistants	\$ -	\$ -	\$ -	\$ -	\$ -		
Operating							
Travel	\$ -	\$ -	\$ -	\$ -	\$ -		
Printing	-	-	-	-	-		
Equipment	-	-	-	-	-		
Other	-	-	-	-	-		
Sub-Total Operating	\$ -	\$ -	\$ -	\$ -	\$ -		
Total Recurring	\$ -	\$ -	\$ -	\$ -	\$ -		
TOTAL EXPENDITURES (A + B)	\$ -	\$ -	\$ -	\$ -	\$ -		

*If tuition and fees for Graduate Assistants are included, please provide the following information.

Base Tuition and Fees Rate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Number of Graduate Assistants	-	-	-	-	-	-

	Year 1	Year 2	Year 3	Year 4	Year 5		
II. Revenue							
Tuition and Fees ¹	-	-	-	-	-		
Institutional Reallocations ²	-	-	-	-	-		
Federal Grants ³	-	-	-	-	-		
Private Grants or Gifts ⁴	-	-	-	-	-		
Other ⁵	-	-	-	-	-		
BALANCED BUDGET LINE	\$ -	\$ -	\$ -	\$ -	\$ -		

Notes:

(1) In what year is tuition and fee revenue expected to be generated and explain any differential fees. Tuition and fees include maintenance fees, out-of-state tuition, and any applicable earmarked fees for the program.

(2) Please identify the source(s) of the institutional reallocations, and grant matching requirements if applicable.

(3) Please provide the source(s) of the Federal Grant including the granting department and CFDA(Catalog of Federal Domestic Assistance) number.

(4) Please provide the name of the organization(s) or individual(s) providing grant(s) or gift(s).

(5) Please provide information regarding other sources of the funding.

QUESTION B**Awareness of historical context of the technological changes they selected**

Student 1 3.5	2 3.75	3 3.5	4 3.75	5 Did not write on this question
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Quality of their explanations of why each change they selected was significant

Student 1 3.5	2 4.5	3 3.5	4 3.75	5 Did not write on this question
-------------------------	-----------------	-----------------	------------------	--

QUESTION C**Quality of the analysis of the film itself**

Student ---	---	---	---	5 4.5
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Student's level of awareness of how the film related to society

Student				5 4.5
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Average student rating for:

Question A (five students):

Part 1: 4.05

Part 2: 3.85

Question B (four students):

Part 1: 3.625

Part 2: 3.8125

Question C (one student)

Part 1: 4.5

Part 2: 4.5

The second method of assessment was embedded: the final grade each of our graduating seniors earned on the history/analysis courses they took. The results of that method can be found in Attachment C.

As can be seen from Attachment C, the 12 students took a total of 44 of these history/analysis classes, and average of between three and four courses in that area. The average GPA that each of the 12 students earned in those courses ranged from 2.665 to 4.0. The average of those 12 students was **3.537** on a 4.0 scale.

Discussion and analysis:

In our discussion of the results of the assessment, we came to several conclusions:

1. Of the four learning outcomes in the Cinema Studies major, this was the most difficult to assess. This may be because the outcome itself is not phrased as clearly as it could be. The Cinema Studies Committee may wish to explore the possibility of revising the wording that could make it an easier outcome to assess.
2. The first assessment method—asking the students to respond to a set of questions related to film and cultural history during their final semester, but as an added activity rather than as a regular class assignment—did not work very well. Despite the fact that the Chair of the program contacted the graduating seniors a number of times and even extended the deadline twice, only five of the twelve graduating seniors turned in responses.* To get a firmer sense of how well our students are achieving this learning outcome using this assessment method, we would like to have a higher number of student responses.
3. Based on the grades the students earned in their history/analysis classes, it seems as if the students are achieving this learning outcome fairly well. The fact that the average grade in these classes is slightly closer to A- than B+, it seems that our students are acquiring significant knowledge about the history and cultural significance of the film traditions that these courses explore, although it must be admitted that a single student can study only some of the national traditions that are examined in our courses.
4. We talked about the possibility of requiring or highly recommending a course whose central goal was to help students achieve a learning outcome related to film history. Making Global Cinema (482) a highly recommended or required course is one possibility, although that course would probably need to be revised somewhat to be sure that the learning outcome was more central to the design of the course than it presently is. Another option would be to have a capstone course required in the junior and/or senior year whose main focus was film and cultural history; however, we're not sure that our number of majors is significant enough to be able to schedule such a course.

As such, we're aim to continue discussing 1) whether the learning outcome should be reworded to make it clearer and easier to tie to specific pedagogical aims in our history/analysis courses; 2) whether to abandon the non-embedded assessment method; and 3) whether a course—482 or a new capstone course—might be required or highly recommended for our majors so that this learning outcome might be assessed through embedded activities in that particular course.

***Assessment Meeting for Film History Learning Outcome (1)
July 28, 2017***

This is the outcome we are assessing: “Students should demonstrate knowledge of the historical and technological development of film as an art form and cultural product.”

QUESTIONS:

- A. Select a national cinema movement like Soviet cinema of the 1920s, Italian neo-realism, the French New Wave, the New German Cinema or Hong Kong cinema (or another you have studied). Discuss: 1) what historical factors help explain the emergence of the movement and when did the movement flourish; and 2) Using a representative film of the movement for examples, what are some of the central narrative, stylistic, and thematic characteristics of the movement?
- B. Cinema has always depended on technology since the development of the movie camera, projector, and flexible film stock made movies possible in the middle 1890s, yet films have changed a great deal since the first Edison and Lumiere one-shot films of that era. Discuss briefly what you believe are the three most important technological changes in cinema since 1900. For each, indicate generally when the change occurred and why that change was important in the evolution of film history.
- C. Movies are an art form, but they are also cultural products, shaping and shaped by the societies in which they were made. Choose a film you studied that was a powerful response to the society and/or historical circumstances in which it was made, then discuss how it used the medium of film to represent or respond to its society.

RATINGS SHEET

Rate the answers on a 5 (A) to 1 (F) scale.

QUESTION A**Part One**

Student 1				
------------------	--	--	--	--

Part Two

Student 1				
------------------	--	--	--	--

QUESTION B**Awareness of historical context of the technological changes they select**

Student 1				
------------------	--	--	--	--

Quality of their explanations of why each change they selected was significant

Student 1				
------------------	--	--	--	--

QUESTION C**Quality of the analysis of the film itself**

Student				
----------------	--	--	--	--

Student's level of awareness of how the film related to society

Student				
----------------	--	--	--	--

Cinema Studies Assessment Rubrics

Outcome 2: Demonstrate an ability to analyze and evaluate films, and to connect films to their cultural, historical, industrial, and generic contexts.

Criteria	Exemplary – 4	Good – 3	Needs Improvement -2	Unacceptable - 1
Argument, Structure, and Flow	Clear argument and structure, and well-connected paragraphs	The paper has an argument and a recognizable structure, minor improvements could be made	The argument remains somewhat unexplored and vague, the structure is not always clear and the writing is choppy	There is no clear argument or structure in the paper
Connection to cultural, industrial, and, generic contexts	Contexts are clearly articulated and connected to the argument	Contexts are clearly articulated and connected to the argument with minor room for improvement	Contexts are explored but remain vague and at times unclear	Contexts remain unexplored or connections are factually wrong

Outcome 3: Demonstrate ability to employ research skills, including the use of appropriate print and electronic sources in the discipline.

Criteria	Exemplary – 4	Good – 3	Needs Improvement -2	Unacceptable - 1
References	References are primarily peer-reviewed professional journals or other appropriate sources. Attribution is always clear and source material is fairly represented.	Although most of the references are professionally legitimate, a few are inappropriate. Generally used to support claims	Most of the references are from sources that are not peer-reviewed and/or have uncertain reliability; statements remain seem unsubstantiated or undocumented.	There are virtually no sources that are professionally reliable. References are seldom cited to support statements.
In-text Citation	MLA (or other acceptable style) is used accurately and consistently in the paper. Quotes and paraphrases are incorporated correctly.	MLA (or other acceptable style) is used with minor errors. Quotes and paraphrases are incorporated correctly, with minor errors.	There are frequent errors in MLA (or other acceptable style) format. Quotes and paraphrases are used incorrectly.	Format of the document is not recognizable as MLA (or acceptable style).
Works Cited Page	Works Cited Page conforms to appropriate style guidelines with no errors.	The Works Cited Page largely conforms to appropriate guidelines, but with minor errors.	There are frequent errors in the Works Cited Page.	Works Cited Page is missing or is not recognizable as MLA (or acceptable format)

Rubric for Learning Outcome 4

Students graduating with a bachelor's degree in Cinema Studies should be able to create a technically competent film/video that, in its execution, presents a clear story or concept and an effective use of the elements of film style (cinematography, editing, and sound).

	1	2	3	4	5
CONTENT AND AESTHETICS	A strong idea imaginatively conceived and well crafted. The work exhibits no fundamental issues	The story and/or concept of the work is compelling and thematically solid. The style used is app Images and sounds demonstrate a capable grasp of technical concepts.	Either through conception or execution the storytelling or concept falls short in some important way. The style of the work sometimes feels inappropriate for the content.	Either through conception or execution the content and or style falls short in one or more significant ways.	The work demonstrates a failure to grasp fundamental concepts of cinematic storytelling.
TECHNICAL	Images are uniformly and confidently composed, focused, and exposed. Sound is well recorded, imaginatively designed and mixed appropriately. Editing is not just coherent, but rhythmically compelling	Images are generally composed, focused, and exposed in a way that does not distract. Editing is coherent, or better. Individual technical elements may lack the consistency or polish of a "5", but nevertheless demonstrate competency.	The images and sounds alternate between competence and errors, which reveal a student wrestling, at times unsuccessfully, with technical concepts.	Work contains enough major technical errors that expose fundamental misunderstandings of key filmmaking concepts.	Due to multiple, significant issues of content, form and technical errors, the work is mostly unsuccessful at communicating its story, concept or experience.
SYNTHESIS	The aesthetic and technical components of the form -- composition, sound, editing, content -- exhibit a unity of purpose and a distinct vision.	The aesthetic and technical components of the form -- composition, sound, editing, content -- exhibit a general unity of purpose and competence that successfully serves the content.	Due to multiple, though perhaps minor, issues of content, form and technical errors, the work is only modestly successful at communicating its story, concept or experience.	Due to multiple, significant issues of content, form and technical errors, the work is mostly unsuccessful at communicating its story, concept or experience.	The work, in content, form, and technical execution is incoherent and unacceptable by any standard.

Appendix C – Internship Program and Materials

**Internship Agreement
Cinema Studies Program
The University of Tennessee, Knoxville**

Contact information:

Student Intern:
Intern's phone:
Intern's email:

Company/Organization name:
Supervisor's name:
Supervisor's phone:
Supervisor's email:

Summary of the mission of the Company/Organization:

Internship Goals:

Role of the Supervisor:

Services to be provided by the Student Intern:

How will the Student Intern be evaluated?

Work-hours Commitment:

Hours of University Credit Requested by Student Intern: _____

Interns are expected to work 45 hours per credit hour requested.

Signatures:

The student intern agrees to abide by ethical professional guidelines set down by the Company/Organization, especially respecting confidential agency and clientele information.

We agree to abide by the terms of this contract. Any major modifications will be in writing and agreed to by all parties.

Student Intern

Date

Supervisor

Date

Internship Coordinator

Date

This agreement must be submitted, signed by the student and employer, to the Internship Coordinator (currently the Associate Chair of the Cinema Studies Program). Please retain copies for your records before submitting to the Internship Coordinator.

Send to Paul Harrill, via email scanned form to pharrill@utk.edu.

Supervisor Evaluations of Student Intern

Student's Name _____

- A - Outstanding**
- B - Above Average**
- C - Average**
- D - Below Average**
- F - Failing**

The Student Intern:

Circle One:

- | | |
|---|-----------|
| 1. Developed a meaningful, written work agreement at the beginning of the internship..... | A B C D F |
| 2. Arrived for work on time. | A B C D F |
| 3. Listened, followed directions, and asked good questions..... | A B C D F |
| 4. Worked well as part of the team. | A B C D F |
| 5. Took initiative. | A B C D F |
| 6. Managed his/her time effectively. | A B C D F |
| 7. Had a professional appearance and demeanor. | A B C D F |
| 8. Communicated effectively with his/her writing..... | A B C D F |
| 9. Communicated effectively verbally..... | A B C D F |
| 10. Understands the process and vocabulary of the work | A B C D F |

Please recommend an overall grade:

A A- B+ B B- C+ C C- D+ D F

Please provide brief narrative comments, or attach a letter to this form:

Employer

Supervisor

Phone/Email

Date

Appendix D – Program Modification Evaluation and Response

Tennessee Higher Education Commission
Evaluation of Academic Program Modification (APM)
May 12, 2020



In keeping with *THEC Policy A 1.1: Academic Program Modifications*, institutions can change a program degree designation when the proposed change does not involve a significant curriculum in redefining the academic program's purposed.

Italics reflect comments that must be addressed.

Institution: University of Tennessee, Knoxville		APM Submission Date: April 14, 2020	
Academic Program Modification: Elevate the concentration in Cinema Studies (which is currently housed in the Interdisciplinary Studies, BA) to a free-standing program.			
Criteria	Comments		
	Current	Proposed	
Academic Program	Interdisciplinary Program, BA with a concentration in Cinema Studies	Cinema Studies, BA Concentration: Honors	
CIP Code	30.9999 - Multi-/Interdisciplinary Studies, Other	50.0601- Film/Cinema Studies	
Implementation Date	Fall 2020		
Proposed Termination Date of Current Program	Fall 2020		
Anticipated Delivery Site	No change – on campus		
Cover Letter from CAO	<ul style="list-style-type: none"> Letter of support from Dr. David Manderscheid is included and dated April 14, 2020. 		
Background for Academic Program Modification	<ul style="list-style-type: none"> Program is unique in that it offers training in Cinema Studies that places equal emphasis on production and the historical and aesthetic study of film. Since 2014, the Cinema Studies concentration within the Interdisciplinary Program at UTK has had a steady enrollment and graduation rate for many years. As well, the Interdisciplinary Program major has a large enrollment and graduation rate that will not be compromised by creating a freestanding major in Cinema Studies. Due to this steady growth, the program was encouraged by the College of Arts & Science Dean to move the program from Interdisciplinary Studies to the School of Art in order to give greater stability to the program and have stronger administrative support. Opportunities for program graduates with Knoxville being home to Discovery, Inc., one of the largest media corporations in the United States. 		
Program Need	<ul style="list-style-type: none"> Graduates of the program have secured positions in the film industry, both locally and nationally, and have earned acceptance into prestigious graduate programs. Providing students with the opportunity to graduate with a BA in Cinema Studies (as opposed to a BA in Interdisciplinary Studies) will further enhance their profile after graduation and help faculty market the program more successfully. <i>Please highlight types of positions (local and national) and graduate schools enrolled by</i> 		

	<p><i>Cinema Studies students.</i></p> <ul style="list-style-type: none"> ▪ <i>Please provide national demand and job opportunities for graduates of Cinema Studies program</i>
Potential Impact of Modification on Current Program	<ul style="list-style-type: none"> ▪ The BA in Interdisciplinary Program will have a fall enrollment headcount of 112 majors and 34 graduates annually after removing the Cinema Studies concentration, so it will not be adversely impacted by this action (see Table 5 below).
Existing Program Offerings at Public and Private Institutions	<ul style="list-style-type: none"> ▪ There is no BA in Cinema Studies program offered at any public or private Tennessee institution. Table 2 on page 11 lists similar programs offerings at community colleges and public and private universities. <i>The CIP code referenced in the Table appears to be the zip code for the institution. Please correct to reflect CIP code.</i> ▪ If approved, UT Knoxville will have the only B.A. in Cinema Studies in the State of Tennessee.
Enrollment/Degrees Awarded	<ul style="list-style-type: none"> ▪ For fall 2019, 76 students have declared an Interdisciplinary Program major in the Cinema Studies concentration. Three year enrollment average of 75 students with average of 16 graduates. ▪ See Table 5 embedded in the APM proposal and see below
Student Learning Outcomes	<ul style="list-style-type: none"> ▪ Student learning outcomes for the proposed Cinema Studies BA program: <ul style="list-style-type: none"> ▪ Demonstrate knowledge of the historical and technological development of film as an art form and cultural product. ▪ Demonstrate an ability to analyze and evaluate films, and to connect films to their cultural, historical, industrial, and generic contexts. ▪ Demonstrate the ability to employ research skills, including the use of appropriate print and electronic sources in the discipline, and to integrate the results of that research into research essays. ▪ Demonstrate skills in the practice of film/video production, including a familiarity with the elements of narrative form and of film style.
Assessment	<ul style="list-style-type: none"> ▪ Since the concentration was developed in Cinema Studies, an assessment schedule has been in place with a different learning outcome assessed each year. Documentation of assessment rubrics and reports were provided in proposal (see Appendix B in the APM proposal).
Accreditation	<ul style="list-style-type: none"> ▪ There is no nationally recognized accrediting body for academic programs in Cinema Studies. If approved, this program will undergo the required 5-year external review per University and THEC Policy. It will also be placed on annual post-approval monitoring for the first five years following THEC approval.
Curriculum Requirements New Courses Needed and Crosswalk	<ul style="list-style-type: none"> ▪ No new courses will be needed. ▪ Students in the major will be required to take a prerequisite (ART 102: Introduction to 4D Studio Art). This foundation class will ensure that students enter the introductory production class well prepared, similar to the way introductory English writing courses are a pre-requisite for CNST 281 Introduction to Cinema Studies. It will allow us to teach the required introduction class at a more advanced level and will ensure that students who enter the program in their first year immediately have classes to take in the major. ▪ The curriculum crosswalk is included in Table 7 of the APM proposal. ▪ See summary below of the major shifts from the concentration to free-standing program in Cinema Studies.

	<ul style="list-style-type: none"> ▪ <i>What is the rationale for not requiring a capstone project? As a concentration, students had 4 course options for the “other” category that appeared to be focused on a capstone project.</i> The discussion of a capstone project was reflected in the 2016-17 Assessment Meeting results and rationale for not requiring a capstone was due to limited class size. However, the concentration has grown considerably since that time period. 																																	
Distance Learning	<ul style="list-style-type: none"> ▪ All courses will be offered on-ground (some courses are offered on-line but were not identified). 																																	
Current and Proposed Admission, Retention and Graduation Policies	<ul style="list-style-type: none"> ▪ Policies pertaining to admission, retention, and graduation for the BA in Cinema Studies will not differ from those for all other undergraduate degrees at UTK. 																																	
Current Faculty	<ul style="list-style-type: none"> ▪ The Cinema Studies program is housed in the School of Art, and supported by their administrative and staff resources. As an interdisciplinary program, Cinema Studies recognizes its strong ties to other academic departments, including English and Modern Foreign Languages and Literatures. ▪ Co-chairs who are tenured or tenure-track faculty lead the Cinema Studies program. To reflect the program’s dual emphasis on history/theory/aesthetics and production, one co-chair is a Cinema Studies core faculty member whose home department is the School of Art; the other is a core faculty member from outside the School of Art. <table border="1"> <thead> <tr> <th></th> <th>Core Faculty</th> <th>Affiliated Faculty</th> </tr> </thead> <tbody> <tr> <td>MFLL</td> <td>6</td> <td>4</td> </tr> <tr> <td>Art</td> <td>4</td> <td>1</td> </tr> <tr> <td>English</td> <td>3</td> <td>1</td> </tr> <tr> <td>Communications</td> <td>1</td> <td>1</td> </tr> <tr> <td>History</td> <td>1</td> <td></td> </tr> <tr> <td>Music</td> <td></td> <td>1</td> </tr> <tr> <td>Sociology</td> <td></td> <td>2</td> </tr> <tr> <td>Anthropology</td> <td></td> <td>1</td> </tr> <tr> <td>Theater</td> <td></td> <td>1</td> </tr> <tr> <td>Total</td> <td>15</td> <td>12</td> </tr> </tbody> </table>		Core Faculty	Affiliated Faculty	MFLL	6	4	Art	4	1	English	3	1	Communications	1	1	History	1		Music		1	Sociology		2	Anthropology		1	Theater		1	Total	15	12
	Core Faculty	Affiliated Faculty																																
MFLL	6	4																																
Art	4	1																																
English	3	1																																
Communications	1	1																																
History	1																																	
Music		1																																
Sociology		2																																
Anthropology		1																																
Theater		1																																
Total	15	12																																
Finance	<ul style="list-style-type: none"> ▪ No new resources will be needed for the proposed program modification. 																																	

Table 5: Enrollment and Degrees Awarded by Concentration (including second majors)

Concentration	Fall Headcount Enrollment				Degrees Awarded			
	2017	2018	2019	3-Year Average	17/18	18/19	19/20*	3-Year Average
Cinema Studies	64	75	86	75	15	19	15	16
Linguistics	75	57	70	67	17	18	10	15
Asian Studies	13	11	12	12	6	2	6	5
Africana Studies	15	9	7	10	7	8	5	7
Women, Gender & Sexuality	9	10	12	10	1	3	3	2
Medieval Studies	4	4	3	4	0	0	4	1
Middle Eastern Studies	1	6	2	3	0	1	4	2
Judaic Studies	3	4	5	4	1	0	1	1
Latin American Studies	0	2	2	1	2	0	1	1
Total Program	184	178	199	187	49	51	49	50

*Graduation numbers reflect Summer 2019 and Fall 2020 ONLY.

Curriculum Crosswalk of Current and Proposed Program

IDS Major with Concentration in Cinema Studies	SCH	Bachelor of Arts in Cinema Studies Major	SCH
		Prerequisite (new requirement ART 102)	3
Core	9	Core	9
Complete 21 Additional Hours, at least two in the History/Theory/Aesthetics Category and at least one in the Production groups	21	Core Courses – select 2 courses from the Core Studies Group, 6 credit hours	6
		Select at least one more class from Production	3
		Complete 15 additional hours from History/Theory/Aesthetics, Production, or Other	15
Grand Total	30	Grand Total	36

Response to THEC Evaluation

Program Need: See page 10 to review this change

Our Interdisciplinary Program has graduated majors in Cinema Studies students since 2016. Within just five years, our graduates have entered nationally ranked graduate programs in Cinema Studies and Cinema Production at Columbia, Florida State, and Temple University. Other graduates have begun careers in the industry. They work locally as scriptwriters, directors, producers, and editors on cable television productions. Nationally, our graduates are working in production and post-production in New York and Los Angeles. They have participated in the production of films that premiered at the Sundance Film Festival and were released internationally, they work for Marvel film productions, and one of our graduates, Ben Murphy, became an editor for James Cameron's Avatar Sequel.

Technical, creative, and critical skills are in high demand in creative fields, in film and video production, and other related fields, such as video games, app development, advertising, and marketing. Knoxville is a leader in cable television production, and Tennessee is a center for entertainment nationwide, which has created many opportunities for our graduates who are well-positioned to enter these competitive industries.

Existing Program Offerings: See page 12 to review this change

<i>CIP Code</i>
50.0601
50.0601
50.0601
50.0601
50.0601
50.0601
50.0601

Curriculum Requirements: See page 22 to review this change

As our assessment reports suggest, we plan to institute a capstone course for seniors. With our growing number of majors and the addition of a new faculty member in film production in the School of Art starting in fall 2020, we will have the capacity to offer this class every year. We plan to propose this change in the coming curricular cycle. Instituting a capstone would not increase the overall hours for the major; we will propose to reduce the hour of electives from 15 to 12 and add a 3 credit hour senior capstone experience. This class would be a combined production and studies class and allow students, depending on their plans after graduation, further refine their skills in the different areas of our program, Production, studies, writing, etc.

Academic Program Modification Proposal

Modification from a Doctorate in Public Health (DrPH) to a PhD in Public Health Sciences

Submitted by

Department of Public Health
College of Education, Health, and Human Sciences
University of Tennessee, Knoxville

March 17, 2020

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Letter from Chief Academic Officer



THE UNIVERSITY OF
TENNESSEE
KNOXVILLE

3

March 17, 2020

Randy Boyd
Interim System President
University of Tennessee
800 Andy Holt Tower
1331 Circle Park
Knoxville, TN 37996

Dear Interim President Boyd,

Please accept the attached Academic Program Modification for the doctoral program in Public Health at The University of Tennessee, Knoxville. This program has been successful as a concentration under the Doctorate in Public Health (DrPH) in the College of Education, Health, and Human Sciences. Enrollment in this concentration has shown significant growth since its inception 5 years ago, enrolling an average of 3 doctoral students/year between 2015 and 2018. We are proposing modification of this doctoral program from a DrPH to a PhD. This proposed change is in response to the accreditation changes in their criteria for a DrPH made by the Council on Education for Public Health (CEPH), the national accrediting body for academic programs in Public Health.

CEPH's purpose is to shift training from the development of technical knowledge (i.e., that which is developed from a rigorous research-based curriculum) to the development of public health practice skills in 25 competency areas. Every DrPH program in the United States has had to revamp their DrPH programs to retain (or receive) accreditation from CEPH. Many programs chose to develop a new competency-based curriculum; however, others chose to drop the DrPH degree and instead offer a PhD. Examples of programs that recently developed a PhD in Public Health Sciences include Washington University in St. Louis; the University of California, Davis; and the University of North Carolina, Charlotte. We chose to move towards the PhD program and its curricula because the size of the current faculty made it difficult for us to adequately address all 25 competencies in the depth and breadth expected at a Research I university like ours. Second, the number of courses to be taught at the doctoral level would have to be expanded by 15 credit hours beyond the requirements for a PhD. Third, this modification best matches up with our existing resources. Fourth, most of the faculty received research training (doctoral degrees) that is most compatible with a PhD curricula, and the PhD program would be a good fit for the strengths and experiences of the current tenure-line faculty members in the department. Furthermore, the students in our program are satisfied with this transition and we expect the modification will be appealing to additional students, as most are seeking research training in the field.

Office of the Provost and Senior Vice Chancellor
527 Andy Holt Tower Knoxville, TN 37996-0152
865-974-2445 865-974-4811 fax provost.utk.edu

Transitioning from the DrPH to the PhD would require no additional resources and all of the courses are currently taught by the existing faculty. This modification is being proposed because current and recently graduated doctoral students in the Department of Public Health reported a preference for acquiring in-depth knowledge of public health research methods and specialization in a particular cognate, rather than broad knowledge and skills in the 25 distinct areas required for the DrPH. The students' feedback strongly suggested that a PhD would be more attractive to future students and allow the Department of Public Health to increase doctoral student enrollment in the future.

Further, this proposed program modification would remove us from direct competition with East Tennessee State University, which also offers DrPH degrees. Because we would be the only program in the state, and one of a growing number of similar programs in the nation to offer such a methodologically-focused and flexible, but rigorous, doctoral degree in public health, we hope to increase our state and national visibility to attract a broader range of applicants and increase our future enrollment. We currently average two to three enrolled doctoral students per year; we feel that this change will allow us to increase that number. This is likely due to the interest of the applicants to have a methodologically-based research program and the compatibility with the strengths of the faculty.

Finally, we have consistently received feedback from community partners and stakeholders that they wish our graduates had more methodological and quantitative training. Given the scope and breadth of the required DrPH competencies, this was impossible to achieve. However, this proposed program modification would allow us the ability to produce graduates with strong quantitative skills and methodological backgrounds.

This program modification has been reviewed and approved by the appropriate department, college, and university curricula review committees on the campus of the University of Tennessee, Knoxville and has the full support of campus administration. The program modification also received a favorable evaluation from Dr. Kathryn Braun of the University of Hawaii, whose Office of Public Health Studies also moved to a PhD for many of the same reasons described above. At this time, we request transmission to the Board of Trustees for the next stage of approval. Please contact me if you have any questions or need additional documentation.

Thank you in advance for your attention to this matter.

Sincerely,



David C. Manderscheid
Provost and Senior Vice Chancellor

CC: Dr. Donde Plowman, Dr. Robert J. Hinde, Dr. Dixie Thompson, Dr. Linda Martin, Dr. Ellen McIntyre, Dr. Jay Whelan, Dr. Karen Etkorn

Current and Proposed Program Information

Title, Degree, and CIP Codes

Table 1. *Overview of Proposed Program Changes*

Before Proposed Change			After Proposed Change		
<i>Title</i>	<i>Degree</i>	<i>CIP</i>	<i>Title</i>	<i>Degree</i>	<i>CIP</i>
Doctor of Public Health	DrPH	51.2201.00	Ph.D. in Public Health Sciences	Ph.D.	51.2201.00

Key Dates

Proposed Implementation Date of Proposed Program: Fall/2020
 Proposed Termination Date of Current Program: Spring/2021

Anticipated Delivery Site

University of Tennessee, Knoxville

Program and Department Liaisons and Contact Information

Academic Program Liaison: Linda C. Martin
 VP, Academic Affairs and Student Success
 Email: lcmartin@tennessee.edu
 Phone: 865-974-2104
 821 Andy Holt Tower
 1331 Circle Park Drive
 Knoxville, TN 37996

Departmental Contacts: Samantha Ehrlich and Kristina Kintziger
 Assistant Professors and Program Co-Directors
 Department of Public Health
 Email: sehrlic1@utk.edu; kkintzig@utk.edu
 Phone: Ehrlich (865-974-4663); Kintziger (865-974-1108)
 374 HPER, 1914 Andy Holt Avenue
 Knoxville, TN 37996

Background on Proposed Academic Program Modification

The University of Tennessee, Knoxville's Department of Public Health requests a program modification for its doctoral program. This request for a program modification is driven entirely by external circumstances not foreseen by the department during its previous revision in 2014. We request to replace the Doctor of Public Health (DrPH) degree with a PhD in Public Health Sciences.

THEC approved our current DrPH in 2014, and the DrPH program accepted its first students in Fall 2015. Between 2015 and 2018, 12 students enrolled into the DrPH program for an average of three students per year. The first DrPH student graduated in Summer 2019.

Despite our efforts to ensure the program's success, we must now fundamentally redesign the DrPH curriculum. The professional accrediting body for public health programs and schools, the Council on Education for Public Health (CEPH), released new accreditation criteria for the DrPH in October 2016. CEPH characterizes the changes in accreditation criteria as the biggest change to public health education since the 1940s.¹ The purpose is to shift training from the development of technical knowledge to the development of public health practice skills in 25 competency areas. Previously, every accredited public health school and program built their curriculum around five core knowledge areas: biostatistics, epidemiology, health services administration, social and behavioral science, and environmental health. The revised accreditation criteria shifted the focus from how schools and programs deliver knowledge in those five areas to how schools can graduate students who can readily translate knowledge across all five areas into practice.

Every DrPH program in the United States was required to redesign its existing DrPH program to retain (or receive) accreditation from CEPH. A few public health programs and schools chose to drop the DrPH degree and instead offer a PhD. Examples of programs that recently developed a PhD in Public Health Sciences include [Washington University in St. Louis](#), [University of California, Davis](#), and the [University of North Carolina, Charlotte](#).

Initially, the Department of Public Health at UTK chose to redesign the DrPH curriculum to meet the new accreditation criteria. As we already offered the DrPH, that seemed to be the natural choice. However, two issues became clear during the process of revising the curriculum to meet CEPH accreditation requirements. First, the only way to include all 25 competencies in the curriculum was to adopt a "mile wide and inch deep" approach. The 25 competencies span an enormous range of skills, including conducting research and evaluation, qualitative and quantitative research methods, financial management, developing and implementing workforce development programs, developing and analyzing public policies, developing and implementing public health programs, and organizational leadership. In addition, each public health program was to choose five additional competencies to achieve through the curriculum. The current students in the Department of Public Health reported a preference for acquiring in-depth knowledge and strong skills in a subset of areas rather than basic knowledge and skills in 25 distinct areas.

¹ Krisberg K. New criteria for accreditation to chart updated course for public health education: bolstering students. *The Nation's Health*, January 2017, 46(10) 1-10.

Second, we realized the extraordinary resources it would take to implement the revised DrPH curriculum. To ensure that students attain such a broad range of competencies, CEPH now requires DrPH students to take 36 credit hours of coursework and a minimum of 3 credits of advanced field placement *after* completing all requirements for the MPH degree. This credit requirement is 15 credits beyond the UTK Graduate School's requirement of 24 credit hours of coursework for a Ph.D. degree. Additionally, CEPH now requires that all competencies be fully taught and assessed in courses under the control of the accredited program; in our case, this requirement means that all competencies must be offered and assessed in courses offered by the Department of Public Health. Meeting these requirements would require the department to teach nine 600-level required courses for the doctoral program, which would impinge on our ability to deliver other degree programs and conduct externally-funded research.

We determined that the second possible approach to doctoral education—shifting to a PhD in Public Health Sciences—would allow us to offer a program consistent with students' expressed desire for the ability to focus on a few, self-selected areas of specialization without needing additional resources beyond what the current DrPH requires. The PhD program also would be a strong match for the strengths and experiences of the current tenure-line faculty members in the department. In accordance with other PhD programs in Public Health Sciences, we have identified a subset of competencies that will be the focus of the required PhD coursework and allow students the flexibility to develop additional competencies of their choice.

Summary

In summary, the Department of Public Health must modify its existing DrPH in order to obtain and maintain accreditation from CEPH. We considered two options, both of which would be eligible for CEPH accreditation.

- The first option was to redesign the DrPH program to emphasize the development of a broad range of public health practice skills
- The second option was to transition to a PhD program, which would ensure competency in research and translation skills and allow students to develop additional competencies of their choice.

Although we fully appreciate the underlying logic of transitioning from knowledge-based to skills-based training, the “mile wide and inch deep” approach of the new DrPH curricular requirements impinges on the department's ability to deliver other degree programs. Moreover, it is not popular with current and prospective students, and does not play to the strengths of the faculty in the Department of Public Health. In contrast, switching from the DrPH to the PhD in Public Health Sciences would allow us to maintain a high-quality doctoral program that carries out the intent of CEPH for a competency-based, research-focused curriculum, fulfills student preferences for a more in-depth and specialized education, is eligible for CEPH accreditation, and requires no additional resources.

For these reasons, we request a modification from the DrPH to the PhD in Public Health Sciences. As explained below, we foresee no impediments to the progress of current students and only advantages to recruiting future students to the program.

Need for the Program

Accrediting Body Requires Major Changes to Current DrPH Curriculum

The DrPH accreditation standards released in October 2016 required all public health schools and programs to redesign their DrPH curricula in two fundamental ways:²

1. **Ensure students achieve and are assessed on a minimum of 25 distinct competencies.** The goal, laudably, is to extend professional public health doctoral training beyond its traditional focus on knowledge generation through research to also include the development of management, communication, and leadership skills to effectively apply that knowledge to improve the public's health.

Twenty of the 25 competencies are defined by CEPH. These 20 competencies span five domains: data and analysis; leadership, management and governance; education and workforce development; and policy and programs. Additionally, each degree program must select five additional competencies in a chosen area of focus. *All 25 competencies must be taught and assessed within courses or other educational opportunities provided solely by the public health program.*

2. **Require students to take a minimum of 39 semester-credits of post-master's coursework.** This contrasts to the 24 semester credit-hours of post-master's coursework required by the UTK Graduate School. Incoming doctoral students who have already earned an MPH would need to take five semesters of full-time coursework to fulfill this requirement. For incoming doctoral students with a Master's degree in another field, this requirement could take up to seven semesters of full-time coursework, making it difficult to achieve the DrPH in fewer than six years. Under the current DrPH, our students are graduating, on average, in 4.25 years.

The revised DrPH accreditation requirements include two additional components: 1) an applied practice experience in which students work with a public health organization to complete work that demonstrates competence in at least five of the required competencies, and 2) an integrative learning experience, defined as a high-quality written document completed at the end of the program of study that is consistent with advanced, doctoral-level studies and university policies.

² In addition to these new requirements, the 2016 CEPH accreditation requirements included two components consistent with the pre-2016 accreditation requirements: 1) an applied practice experience consisting of 150 hours (3 credits) in which students work with a public health organization to complete one or more related projects that demonstrate a depth of competence, and 2) an integrative learning experience, defined as a high-quality written document completed at the end of the program of study that is consistent with advanced, doctoral-level studies and university policies. These latter two components are already part of the THEC-approved DrPH offered in the Department of Public Health.

These two components already are part of the THEC-approved DrPH offered in the Department of Public Health.

After the release of the 2016 CEPH accreditation criteria, faculty in the UTK Department of Public Health worked with students to redesign its DrPH degree to meet all CEPH requirements. The revised curriculum would require up to 89 credit hours if the student entered without an accredited MPH and up to 72 credit hours if they had a prior MPH. The specific distribution of credits is presented in detail in Appendix A. In brief, it would require:

- Up to 26 Masters-level credits (or prior MPH). These credits are required only if the student does not enter with an accredited MPH degree.
- Up to 27 credit hours of core DrPH coursework
- 9 credit hours of a cognate, consisting of elective courses within or outside the Department of Public Health
- 3 credit hours for an applied practice experience, required by CEPH. This is an individualized, high-level internship typically consisting of completing work with doctorally-prepared leaders in a public health practice agency.
- 24-credit hours for a doctoral dissertation (to meet the requirement of an integrative learning experience and the dissertation requirement of UTK).

The revised DrPH was not submitted to the Graduate Curriculum Review Committees, nor was it ever implemented, per request of the College of Education, Health, and Human Sciences pending transition to the PhD.

DrPH Accreditation Demands

The process of redesigning the DrPH curriculum revealed that the new curriculum would require an inordinate amount of resources and was less attractive to students than the current DrPH.

In terms of resources, the revised DrPH would require the department's nine tenure-track faculty (or adjuncts) to teach nine 600-level, 3-credit courses annually within the Department of Public Health plus design and supervise an individualized field placement for each doctoral student. Teaching this number of doctoral-level courses tailored specifically to 25 required CEPH competencies would result in low average numbers of credit-hours taught, one of the key metrics of success within the University of Tennessee, Knoxville.

The department head conducted one-on-one conversations with all current doctoral students in the department. The current doctoral students expressed concern that the extensive number of courses required in the revised DrPH would extend the length of the program beyond four years, especially for students who do not already hold an MPH degree. Current and prospective students also were concerned that the number of required courses would limit their ability to gain methodological and substantive expertise in their focus area and that they would need to take elective courses beyond the 45 required credits to acquire and develop those competencies. The information from prospective students was obtained via fielding inquiries about the program from potential applicants.

Thus, the primary objective of this proposed modification is to embrace the skills-based approach that has become the current model for advanced public health training *without* depleting the resources of either the Department of Public Health or its students. We strive to provide our students a high-quality educational environment and flexible curriculum that ensures their competitive employment in public health academic and leadership positions.

Flexibility of PhD Programs

In addition to accrediting professional public health degrees (MPH and DrPH), CEPH accredits academic degrees (MS and PhD) that meet their accreditation criteria. CEPH requires a PhD program to deliver “a curriculum that is based on defined competencies; engage in research appropriate to the degree program; and produce an appropriately advanced research project at or near the end of the program of study.” (CEPH, 2016, p. 32)

By design, the PhD degree is more flexible than the DrPH, and fewer required courses must be taught within the Department of Public Health. Instead of an advanced field placement and an integrative learning experience, PhD students will engage in research outside of their required coursework. Whereas the DrPH curriculum ensures that students have a modicum of expertise across multiple predetermined areas of applied public health, the PhD allows students to explore an area of interest in depth, enabling them to conduct original research that makes a substantive contribution to public health knowledge and practice.

Proposed PhD in Public Health Sciences

Prior to 2016, CEPH divided public health into five core areas: biostatistics, environmental health, epidemiology, health services administration, and social and behavioral science. Typically, programs and schools in public health offered separate PhD degrees in each of the core areas (e.g., PhD in Epidemiology, PhD in Biostatistics, PhD in Environmental Health, etc.). With the new emphasis on skills rather than knowledge areas, programs and schools of public health are designing PhD programs around groupings of public health competencies.

Our proposed PhD in Public Health Sciences is modelled after programs at the Brown School at the University of Washington in St. Louis and the University of California, Davis. Both PhD programs focus on developing competencies in research and the dissemination of research findings into public health practice. The first year of study in both programs focuses on the development of knowledge of public health theories and technical skills in research methods. Starting in the second year, students can customize the program to meet their specialized research goals, focusing on the development of individualized competencies across their area of interest.

The proposed PhD in Public Health Sciences at the University of Tennessee, Knoxville will have four defined competencies. Specifically, students will be able to:

1. Apply research methods to address health issues.

2. Explore, critique, and apply evidence-based information from multiple sources to public health issues.
3. Propose theory-based strategies to promote inclusion and equity within public health programs, policies, or systems.
4. Communicate evidence-based public health information in diverse formats.

The specific components of the proposed PhD in Public Health Sciences are detailed in the next section.

Potential Impact of Modification on Current Program

This section presents details in support of the requested program modification. We propose to discontinue the DrPH program once the PhD program commences in Fall 2020. The proposed plan and timeline have been approved by all faculty members (Appendix B). All DrPH students admitted in Fall 2018 and Fall 2019 have all agreed to transition to the PhD program (Appendix C).

Modification of Coursework

Table 2 shows the comparison of the doctoral-level courses required by the proposed PhD in Public Health Sciences as compared to the current DrPH program. However, because the current DrPH program must change to meet new accreditation requirements, the relevant comparison is between the proposed PhD in Public Health Sciences and the revised DrPH that will have to be implemented if the PhD is not approved. This comparison appears in Appendix A.

The coursework in Table 2 is divided into three categories: MPH-level prerequisite courses, doctoral-level core courses, and other required credits. Up to 24 credits for these or equivalent courses (if approved by the advisor and the Graduate School) can be transferred into the doctoral program. The current DrPH has three additional MPH courses required as prerequisites: Health and Society (3 credits), Community Health Assessment and Planning (3 credits), and Research Methods in Health (3 credits). The PhD does not include these three courses as prerequisites because the doctoral-level methods courses in the PhD program are grounded in epidemiology and biostatistics, rather than in a behavioral and social science approaches. Hence, PUBH 530 (Biostatistics) and PUBH 540 (Principles of Epidemiology) serve as the Masters-level prerequisite courses.

Table 2.

Comparison of coursework between the proposed PhD curriculum and the current DrPH curriculum that will no longer meet new CEPH accreditation criteria.³

Current DrPH coursework: Enters with MPH: 56 credit hours Enters without MPH: 82 credit hours		Proposed PhD in Public Health Science coursework: Enters with MPH: 48 credit hours Enters with Masters but not MPH: 68 credit hours Enters without Masters or MPH: 72 credit hours	
Prior MPH Coursework (26 credits)		Prior MPH Coursework (24 credits)	
PUBH 509	Graduate Seminar in Public Health; 2 credits	PUBH 509	Graduate Seminar in Public Health; 2 credits
PUBH 510	Environmental Health Science	PUBH 510	Environmental Health Science
PUBH 520	Public Health Policy & Administration	PUBH 520	Public Health Policy & Administration
PUBH 530	Biostatistics	PUBH 530	Biostatistics
PUBH 537	Fundamentals of Program Evaluation	PUBH 537	Fundamentals of Program Evaluation
PUBH 540	Principles of Epidemiology	PUBH 540	Principles of Epidemiology
PUBH 555	Health and Society*	Electives	7 credits
PUBH 536	Research Methods in Health*		
PUBH 552	Assessment & Planning*		
Core DrPH (23 credits)		Core PhD (15 credits)	
PUBH 630	Advanced Biostatistics	PUBH 630	Advanced Biostatistics
PUBH 640	Advanced Epidemiology in Public Health	PUBH 640	Advanced Epidemiology in Public Health
PUBH 656	Comparative Theories in Health Behavior	PUBH 656	Comparative Theories in Health Behavior
		PUBH 635	Systematic Reviews and Meta- Analyses
		PUBH 650	Dissemination and Implementation Science
PUBH 609	Public Health Doctoral Seminar (2 credits)		

³ All courses are 3 credit-hours, unless otherwise noted.

PUBH 610	Scientific Writing for Health Sciences (1 credit)	
PUBH 611	Leadership in Public Health (1 credit)	
PUBH 613	Public Health Ethics and Law (1 credit)	
PUBH 636	Advanced Research Methods	
PUBH 637	Applications in Program Evaluation	
PUBH 687	Advanced Field Practice	
DrPH Cognate (9 credit hours)		PhD Cognate (9credits)
Cognate	9 credit hours	Cognate 9 credit hours
Dissertation Credits (24 credits)		Dissertation Credits (24 credits)
PUBH 600	Dissertation hours; 24 credits	PUBH 600 Dissertation hours; 24 credits

**Courses listed as Core DrPH courses in the 2018-2019 Graduate School Catalog. In this document we place them in the prerequisite category because they do not represent unique courses that must be taught for the doctoral degree. These courses are required for the MPH Community Health Education concentration.*

Both of the new PhD courses (PUBH 635 and PUBH 650) have been developed and were taught for the first time in the 2018-2019 academic year as PUBH 680 (Special Studies) courses. These courses will continue to be taught regardless of whether the PhD is approved because they are courses required for the revised DrPH program that otherwise would have to be implemented to be CEPH-accredited, as described in Appendix A.

Impact of Modification on Progress of Current Students

All students who started in Fall 2018 ($n= 1$) or who will start in Fall 2019 ($n= 2$) have elected to transfer to the PhD degree once it becomes available. Letters confirming this agreement are included in Appendix C. All students, but one, who began the program prior to Fall 2018 have elected to complete the DrPH degree.

We expect that the transition to the PhD will have no effect on students' timeline to completion to earn their doctorate degrees for two reasons. First, none of the students admitted in 2018 and 2019 had an MPH prior to admission. Thus, their first year was spent primarily taking the prerequisite MPH courses. Second, the new courses designed for the PhD in Public Health Sciences (PUBH 630, PUBH 635, and PUBH 650) have been approved by the CEHHS Graduate Curriculum Review Committee and the Graduate Council (February 14, 2019) and will be listed in the 2019-2020 Graduate Catalog. These courses will be taught regardless of whether the proposed program modification is approved because they are part of the core curriculum of the revised DrPH

(Appendix A), which will need to be offered in lieu of a transition to the PhD. We have developed a specific plan for each cohort of students as follows.

Fall 2018 Cohort. The student who entered in Fall, 2018, Maruf Khan has agreed to switch to the PhD program (see Appendix C), and his line of study so far will allow him to complete the PhD in four years from his initial enrollment. Mr. Khan's first year (2018-2019) was spent taking 26 hours of MPH coursework needed to achieve the MPH prerequisites listed in Table 2. In the 2019-2020 academic year, Mr. Khan will finish taking the MPH prerequisite courses, take courses that are required in both the PhD and DrPH program (e.g., PUBH 640), and begin his elective cognate courses. Should the PhD program not be approved, he will take the remaining courses required by the revised DrPH in his third year (2020-2021). Hence, this approach will result in no delay in his time in the program after he switches to the PhD in Public Health Sciences.

Fall 2019 Cohort. Two students were accepted to the DrPH program for Fall 2019. Ms. Laura Clark has enrolled as a part-time and does not have an MPH degree. Her first year will be focused on fulfilling the MPH requirements, which are unaffected by this program modification. Ashlyn Schwartz also will be entering the program without an MPH. She will be taking MPH courses and doctoral courses that are required by both the PhD and the revised DrPH. Should the program modification not be approved, she can take the remaining required DrPH courses in her second year.

Fall 2017 Cohort and Prior Cohorts. Previous cohorts included one student enrolled in the DrPH in Fall 2015, and five students each enrolled in the DrPH in Fall 2016 and Fall 2017. Three students from these prior cohorts have either already graduated (n=1, August 2019), withdrew for personal reasons (n=1), or received academic program removal (n=1). Seven students have elected to complete the DrPH, as they have already completed all DrPH coursework and requirements and are all in their dissertation phase of their degree. Four of these students are currently planning to have graduated or completed their dissertation by August 2020, before the PhD degree would likely be implemented. Therefore, they would not be eligible to switch to the PhD degree, and this switch has no effect on them. Three additional students have completed all course work and are on track to complete their dissertations in the 2020-2021 academic year. One student, Ms. Anisha Singh, who began in Fall 2017, is on track to complete her doctoral requirements, including dissertation research, by August 2021 due to switching advisors and research focus in Year 2 of her curriculum. Because her future career interests more closely align with academic research, rather than public health practice, she has elected to switch to the PhD degree once it becomes available. She has completed most of the required DrPH coursework, but all of the proposed required PhD coursework to date.

Impact on Other or Similar Programs at UTK

We foresee a small positive impact on other doctoral programs at UTK. Based on conversations with directors of graduate studies in other departments, we expect that the proposed PhD research methods courses will provide training opportunities that other departments need, but do not have the capacity to provide. Examples include Advanced Biostatistics (PUBH 630), which is not offered by any of the other health-related departments in the College of Education, Health, and

Human Sciences. Systematic Reviews and Meta-Analyses (PUBH 635) also is not taught anywhere else on campus, even as these methods are becoming the standard for review papers in all social and health sciences journals.

We also anticipate a large positive impact on the MPH program at UTK. The reduced number of required doctoral-level courses will free up faculty resources to accept and mentor more students in the MPH program. It will also allow for expansion of the undergraduate minor in public health by freeing up faculty time to teach more undergraduate and Masters-level courses.

Impact on Other or Similar Programs in the State of Tennessee

Table 3 provides an overview of all other public health doctoral programs in the state of Tennessee at public and private institutions. We foresee no impact of the program modification on these other programs in the state.

Table 3.

Overview of Existing Programs Offered at Public and Private TN Institutions

Institution	Program Title and Degree	CIP Code	Description/ Focus of Program	Miles from UTK
East Tennessee State University	Doctor of Public Health (DrPH)	31.51.2201.00	The DrPH program is designed for those who wish to pursue or further their career in public health practice. It prepares practitioners with competence in administration, advocacy, problem solving, research, and communication. Graduates are qualified to serve in a variety of leadership capacities at state, national, and international levels, enhancing the public's health in both rural and urban settings. Three areas of concentration: Community Health, Epidemiology, Health Policy and Management	107
University of Memphis	PhD in Epidemiology	18.26.1309.00	This program offers cutting-edge, advanced training to prepare individuals for academic and research careers.	382
University of Memphis	PhD in Health Systems and Policy	27.44.0503.00	This program is designed for those who want to teach and conduct research utilizing evidence-based practices and rigorous scientific theories and methods to understand and improve the structure, process and outcomes of health systems.	382
University of Memphis	PhD in Social and Behavioral Sciences	31.51.2201.00	This program is designed for those who intend to teach and conduct original research utilizing rigorous scientific theories and methods to understand and influence the social and behavioral determinants of population health.	382
UT Health Sciences Center	PhD in Health Outcomes and Policy Research, concentration in health policy/ health services research	Cannot find	This program provides an intense academic foundation for students pursuing careers in research, teaching, and health administration. The formal curriculum provides a comprehensive understanding of health policy development, implementation and analysis. The program is designed to provide maximum flexibility for students with a variety of interests and backgrounds.	390
Vanderbilt University	PhD in Health Policy (under development)	NA	No description available as of July 2019. No information on program start date is available.	179

Enrollment and Degrees Awarded by Concentration

Tables 4 and 5 provide a five-year projection for the number of doctoral students enrolled in the department's doctoral programs and the number of graduates anticipated each year. The nine tenure-line faculty will be expected to advise two doctoral students each, on average. The students may be in different stages of the program (e.g., one in year 1 and one in year 3).

- The PhD program will enroll three new students in AY1 and four new students in all other years
- In each doctoral cohort, one student will be part-time.
- All full-time students will graduate in 4 years.
- All part-time students will graduate in 7 years.
- No students will leave the program before graduation.

Fewer students will be enrolled and graduating in the first few years of the modified program. This is not a reflection of any anticipated challenges in recruiting students. Rather, once we realized that we needed to modify the doctoral program, we stopped marketing the DrPH and hence received fewer applications and accepted fewer students into the program.

Table 4.

Projected Fall Enrollment Headcount in Each Year

Degree	AY1 2020-21	AY2 2021-22	AY3 2022-23	AY4 2023-24	AY5 2024-25	AY6 2025-26	AY7 2026-27	7-Year Average
PhD*	9	10	13	16	18	19	20	15.0
DrPH**	0	0	0	0	0	0	0	0
Total	9	10	13	16	18	19	20	15.0

*Includes three DrPH students who elect to transition to the PhD

**No new students accepted after Fall 2019, if PhD is approved.

Table 5.

Projected Number of Program Graduates Each Year.

Degree	AY 1 2020-21	AY2 2021-22	AY3 2022-23	AY4 2023-24	AY5 2024-25	AY6 2025-26	AY7 2026-27	7-Year Average
PhD	0	4	2	2	4	5	5	3.1
DrPH	3	0	0	0	0	0	0	0.4
Total	3	4	2	2	4	5	5	3.6

*Includes DrPH students who elect to transition to the PhD

**No new students accepted after Fall 2019, if PhD is approved

Student Learning Outcomes

The accrediting body for all public health degree programs requires that students in PhD programs are assessed on two sets of learning outcomes: 1) foundational learning objectives and 2) defined competencies.

Foundational Learning Objectives

All PhD students in public health must demonstrate competence in 12 foundational learning objectives, listed in Appendix D. CEPH deems these foundational competencies to have been achieved if a doctoral student has a prior MPH or takes CEPH-approved MPH-level courses that meet these learning objectives. The Department of Public Health at the University of Tennessee, Knoxville offers the CEPH-approved MPH-level courses. All students who do not have a prior MPH degree will be required to take the specific courses listed as prerequisites in Tables 2 and 3

(PUBH 509, PUBH 510, PUBH 520, PUBH 530, PUBH 540) or demonstrate that they have taken equivalent courses elsewhere

Defined Competencies

CEPH requires a PhD program to deliver “a curriculum that is based on defined competencies; engage in research appropriate to the degree program; and produce an appropriately advanced research project at or near the end of the program of study.” (CEPH, 2016, p. 32)

The proposed PhD in Public Health Sciences has four defined competencies:

1. Apply research methods to address health issues.
2. Explore, critique, and apply evidence-based information from multiple sources to public health issues.
3. Propose theory-based strategies to promote inclusion and equity within public health programs, policies, or systems.
4. Communicate evidence-based public health information in diverse formats.

Assessment

Assessment of progress towards successful completion of the PhD is ongoing and includes elements required by the UTK Graduate School as well as elements included to ensure regular assessment and feedback appropriate to the PhD in Public Health.

Assessment in Coursework

Each of the four competencies will be taught and assessed in multiple required courses, with the intent that competencies are taught from multiple perspectives and are practiced in multiple contexts. Table 9 on page 25 displays how each competency will be assessed in coursework.

Other Assessments in the Program

MPH Comprehensive Exam. Incoming doctoral students without an MPH must take the part of the MPH comprehensive exam that tests knowledge and application of core public health concepts. The exam will be offered three times a year in the Fall, Spring, and Summer sessions. To continue in the PhD program, students must achieve a score of 70% or greater on the multiple-choice examination.

PhD Qualifying Exam. All doctoral students must take a qualifying exam within one semester of completing all 15 hours of core PhD coursework (PUBH 630, 635, 640, 650, 656). The exam will be offered once each semester and have a similar format, as follows: Students will be given a

choice of a few datasets and topics. They must clean and analyze the data and write a mini-manuscript with a specific word limit. The datasets and topics will be rotated or updated every few years by the Department of Public Health (DPH) Doctoral Committee. The exam will be a take-home exam, and students will have ten business days to complete it.

The student's academic advisor and the Chair of the DPH Doctoral Committee or a delegated representative will grade the qualifying exam. The exam will be graded Pass/Fail, with written feedback given to the student to help them advance their skills. If one of the graders recommends a Pass and the other recommends a Fail, another member of the DPH Doctoral Committee will grade the exam. If the student does not pass the written exam on their first attempt, they will have the option to re-write the exam and participate in an oral defense of their exam as a second attempt. If the student does not pass the exam after two attempts, they must exit the program.

PhD Comprehensive Examination. The comprehensive examination will consist of an NIH-type grant proposal for the student's dissertation research and an oral defense of the proposal. The comprehensive exam will proceed in three steps:

1. The student convenes a meeting with all dissertation committee members to agree on the research questions and general analytic approach for the dissertation.
2. After this meeting, the student will have 30 days to write the exam (NIH-type proposal) and submit to the committee members.
3. The student presents their proposal at an oral comprehensive exam. During the exam, the student may be asked questions on their dissertation proposal.

At the end of the oral comprehensive examination, the committee may be satisfied with the proposal and responses to other questions, or may grant a "conditional pass" contingent on the student making minor revisions. If major revisions or a new proposal is recommended, the student must pass a second oral comprehensive examination. It is strongly recommended that the second oral exam occur no more than three months after the initial attempt.

After successfully completing the Comprehensive Exam, the student will be admitted to candidacy.

PhD Dissertation Defense

The dissertation represents the culmination of an original major research project completed by the student. Students will have two options for the dissertation format:

1. The (traditional) five-chapter format must fulfill the practice product requirement.
 - a. Introduction, background, problem statement
 - b. Literature review
 - c. Methods
 - d. Results
 - e. Discussion, including limitations and conclusion
2. The three-manuscript format, in which one manuscript can be a literature review (publishable quality). Prior to defending, the student must have at least one manuscript (e.g., the literature review) submitted for publication in a peer-reviewed journal, with

the other two manuscripts submission ready in terms of formatting and quality of the substantive research and writing.

Prior to the comprehensive exam (dissertation proposal defense), the student must declare which dissertation format will be used. This decision should be made in consultation with the student's dissertation committee. It is the responsibility of the dissertation committee chair to assist the student in deciding on the best format.

The dissertation must be prepared according to the regulations in the most recent Guide to the Preparation of Theses and Dissertations⁴. The dissertation must be accompanied by an approval sheet⁵, signed by all members of the dissertation committee. The approval sheet certifies to the Graduate School that the committee members have examined the final copy and found that its form and content demonstrate scholarly excellence. Students are primarily responsible for submitting all completed, required forms; students should regularly consult the Graduate Handbook and the Guide to Theses and Dissertations available on the UTK Graduate School website.⁶

Research opportunities for graduate students in the department are linked to departmental faculty research interests. Students should consult the faculty pages on the directory on the DPH website and speak with individual faculty to explore potential mutual research interests and opportunities.

Approval and Accreditation

The proposed program modification was approved by the CEHHS Graduate Curriculum Review Committee on September 11, 2019 and the University of Tennessee, Knoxville Graduate Curriculum Review Council on October 24, 2019. Additionally, the Graduate Council voted to approve the program modification at its meeting on November 21, 2019.

We will also obtain accreditation from the primary professional accreditation body for public health schools and programs, the Council on Education for Public Health (CEPH). Upon receipt of THEC and all other University-required approvals (e.g., Spring 2020), we will submit a *Substantive Change Form* to CEPH to add the PhD in Public Health Sciences degree to our accredited unit. As an accredited unit, only review and approval of a *Substantive Change Form* is required. The Department (i.e., all degree programs) will be subject to a full review by CEPH in the 2023 review cycle to maintain accreditation. The unit is currently accredited through 2024, and all programs within the unit are included, reviewed, and accredited in tandem. A *Substantive Change Form* was never submitted for the revised DrPH, as the curriculum was never fully implemented.

The change from the DrPH to the PhD in Public Health Sciences should not affect the time to CEPH accreditation. We would not need to wait until the next review cycle for the full accredited

⁴ <http://web.utk.edu/~thesis/thesisresources.shtml>.

⁵ <https://gradschool.utk.edu/documents/2016/02/thesisdissertation-approval.pdf/>

⁶ The requisite graduate forms otherwise available at <http://gradschool.utk.edu/default.shtml>.

unit, which will begin in 2023. Whether the doctoral degree be the PhD in Public Health Sciences or the revised DrPH (Appendix A), only a *Substantive Change Form* is needed.

The proposed change does not affect SACSCOC accreditation. The SACS student learner outcomes for the existing DrPH and the proposed PhD in Public Health Sciences are the same:

1. Students will demonstrate clarity of scientific writing skills.
2. Students will demonstrate clarity of verbal expression and the ability to respond to scientific questions in a clear and accurate manner.
3. Students will demonstrate mastery of complex scientific and technical issues relevant to the student's area of research.

The SACSCOC liaison at the University of Tennessee, Knoxville reviewed the program change submitted to the Graduate Curriculum Review Committee of the College of Education, Health, and Human Services as well as a near-final draft of this document. Her assessment, provided in Appendix E, is that no changes needed to be made in the learner objectives or their assessment with the transition from the DrPH to the PhD in Public Health Sciences.

Current and Proposed Curriculum Requirements

Current Curriculum

Table 6 summarizes the program's current DrPH curriculum. Table 7 summarizes the proposed curriculum for the modification to create the PhD in Public Health Sciences at UTK.

Table 6.

Current DrPH Program Curriculum

Course #	Course Title and Description	Credit Hours
Prerequisite Coursework: 20 to 40 Hours, depending on prior MPH training		
MPH from an accredited program or completion of the following courses (or equivalent courses, as approved by the Department Head)		20
PUBH 509	Graduate Seminar in Public Health (Speakers cover the 12 public health competency areas)	2
PUBH 510	Environmental Health Science	3
PUBH 520	Public Health Policy and Administration	3
PUBH 530	Biostatistics	3
PUH 537	Fundamentals of Program Evaluation	3
PUBH 540	Principles of Epidemiology	3
PUBH 555	Health and Society (Structural Determinants of Health Disparities)	3
Core Curriculum: 24 Hours		
PUBH 630	Advanced Biostatistics	3
PUBH 635	Systematic Reviews and Meta-Analyses	3
PUBH 640	Advanced Epidemiology in Public Health	3
PUBH 650	Dissemination and Implementation Science	3
PUBH 645	Mixed Methods for Research	3
PUBH 652	Advanced Assessment and Planning	3
PUBH 660	Leadership and Financial Management	3
PUBH 639	Qualitative Research Methods	3
Elective Courses: 9 Hours		
Cognate	9 credits in a chosen cognate area	9
Additional Requirements: 27 Hours		
PUBH 687	Advanced Field Practice	3
PUBH 600	Dissertation hours	24

Proposed CurriculumTable 7. *Proposed Program Curriculum*

Course Number	Course Title and Description	Credit Hours
Prerequisite Coursework: 20-40 Hours		
	MPH from an accredited program or completion of the following courses (or equivalent courses if taken outside of the University of Tennessee, approved by the Department Head)	20
PUBH 509	Graduate Seminar in Public Health (Speakers have leadership positions in public health practice in the 12 public health competency areas)	2
PUBH 510	Environmental Health Science	3
PUBH 520	Public Health Policy and Administration	3
PUBH 530	Biostatistics	3
PUBH 537	Fundamentals of Program Evaluation	3
PUBH 540	Principles of Epidemiology	3
PUBH 555	Health and Society (Health disparities and structural determinants of health)	3
Core Classes: 15 credits		
PUBH 630	Advanced Biostatistics	3
PUBH 635	Systematic Reviews and Meta-Analyses	3
PUBH 640	Advanced Epidemiology in Public Health	3
PUBH 650	Dissemination and Implementation Science	3
PUBH 656	Comparative Theories in Health Behavior	3
Elective Courses: 9 credits		
9 credit hours	Grad-level elective courses in dissertation area	9
Additional Requirements		
PUBH 600	Dissertation credit hours	24

Table 8 presents a crosswalk of the current and proposed curriculum, highlighting the program's **new courses in GREEN** and **eliminated courses in RED**.

Table 8.

Crosswalk of Changes for the DrPH → Ph.D.

Doctor of Public Health (Current)	Ph.D. in Public Health (Proposed)
<i>Prerequisites (same for both programs)</i>	
PUBH 509: MPH Seminar PUBH 510: Environmental Health Science PUBH 520: Public Health Policy and Administration PUBH 530: Biostatistics PUBH 537: Fundamentals of Program Evaluation PUBH 555: Health and Society	PUBH 509: MPH Seminar PUBH 510: Environmental Health Science PUBH 520: Public Health Policy and Admin PUBH 530: Biostatistics PUBH 537: Fundamentals of Program Eval PUBH 555: Health and Society
<i>Core Classes</i>	
PUBH 630: Advanced Biostatistics PUBH 635: Systematic Reviews and Meta-analyses PUBH 639: Qualitative Research Methods PUBH 640: Advanced Epidemiology in Public Health PUBH 645: Mixed Methods for Research PUBH 650: Dissemination and Implementation Science PUBH 652: Advanced Assessment and Planning PUBH 656: Comparative Theories in Health Behavior PUBH 660: Leadership and Financial Planning	PUBH 630: Advanced Biostatistics PUBH 635: Systematic Reviews and Meta-analyses PUBH 640: Advanced Epidemiology in Public Health PUBH 650: Dissemination and Implementation Science PUBH 656: Comparative Theories in Health Behavior
<i>Elective Courses. There is no changes in the range or number of potential elective credits</i>	
9 credit hours	9 credit hours
<i>Additional Requirements</i>	
PUBH 687 (3) Advanced Field Placement PUBH 600 (24) Dissertation Hours	PUBH 600 (24) Dissertation Hours

Note: Red text indicates a course that has been removed in the change from the Dr.PH to the Ph.D. Green text indicates a course that has been added to the PhD that was not offered or required for the DrPH.

The two new courses offered as part of the PhD in Public Health Sciences are already offered annually in the department (sometimes as PUBH 680) and would need to continue to be offered as part of the requirement to redesign the DrPH.

The proposed PhD will result in five fewer doctoral-level courses within the Department of Public Health, including the Advanced Field Placement. The accrediting body for schools and programs in public health (CEPH) had required that all of these courses be taught within the public health program for the DrPH. Most of the content taught in these doctoral-level courses is available elsewhere on campus and hence will still be accessible to students. The unique material in these courses has been moved to a new required course, PUBH 656: Comparative Theories in Health Behavior.

New Courses Needed

The proposed PhD will include one new course: PUBH 656, Public Health Theory. This course was offered as part of the original DrPH program started in 2015 has been taught multiple times in the Department of Public Health. The course covers essential public health theory necessary to meet Competency #3: propose theory-based strategies to promote inclusion and equity within public health programs, policies, or systems. In the current curriculum, this theoretical content had been embedded in PUBH 652 (Assessment and Planning) and PUBH 660 (Leadership and Financial Planning). The course teaches students discipline-specific theoretical frameworks that are not taught elsewhere on campus.

Curriculum Crosswalk for Accreditation Competencies

Table 9 presents the learning competencies and assessment strategies for each of the four learning competencies.

Table 9. *Coursework and Competency Alignment.*

Student Learning Outcomes	Core PhD Courses					Assessment (Details of each assessment method presented below the table.)
	PUBH 630: Advanced Biostatistics	PUBH 635: Systematic Reviews and Meta-Analyses	PUBH 640: Advanced Epidemiology in Public Health	PUBH 650: Dissemination and Implementation Science	PUBH 656: Comparative Theories in Health Behavior	
Apply research methods to address health issues.	T, A	T, A	T, A	T, A	T	PUBH 630: Statistical analysis project PUBH 635: Systematic review paper and presentation PUBH 640: Study design project PUBH 650: Grant proposal that requires use of dissemination and implementation methods PUBH 600: Dissertation hours resulting in defense of completed dissertation
Explore, critique, and apply evidence-based information from multiple sources to public health issues.	T, A	T, A	T	T, A	T	PUBH 630: Statistical analysis project PUBH 635: Systematic review paper and presentation PUBH 640: Study design project PUBH 650: Grant proposal that requires use of dissemination and implementation methods
Propose theory-based strategies to promote inclusion and equity within public health programs, policies, or systems.				T, A	T, A	PUBH 656: Intervention mapping strategies project PUBH 650: Students provide worksite training using evidence-based public health information with the requirement to use multiple pedagogical strategies.
Communicate evidence-based public health information in diverse formats.	T, A	T, A	T	T	T	PUBH 630: Statistical analysis project PUBH 635: Systematic review paper and presentation PUBH 600: Dissertation hours resulting in defense of completed dissertation

T = training; **A** = assessment

The information below provides more detail on each assessment method described in Table 9.

PUBH 630 – Statistical Analysis Project:

This project will entail defining a health-related research question in terms of a testable hypothesis, identifying appropriate data sources, developing a comprehensive analysis plan that includes multivariable statistical techniques, reviewing the literature, conducting an original (advanced) quantitative data analysis, making relevant inference and appropriate interpretations based on the analysis, identifying key strengths and limitations of the analysis, and include a discussion of the implications of these results to public health practice and future research. Their paper will include a plain language summary that translates their research and findings to be communicated to a lay audience. Finally, students will present their analyses in class for class feedback.

PUBH 635 – Systematic Review:

All assignments culminate in a final project that includes the first full draft of a systematic review formatted for a journal of the students' choosing, an oral presentation in class of this final paper, and a plain language summary of the findings of the systematic review.

PUBH 640 – Study Design Project:

For the final paper, students describe and compare two distinct study designs addressing a single research question pertaining to population/public health (i.e., demonstrate application of research methods in two NIH-style Approach sections).

PUBH 650 – Grant Proposal:

Students write a grant proposal using dissemination and implementation methods. For this final assignment, students must identify and critique previous evidence, exploring multiple sources, and identify and propose an implementation strategy for an evidence-based program.

PUBH 656 – Intervention Mapping Project:

Intervention mapping is a systematic approach to program development, implementation, and evaluation. It provides a framework for decision-making at each step using theory, empirical evidence, and community input. The final product is a paper and presentation on the behavioral and/or environmental outcomes and objectives of the Intervention Mapping process.

Distance Learning

The PhD program will not be offered via distance learning, as the research focus of the degree is best achieved through frequent in-person mentoring. None of the core courses are offered online, although this practice may change in the future. Courses that students choose for their cognate may also be available online, depending on the course and department.

Admission, Retention, and Graduation Policies

Admissions

The PhD in Public Health Sciences is the terminal degree in public health, designed for students who enter with a Master of Public Health (MPH) from an institution accredited by the Council on Education for Public Health (CEPH). The program is offered on both a full and part-time basis. The program is designed to be completed within four years for full-time students who already have an MPH degree or an MS in public health. Applicants without the MPH may be admitted to the PhD program; however, these students may need to complete additional coursework requirements in consultation with a faculty advisor and the Director of the PhD program to ensure a firm foundation in the MPH competency domains. Hence, additional time may be required to complete the PhD.

Research opportunities for graduate students in the department are linked to departmental faculty research interests. Before applying, students should consult the faculty pages on the directory on the DPH website and speak with individual faculty members to explore potential mutual research interests and opportunities

All applicants must meet the following admission requirements:

- General requirements set forth by The University of Tennessee, Knoxville, Graduate School⁷.
- GPA of at least 3.2 (on a 4.0 scale) on Master's degree coursework, shown in official transcripts. For students without a Master's degree or coursework, a required GPA of 3.2 for the undergraduate degree.
- A minimum of 40th percentile on all sections of the Graduate Record Examination (GRE); international students must meet the Graduate School's requirement for a satisfactory score on the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). GRE scores must be taken no more than five years before the intended semester of entry.
- Three letters of reference completed within the past 12 months by faculty members, academic advisors, employers, or professional colleagues. At least two letters must be from persons able to assess the applicant's academic performance, research capacity, job performance, or professional promise.
- A personal statement to demonstrate the evolution of the applicant's interest in public health and how the PhD program will prepare them to work in the field of public health.
- Ability to clearly articulate a defined career pathway, which incorporates research experience and skills, upon interview.

⁷ <http://gradschool.utk.edu/admissions/>

- Identification of a preferred mentor and a description of how that faculty member's research and practice will help them achieve their career goals.
- A current curriculum vitae
- A sole-authored professional, research, or academic writing sample that has not been peer-reviewed.

The following admission criterion is preferred:

- MPH degree obtained from a CEPH-accredited school or program of Public Health. Public health or relevant work experience at local, state, or federal level is highly desirable.

Applicants without an MPH degree may be admitted to the PhD program. For example, applicants who meet either of the following requirements may be considered for admission:

- Applicants have a Master's degree or an advanced professional degree in a field related to public health from an officially recognized domestic or international institution. The graduate degree must be conferred prior to enrollment to PhD.
- Applicants without a graduate degree have at least two years of full-time work experience in public health practice. An online application must be submitted to the Graduate Admissions Office. All admission forms are available on line on the Graduate School's website.

Review of applications will begin on November 1st and continue until March 1st of each year. Limited financial support is available for highly competitive, full-time students. Applications must be completed by January 15 if applicant is interested in competing for all available financial support, including that from the Graduate School.

Retention and Evaluation

Graduate education requires continuous evaluation of the student. This includes not only periodic objective evaluation, such as the cumulative grade point average, performance on comprehensive examinations, and acceptance of the dissertation, but also judgments by the faculty advisor of the student's progress and potential. Continuation in the program is determined by consideration of all these elements by the faculty advisor, the DrPH Director, and the head of the Department of Public Health.

The doctoral degree is evidence of demonstrated capacity in original investigation of public health topics. Requirements for the degree, therefore, include courses, examinations, and a period of resident study, as well as arrangements which guarantee sustained, systematic study and competency in a particular field. The criteria to remain in good standing in the program are as follows:

Grade Point Average (GPA)

The University policy on cumulative grade point average (GPA) requires graduate students to maintain a GPA of at least 3.0 in all graduate courses taken for a letter grade of A-F. The PhD

program requires a GPA of at least 3.25 for doctoral degree coursework and at least 3.25 for core doctoral courses with a PUBH prefix.

The academic records of all graduate students will be reviewed at the end of each semester, including the summer term. PhD students must maintain a GPA of at least 3.25 on all PhD-related graduate courses taken for a letter grade of A-F and at least 3.25 on all degree-related courses with a PUBH prefix. Grades of S/NC, P/NP, and I, which have no numerical equivalent, are excluded from this computation.

Comprehensive Examinations. The qualifying examination and comprehensive examination are described on pages 19 and 20, respectively. Students who do not pass either examination will not be retained in the program.

Evaluation by DPH Faculty. All PhD students will be formally evaluated by the full faculty of the department each January. The evaluation process is as follows:

- Students will fill out the PhD Student Progress form (Appendix F) at the end of the Fall semester. The student submits the PhD Student Progress form and their CV to their academic advisor.
- The academic advisor will review the submitted materials, suggest edits as needed, and submit to the Chair of the DPH Doctoral Committee. The Chair of the Doctoral Committee will send the completed review materials to the full faculty for review.
- The full faculty will meet to discuss the progress of all students in the program and provide constructive suggestions and feedback to the advisor to facilitate the student's progress.
- The advisor will be responsible for compiling feedback received during the faculty review, writing a letter for the student file, and meeting with the student to share this information and revise student's program/plan as needed. If requested or necessary, the Chair of the Doctoral Committee will participate in the process of giving feedback.

Adequate Progress and Inactive Status. Continuous enrollment is maintained by registering for a minimum of one graduate credit hour per semester (excluding summer); however, PhD students who have started taking dissertation hours (course 600) must maintain a minimum of three credit hours per semester during all semesters, including the summer, in order to comply with the Continuous Enrollment requirement for Doctoral Programs.

Research. When compared to the DrPH degree, the PhD is a mentored degree with greater emphasis on independent research and less emphasis on coursework. This key distinction imposes a greater role for the dissertation committee which, in turn, requires early involvement in the educational career of PhD students. Students will choose the three departmental dissertation committee members in their first year and add the external member and formalize the committee by the end of the second year. The dissertation committee will have the following roles:

1. Meet with the student annually to plan a program of study appropriate to the student's goals and research interests and in compliance with department and Graduate School policies.

The first meeting should occur during the semester in which the committee is appointed. All committee members should be consulted at least once annually.

2. Assist the student with preparation for the qualifying exam.
3. Mentor the student in the development of the dissertation proposal.
4. Mentor the student in applying for research funding.
5. Approve that the student is ready to take the comprehensive oral exam (dissertation proposal defense). Administer and attend the comprehensive oral examination and notify the student whether or not they have passed the examination.
6. Mentor the student in completing the dissertation.

Admission to Candidacy. Admission to candidacy indicates agreement that the student has demonstrated the ability to do acceptable graduate work and that satisfactory progress has been made toward a degree. This action usually connotes that all prerequisites to admission have been completed and a program of study has been approved. A student may be admitted to candidacy for the doctoral degree after passing the comprehensive examination, fulfilling any language requirements, and maintaining at least a B average in all graduate course work.

Residence Requirement. Residence is defined as full-time registration for a given semester on the campus where the program is located. The summer term is included in this period. During residence, it is expected that the student will be engaged in full-time on-campus study toward a graduate degree. For the doctoral degree, a minimum of two consecutive semesters of residence is required, except in programs where alternative or additional residence requirements have been approved.

Time Limit. Comprehensive examinations must be taken within five years, and all requirements must be completed within eight years, from the time of a student's first enrollment in a doctoral degree program. The term(s) and/or year(s) of an approved Leave of Absence (LOA) will not be counted toward time to degree, and milestone deadlines such as Admission to Candidacy will be adjusted accordingly.

Graduation

Submitting the online Application for Graduation begins the final checking of degree requirements and is used to order the diploma and initiate the degree audit. Deadline Dates and steps to graduation are available on the Graduate School website⁸. A student planning to graduate must complete the following steps:

- If not already submitted, submit Admission to Candidacy Application prior to the deadline for online application for graduation. Doctoral students would also submit Doctoral Committee Appointment form.

⁸ <http://gradschool.utk.edu/CurrentStudents.shtml>

- Submit an online Application for Graduation form on MyUTK no later than the last day of classes of the term prior to the term he/she intends to graduate.
- Pay the non-refundable graduation fee (\$30.00 masters, \$45.00 specialist, \$75.00 doctoral) which is charged to the student account on MyUTK at the time the application is submitted.
- A graduation fee is charged each term for each degree when an application is submitted.
- For non-thesis, thesis, or doctoral candidates, review and plan to meet deadline dates for graduation for the intended term.⁹
- Submit draft online of dissertation or meet with dissertation consultant for preliminary review of document.
- Submit Scheduling of Defense of Dissertation form to the Graduate School by the deadline.
- Submit Report of Final Examination (Pass/Fail) form, with original signatures, to the Graduate School prior to the deadline date.
- Submit Approval Sheet (with original signatures on paper form to the Graduate School) and submit an approved and accepted thesis or dissertation to TRACE by the deadline.
- Verify removal of incomplete grades and NR grades by deadline.

Current Program Faculty

Table 10 provides an overview of all program faculty. At present (Summer 2019), the department has an interim head (Professor Jay Whelan) and an open search for a tenure-track faculty position. The search for these two positions is underway. The search for the Health Policy and Management tenure-line faculty is currently underway (as of 12/6/2019). The request for applications closed on December 1, 2019, and initial interview calls are scheduled with the top candidates for the week of December 9, 2019. If the search yields a successful candidate, they will begin in Fall 2020. The second search for the department head has begun – with the search committee being formed in November 2019. Creation of the position announcement is in progress, and we expect to begin an active search in January 2020, upon the arrival of the new Dean of CEHHS.

⁹ <http://gradschool.utk.edu/CurrentStudents.shtml>

Table 10. *Summary of Faculty Who Contribute to the Proposed Program.*

Faculty Name	Faculty Dept.	Rank or Title	Highest Degree	Role in Program	Theses Advised	Dissertations Advised
Cristina Barroso	Public Health	Associate Professor	DrPH	A,B,C,D	8	2 completed
Kathleen Brown	Public Health	Associate Professor	PhD	A,C,D	0	1 completed 3 in progress*
Jiangang Chen	Public Health	Associate Professor	PhD, MD	A,C,D	0	2 completed
Samantha Ehrlich	Public Health	Assistant Professor	PhD	Program Co-Director A,B,C,D	0	0 completed
Jennifer Jabson-Tree	Public Health	Associate Professor	PhD	A,B,C,D	1	2 completed 1 in progress
Kristina Kintziger	Public Health	Assistant Professor	PhD	Program Co-Director A,B,C,D	1	2 completed
Laurie L. Meschke	Public Health	Professor	PhD	A,B,C,D	0	2 in progress*
TBD (open position, search underway)	Public Health	TBD, non-tenure track lecturer (to support undergrad and masters programs)	PhD			
TBD (open position, search underway)	Public Health	Dept Head, rank TBD	PhD	A,B,C,D		
TBD (open position, search to begin summer 2020)	Public Health	TBD, tenure track	PhD	A,B,C,D		

*A dissertation is considered in progress if the student is in at least their third year of the program and is actively engaged in dissertation research.

Note: Contributions to the program are keyed as:

- A – Will teach in the program
- B – Will design curriculum for the program
- C – Will conduct related research
- D – Will advise students in the program

Resources and Financial Projections

Academic and Career Resources

No new resources are required for the program modification from the DrPH to the PhD.

Student Advising

No new resources are required for the program modification from the DrPH to the PhD.

Financial Projections

The THEC Financial Projection form has been included in Appendix G.

Appendices

Appendix A: Coursework Comparison

Comparison of coursework between the proposed PhD in Public Health Sciences and the revised DrPH curriculum (never implemented) that would be necessary to meet the DrPH accreditation criteria

<i>Revised DrPH coursework (not implemented): Enters with MPH in Community Health Education: 63 credit hours Enters with MPH in another concentration: 72 credit hours Enters without MPH: 89 credit hours</i>		<i>PhD in Public Health Sciences coursework: Enters with MPH: 48 credit hours Enters with Masters but not MPH: 68 credit hours Enters without Masters or MPH: 72 credit hours</i>	
Prior MPH Coursework (26 credit hours)		Prior MPH Coursework (24 credit hours)	
PUBH 509	Graduate Seminar in Public Health; 2 credits	PUBH 509	Graduate Seminar in Public Health; 2 credits
PUBH 510	Environmental Health Science	PUBH 510	Environmental Health Science
PUBH 520	Public Health Policy & Administration	PUBH 520	Public Health Policy & Administration
PUBH 530	Biostatistics	PUBH 530	Biostatistics
PUBH 537	Fundamentals of Program Evaluation	PUBH 537	Fundamentals of Program Evaluation
PUBH 540	Principles of Epidemiology	PUBH 540	Principles of Epidemiology
PUBH 555*	Health and Society	Electives	7 credits
PUBH 536*	Research Methods in Health		
PUBH 552*	Assessment & Planning		
Core for Revised DrPH Courses (30 credits)		Core PhD Courses (15 credits)	
PUBH 630	Advanced Biostatistics	PUBH 630	Advanced Biostatistics
PUBH 640	Advanced Epidemiology	PUBH 640	Advanced Epidemiology in Public Health
PUBH 635	Systematic Review and Meta-Analysis	PUBH 635	Systematic Reviews and Meta-Analyses
PUBH 650	Dissemination & Implementation Science	PUBH 650	Dissemination and Implementation Science

	PUBH 656 Comparative Theories in Health Behavior
PUBH 639 Qualitative Methods	
PUBH 645 Mixed Methods	
PUBH 652 Advanced Assessment & Planning	
PUBH 660 Leadership & Financial Mgmt	
PUBH 662 Ethics and Equity	
PUBH 687 Advanced Field Practice	
Revised DrPH Cognate (9 credit hours)	PhD Cognate (9 credits)
Cognate courses 9 credit hours chosen by student and approved by advisor	Cognate courses 9 credit hours chosen by student and approved by advisor.
Dissertation Credits (24 credits)	Dissertation Credits (24 credits)
PUBH 600 Dissertation hours; 24 credits	PUBH 600 Dissertation hours; 24 credits

**Courses listed as Core DrPH courses in the 2018-2019 Graduate School Catalog. In this document, we place them in the prerequisite category because they do not represent unique courses required for the doctoral degree. These courses are required for the MPH Community Health Education concentration.*

Appendix B: Letter of Support from Faculty Members of the Department of Public Health



THE UNIVERSITY OF
TENNESSEE
KNOXVILLE

Dear Dr. Fairbrother:

January 11, 2019

We, the faculty of the Department of Public Health, are writing to confirm our full support for the transition from the current DrPH degree to a PhD in Public Health. We appreciate that the road to this decision has been circuitous and non-traditional. Nonetheless, we believe that given the current (and newly released) accreditation demands from the Council on Education for Public Health (CEPH), the present enrollment status of Public Health doctoral students, and the academic and research backgrounds of the faculty warrant this change. The number one objective to this proposed modification is to deliver the best possible educational environment and research training to our students so they can be competitive in the field.

The ease of modifying the current DrPH curriculum to meet PhD requirements involves contraction of an over burdensome curriculum, a curriculum that was designed to meet the new and revised competencies associated with CEPH accreditation. This transition is the wisest decision to capitalize on the strengths of the faculty and promote the department's sustainability, research productivity and to deliver the highest quality of training to our doctoral students.

An extensive report will be generated for upper administration outlining the details of the minimal impact it will have on our current students and articulate the seamless transition, and the overall benefits to the students, department, college and university.

As Director of the Doctoral Program in the Department of Public Health, I speak for all of my fellow faculty members who signify their support by signing this letter.

With great respect,
Dr. Laurie Meschke

Cristina S. Barroso
Cristina Barroso, DrPH

Samantha Ehrlich
Samantha Ehrlich, PhD

Robert Lieberthal
Robert Lieberthal, PhD

Kathleen C. Brown
Kathleen C. Brown, PhD

Jennifer Jabson
Jennifer Jabson, PhD

Clea McNeely
Clea McNeely, DrPH

J. Chen
J. Chen, MD, PhD

Kristina Kintziger
Kristina Kintziger, PhD

Laurie L. Meschke
Laurie L. Meschke, PhD

Cc: Dr. J. Whelan

Department of Public Health
390 HPER, 1914 Andy Holt Ave., Knoxville, TN 37996-2710
865-974-5041 865-974-6439 fax publichealth.utk.edu

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Appendix C: Letters from Current and Incoming DrPH Students Documenting Agreement to Transfer to the PhD in Public Health Sciences

August 19, 2019

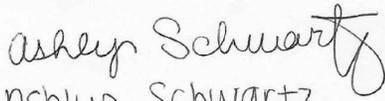
Jay Whelan, PhD
Professor and Interim Department Head
Department of Public Health
University of Tennessee, Knoxville
1914 Andy Holt Drive
HPER, Suite 390
Knoxville, TN 37996

Dear Professor Whelan,

The purpose of this letter is to affirm that although I was accepted into the Doctor of Public Health (DrPH) program in UTK's Department of Public Health, I am willing to switch to the PhD in Public Health Sciences program. I understand that it is possible that I will receive a PhD rather than a DrPH and that I will fulfill all requirements of the PhD in Health Sciences program.

I also affirm that I was informed of this likely change in program when I applied for admission to the doctoral program.

Sincerely,


Ashlyn Schwartz

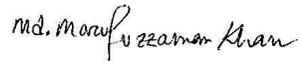
August 19, 2019

Jay Whelan, PhD
Professor and Interim Department Head
Department of Public Health
University of Tennessee, Knoxville
1914 Andy Holt Drive
HPER, Suite 390
Knoxville, TN 37996

Dear Professor Whelan,

The purpose of this letter is to affirm that although I was accepted into the Doctor of Public Health (DrPH) program in UTK's Department of Public Health, I am willing to switch to the PhD in Public Health Sciences program. I understand that it is possible that I will receive a PhD rather than a DrPH and that I will fulfill all requirements of the PhD in Health Sciences program.

Sincerely,



MD. MARUFUZZAMAN KHAN

August 19, 2019

Jay Whelan, PhD
Professor and Interim Department Head
Department of Public Health
University of Tennessee, Knoxville
1914 Andy Holt Drive
HPER, Suite 390
Knoxville, TN 37996

Dear Professor Whelan,

The purpose of this letter is to affirm that although I was accepted into the Doctor of Public Health (DrPH) program in UTK's Department of Public Health, I am willing to switch to the PhD in Public Health Sciences program. I understand that it is possible that I will receive a PhD rather than a DrPH and that I will fulfill all requirements of the PhD in Health Sciences program.

I also affirm that I was informed of this likely change in program when I applied for admission to the doctoral program.

Sincerely,



Laura Clark, MS

Appendix D: Foundational Public Health Competencies Required for Completion of a CEPH-Accredited PhD Program

2016 CEPH Accreditation Criteria

CEPH requires achievement of 12 foundational competencies for completion of the PhD program. CEPH determines these learning competencies to be achieved if the student has a prior MPH degree or takes all required core MPH courses from The University of Tennessee, Knoxville's Department of Public Health.

12 Foundational Competencies:

Profession & Science of Public Health

1. Explain public health history, philosophy and values
2. Identify the core functions of public health and the 10 Essential Services¹⁸
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
6. Explain the critical importance of evidence in advancing public health knowledge

Factors Related to Human Health

7. Explain effects of environmental factors on a population's health
8. Explain biological and genetic factors that affect a population's health
9. Explain behavioral and psychological factors that affect a population's health
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities
11. Explain how globalization affects global burdens of disease
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)

Source: Council on Education for Public Health (CEPH) *Accreditation Criteria: Schools of Public Health and Public Health Programs*. Amended October 2016. Silver Spring, MD: CEPH, p. 34. Accessed online on August 5, 2019 at https://media.ceph.org/wp_assets/2016.Criteria.pdf.

Appendix E: Letter from UTK SACSCOC Liaison with Determination of Reporting Requirements for SACSCOC

SACS inquiry re change of degree

Hartman, Heather Gibbons <hhartman@utk.edu>

Fri, Aug 23, 2019 at 11:14 AM

To: Clea McNeely <cleamcneely@gmail.com>

Hi Clea!

My apologies for not getting back to you sooner! It's been busy here this week!

In reviewing your draft proposal for the changes to the Doctorate in Public Health (DrPH) to become a PhD in Public Health, **I see no issues that would require notification to SACSCOC**. The rationale for changes is clearly the CEPH accreditation criteria. Current students have already elected to migrate into the program as modified. If the new structure is not approved, it may in fact lead to a hardship for students who will be taking unnecessary extra coursework. The department is fully staffed with faculty who will teach, design curriculum, conduct related research, and advise students, and no additional resources are required.

Please let me know if you need more from me.

Thanks much!

Heather

Heather G. Hartman, Ph.D.

SACSCOC Liaison, Office of the Provost

The University of Tennessee, Knoxville

613 Andy Holt Tower

Knoxville, TN 37996

(865) 974-3635

Appendix F: Assessment Materials

Annual Student Progress Form



PHD STUDENT PROGRESS

Please send your updated, formatted CV along with this form to your faculty adviser no later than December 15.

STUDENT/COMMITTEE

Student Name:

When did you meet with your committee members? At least one meeting required per year. (Note you are required to choose the three departmental committee members in your first year and add the external member and formalize the committee by the end of the second year.)

Chair Name:	Meeting date(s):
Committee Member 1:	Meeting date(s):
Committee Member 2:	Meeting date(s):
Committee Member 3:	Meeting date(s):
Committee Member 4:	Meeting date(s):

COGNATE AREA

Identify your cognate area and all cognate courses taken to date (i.e., course name, credit hours and semester taken).

MILESTONES

When did you (or when do you expect to) complete each milestone? Please answer question with **Month and Year** (e.g., September 2019).

Coursework:

Qualifying Exam:

Comprehensive Written Exam (written exam is mini-NIH style grant proposing your dissertation):

Comprehensive Oral Exam (defense of dissertation grant proposal above):

Dissertation Defense:

Graduation:

PROGRESS/GOALS

What progress have you made over the past year towards completing your doctoral education?

Indicate any publications, presentations, teaching experience, and/or other accomplishments you've had this year:

Publications Participation (describe papers in process and work under review, and identify your role on them):

Presentations (both internal and external, include abstract submissions, and identify your role on them):

Teaching (if applicable):

Research Experience:

Other Accomplishments:

Do you have any incompletes? If so, how are you preparing to resolve them?

What are your academic and professional goals for the coming year?

JOB MARKET

What kind of post-PhD job do you plan to look for (e.g., if academic, research- or teaching-focused; if non-academic, what kind)?

Do you plan to be on the job market in the upcoming year?

FUNDING

Indicate your next year's funding source and/or any other UT employment (e.g., paid hourly on a grant or some other way). Please indicate % time if a GRA or GTA (e.g., 25%) and/or hours per week if UT employment.

QUESTIONS, CONCERNS, IDEAS

What questions or concerns do you have about your progress through the PhD program?

What other needs do you have to succeed in the program?

What ideas do you have for improvement or change.

Appendix G: Financial Projections for New Costs Associated with the Program Modification

**University of Tennessee, Knoxville
PhD in Public Health Sciences (to replace the Doctorate of Public Health (DrPH))**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
I. Expenditures (in US \$)							
A. One-time Expenditures							
New/Renovated Space	0	0	0	0	0	0	0
Equipment	0	0	0	0	0	0	0
Library	0	0	0	0	0	0	0
Consultants	0	0	0	0	0	0	0
Travel	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Sub-Total One-time	0	0	0	0	0	0	0
B. Recurring Expenditures							
Personnel							
Administration							
Salary	0	0	0	0	0	0	0
Benefits	0	0	0	0	0	0	0
Sub-Total Administration	0	0	0	0	0	0	0
Faculty							
Salary	0	0	0	0	0	0	0
Benefits	0	0	0	0	0	0	0
Sub-Total Faculty	0	0	0	0	0	0	0
Support Staff							
Salary	0	0	0	0	0	0	0
Benefits	0	0	0	0	0	0	0
Sub-Total Support Staff	0	0	0	0	0	0	0
Graduate Assistants							
Salary	0	0	0	0	0	0	0
Benefits	0	0	0	0	0	0	0
Tuition and Fees* (See Below)	0	0	0	0	0	0	0
Sub-Total Graduate Assistants	0	0	0	0	0	0	0

Financial Projections for New Costs Associated with the Program Modification

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Operating							
Travel	0	0	0	0	0	0	0
Printing	0	0	0	0	0	0	0
Equipment	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Sub-Total Operating	0	0	0	0	0	0	0
Total Recurring	0	0	0	0	0	0	0
TOTAL NEW EXPENDITURES (A + B)	0	0	0	0	0	0	0

***If tuition and fees for Graduate Assistants are included, please provide the following information.**

Base Tuition and Fees Rate	NA						
Number of Graduate Assistants	NA						

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
II. Revenue							
Tuition and Fees ¹	0	0	0	0	0	0	0
Institutional Reallocations ²	0	0	0	0	0	0	0
Federal Grants ³	0	0	0	0	0	0	0
Private Grants or Gifts ⁴	0	0	0	0	0	0	0
Other ⁵	0	0	0	0	0	0	0
BALANCED BUDGET LINE	0	0	0	0	0	0	0

(1) In what year is tuition and fee revenue expected to be generated and explain any differential fees. Tuition and fees include maintenance fees, out-of-state tuition, and any applicable earmarked fees for the program.

The modified program will charge the same standard graduate-school rate for tuition. There will be no extra fees beyond standard charges d by the University of Tennessee, Knoxville.

(2) Please identify the source(s) of the institutional reallocations, and grant matching requirements if applicable.

Not applicable.

(3) Please provide the source(s) of the Federal Grant including the granting department and CFDA(Catalog of Federal Domestic Assistance) number.

Not applicable.

(4) Please provide the name of the organization(s) or individual(s) providing grant(s) or gift(s).

Not applicable.

(5) Please provide information regarding other sources of the funding.

Not applicable.



UNIVERSITY
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MĀNOA

February 18, 2020

To: Linda Martin, Vice President
University of Tennessee

Karen Etzkom, Director of Academic Affairs
University of Tennessee System

Betty Dandridge Johnson, Chief Academic Officer
Tennessee Higher Education Commission

From: Kathryn L. Braun
Professor of Public Health and Social Work
Chair, PhD in Public Health program
kbraun@hawaii.edu, 808-330-1759

Re: External Review of UTK's Academic Program Modification Proposal

Aloha, and thank you for the opportunity to serve as an external reviewer for the Department of Public Health at the University of Tennessee's Knoxville (UTK) as they transition from a Doctorate in Public Health (DrPH) to a PhD in Public Health Sciences.

Please find attached my responses to the questions provided to me by the Tennessee Higher Education Commission related to UTK's Academic Program Modification Proposal to change from a DrPH to a PhD in Public Health Sciences. In short, I recommend approval of the proposed program modification as written. Changing from a DrPH to a PhD in Public Health Sciences makes good sense within the context of: 1) the 2016 standards for the DrPH degree of the Council on Education for Public Health (accreditors of schools and programs of public health); 2) local, national, and international employer demand for graduates with skills in the public health sciences; 3) student demand for this degree; and 4) the resources and capacities of the UTK Department of Public Health. The proposed curriculum with five required courses, three or more elective courses, and a dissertation is well constructed and includes adequate measures to assess student mastery of the learning objectives. Adequate policies for admission, retention, dismissal, and graduation have been established, and assistantships in teaching and research are available to help support students financially.

Overall, I found the application to be well written. I also enjoyed meeting stakeholders from the University of Tennessee and the Tennessee Higher Education Commission on ZOOM on February 7, 2020. The presentation by Dr. Ehrlich was clear and concise, and I appreciated the opportunity to obtain answers to my questions and to receive supplemental information from Dean McIntyre, Provost Mandersheid, Chair Whelan, and others.

Do not hesitate to contact me if I you need me to clarify or supplement my answers in the attached report. Mahalo (thank you).

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An Equal Opportunity/Affirmative Action Institution

Tennessee Higher Education Commission
Review Questions for External Reviewer
University of Tennessee, Knoxville



Program Modification of Degree Designation Change: Public Health DrPh to PhD

Thank you for agreeing to participate in the paper review of a proposed academic program being modified from an existing academic program. The Tennessee Higher Education Commission values your expertise and appreciate your generous professional assistance in determining (1) whether or not the degree designation for the Public Health doctoral program should be approved as proposed and (2) how the program might be strengthened before approval is granted.

Based on your professional review of the proposal and any other information you have available, please provide a written report addressing, among other things, the following questions:

- 1)** Is there a clear rationale for the program modification to change the degree designation for the doctoral Public Health from a DrPH to a PhD program? Please identify any discrepancies.

Yes, there is a clear rationale for the request to change the degree designation from DrPH to PhD. This is because of the 2016 changes to the requirements of our academic accrediting body, the Council on Education for Public Health (CEPH). These changes resulted in strict guidelines for DrPH programs which, for many schools and programs of public health, would require additional resources to meet.

Prior to 2016, schools and programs of public health had the latitude to operationalize their DrPH degree to fit their resources. Thus, each DrPH program was unique, with little or no consistency across programs. Some DrPH programs emphasized research and required students to complete a dissertation, while other DrPH programs emphasized advanced public health practice with field placements and projects. Some required only 30 credits, while others required 70 or more credits. The relaxed standards for the DrPH were in sharp contrast to the requirements for the Masters in Public Health (MPH), for which the number of credits, competencies, and products were standardized by CEPH for all MPH programs across the country.

The 2016 standards represented a marked change in the thinking of CEPH about the DrPH. After several years of work and debate, the decision was made to define the DrPH solely as a public health leadership-focused degree, with no requirement for a dissertation. It was acknowledged at meetings sponsored by CEPH that schools and programs of public health offering a research-intensive DrPH would either need to restructure their program or change their DrPH program to a PhD.

The Office of Public Health Studies at the University of Hawai'i was among the CEPH-accredited schools and programs that dropped the DrPH in favor of the PhD. In our case, the PhD curriculum is the same as the old DrPH curriculum, which was research-focused and culminated in a three-paper dissertation. The consensus of our faculty and department chair was that UH Public Health had the capacity to continue offering a strong research-focused degree (e.g., PhD), but did not have the faculty or resources to restructure and change the DrPH into the leadership-focused degree program. Our students also preferred the PhD to the DrPH.

Based on the documents provided, UTK is in the same position. For UTK, restructuring the DrPH program to meet the 2016 DrPH accreditation standards would require additional resources and is not preferred by students, faculty, or employers. Changing to the PhD in Public Health Sciences is the logical action.

- 2) In reviewing the current program's and the modified program's curriculum, is the proposed curriculum sufficiently strong for a program at this level? Identify the curricular strengths of the proposed program modification. Where is the curriculum lacking and, most importantly, how can the proposed program modification be strengthened?

As the title of the degree suggests, the proposed PhD curriculum is strong in Public Health Sciences. Students must enter with an MPH or gain foundational knowledge in public health through pre- and co-requisite MPH coursework. Mastery of CEPH's 11 knowledge foundations by students entering without an MPH is tested through an MPH comprehensive exam.

The program includes only five required PhD courses, but these advance students' knowledge and skills in the public health sciences—specifically epidemiology, biostatistics, systematic review and meta-analysis, dissemination and implementation (D&I) science, and advanced theory (needed for developing strong conceptual frameworks upon which to base and advance public health science). Students are then required to complete at least 9 credits of electives relevant to their learning and their proposed research. An additional 24 credits are required for dissertation research and writing.

We require similar courses in the UH PhD in Public Health, with the addition of qualitative research methods and teaching practicum. In discussions with the UTK program on February 7, I learned that courses in qualitative methods are offered by other departments at UTK, and a student wishing to use qualitative methods in his/her dissertation would be advised to take such a course as an elective. In contrast, the UTK Department of Public Health may be the only department to offer courses in advanced quantitative methods, systematic review, and D&I science, and so these classes attract students from other departments, facilitating learning across disciplines. I also learned that the UTK Department of Public Health offers paid teaching assistantships to its PhD students, and this is an avenue for students who aspire to a career that includes teaching to gain teaching skills. Thus, I am of the opinion that no additional courses need to be added.

- 3) Are proposed admission standards, retention and graduation policies for the program modification appropriate? If not, how should they be strengthened?**

Admission standards and retention are appropriate for the program.

For admission, successful applicants would be required to have a GPA of 3.2 or higher on Master's degree coursework, score minimally in the 40th percentile on all sections of the GRE, and demonstrate passion and capacity for doctoral-level work as reflected in letters of reference, a personal statement, a writing sample, and an interview. Student fit with faculty expertise is also considered in admission decisions.

Retention of students is achieved by offering paid teaching and research assistantships and requiring students to undergo regular review of progress. Per the document provided, the academic records of all students are reviewed at the end of each semester, and it is expected that students receive guidance from these reviews that help to retain them in the program.

Per the document provided, there are several ways in which a student can be dismissed from the program, e.g., failure to maintain a GPA of at least 3.25, failure to pass the qualifying or comprehensive exam, failure to pass the comprehensive exam within five years of admission, or failure to complete the degree within eight years of admission.

As the program emphasizes independent research, students begin to form their dissertation committees in the first year and formalize them by the end of the second year. In addition to providing guidance through the dissertation proposal defense, research, and writing phase of the student's program, this committee also assists the student in preparing for the qualifying exam.

Graduation policies are in place and adequate as well.

- 4) Is the proposed timeline for implementation and termination of the existing degree and procedures for transitioning or graduating current students adequate?**

Yes, there is a plan to accommodate DrPH students who wish to continue and graduate in this track, as well as a plan to allow enrolled DrPH students to transfer to the PhD program. The DrPH program will not be closed until the currently enrolled students electing to remain in the DrPH have graduated. Per the documentation provided, the students remaining in the DrPH program were admitted prior to Fall 2018 and are expected to graduate between August 2020 and August 2021.

- 5) Is there appropriate and adequate documentation supporting the need for this proposed program modification?**

Yes, see answer to #1 above.

- 6)** Are degree requirements sufficiently specific to ensure that the proposed program modification will meet stated objectives? If not, what additional degree requirements do you recommend?

Yes, see answer to #2 above.

- 7)** Based on the supporting documentation provided on student learning outcomes and your knowledge of the field, is the level of national demand for graduates of such programs sufficient to ensure employment?

Yes, public health professionals with advanced skills in epidemiology, biostatistics, and quantitative research approaches are in high demand by international, national, and local governmental agencies, healthcare systems, and non-profit, non-governmental organizations. This is because of increased need for these skills in identifying disparities, determining need, summarizing existing evidence, implementing and evaluating programs, and determining return-on-investment. PhD graduates also are needed in the academy to prepare the next generation of public health professionals.

- 8)** Based on your review, does the curriculum provide sufficient opportunity for graduates to demonstrate both knowledge and skills needed for successful employment? Are there any additional courses needed for the proposed program?

Yes, students are required to demonstrate mastery of the learning objectives in a number of ways, including the MPH Comprehensive Exam (for students entering without an MPH), the Qualifying Exam, the Comprehensive Exam, the dissertation defense, and assessment methods associated with each of the five reported courses.

I do not see a need for additional courses. PhD students must learn to conduct independent research. The proposed required courses provide students a good foundation for this, and they gain additional knowledge and skills through elective courses. The real learning, in my opinion, comes during the dissertation proposal, research, and writing phases of any PhD program.

- 9)** Are the support services (e.g., advisement, financial aid advisement, available technology, library, etc.) adequate for the proposed program? If not, how may they be improved?

Advising is provided by the leaders of the PhD program initially, and this transfers to the dissertation committee in years 1 and 2. As noted above, students are reviewed at the end of every semester by their advisor, the chair of the DPH Doctoral Committee, and the full faculty. Written feedback and recommendations are compiled by the advisor, provided to the student, and filed in the student record.

Regarding financial aid, PhD students are encouraged to apply for teaching and research assistantships. In our February 7 meeting, Dean McIntyre outlined several ways in which public health faculty members are supported to develop research. For example, new hires are provided start-up funds and course releases to kick-start their research programs. Also the

College of Education, Health, and Human Sciences has a supportive culture for faculty research and encourages faculty to engage students in their research. PhD students also are referred to scholarships and financial aid opportunities.

Although we did not discuss available technology, a look at the UTK website suggests that PhD students at UTK have adequate access to technology and libraries.

10) Based on your best professional judgment, is the proposed program modification needed in light of other existing programs offered at public and private Tennessee institutions?

Yes, the program modification is needed to meet CEPH accreditation standards and to assure that the PhD in Public Health program fits the capabilities and resources of the UTK Department of Public Health. Other public health doctoral programs in Tennessee appear to have different foci from UTK, e.g., on epidemiology, social behavioral health, or health policy. Thus, I believe the UTK PhD in Public Health Sciences program offers a unique educational opportunity for the state.

11) Do you recommend approval of the proposed program modification and why? If not, what modifications would be minimally required before you could professionally recommend approval?

Yes, I recommend approval of the proposed program modification as written. Changing from a DrPH to a PhD in Public Health Sciences makes good sense within the context of: 1) the new CEPH standards; 2) local, national, and international employer demand for graduates with skills in the public health sciences; 3) student demand for this degree; and 4) the resources and capacities of the UTK Department of Public Health. The proposed curriculum with five required courses, three or more elective courses, and a dissertation is well constructed and includes adequate measures to assess student mastery of the learning objectives. Adequate policies for admission, retention, dismissal, and graduation have been established, and assistantships in teaching and research are available to help support students financially.

12) What are the financial implications of the proposed program modification?

To modify the DrPH program to meet the 2016 CEPH standards would require an investment of new resources, as new classes and practica would need to be developed and taught. Moving to a PhD program, as proposed in this application, will require fewer resources for doctoral-level classes and practica, as the program is focuses less on classes and more on guiding students to become independent researchers. It is anticipated that the change will allow UTK faculty to offer a stellar PhD program while also having time to expand undergraduate and masters-level offerings in public health.

Note: Please feel free to address other issues that you believe should be considered in the approval process. The Commission, campus administration, and the faculty will appreciate any suggestions that you may wish to make to improve and strengthen the proposed programs.

Per discussion with Dean McIntyre, there is strong institutional support for the Department of Public Health. The department currently is recruiting to fill two tenure-track positions and a permanent department chair. Also, UTK has established a university-wide One Health Initiative, which closely involves public health. One Health is defined as a collaborative, multisectoral, and transdisciplinary approach with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment. This initiative will help support the expansion of research, which would offer more opportunities for PhD student support and learning.

Please submit your final report directly to Dr. Linda Martin *Vice President*, University of Tennessee at lmartin@tennessee.edu and Betty Dandridge Johnson, *Chief Academic Officer*, Tennessee Higher Education Commission at betty.dandridge.johnson@tn.gov.

UTK Department of Public Health**Doctoral Committee Response to External Reviewer, Dr. Kathryn L. Braun, Professor of Public Health and Social Work and Chair of the PhD in Public Health program at the University of Hawaii Manoa**

We wish to first thank Dr. Braun for her time and careful evaluation of our Academic Program Modification Proposal.

RESPONSE TO REVIEWER'S COMMENTS

- 1) We agree with Dr. Braun that changing to a PhD in Public Health Sciences in the logical action, and appreciate her sharing the experience and rationale by which the University of Hawaii reached the same conclusion in response to the 2016 DrPH accreditation standards.
- 2) We appreciate that the University of Hawaii's PhD in Public Health requires similar courses to what we have proposed, and that Dr. Braun is of the opinion that no additional courses need to be added.
- 3) We appreciate Dr. Braun's assertion that admission standards and retention are appropriate for proposed program.
- 4) The updated termination date for the DrPH degree, i.e., August 2021, has added to this resubmission of our Academic Program Modification proposal.
- 5) We agree with Dr. Braun that changing to a PhD in Public Health Sciences in the logical action, and appreciate her sharing the experience and rationale by which the University of Hawaii reached the same conclusion in response to the 2016 DrPH accreditation standards.
- 6) We appreciate that the University of Hawaii's PhD in Public Health requires similar courses to what we have proposed, and that Dr. Braun is of the opinion that no additional courses need to be added.
- 7) We thank Dr. Braun for her opinion that there is national and international demand for public health professionals with advanced skills in the areas outlined in our Academic Program Modification proposal.
- 8) We thank Dr. Braun for her assurance that the students will have sufficient opportunities to demonstrate mastery of public health knowledge and skills, and that additional courses are not needed.

- 9) We thank Dr. Braun for her assurance that support services and resources are adequate for the proposed program.
- 10) We agree with Dr. Braun that our PhD in Public Health Sciences will offer a unique educational opportunity in Tennessee.
- 11) We thank Dr. Braun for recommending that the proposed program modification be approved as written.
- 12) We agree with Dr. Braun's assessment that moving to the PhD in Public Health Sciences is also desirable in regards to resources and financial implications, and will likely support the expansion of research.

RESPONSE TO THEC's COMMENTS

- 1) Inclusion of cover letter from Dr. Manderschied.
Please see pages 3-4 for a letter of support from the Provost.
- 2) Adjustment of proposed termination date to allow currently enrolled students the option to complete the Public Health DrPh program.
Please see page 5 for the revised termination date.
- 3) Update Accreditation Section to reflect the accreditation effective date for the Public Health Sciences PhD (based on the fall 2020 submission of the *CEPH Substantive Change Form*).
Please see pages 21-22 for the updated accreditation section.
- 4) Please verify that all students from the fall 2017 cohort that will transfer to the PhD program are reflected in Tables 4 and 5.
Please see pages 13, 14, and 17, as well as Appendix C regarding students transferring to the PhD program.
- 5) Update Table 10 (Summary of Faculty Who Contributed to the Proposed Program) with revised document emailed on January 22 2020.
Please see page 33 for the updated information on faculty.



April 13, 2020

Mr. Mike Krause, Executive Director
Tennessee Higher Education Commission
404 James Robertson Parkway, Suite 1900
Nashville, TN 37243

Dear Mr. Krause:

I submit this formal request for your consideration to allow the University of Tennessee, Knoxville to begin recruiting prospective students for the proposed PhD program in Public Health Sciences, effective immediately. This program has undergone critical internal review as well as an extensive external review with representatives from THEC as well as a consultant, Dr. Katherine Braun, who provided strong support for the program and recommended no changes to our proposed plan. Following our responses to the reviewer's comments, we received email notification on April 6, 2020 that we had "responded satisfactorily to the external reviewer's recommendations and THEC staff for the program modification proposal [for the transition from a] DrPH to a Public Health Sciences PhD." We are on the agenda to bring forward the proposed modification to the University of Tennessee Board of Trustees for their approval on June 26. We anticipate forwarding the board-approved materials to THEC for final approval to able to fully launch the program in Fall 2020.

Given the current public health crisis, the COVID-19 pandemic, a critical need for researchers with expertise in public health sciences has emerged, generating intense interest in the area. Many Tennesseans may see this program as the career opportunity they have been seeking. Indeed, Betty Dandridge noted in her email for us to move forward, "This program modification is very timely in light of the critical need for public health researchers with the challenges of the coronavirus pandemic". We hope you agree that early marketing of our proposed program will provide an immediate value to the state of Tennessee.

As we await final approval, we request permission to begin early recruitment and marketing for this growing program, which will provide us additional time to form the most qualified and competitive cohort. In the field of public health, many applicants begin their process of selecting potential programs to which they plan to apply at least a

year in advance. Our ability to begin early recruitment will also enhance our success in creating a strong pipeline for the 2021-2022 academic year. Therefore, we request permission to use social media, websites, message boards, and email to increase awareness of this exciting new program, effective immediately. All related electronic advertising efforts will provide clearly stated disclaimers that the program is pending final approval, projected to be complete by July 2020.

Thank you in advance for your consideration.

Sincerely,



Donde Plowman
Chancellor

CC: Linda Martin
Karen Etzkorn
David Manderscheid
Dixie Thompson
Ellen McIntyre
Jay Whelan

Office of the Chancellor
527 Andy Holt Tower Knoxville, TN 37996-0184
865-974-3265 fax 865-974-481 chancellor.utk.edu

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Academic Program Modification Proposal
University of Tennessee at Martin: Bachelor of Science in Engineering
Mechanical Engineering Concentration
Modified to
Bachelor of Science in Mechanical Engineering (BSME)

Submitted by
Department of Engineering
College of Engineering and Natural Sciences
University of Tennessee - Martin

Program and Department Liaisons and Contact Information

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Departmental Contact: Dr. Shadow Robinson
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University of Tennessee at Martin
113 Johnson EPS Building
20 Mt. Pelia Road
Martin, Tennessee 38238

Updated February 14, 2020

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MARTIN

Office of the Chancellor
325 Administration Building
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Office: 731.881.7500
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4

MEMORANDUM

TO: Betty Dandridge Johnson
Chief Academic Officer, THEC

FROM: Keith S. Carver, Jr. 
Chancellor

DATE: December 12, 2019

RE: Approval of the B.S. in Mechanical Engineering

The University of Tennessee at Martin proposes an academic program modification to change the current B.S. in Engineering concentration in Mechanical Engineering to a B.S. in Mechanical Engineering.

The proposal has been vetted by the Undergraduate Council and Faculty Senate Executive Committee and has been approved by the Faculty Senate.

Thank you.

js

c: Dr. Philip Acree Cavalier, Provost & Vice Chancellor, Academic Affairs
Victoria Seng, Associate Provost
Shadow Robinson, Dean, College of Engineering and Natural Sciences



MARTIN

Division of Academic Affairs
324 Administration Building
Martin, Tennessee 38238
Office: 731.881.7010
Fax: 731.881.7503

4

From: Philip Acree Cavalier 
Provost and Vice Chancellor for Academic Affairs

To: Betty Dandridge Johnson
Chief Academic Officer, THEC

Date: December 12, 2019

Re: Approval of the B.S. in Mechanical Engineering

The University of Tennessee at Martin proposes an academic program modification to change the current B.S. in Engineering concentration in Mechanical Engineering to a B.S. in Mechanical Engineering. The proposal has been vetted by the Undergraduate Council and Faculty Senate Executive Committee, and been approved by the Faculty Senate. Chancellor Carver has also approved the program modification.

Current and Proposed Program Information

Title, Degree, and CIP Codes

Table 1 shows the existing BS Engineering with Concentrations before and after separating the mechanical engineering concentration into a distinct Bachelor of Science program in Mechanical Engineering.

Table 1

Overview of Proposed Program Changes

Before Proposed Change			After Proposed Change		
<i>Title</i>	<i>Degree</i>	<i>CIP</i>	<i>Title</i>	<i>Degree</i>	<i>CIP</i>
Bachelor of Science in Engineering with a concentration in Civil Engineering	B.S.E.	14.0101	Bachelor of Science in Engineering with a concentration in Civil Engineering	B.S.E.	14.0101
Bachelor of Science in Engineering with a concentration in Electrical Engineering	B.S.E.	14.0101	Bachelor of Science in Engineering with a concentration in Electrical Engineering	B.S.E.	14.0101
Bachelor of Science in Engineering with a concentration in Industrial Engineering	B.S.E.	14.0101	Bachelor of Science in Engineering with a concentration in Industrial Engineering	B.S.E.	14.0101
Bachelor of Science in Engineering with a concentration in Manufacturing Engineering	B.S.E.	14.0101	Bachelor of Science in Engineering with a concentration in Manufacturing Engineering	B.S.E.	14.0101
Bachelor of Science in Engineering with a concentration in Mechatronics Engineering	B.S.E.	14.0101	Bachelor of Science in Engineering with a concentration in Mechatronics Engineering	B.S.E.	14.0101
<i>Bachelor of Science in Engineering with a concentration in Mechanical Engineering</i>	<i>B.S.E.</i>	<i>14.0101</i>	<i>Bachelor of Science in Mechanical Engineering</i>	<i>B.S.M.E.</i>	<i>14.1901</i>

Key Dates

The schedule for implementing the proposed Bachelor of Science in Mechanical Engineering (BSME) degree program appears in Table 2. Ideally, the BSME will first appear in the UT Martin catalog in Fall 2020. The existing BS in Engineering degree is accredited by ABET and is due for a reaccreditation site visit during Fall 2022. The new BSME degree will seek initial accreditation by ABET at the same time (Table 2). Reaccreditation of the BS in Engineering will follow a parallel schedule. The Mechanical Engineering concentration will be terminated after the BSME degree receives its accreditation, which will take place in July 2023.

Table 2

BSME Implementation Schedule

Term/Date	Action
Fall 2018	Obtain UT Martin approvals
Fall 2019	Obtain UT system and THEC approvals
Fall 2020	BSME appears in UTM catalog
May 2021	First graduates
October 1, 2021	ABET Initial accreditation readiness review due
January 31, 2022	Request accreditation visit
July 1, 2022	Self-Study report due
Fall 2022	ABET onsite visit
July 2023	ABET accreditation notification, and if successful, existing concentration will be terminated.

Anticipated Delivery Site

The BSME will be delivered at the main University of Tennessee at Martin campus in Martin, TN.

Background of Proposed Academic Program Modification

The University of Tennessee at Martin requests approval to convert the existing Mechanical Engineering concentration in the Bachelor of Science in Engineering degree to a Bachelor of Science in Mechanical Engineering (BSME) degree. The BS Engineering degree program has existed since 1996 and received ABET accreditation as a General Engineering program in 1999. The program received its latest reaccreditation from ABET in 2017.

The BS in Engineering program initially included the following four concentrations: (1) Civil Engineering, (2) Electrical Engineering, (3) Industrial Engineering, and (4) Mechanical Engineering. The university added a fifth concentration in (5) Manufacturing Engineering in Fall 2018 and a sixth concentration in (6) Mechatronics in Fall 2019. Faculty Senate approval of a seventh concentration in (7) Computer Engineering was received in the Fall of 2019 and will be offered beginning Fall 2020. The BS Engineering program is unique within Tennessee and—with only a few exceptions—the nation, in that it requires students to pass the Fundamentals of Engineering (FE) exam as part of its graduation requirements to ensure the highest quality of its graduates.

Initially, a large number of general engineering core courses comprised the curriculum for each concentration. Approximately four courses in each concentration differentiated themselves from each other. Consequently, students of the Civil Engineering and the Electrical Engineering concentrations enrolled in higher numbers of Mechanical Engineering courses than is generally seen in traditional Civil and Electrical Engineering programs. Consequently, all graduates in the early years of the program took the general engineering version of the Fundamentals of Engineering (FE) exam.

A gradual strengthening of the various concentrations has occurred by adding courses recommended or requested by the Engineering Industrial Advisory Board, regional industry, and students. Currently, nearly all of the students in the Mechanical Engineering and Civil Engineering concentrations take the discipline-specific FE exams. Some students in the Electrical Engineering concentration continue to take the general engineering version of the FE exam. Ongoing searches in the department will further strengthen the Electrical Engineering concentration so that, within a couple of years, all Electrical Engineering students will complete the Electrical FE exam. This transition from the general FE to the discipline-specific FE exam has not been led by faculty. Rather, many students consider themselves capable of passing the discipline-specific exams and do so on their own initiative.

At present, each of the concentrations meets the curricular requirements to become an individually accredited B.S. major. This proposal seeks to separate the largest concentration, mechanical engineering, into a stand-alone accredited degree program in order to better support our students as outlined in the Need section below. While the same needs shared below hold true for the other concentrations, the program is just shy of reaching the average of 10 graduates per year (50 over 5) required by THEC.

Need for the Program

The curriculum requirements for a B.S. in Engineering degree with concentrations are not as well defined as those for a B.S. degree in mechanical, electrical, or civil engineering. Nationwide, considerable variation in curriculum exists from one Bachelor of Science in Engineering (B.S.E.) program to the next. For instance, at some institutions, B.S.E. concentrations have only a few courses that distinguish the concentrations from each other. Consequently, not all employers will interview or hire a student who has a B.S. in Engineering. Almost every year, UT Martin students report that a recruiter told them that a particular job requires a B.S. in Mechanical, Electrical, or Civil engineering and that they do not meet the requirements. Moreover, practicing engineers often tell our prospective students that they need to attend a university where they can obtain a B.S. in Mechanical Engineering, BS in Civil Engineering, or a B.S. in Electrical Engineering degree, placing UT Martin at a disadvantage in recruiting future students.

The proposed BSME degree will help UT Martin attract more students, and it will provide UTM graduates with a broader range of future job opportunities. As the program grows, the long-term plan is to consider transitioning other B.S.E. concentrations into individual degree programs, which we believe will support our students and graduates further.

Potential Impact of Modification on Current Program

We do not anticipate that removing the Mechanical Engineering concentration from the B.S.E. program will negatively affect the existing B.S.E. program. Table 3 shows the number of graduates in each concentration for the six years from 2014 through 2019. The Mechanical Engineering concentration accounts for 49.7% of the 179 degrees awarded by the B.S.E. program. The Electrical, Civil, and Industrial concentrations account for the remaining 50.3% of the degrees awarded.

The addition of the BSME degree is expected to indirectly increase the number of students in the Mechatronics and Manufacturing concentrations. The initial populations of students we have moving into those concentrations have been a combination of newly recruited students seeking the particular concentration and students who were originally in mechanical engineering but find the manufacturing/mechatronics concentrations more aligned with their professional interests.

Adding concentrations expands the areas covered in the ABET report, this data is already well underway, but adding concentrations alone does not require an additional ABET report as it is covered under the general engineering, B.S.E., degree. Separating the BSME will require an additional report/separate accreditation, but as we have been collecting data and had the curriculum in place as if it were already standalone BSME, there is nothing additional beyond that.

Table 3

Graduates by B.S.E. Concentrations

B.S.E. Concentrations	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Civil Engineering	16	4	10	7	16	2
Electrical Engineering	12	11	10	2	8	9
Industrial Engineering	2	1	1	1	0	
Manufacturing Engineering ¹						
Mechanical Engineering	17	12	10	20	19	13
Mechatronics Engineering ²						
Total	47	28	31	30	43	24

Notes:

¹ Manufacturing Engineering first time offered: Fall 2018

² Mechatronics Engineering first time offered: Fall 2019

The B.S.E. degree will continue to meet the T.H.E.C. requirement of an average of 10, or 50 total graduates during a five-year period after removing the Mechanical concentration. The B.S.E. would have averaged 15.8 graduates per year from 2015 to 2019 without the mechanical concentration. Additionally, the new Manufacturing, Mechatronics, and future Computer Engineering concentrations will also contribute the number of B.S.E. graduates, further ensuring that the B.S.E. degree program meet the minimum productivity requirements. Removing the mechanical concentration from the B.S.E. will not decrease the number of faculty available to the Civil, Electrical, and Industrial, Manufacturing, Mechatronics or future Computer Engineering concentrations. Existing faculty and resources will be available to support both the BSME and the B.S.E. degree programs.

Enrollment and Degrees Awarded by Concentration

Table 5 lists the projected enrollment and graduates for the B.S.M.E until the year 2025. The estimate is conservatively calculated beginning with the average of the most recent moving averages and projecting moderate 10% annual enrollment growth year to year.

Table 5

Projected for BSME

BSME	2020	2021	2022	2023	2024	Five Year Average
Graduates	15	16	18	20	22	18
Fall Enrollments	92	101	111	122	134	112

Table 6 shows the fall enrollment in each of the B.S.E. concentrations during the six-year period from 2014 through 2019.

Table 6

Fall Enrollments in B.S.E. Concentrations¹

B.S.E. Concentrations	2014	2015	2016	2017	2018	2019
Civil Engineering	36	42	42	50	65	64
Electrical Engineering	49	39	33	52	55	54
Industrial Engineering	7	4	8	7	9	10
Manufacturing Engineering ¹					1	7
Mechanical Engineering	81	80	84	102	106	98
Mechatronics Engineering ²						2
Undeclared Engineering	41	48	37			
Total	214	213	204	211	236	235

Notes:

¹ Values obtained from UTM Institutional Research Records

² Manufacturing Engineering first time offered: Fall 2018

³ Mechatronics Engineering first time offered: Fall 2019

As seen in Table 6 and Figure 1, the total enrollment in engineering has remained steady, increasing slightly. This is despite a lull in freshmen enrollments during the period around 2015. In the fall of 2014, the department enrolled 40 new first time first year students, which declined from the previous year, but only 30 in 2015. The FTFY enrollments increased to 40 in 2016, 43 in 2017, and were 65 and 60 during the last 2 fall terms of 2018 and 2019, respectively.

This drop in the FTFY population in the 2014-2016 period is largely responsible for the decrease we see in the graduation numbers in the 2018-19 year. We are projecting 25-27 graduates for the 2019-2020 year with the current projections indicating the department will see that number consistently back over 30 as the larger classes from the past two years move through.

While the decrease in enrollments in the 2014-16 timeframe were driven by University wide factors, it was this decrease that helped germinate the idea that elevating the mechanical engineering concentration into a standalone program would help the department increase its enrollment and support the University's overall aim of enrollment growth without significant additional cost.

Figure 1 is a plot of the total fall enrollment in the B.S.E. major. The plot and associated trend line shows that the B.S.E. is adding approximately five students per year. In speaking with departments that have separated out a concentration as we propose to do here, they have all reported accelerated growth, well in excess of the 10% projections above in Table 6.

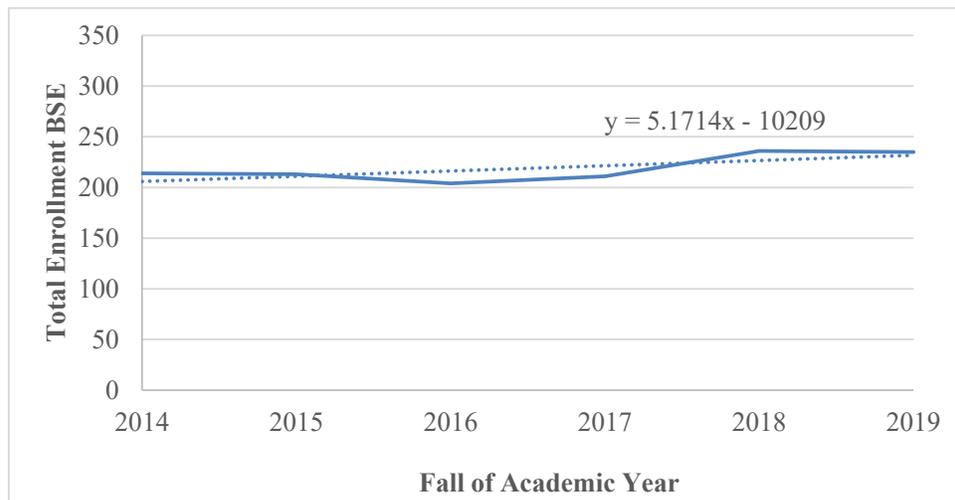


Figure 1. B.S.E. Total Enrollment from 2014 to 2019

Figure 2 shows the percent of students enrolled in each concentration during Fall 2019. The Mechanical concentration comprises 42% of the total B.S.E. degree program, with the Civil and Electrical concentrations making up 27% and 23%, respectively. The new Industrial, Manufacturing and Mechatronics concentrations make up 4%, 3%, and 1%, respectively. The distribution of students matches that of the nation in general. The United States graduates approximately twice as many Mechanical engineers as it does Civil and Electrical engineers. Nationally there is approximately one Industrial/Manufacturing graduate for every 15 Mechanical graduates. UTM's B.S.E. program has an Industrial/Manufacturing major for approximately every six mechanical majors, which is greater than the national norm.

Existing Programs Offered at Public and Private TN Institutions

Table 4 provides an overview of all other programs of this type in the state of Tennessee.

Table 4

Overview of Existing Programs in the State

Institution Name	Program Title and Degree	CIP Code	Description/ Program Focus	Miles from UT Martin Campus
UT Knoxville	BSME	14.1901	BSME	335
UT Chattanooga	BSME	14.1901	BSME	280
University of Memphis	BSME	14.1901	BSME	130
Tennessee Technological University	BSME	14.1901	BSME	233
Christian Brothers University in Memphis	BSME	14.1901	BSME	129
Tennessee State University	BSME	14.1901	BSME	152
Vanderbilt University	BSME	14.1901	BSME	153

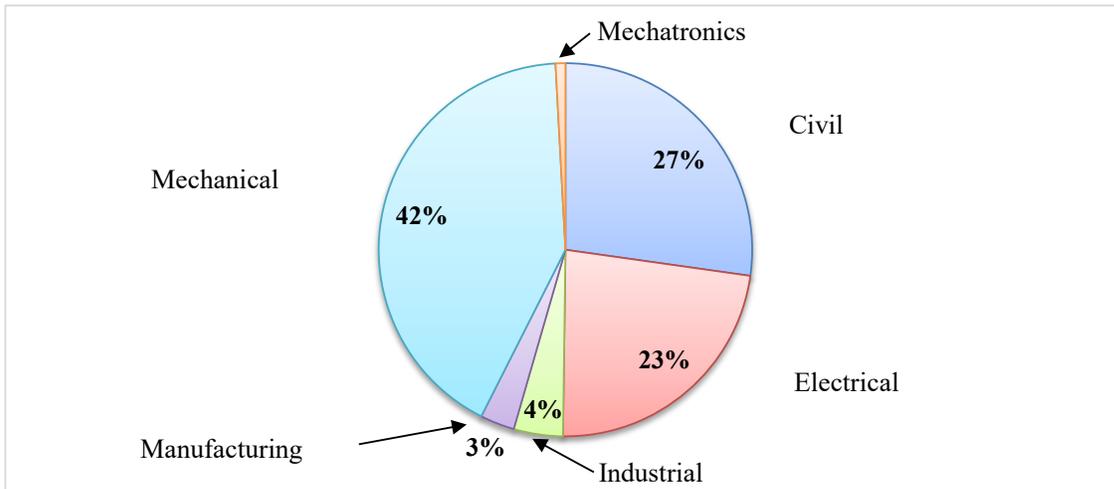


Figure 2. Percent of Majors in Each BSE Concentration, Fall 2019

Student Learning Outcomes

The Student Learning Outcomes for the BSE and BSME required for ABET Accreditation are the same. The Student Learning Outcomes that both degrees will have to meet in the current accreditation cycle are as follows.

At the time of graduation, an engineering graduate will be able to:

1. **Identify, formulate, and solve complex engineering problems** by applying principles of engineering, science, and mathematics.
2. **Apply engineering design to produce solutions** that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. **Communicate effectively** with a range of audiences.
4. **Recognize ethical and professional responsibilities** in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. **Function effectively on a team** whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. **Develop and conduct appropriate experimentation**, analyze and interpret data, and use engineering judgement to draw conclusions.
7. **Acquire and apply new knowledge** as needed, using appropriate learning strategies.

Assessment

UT Martin has an extensive assessment program designed to show that ABET student learning outcomes are being met. This program has been in place for approximately 16 years and has been reviewed by ABET in the last three self-studies and on-site visits. Assessment of the BSME will be performed using the same methods and data. The only new requirement being that a separate yearly assessment report will be published for each degree program. See Appendix B for more information.

Approval and Accreditation

The schedule for implementing the proposed BSME is targeted to achieve initial ABET accreditation in the 2022-23 academic year, which puts the BSME on the same six-year cycle as the existing BSE degree. See Appendix C for more information.

Current and Proposed Curriculum Requirements

Current Curriculum

The curriculum requirement for the BSME is identical to that currently required for the Mechanical Engineering concentration in the BSE. Over the past few years, the department has intentionally made this alignment in order to prepare for stand-alone degree programs in the major concentrations. The curriculum contains a mixture of mathematics, engineering courses, laboratory science courses and general education electives. The number of hours of mathematics and laboratory science meets the ABET requirements. The engineering courses fall generally within the fields of mechanics and thermal/fluids required by ABET for a BSE.

Table 7 highlights the identical curriculum requirements for both the BSE with a concentration in Mechanical Engineering and the proposed BSME.

Table A-6 in Appendix C provides a side-by-side overview of the curriculum for the concentration and the major.

Table 7

Curriculum for both the BSME and BSE with a Concentration in Mechanical Engineering

<i>Fall Semester</i>	<i>Hours</i>	<i>Spring Semester</i>	<i>Hours</i>
<i>Freshman Year</i>			
MATH 251, Calculus I	4	MATH 252, Calculus II	4
ENGL 111, Composition I	3	ECON 201, Macroeconomics	3
CHEM 121, General Chemistry (L)	4	PHYS 220, University Physics	4
ENGR 101, Engineering Graphics	3	ENGR 121, Statics	3
Social Science Gen Ed Elective	3	Course one of Humanities Sequence	3
	17		17
<i>Sophomore Year</i>			
MATH 320, Multivariate Calculus	4	ENGR 231, Digital Logic	3
PHYS 221, University Physics II (L)	4	ENGR 241, Dynamics	3
ENGR 201, Engineering Methods or MATH 310, Linear Algebra	2 (3)	ENGR 315, Engineering Analysis or MATH 330, Differential Equations	3
ENGR 220, Strength of Materials	3	ENGR 380, Engineering Economy	3
ENGL 113, English for Technical Writers or ENGL 112, Composition II	3	COMM 230, Public Speaking	3
	16		15
<i>Junior Year</i>			
ENGR 232, Circuit Analysis I	3	ENGR 310, Engineering Materials (L)	3
ENGR 233, Electrical Lab I	1	ENGR 317, Comp Meth & Num. Anal	3
ENGR 311, Engr. Prob. & Stat.	3	ENGR 341, Fluid Dynamics	3
ENGR 340, Thermodynamics	3	ENGR 371, Adv. Strength of Materials	3
ENGR 301, CAE/CAE Design Tools	1	Course two of Humanities Sequence	3
ENGR 370, Vibrations	4		15
	15		

<i>Summer between Junior and Senior Years</i>			
ENGR 313, Industrial Internship	1		
<i>Senior Year</i>			
ENGR 409, Engr Design & Project Mgmt	3	ENGR 411, Senior Design II	3
ENGR 410, Senior Design I	1	ENGR 471, Heat Transfer	3
ENGR 462, Linear Control Systems	3	ENGR 473, Machine Design	3
ENGR 472, Kin./Dynamics of Mach. (L)	4	ENGR 476, Applied Finite Element Lab	1
Mechanical Engineering Elective*	3	Mechanical Engineering Elective*	3
Fine Arts General Education Elective	3	Humanities General Education Elective	3
	17		16

**Note: Mechanical Engineering electives must be approved by Department of Engineering Curriculum and Degrees Committees.*

New Courses Needed

No new courses will be needed for the BSME. All required courses are currently taught as part of the Mechanical Engineering concentration within the BSE. Outside of new elective course, ENGR 477: Gas Dynamics, offered for the first time during the 2018-19 academic year, all other courses in the curriculum have been taught for over 15 years.

Curriculum and Accreditation Competencies

ABET requires that the BSME curriculum “prepare students to apply the principles of engineering, basic science, and mathematics (including multivariate calculus and differential equations); to model, analyze, design, and realize physical systems, components or processes; and prepare students to work professionally in either thermal or mechanical systems while requiring topics in each.” UT Martin exceeds the number of hours of mathematics and science required by ABET in the current accreditation cycle. Table 9 shows specific courses that meet the BSME Accreditation Competencies. For more on ABET Accreditation, please see Appendix D.

Table 8

BSME Course Alignment with Accreditation Competencies

Mathematics	MATH 251: Calculus I
	MATH 252: Calculus II
	MATH 320: Multivariate Calculus
	ENGR 315: Engineering Analysis or MATH 330: Differential Equations
	ENGR 201: Engineering Methods or MATH 310: Linear Algebra
	ENGR 311: Engineering Probability and Statistics
Science	CHEM 121: General Chemistry
	PHYS 220: University Physics I
	PHYS 221: University Physics II
Thermal	ENGR 340: Thermodynamics
	ENGR 341: Fluid Dynamics
	ENGR 440: Energy Systems (Elective)
	ENGR 471: Heat Transfer
	ENGR 477: Gas Dynamics (Elective)
Mechanical Systems	ENGR 121: Statics
	ENGR 241: Dynamics
	ENGR 220: Strength of Materials
	ENGR 310: Engineering Materials
	ENGR 462: Linear Control Systems Design
	ENGR 370: Vibrations
	ENGR 472: Kinematics/Dynamics of Machines
	ENGR 473: Machine Design
	ENGR 476: Applied Finite Element Lab

Distance Learning

The program has no plans to be offered online soon, though some of the required courses in subjects like mathematics may be.

Admission, Retention, and Graduation Policies

The same admission, retention, and graduation policies will apply to the new BSME as apply to the existing BSE program.

Admission

Students entering directly from high school must have a 25 Math ACT sub-score for provisional admission into the engineering program. Students who do not this requirement are classified as pre-engineering and must obtain a grade of C or higher in MATH 170: Trigonometry before receiving provisional admission into the engineering program. Progression to full-admission from provisional admission is achieved after the student has obtained at least a 2.0 GPA in seven core engineering, math, and science courses. These core courses include Calculus I, Calculus II, Multivariate Calculus, Calculus-based Physics I, Calculus-based Physics II, Statics, and Dynamics. Students may not enroll in upper division engineering courses until they have obtained full-admission into the engineering program. Transfer students receive provisional admission by having received a C or better in a college level trigonometry or calculus course. Transfer students meet the same requirements for progression from provisional to full admission into the BSE and BSME programs.

Retention

Students are permitted to retake any of the seven core engineering courses required to meet the 2.0 GPA until it is deemed mathematically impossible for them to achieve full admission. At that time, faculty vote to rescind a student's provisional admission, requiring the student to find a new major.

Graduation

Students must pass 128 hours of approved courses. Students choose six hours of elective engineering courses as part of the BSME, and they must pass all engineering, math and science courses with a minimum grade of C. Students must pass the Fundamentals of Engineering Exam administered by the National Council of Examiners for Engineering and Surveyors as part of the degree's graduation requirements.

Current Program Faculty

Table 9 provides an overview of all program faculty. No new faculty are needed to implement the BSME degree program. The curriculum for the BSME is identical to the curriculum for the BSE with a concentration in Mechanical Engineering and will use the same faculty. Faculty in the Department of Engineering are listed in Table 9.

Table 9

Current Faculty in Department of Engineering

Name	Rank	Highest Degree	Primary Department	FTE in Program	Role in Program
J. Douglas Sterrett	Professor	Ph.D.	Engineering	50%	A,B,D
Ed Wheeler	Professor	Ph.D.	Engineering	50%	A
Richard Helgeson	Professor	Ph.D.	Engineering	50%	A
Mohammad Obadat	Professor	Ph.D.	Engineering	100%	A
Ray Witmer	Professor	Ph.D.	Engineering	100%	A
Jared Teague	Associate Professor	Ph.D.	Engineering	100%	A,B,D
Jeff McCullough	Associate Professor	Ph.D.	Engineering	100%	A
Greg Nail	Associate Professor	Ph.D.	Engineering	100%	A,B,D
Ali Seyedkavoosi	Assistant Professor	Ph.D.	Engineering	100%	A,B,D
Ashley Owens	Lecturer	M.S.	Engineering	100%	A,B,D
Eatedal Alqusaireen	Lecturer	M.S.	Engineering	100%	A

Note: As shown in Table 9 contributions to the program are keyed as:

- A – Will teach in the program
- B – Will design curriculum for the program
- C – Will conduct related research
- D – Will advise students in the program

Resources and Financial Projections

No new costs will be associated with the proposed move to a new degree program. The BSE Mechanical Engineering concentration already exists, and the new BSME major will continue to employ the current engineering faculty, support personnel, and administrators.

Academic and Career Resources

Academic and career support for the proposed BSME program will be available from existing resources. These include the Office of Career Planning and Development, Student Success Center, the STEM Tutoring Lab which houses tutors for many introductory STEM gateway courses and the mentoring of the faculty advisors.

Student Advising

Students will be advised by the existing faculty within the department.

Financial Projections

The THEC Financial Projection form (Excel sheet) has been included as a separate attachment. There are no new costs associated with the program. The University does expect to see some enrollment growth as a result of this change.

Appendix A: Financial Projections

**Tennessee Higher Education Commission
University of Tennessee at Martin
Bachelor of Science in Mechanical Engineering**

Seven-year projections are required for doctoral programs.
 Five-year projections are required for baccalaureate and Master's degree programs
 Three-year projections are required for associate degrees and undergraduate certificates.
 Projections should include cost of living increases per year.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
I. Expenditures							
A. One-time Expenditures							
New/Renovated Space	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment	-	-	-	-	-	-	-
Library	-	-	-	-	-	-	-
Consultants	-	-	-	-	-	-	-
Travel	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
Sub-Total One-time	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B. Recurring Expenditures							
Personnel							
Administration							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	-	-	-	-	-	-	-
Sub-Total Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Faculty							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	-	-	-	-	-	-	-
Sub-Total Faculty	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Support Staff							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	-	-	-	-	-	-	-
Sub-Total Support Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Graduate Assistants							
Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	-	-	-	-	-	-	-
Tuition and Fees* (See Below)	-	-	-	-	-	-	-
Sub-Total Graduate Assistants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating							
Travel	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Printing	-	-	-	-	-	-	-
Equipment	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
Sub-Total Operating	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Recurring	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL EXPENDITURES (A + B)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

***If tuition and fees for Graduate Assistants are included, please provide the following information.**

Base Tuition and Fees Rate	\$	-	\$	-	\$	-	\$	-	\$	-
Number of Graduate Assistants	-	-	-	-	-	-	-	-	-	-

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	
II. Revenue								
Tuition and Fees ¹	-	54,000	114,000	180,000	252,000	330,000	348,000	
Institutional Reallocations ²	-	(54,000)	(114,000)	(180,000)	(252,000)	(330,000)	(348,000)	
Federal Grants ³	-	-	-	-	-	-	-	
Private Grants or Gifts ⁴	-	-	-	-	-	-	-	
Other ⁵	-	-	-	-	-	-	-	
BALANCED BUDGET LINE	\$	-	\$	-	\$	-	\$	-

Notes:

(1) In what year is tuition and fee revenue expected to be generated and explain any differential fees. Tuition and fees include maintenance fees, out-of-state tuition, and any applicable earmarked fees for the program.

The projected growth of 10% is shown above until the program plateaus around year 7 with 150 majors. Tuition shown is calculated as approximate net tuition revenue beyond current

(2) Please identify the source(s) of the institutional reallocations, and grant matching requirements if applicable.

(3) Please provide the source(s) of the Federal Grant including the granting department and CFDA(Catalog of Federal Domestic Assistance) number.

(4) Please provide the name of the organization(s) or individual(s) providing grant(s) or gift(s).

(5) Please provide information regarding other sources of the funding.

Appendix B: Sample Assessment and Student Evaluation Documents

Note the following was taken from an internal mid-term Assessment report as the department prepares for the next ABET accreditation self-report.

Assessment for Outcome 1

Outcome 1

At the time of graduation, graduates will have an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

Background for Assessing Outcome 1

All students are required to pass the Fundamentals of Engineering (FE) Examination prior to graduation. This test evaluates the student's ability to apply principles of engineering, science, and mathematics. While the FE exam can evaluate fundamental principles, not all content will meet the ABET definition of "complex engineering problems."

Complex Engineering Problems - Complex engineering problems include one or more of the following characteristics: involving wide-ranging or conflicting technical issues, having no obvious solution, addressing problems not encompassed by current standards and codes, involving diverse groups of stakeholders, including many component parts or sub-problems, involving multiple disciplines, or having significant consequences in a range of contexts.

All engineering students take, specific to their concentration, upper division courses listed in Table 1-1. In these courses, students are required to solve engineering problems of a greater complexity than those traditionally on the FE exam.

Table 1-1
Upper Division Courses Used in Assessment of Outcome 1

Degree	Upper Division Courses
BSE: Civil	ENGR 450 Reinforced Concrete Design ENGR 451 Geotechnical Engineering
BSE: Electrical	ENGR 461 Communication Systems ENGR 462 Linear Control Systems Design
BSE: Industrial	ENGR 462 Linear Control Systems Design ENGR 383 Material Removal and Forming Processes
BSE: Manufacturing	ENGR 483 Material Removal and Forming Processes ENGR 487 Hydraulic and Pneumatic Systems Design
BSE: Mechatronics	ENGR 462 Linear Control Systems Design ENGR 487 Hydraulic and Pneumatic Systems Design
BSE: Mechanical	ENGR 471 Heat Transfer ENGR 473 Machine Design
BSME	ENGR 471 Heat Transfer ENGR 473 Machine Design

*Metric for Outcome 1***Metric 1.A: FE Exam Results**

Assessment for this metric is based on select subject areas' scaled scores, with uncertainty range, provided to UTM by NCEES. UTM students take the Civil, Electrical, Computer, Mechanical, or Other Disciplines FE exam. The selected subject areas to evaluate for this metric are presented in Tables 1-2 through 1-5. Subject areas that are not required classes or not taught in the engineering department are not evaluated. (Although there may be electives covering those exam subject areas.)

The metric evaluation will use the scaled scores with uncertainty ranges suggested by NCEES for programs with small sample sizes. The scaled score and uncertainty bands will be plotted for at least three consecutive academic years and evaluated for performance trends.

In order for a testing period to have the scaled scores graphed and quantitatively evaluated, per the process described above, the minimum number of examinees should be three. Results for situations not meeting this requirement will be examined to determine if there is consistency with the graphically assessed results.

Table 1-2

Civil Exam Subjects to Assess for Outcome 1	Civil Exam Subjects to Not Assess for Outcome 1
Mathematics	Ethics and Professional Practice*
Probability and Statistics	Materials **
Computational Tools	Hydraulics and Hydrologic Systems**
Engineering Economics	Structural Design**
Statics	Environmental Engineering**
Dynamics	Construction**
Mechanics of Materials	
Fluid Mechanics	
Structural Analysis	
Geotechnical Engineering	
Transportation Engineering	
Surveying	

*This section of the FE will be assessed for outcome 4

** These topics will be reconsidered for assessment in the Fall 2020/Spring 2021 assessment cycle due to curriculum changes.

Table 1-3

Electrical and Computer Exam Subjects to Assess for Outcome 1	Electrical and Computer Exam Subjects to Not Assess for Outcome 1
Mathematics	Ethics and Professional Practice*
Probability and Statistics	Properties of Electrical Materials
Engineering Economics	Signal Processing**
Engineering Sciences	Power**
Circuit Analysis (DC and AC steady state)	Electromagnetics **
Linear Systems	Computer Networks
Electronics	Computer Systems
Control Systems	Software Development
Communications	
Digital Systems	

*This section of the FE will be assessed for outcome 4

** These topics will be reconsidered for assessment in the Fall 2020/Spring 2021 assessment cycle due to curriculum changes.

Table 1-4

Mechanical Exam Subjects to Assess for Outcome 1	Mechanical Exam Subjects to Not Assess for Outcome 1
Mathematics	Ethics and Professional Practice*
Probability and Statistics	Measurements, Instrumentation, and Controls
Computational Tools	
Engineering Economics	
Electricity and Magnetism	
Statics	
Dynamics, Kinematics, and Vibrations	
Mechanics of Materials	
Material Properties and Processing	
Fluid Mechanics	
Heat Transfer	
Mechanical Design and Analysis	
Thermodynamics	

*This section of the FE will be assessed for outcome 4

Table 1-5

Other Disciplines Exam Subjects to Assess for Outcome 1	Other Disciplines Exam Subjects to Not Assess for Outcome 1
Mathematics and Advanced Engineering Mathematics	Instrumentation and Data Acquisition
Probability and statistics	Ethics and Professional Practice*
Chemistry	Safety, Health, and Environment
Engineering Economics	Heat, Mass, and Energy Transfer
Statics	Fluid Mechanics and Dynamics of Gases
Dynamics	
Strength of Materials	
Materials Science	
Fluid Mechanics and Dynamics of Liquids	
Electricity, Power, and Magnetism	

*This section of the FE will be assessed for outcome 4

Metric 1.B: Upper Division Course Work

This metric will use a rubric to assess instructor evaluated course work in upper division courses containing complex engineering problems (see table 1-1). The rubric provides a course work assessment of 5= “highly competent,” 4= “above required competence,” 3= “competent,” 2= “below required competence,” and 1= “incompetent.” The rubric is available in the appendix of the department handbook.

Metric Goals for Outcome 1

Metric 1.A: FE Exam Results

The metric goal established by the faculty is that the scaled score*, within the uncertainty, is 0.0 for each of the evaluated subject areas during each semester. With the following exceptions:

A scaled score within uncertainty of -0.30 for chemistry on any disciplines' exam. (Approximately 10% below national average*)

A scaled score within uncertainty of -0.30 for thermodynamics on the mechanical discipline exam. (Approximately 10% below national average*)

A scaled score within uncertainty of -0.20 for fluid mechanics on the mechanical discipline exam. (Approximately 6.7% below national average*)

The exceptions are because significant portions of the exam topics are covered during a second course in the topic, which is not required for the degree. Additionally, due to curriculum changes, thermodynamics is no longer a prerequisite to fluid mechanics, which slows the rate at which content is covered in the course.

* A scaled score of 0.0 indicates UTM examinee results were approximately at the national

average. This is not a national average in the traditional sense, but is based on comparison to NCEES's "Ratio Score" which is itself based on NCEES's statistical "average performance index." More information can be found in *Using the Fundamentals of Engineering (FE) Exam as an Outcomes Assessment Tool* provided by NCEES.

Metric 1.B: Upper Division Course Work

The goal for this metric is a rating of competent (3.0), or better, for all students passing an assessed course.

Assessment Results for Outcome 1

Metric 1.A: FE Exam Results

The scaled scores, within the uncertainty, meet or exceed the goals for the assessed subject areas. **The metric goal is met.** A table and graph of the results are available in Appendix 1.

The only term with a sufficient number of students (>three students) taking the civil FE Exam was Spring 2018. Eight students took the exam. The scaled score, including uncertainty, showed the students met or exceeded the national average on every exam topic. **The faculty have no concerns for the Civil FE Exam results.**

The only terms with a sufficient number of students (>three students) taking the Mechanical FE Exam were Spring 2018 (five examinees) and Spring 2019 (seven examinees). In Spring 2018, the scaled scores were within uncertainty of the national average except Heat Transfer and Mechanical Design and Analysis. In Spring 2019, the scaled score exceeded the national average in 12 out of 15 exam topics. The remaining three topics were within uncertainty of being at the national average. The increase in Spring 2019 scores suggests that the Spring 2018 low scores in Heat Transfer and Mechanical Design and Analysis were temporary. **The faculty have no concerns for the Mechanical FE Exam results.**

Metric 1.B: Upper Division Course Work

All students achieved at least an assessment of competent (3.0) in at least one of the assessed courses. **The metric goal has been met.** A table of results is available in Appendix 1.

Appendix C: Curriculum Crosswalk Comparison

Table A-6

Crosswalk of Course Changes (NONE)

***Bachelor of Science in Engineering
with a Concentration in Mechanical
Engineering***

***Bachelor of Science in Mechanical
Engineering***

	Complete the Following: 34 Hours	Complete the Following: 34 Hours
Year 1 Curriculum	MATH 251, Calculus I (4)	MATH 251, Calculus I (4)
	ENGL 111, Composition I (3)	ENGL 111, Composition I (3)
	CHEM 121, General Chemistry (L) (4)	CHEM 121, General Chemistry (L) (4)
	ENGR 101, Engineering Graphics (3)	ENGR 101, Engineering Graphics (3)
	Social Science Gen Ed Elective (3)	Social Science Gen Ed Elective (3)
	MATH 252, Calculus II (4)	MATH 252, Calculus II (4)
	ECON 201, Macroeconomics (3)	ECON 201, Macroeconomics (3)
	PHYS 220, University Physics (4)	PHYS 220, University Physics (4)
	ENGR 121, Statics (3)	ENGR 121, Statics (3)
	Course one of Humanities Sequence (3)	Course one of Humanities Sequence (3)
Year 2 Curriculum	Complete the Following: 31-32 Hours	Complete the Following: 31-32 Hours
	MATH 320, Multivariate Calculus (4)	MATH 320, Multivariate Calculus (4)
	PHYS 221, University Physics II (L) (4)	PHYS 221, University Physics II (L) (4)
	ENGR 201, Engineering Methods (2) <i>or</i> MATH 310, Linear Algebra (3)	ENGR 201, Engineering Methods (2) <i>or</i> MATH 310, Linear Algebra (3)
	ENGR 220, Strength of Materials (3)	ENGR 220, Strength of Materials (3)
	ENGL 113, English for Technical Writers (3) <i>or</i> ENGL 112, Composition II (3)	ENGL 113, English for Technical Writers (3) <i>or</i> ENGL 112, Composition II (3)
	ENGR 231, Digital Logic (3)	ENGR 231, Digital Logic (3)
	ENGR 241, Dynamics (3)	ENGR 241, Dynamics (3)
	ENGR 315, Engineering Analysis (3) <i>or</i> MATH 330, Differential Equations (3)	ENGR 315, Engineering Analysis (3) <i>or</i> MATH 330, Differential Equations (3)
	ENGR 380, Engineering Economy (3)	ENGR 380, Engineering Economy (3)
COMM 230, Public Speaking (3)	COMM 230, Public Speaking (3)	
Year 3 Curriculum	Complete the Following: 30 Hours	Complete the Following: 30 Hours
	ENGR 232, Circuit Analysis I (3)	ENGR 232, Circuit Analysis I (3)
	ENGR 233, Electrical Lab I (1)	ENGR 233, Electrical Lab I (1)
	ENGR 311, Engr. Prob. & Stat. (3)	ENGR 311, Engr. Prob. & Stat. (3)
	ENGR 340, Thermodynamics (3)	ENGR 340, Thermodynamics (3)
	ENGR 301, CAE/CAE Design Tools (1)	ENGR 301, CAE/CAE Design Tools (1)
	ENGR 370, Vibrations (4)	ENGR 370, Vibrations (4)
	ENGR 310, Engineering Materials (L) (3)	ENGR 310, Engineering Materials (L) (3)
	ENGR 317, Comp Meth & Num. (3)	ENGR 317, Comp Meth & Num. (3)
	ENGR 341, Fluid Dynamics (3)	ENGR 341, Fluid Dynamics (3)
	ENGR 371, Adv. Strength of Materials (3)	ENGR 371, Adv. Strength of Materials (3)
Course two of Humanities Sequence (3)	Course two of Humanities Sequence (3)	

Year 4 Curriculum	Complete the Following: 34 Hours	Complete the Following: 34 Hours
	ENGR 313, Industrial Internship (1)	ENGR 313, Industrial Internship (1)
	ENGR 409, Engr Design & Project Mgmt (3)	ENGR 409, Engr Design & Project Mgmt (3)
	ENGR 410, Senior Design I (1)	ENGR 410, Senior Design I (1)
	ENGR 462, Linear Control Systems (3)	ENGR 462, Linear Control Systems (3)
	ENGR 472, Kin./Dynamics of Mach. (L) (4)	ENGR 472, Kin./Dynamics of Mach. (L) (4)
	Mechanical Engineering Elective* (3)	Mechanical Engineering Elective* (3)
	Fine Arts General Education Elective (3)	Fine Arts General Education Elective (3)
	ENGR 411, Senior Design II (3)	ENGR 411, Senior Design II (3)
	ENGR 471, Heat Transfer (3)	ENGR 471, Heat Transfer (3)
	ENGR 473, Machine Design (3)	ENGR 473, Machine Design (3)
	ENGR 476, Applied Finite Element Lab (1)	ENGR 476, Applied Finite Element Lab (1)
	Mechanical Engineering Elective* (3)	Mechanical Engineering Elective* (3)
	Humanities General Education Elective (3)	Humanities General Education Elective (3)

Appendix D: Accreditation Documentation



415 North Charles Street Baltimore, MD 21201
+1.410.347.7700 www.abet.org

September 01, 2017

Keith S. Carver
University of Tennessee Martin
Chancellor
325 Hall-Moody Administration Building
Martin, TN 38238

Dear Dr. Carver :

I am pleased to transmit to you the findings of the Engineering Accreditation Commission (EAC) of ABET with respect to the evaluation conducted for University of Tennessee at Martin during 2016-2017. Each of ABET's Commissions is fully authorized to take the actions described in the accompanying letter under the policies of the ABET Board of Directors.

We are pleased that your institution has elected to participate in this accreditation process. This process, which is conducted by approximately 2,000 ABET volunteers from the professional community, is designed to advance and assure the quality of professional education. We look forward to our continuing shared efforts toward this common goal.

Sincerely,

A handwritten signature in black ink that reads "Wayne R. Bergstrom".

Wayne R. Bergstrom
President

Enclosure: Commission letter and attachments

Applied Science Accreditation Commission, Computing Accreditation Commission
Engineering Accreditation Commission, Engineering Technology Accreditation Commission



415 North Charles Street Baltimore, MD 21201
+1.410.347.7700 www.abet.org

September 01, 2017

Richard J. Helgeson
Dean and Professor of Engineering
University of Tennessee at Martin
113 Johnson EPS Building
Martin, TN 38238

Dear Dr. Helgeson :

The Engineering Accreditation Commission (EAC) of ABET recently held its 2017 Summer Meeting to act on the program evaluations conducted during 2016-2017. Each evaluation was summarized in a report to the Commission and was considered by the full Commission before a vote was taken on the accreditation action. The results of the evaluation for University of Tennessee at Martin are included in the enclosed Summary of Accreditation Actions. The Final Statement to your institution that discusses the findings on which each action was based is also enclosed.

The policy of ABET is to grant accreditation for a limited number of years, not to exceed six, in all cases. The period of accreditation is not an indication of program quality. Any restriction of the period of accreditation is based upon conditions indicating that compliance with the applicable accreditation criteria must be strengthened. Continuation of accreditation beyond the time specified requires a reevaluation of the program at the request of the institution as noted in the accreditation action. ABET policy prohibits public disclosure of the period for which a program is accredited. For further guidance concerning the public release of accreditation information, please refer to Section II.A. of the 2016-2017 Accreditation Policy and Procedure Manual (available at www.abet.org).

A list of accredited programs is published annually by ABET. Information about ABET accredited programs at your institution will be listed in the forthcoming ABET Accreditation Yearbook and on the ABET web site (www.abet.org).

It is the obligation of the officer responsible for ABET accredited programs at your institution to notify ABET of any significant changes in program title, personnel, curriculum, or other factors which could affect the accreditation status of a program during the period of accreditation stated in Section II.H. of the 2016-2017 Accreditation Policy and Procedure Manual (available at www.abet.org).

Applied Science Accreditation Commission, Computing Accreditation Commission
Engineering Accreditation Commission, Engineering Technology Accreditation Commission

ABET requires that each accredited program publicly state the program's educational objectives and student outcomes as well as publicly post annual student enrollment and graduation data as stated in Section II.A.6. of the Accreditation Policy and Procedure Manual (available at www.abet.org).

ABET will examine all newly accredited programs' websites within the next two weeks to ensure compliance.

Please note that appeals are allowed only in the case of Not to Accredite actions. Also, such appeals may be based only on the conditions stated in Section II.L. of the 2016-2017 Accreditation Policy and Procedure Manual (available at www.abet.org).

Sincerely,



John A. Orr, Chair

Engineering Accreditation Commission

Enclosure: Summary of Accreditation Action
Final Statement

cc: Robert M. Smith, Interim Chancellor
Peter Arthur Livingston, Visit Team Chair



9/1/2017

Engineering Accreditation Commission

**Summary of Accreditation Actions
for the
2016-2017 Accreditation Cycle**

**University of Tennessee at Martin
Martin, TN**

Engineering (B.S.E.)

Accredit to September 30, 2023. A request to ABET by January 31, 2022 will be required to initiate a reaccreditation evaluation visit. In preparation for the visit, a Self-Study Report must be submitted to ABET by July 01, 2022. The reaccreditation evaluation will be a comprehensive general review.



ABET

Engineering Accreditation Commission

**Final Statement of Accreditation
to**

**University of Tennessee at Martin
Martin, TN**

2016-2017 Accreditation Cycle

FINAL STATEMENT**UNIVERSITY OF TENNESSEE AT MARTIN****ABET
ENGINEERING ACCREDITATION COMMISSION****UNIVERSITY OF TENNESSEE AT MARTIN
Martin, TN****FINAL STATEMENT
Visit Dates: October 23-25, 2016
Accreditation Cycle Criteria: 2016-2017****Introduction & Discussion of Statement Construct**

The Engineering Accreditation Commission (EAC) of ABET has evaluated the engineering program of the University of Tennessee at Martin.

This statement is the final summary of the EAC evaluation, at the institutional and engineering-program levels. The statement consists of two parts: the first addresses the institution and its overall engineering educational unit, and the second addresses the individual engineering program. It is constructed in a format that allows the reader to discern both the original visit findings and subsequent progress made during due process.

A program's accreditation action is based upon the findings summarized in this statement. Actions depend on the program's range of compliance or non-compliance with the criteria. This range can be construed from the following terminology:

- **Deficiency:** A deficiency indicates that a criterion, policy, or procedure is not satisfied. Therefore, the program is not in compliance with the criterion, policy, or procedure.
- **Weakness:** A weakness indicates that a program lacks the strength of compliance with a criterion, policy, or procedure to ensure that the quality of the program will not be compromised. Therefore, remedial action is required to strengthen compliance with the criterion, policy, or procedure prior to the next review.
- **Concern:** A concern indicates that a program currently satisfies a criterion, policy, or procedure; however, the potential exists for the situation to change such that the criterion, policy, or procedure may not be satisfied.

FINAL STATEMENT**UNIVERSITY OF TENNESSEE AT MARTIN**

- **Observation:** An observation is a comment or suggestion that does not relate directly to the current accreditation action but is offered to assist the institution in its continuing efforts to improve its programs.

Information Received After the Visit

1. **Seven-day response:** The institution did not provide a seven-day response.
2. **30-day due-process response:** Information was received in the 30-day due-process response period relative to the engineering program.
3. **Post 30-day due-process information:** Information was received after the 30-day due-process period relative to the engineering program.

Institutional Summary

The University of Tennessee at Martin is a comprehensive state-supported university composed of five colleges, two schools, and an education center. Its mission is to provide a quality undergraduate education in a traditional collegiate atmosphere characterized at all levels by close collaboration among students, faculty, and staff. The university's enrollment in fall 2016 was approximately 6,700 students representing 42 states and 34 countries. In fall 2016, the College of Engineering and Natural Sciences enrolled 768 undergraduate students and was served by 68 full-time faculty members.

The following units were reviewed and found to adequately support the engineering programs: mathematics, physics, library, chemistry, career assistance center, assessment, registrar, student affairs, scholarships, and admissions.

Institutional Strength

1. The institution has created a student success center to provide resources for achieving academic excellence. Software that tracks student progress sends automated messages to center personnel identifying students who are at risk and facilitating intervention with these students before they are removed from the school. Highly trained individuals counsel and teach students different techniques to be successful

FINAL STATEMENT

UNIVERSITY OF TENNESSEE AT MARTIN

**Engineering
B.S.E. Program****Program Criteria for Engineering, General Engineering, Engineering Physics, Engineering Science and Similarly Named Engineering Programs****Introduction**

The engineering B.S.E. program is a traditional program that prepares its students for careers in one of four concentrations: civil, electrical, industrial, or mechanical engineering. The program is administered by the Department of Engineering within the College of Engineering and Natural Sciences. The program is offered only at the Martin campus in a daytime mode. In the fall 2016 semester, there was a total of 204 full-time students and ten faculty members. The program had 31 graduates in the 2015-16 academic year.

Program Strengths

1. All students are required to pass the Fundamentals of Engineering Examination prior to graduation. Passing this examination as a student ensures that program graduates have successfully completed an important first step toward professional engineering licensure.
2. The student project development lab provides all engineering students access to training and extensive use of 3-D printers, laser cutters, hand tools, electronics equipment, and a 3-D scanner. Students are afforded the opportunity to experience first-hand use of modern technology as early as the freshman year. Engineering students are able to work collaboratively with students from other disciplines to enhance their creative design and build skills as they progress through their engineering programs.

Program Weakness

1. **Accreditation Policy and Procedure Manual** Section ILE.4.b. of the Accreditation Policy and Procedure Manual (APPM) requires that the program name be shown consistently on transcripts of its graduates, in the institution's electronic and print publications, and on the ABET Request for Evaluation. The program's transcripts, web site, and catalog description seem to indicate that the program leads to the Bachelor of Science in Engineering (B.S.E.),

FINAL STATEMENT**UNIVERSITY OF TENNESSEE AT MARTIN**

however, the degree designation shown on the ABET Request for Evaluation is BS and the transcript could be similarly interpreted. Since the program is not consistently represented, the program lacks strength of compliance with this policy.

- 30-day due-process response: The EAC acknowledges receipt of documentation describing changes made to resolve inconsistencies in the degree specification. The institution contacted ABET to change the official degree in ABET records from B.S. to B.S.E. The institution also changed the awarded degree designation on their official transcripts to read B.S.E. Finally, the institution's catalog and the program web site clearly identify the degree as B.S.E.
- The weakness is resolved

Program Concerns

1. Criterion 5. Curriculum This criterion requires that students must be prepared for engineering practice through a curriculum culminating in a major design experience. Each student prepares an individual report detailing their contributions to the major design experience, and a small minority of these individual reports did not fully describe design work. As a result, it was not always obvious what each student contributed to their project design. Discussion with the program's faculty established that all students contributed design work to their respective projects. However, if design work completed by each student is not clearly documented, the potential exists for a student to complete the senior project sequence by doing analysis and not design. Thus, while the program currently satisfies the criterion, future compliance with this criterion may be jeopardized.

- 30-day due-process response: The EAC acknowledges receipt of documentation describing modifications to the design experience. The program changed the report requirements for the major design project from an individual report to a single report written by the entire team. The team report is required to show how each team member was engaged in the design process. The documentation included a revised syllabus for the combined major design course for the spring 2017 semester but did not include evidence of implementation.

Appendix E: ABET Accreditation Information



Engineering Accreditation Commission

**CRITERIA FOR ACCREDITING
ENGINEERING PROGRAMS**

Effective for Reviews During the 2018-2019 Accreditation Cycle
Incorporates all changes approved by the ABET Board of Delegates
Engineering Area Delegation as of October 20, 2017

ABET
415 N. Charles Street
Baltimore, MD 21201

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Baltimore, MD 21201

Requests for further information about ABET, its accreditation process, or other activities may be addressed to the Director, Accreditation Operations, ABET, 415 N. Charles Street, Baltimore, MD 21201 or to accreditation@abet.org.

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Criteria for Accrediting Engineering Programs

Effective for Reviews during the 2018-2019 Accreditation Cycle

Definitions

While ABET recognizes and supports the prerogative of institutions to adopt and use the terminology of their choice, it is necessary for ABET volunteers and staff to have a consistent understanding of terminology. With that purpose in mind, the Commissions will use the following basic definitions:

Program Educational Objectives – Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program’s constituencies.

Student Outcomes – Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program.

Assessment – Assessment is one or more processes that identify, collect, and prepare data to evaluate the attainment of student outcomes. Effective assessment uses relevant direct, indirect, quantitative and qualitative measures as appropriate to the outcome being measured. Appropriate sampling methods may be used as part of an assessment process.

Evaluation – Evaluation is one or more processes for interpreting the data and evidence accumulated through assessment processes. Evaluation determines the extent to which student outcomes are being attained. Evaluation results in decisions and actions regarding program improvement.

This document contains three sections:

The first section includes important **definitions** used by all ABET commissions.

The second section contains the **General Criteria for Baccalaureate Level Programs** that must be satisfied by all programs accredited by the Engineering Accreditation Commission of ABET and the **General Criteria for Masters Level Programs** that must be satisfied by those programs seeking advanced level accreditation.

The third section contains the **Program Criteria** that must be satisfied by certain programs. The applicable Program Criteria are determined by the technical specialties indicated by the title of the program. Overlapping requirements need to be satisfied only once.

These criteria are intended to assure quality and to foster the systematic pursuit of improvement in the quality of engineering education that satisfies the needs of

constituencies in a dynamic and competitive environment. It is the responsibility of the institution seeking accreditation of an engineering program to demonstrate clearly that the program meets the following criteria.

I. GENERAL CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

All programs seeking accreditation from the Engineering Accreditation Commission of ABET must demonstrate that they satisfy all of the following General Criteria for Baccalaureate Level Programs.

Criterion 1. Students

Student performance must be evaluated. Student progress must be monitored to foster success in attaining student outcomes, thereby enabling graduates to attain program educational objectives. Students must be advised regarding curriculum and career matters.

The program must have and enforce policies for accepting both new and transfer students, awarding appropriate academic credit for courses taken at other institutions, and awarding appropriate academic credit for work in lieu of courses taken at the institution. The program must have and enforce procedures to ensure and document that students who graduate meet all graduation requirements.

Criterion 2. Program Educational Objectives

The program must have published program educational objectives that are consistent with the mission of the institution, the needs of the program's various constituencies, and these criteria. There must be a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of these program educational objectives that ensures they remain consistent with the institutional mission, the program's constituents' needs, and these criteria.

Criterion 3. Student Outcomes

The program must have documented student outcomes that prepare graduates to attain the program educational objectives.

Student outcomes are outcomes (a) through (k) plus any additional outcomes that may be articulated by the program.

- (a) an ability to apply knowledge of mathematics, science, and engineering
- (b) an ability to design and conduct experiments, as well as to analyze and interpret data
- (c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- (d) an ability to function on multidisciplinary teams

- (e) an ability to identify, formulate, and solve engineering problems
- (f) an understanding of professional and ethical responsibility
- (g) an ability to communicate effectively
- (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- (i) a recognition of the need for, and an ability to engage in life-long learning
- (j) a knowledge of contemporary issues
- (k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Criterion 4. Continuous Improvement

The program must regularly use appropriate, documented processes for assessing and evaluating the extent to which the student outcomes are being attained. The results of these evaluations must be systematically utilized as input for the continuous improvement of the program. Other available information may also be used to assist in the continuous improvement of the program.

Criterion 5. Curriculum

The curriculum requirements specify subject areas appropriate to engineering but do not prescribe specific courses. The faculty must ensure that the program curriculum devotes adequate attention and time to each component, consistent with the outcomes and objectives of the program and institution. The professional component must include:

- (a) one year of a combination of college level mathematics and basic sciences (some with experimental experience) appropriate to the discipline. Basic sciences are defined as biological, chemical, and physical sciences.
- (b) one and one-half years of engineering topics, consisting of engineering sciences and engineering design appropriate to the student's field of study. The engineering sciences have their roots in mathematics and basic sciences but carry knowledge further toward creative application. These studies provide a bridge between mathematics and basic sciences on the one hand and engineering practice on the other. Engineering design is the process of devising a system, component, or process to meet desired needs. It is a decision-making process (often iterative), in which the basic sciences, mathematics, and the engineering sciences are applied to convert resources optimally to meet these stated needs.
- (c) a general education component that complements the technical content of the curriculum and is consistent with the program and institution objectives.

Students must be prepared for engineering practice through a curriculum culminating in a major design experience based on the knowledge and skills acquired in earlier course work and incorporating appropriate engineering standards and multiple realistic constraints.

One year is the lesser of 32 semester hours (or equivalent) or one-fourth of the total credits required for graduation.

Criterion 6. Faculty

The program must demonstrate that the faculty members are of sufficient number and they have the competencies to cover all of the curricular areas of the program. There must be sufficient faculty to accommodate adequate levels of student-faculty interaction, student advising and counseling, university service activities, professional development, and interactions with industrial and professional practitioners, as well as employers of students.

The program faculty must have appropriate qualifications and must have and demonstrate sufficient authority to ensure the proper guidance of the program and to develop and implement processes for the evaluation, assessment, and continuing improvement of the program. The overall competence of the faculty may be judged by such factors as education, diversity of backgrounds, engineering experience, teaching effectiveness and experience, ability to communicate, enthusiasm for developing more effective programs, level of scholarship, participation in professional societies, and licensure as Professional Engineers.

Criterion 7. Facilities

Classrooms, offices, laboratories, and associated equipment must be adequate to support attainment of the student outcomes and to provide an atmosphere conducive to learning. Modern tools, equipment, computing resources, and laboratories appropriate to the program must be available, accessible, and systematically maintained and upgraded to enable students to attain the student outcomes and to support program needs. Students must be provided appropriate guidance regarding the use of the tools, equipment, computing resources, and laboratories available to the program.

The library services and the computing and information infrastructure must be adequate to support the scholarly and professional activities of the students and faculty.

Criterion 8. Institutional Support

Institutional support and leadership must be adequate to ensure the quality and continuity of the program.

Resources including institutional services, financial support, and staff (both administrative and technical) provided to the program must be adequate to meet program needs. The resources available to the program must be sufficient to attract, retain, and provide for the continued professional development of a qualified faculty. The resources available to the program must be sufficient to acquire, maintain, and

operate infrastructures, facilities, and equipment appropriate for the program, and to provide an environment in which student outcomes can be attained.

II. GENERAL CRITERIA FOR MASTER'S LEVEL AND INTEGRATED BACCALAUREATE-MASTER'S LEVEL ENGINEERING PROGRAMS

Programs seeking accreditation at the master's level from the Engineering Accreditation Commission of ABET must demonstrate that they satisfy the following criteria, including all of the aspects relevant to integrated baccalaureate-master's programs or stand-alone master's programs, as appropriate. Programs must have published program educational objectives and student outcomes.

Criteria Applicable to Integrated Baccalaureate-Master's Level Engineering Programs

Engineering programs that offer integrated baccalaureate-master's programs must meet all of the General Criteria for Baccalaureate Level Programs and the Program Criteria applicable to the program name, regardless of whether students in these programs receive both baccalaureate and master's degrees or only master's degrees during their programs of study. In addition, these programs must meet all of the following criteria. If any students are admitted into the master's portion of the combined program without having completed the integrated baccalaureate portion, they must meet the criteria given below.

Criteria Applicable to all Engineering Programs Awarding Degrees at the Master's Level

Students and Curriculum

The master's program must have and enforce procedures for verifying that each student has completed a set of post-secondary educational and professional experiences that:

- (a) Supports the attainment of student outcomes of Criterion 3 of the general criteria for baccalaureate level engineering programs, and
- (b) Includes at least one year of math and basic science (basic science includes the biological, chemical, and physical sciences), as well as at least one-and-one-half years of engineering topics and a major design experience that meets the requirements of Criterion 5 of the general criteria for baccalaureate level engineering programs.

If the student has graduated from an EAC of ABET accredited baccalaureate program, the presumption is that items (a) and (b) above have been satisfied.

The master's level engineering program must have and enforce policies and procedures ensuring that a program of study with specific educational goals is developed for each student. Student performance and progress toward completion of their programs of study must be monitored and evaluated. The program must have and enforce

procedures to ensure and document that students who graduate meet all graduation requirements.

The master's level engineering program must require each student to demonstrate a mastery of a specific field of study or area of professional practice consistent with the master's program name and at a level beyond the minimum requirements of baccalaureate level programs.

The master's level engineering program of study must require the completion of at least 30 semester hours (or equivalent) beyond the baccalaureate program.

Each student's overall program of post-secondary study must satisfy the curricular components of the baccalaureate level program criteria relevant to the master's level program name.

Program Quality

The master's level engineering program must have a documented and operational process for assessing, maintaining and enhancing the quality of the program.

Faculty

The master's level engineering program must demonstrate that the faculty members are of sufficient number and that they have the competencies to cover all of the curricular areas of the program. Faculty teaching graduate level courses must have appropriate educational qualifications by education or experience. The program must have sufficient faculty to accommodate adequate levels of student-faculty interaction, student advising and counseling, university service activities, professional development, and interactions with industrial and professional practitioners, as well as employers of students.

The master's level engineering program faculty must have appropriate qualifications and must have and demonstrate sufficient authority to ensure the proper guidance of the program. The overall competence of the faculty may be judged by such factors as education, diversity of backgrounds, engineering experience, teaching effectiveness and experience, ability to communicate, level of scholarship, participation in professional societies, and licensure.

Facilities

Means of communication with students, and student access to laboratory and other facilities, must be adequate to support student success in the program, and to provide an atmosphere conducive to learning. These resources and facilities must be representative of current professional practice in the discipline. Students must have access to appropriate training regarding the use of the resources available to them.

The library and information services, computing and laboratory infrastructure, and equipment and supplies must be available and adequate to support the education of the students and the scholarly and professional activities of the faculty.

Remote or virtual access to laboratories and other resources may be employed in place of physical access when such access enables accomplishment of the program's educational activities.

Institutional Support

Institutional support and leadership must be adequate to ensure the quality and continuity of the program. Resources including institutional services, financial support, and staff (both administrative and technical) provided to the program must be adequate to meet program needs. The resources available to the program must be sufficient to attract, retain, and provide for the continued professional development of a qualified faculty. The resources available to the program must be sufficient to acquire, maintain, and operate infrastructure, facilities, and equipment appropriate for the program, and to provide an environment in which student learning outcomes can be attained.

III. PROGRAM CRITERIA

Each program must satisfy applicable Program Criteria (if any). Program Criteria provide the specificity needed for interpretation of the general criteria as applicable to a given discipline. Requirements stipulated in the Program Criteria are limited to the areas of curricular topics and faculty qualifications. If a program, by virtue of its title, becomes subject to two or more sets of Program Criteria, then that program must satisfy each set of Program Criteria; however, overlapping requirements need to be satisfied only once.

**PROGRAM CRITERIA FOR
AEROSPACE
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: American Institute of Aeronautics and Astronautics

These program criteria apply to engineering programs that include "aerospace," "aeronautical," "astronautical," or similar modifiers in their titles.

1. Curriculum

Aeronautical engineering programs must prepare graduates to have a knowledge of aerodynamics, aerospace materials, structures, propulsion, flight mechanics, and stability and control. Astronautical engineering programs must prepare graduates to have a knowledge of orbital mechanics, space environment, attitude determination and control, telecommunications, space structures, and rocket propulsion. Aerospace engineering programs or other engineering programs combining aeronautical engineering and astronautical engineering, must prepare graduates to have knowledge covering one of the areas -- aeronautical engineering or astronautical engineering as described above -- and, in addition, knowledge of some topics from the area not emphasized. Programs must also prepare graduates to have design competence that includes integration of aeronautical or astronautical topics.

2. Faculty

Program faculty must have responsibility and sufficient authority to define, revise, implement, and achieve program objectives. The program must demonstrate that faculty teaching upper-division courses have an understanding of current professional practice in the aerospace industry.

**PROGRAM CRITERIA FOR
AGRICULTURAL
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: American Society of Agricultural and Biological Engineers

These program criteria apply to engineering programs that include “agricultural,” “forest,” or similar modifiers in their titles.

1. Curriculum

The curriculum must include mathematics through differential equations and biological and engineering sciences consistent with the program educational objectives. The curriculum must prepare graduates to apply engineering to agriculture, aquaculture, forestry, human, or natural resources.

2. Faculty

The program shall demonstrate that those faculty members teaching courses that are primarily design in content are qualified to teach the subject matter by virtue of education and experience or professional licensure.

**PROGRAM CRITERIA FOR
ARCHITECTURAL
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: American Society of Civil Engineers
Cooperating Society: American Society of Heating, Refrigerating,
and Air-Conditioning Engineers

These program criteria apply to engineering programs that include "architectural" or similar modifiers in their titles.

1. Curriculum

The program must demonstrate that graduates can apply mathematics through differential equations, calculus-based physics, and chemistry. The four basic architectural engineering curriculum areas are building structures, building mechanical systems, building electrical systems, and construction/construction management. Graduates are expected to reach the synthesis (design) level in one of these areas, the application level in a second area, and the comprehension level in the remaining two areas. The engineering topics required by the general criteria shall support the engineering fundamentals of each of these four areas at the specified level. Graduates are expected to discuss the basic concepts of architecture in a context of architectural design and history.

The design level must be in a context that:

- (a) Considers the systems or processes from other architectural engineering curricular areas,
- (b) Works within the overall architectural design,
- (c) Includes communication and collaboration with other design or construction team members,
- (d) Includes computer-based technology and considers applicable codes and standards, and
- (e) Considers fundamental attributes of building performance and sustainability.

2. Faculty

The program must demonstrate that faculty teaching courses that are primarily engineering design in content are qualified to teach the subject matter by virtue of professional licensure, or by education and design experience. It must also demonstrate that the majority of the faculty members teaching architectural design courses are qualified to teach the subject matter by virtue of professional licensure, or by education and design experience.

**PROGRAM CRITERIA FOR
BIOENGINEERING, BIOMEDICAL
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: Biomedical Engineering Society
Cooperating Societies: American Ceramic Society, American Institute of Chemical Engineers,
American Society of Agricultural and Biological Engineers,
American Society of Mechanical Engineers, and
Institute of Electrical and Electronics Engineers

These program criteria apply to engineering programs that include “bioengineering,” “biomedical,” or similar modifiers in their titles.

1. Curriculum

The structure of the curriculum must provide both breadth and depth across the range of engineering and science topics consistent with the program educational objectives and student outcomes. The curriculum must prepare graduates with experience in:

- (a) Applying principles of engineering, biology, human physiology, chemistry, calculus-based physics, mathematics (through differential equations) and statistics;
- (b) Solving bio/biomedical engineering problems, including those associated with the interaction between living and non-living systems;
- (c) Analyzing, modeling, designing, and realizing bio/biomedical engineering devices, systems, components, or processes; and
- (d) Making measurements on and interpreting data from living systems.

**PROGRAM CRITERIA FOR
BIOLOGICAL
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: American Society of Agricultural and Biological Engineers
Cooperating Societies: American Academy of Environmental Engineers and Scientists,
American Ceramic Society,
American Institute of Chemical Engineers, American Society of Civil Engineers,
American Society of Mechanical Engineers, Biomedical Engineering Society,
CSAB, Institute of Electrical and Electronics Engineers,
Institute of Industrial Engineers, and Minerals, Metals, and Materials Society

These program criteria apply to engineering programs that include “biological,” “biological systems,” “food,” or similar modifiers in their titles with the exception of bioengineering and biomedical engineering programs.

1. Curriculum

The curriculum must include mathematics through differential equations, a thorough grounding in chemistry and biology and a working knowledge of advanced biological sciences consistent with the program educational objectives. The curriculum must prepare graduates to apply engineering to biological systems.

2. Faculty

The program shall demonstrate that those faculty members teaching courses that are primarily design in content are qualified to teach the subject matter by virtue of education and experience or professional licensure.

**PROGRAM CRITERIA FOR
CHEMICAL, BIOCHEMICAL, BIOMOLECULAR
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: American Institute of Chemical Engineers

These program criteria apply to engineering programs that include “chemical,” “biochemical,” “biomolecular,” or similar modifiers in their titles.

1. Curriculum

The curriculum must provide a thorough grounding in the basic sciences including chemistry, physics, and/or biology, with some content at an advanced level, as appropriate to the objectives of the program. The curriculum must include the engineering application of these basic sciences to the design, analysis, and control of chemical, physical, and/or biological processes, including the hazards associated with these processes.

**PROGRAM CRITERIA FOR
CIVIL
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: American Society of Civil Engineers

These program criteria apply to engineering programs that include "civil" or similar modifiers in their titles.

1. Curriculum

The curriculum must prepare graduates to apply knowledge of mathematics through differential equations, calculus-based physics, chemistry, and at least one additional area of basic science; apply probability and statistics to address uncertainty; analyze and solve problems in at least four technical areas appropriate to civil engineering; conduct experiments in at least two technical areas of civil engineering and analyze and interpret the resulting data; design a system, component, or process in at least two civil engineering contexts; include principles of sustainability in design; explain basic concepts in project management, business, public policy, and leadership; analyze issues in professional ethics; and explain the importance of professional licensure.

2. Faculty

The program must demonstrate that faculty teaching courses that are primarily design in content are qualified to teach the subject matter by virtue of professional licensure, or by education and design experience. The program must demonstrate that it is not critically dependent on one individual.

**PROGRAM CRITERIA FOR
CONSTRUCTION
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: American Society of Civil Engineers

These program criteria apply to engineering programs that include "construction" or similar modifiers in their titles.

1. Curriculum

The program must prepare graduates to apply knowledge of mathematics through differential and integral calculus, probability and statistics, general chemistry, and calculus-based physics; to analyze and design construction processes and systems in a construction engineering specialty field, applying knowledge of methods, materials, equipment, planning, scheduling, safety, and cost analysis; to explain basic legal and ethical concepts and the importance of professional engineering licensure in the construction industry; to explain basic concepts of management topics such as economics, business, accounting, communications, leadership, decision and optimization methods, engineering economics, engineering management, and cost control.

2. Faculty

The program must demonstrate that the majority of faculty teaching courses that are primarily design in content are qualified to teach the subject matter by virtue of professional licensure, or by education and design experience. The faculty must include at least one member who has had full-time experience and decision-making responsibilities in the construction industry.

**PROGRAM CRITERIA FOR
ELECTRICAL, COMPUTER, COMMUNICATIONS, TELECOMMUNICATION(S)
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: Institute of Electrical and Electronics Engineers
Cooperating Society for Computer Engineering Programs: CSAB

These program criteria apply to engineering programs that include “electrical,” “electronic(s),” “computer,” “communication(s),” telecommunication(s), or similar modifiers in their titles.

1 Curriculum

The structure of the curriculum must provide both breadth and depth across the range of engineering topics implied by the title of the program.

The curriculum must include probability and statistics, including applications appropriate to the program name; mathematics through differential and integral calculus; sciences (defined as biological, chemical, or physical science); and engineering topics (including computing science) necessary to analyze and design complex electrical and electronic devices, software, and systems containing hardware and software components.

The curriculum for programs containing the modifier “electrical,” “electronic(s),” “communication(s),” or “telecommunication(s)” in the title must include advanced mathematics, such as differential equations, linear algebra, complex variables, and discrete mathematics.

The curriculum for programs containing the modifier “computer” in the title must include discrete mathematics.

The curriculum for programs containing the modifier “communication(s)” or “telecommunication(s)” in the title must include topics in communication theory and systems.

The curriculum for programs containing the modifier “telecommunication(s)” must include design and operation of telecommunication networks for services such as voice, data, image, and video transport.

**PROGRAM CRITERIA FOR
ENGINEERING, GENERAL ENGINEERING,
ENGINEERING PHYSICS, ENGINEERING SCIENCE,
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: American Society for Engineering Education

These program criteria apply to engineering programs that include “engineering (without modifiers),” “general engineering,” “engineering physics,” or “engineering science(s),” in their titles.

There are no program-specific criteria beyond the General Criteria.

**PROGRAM CRITERIA FOR
ENGINEERING MANAGEMENT
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: Institute of Industrial Engineers

Cooperating Societies: American Institute of Chemical Engineers, American Society of Civil Engineers, American Society of Mechanical Engineers, Institute of Electrical and Electronics Engineers,
Society of Manufacturing Engineers, and Society of Petroleum Engineers

These program criteria apply to engineering programs that include “management” or similar modifiers in their titles.

1. Curriculum

The curriculum must prepare graduates to understand the engineering relationships between the management tasks of planning, organization, leadership, control, and the human element in production, research, and service organizations; to understand and deal with the stochastic nature of management systems. The curriculum must also prepare graduates to integrate management systems into a series of different technological environments.

2. Faculty

The major professional competence of the faculty must be in engineering, and the faculty should be experienced in the management of engineering and/or technical activities.

**PROGRAM CRITERIA FOR
ENGINEERING MECHANICS
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: American Society of Mechanical Engineers

These program criteria apply to engineering programs that include “mechanics” or similar modifiers in their titles.

1. Curriculum

The program curriculum must require students to use mathematical and computational techniques to analyze, model, and design physical systems consisting of solid and fluid components under steady state and transient conditions.

2. Faculty

The program must demonstrate that faculty members responsible for the upper-level professional program are maintaining currency in their specialty area.

**PROGRAM CRITERIA FOR
ENVIRONMENTAL
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: American Academy of Environmental Engineers and Scientists
Cooperating Societies: American Institute of Chemical Engineers,
American Society of Agricultural and Biological Engineers, American Society of Civil
Engineers,
American Society of Heating, Refrigerating and Air-Conditioning Engineers,
American Society of Mechanical Engineers, SAE International,
and Society for Mining, Metallurgy, and Exploration

These program criteria apply to engineering programs that include "environmental," "sanitary," or similar modifiers in their titles.

1. Curriculum

The curriculum must prepare graduates to apply knowledge of mathematics through differential equations, probability and statistics, calculus-based physics, chemistry (including stoichiometry, equilibrium, and kinetics), an earth science, a biological science, and fluid mechanics. The curriculum must prepare graduates to formulate material and energy balances, and analyze the fate and transport of substances in and between air, water, and soil phases; conduct laboratory experiments, and analyze and interpret the resulting data in more than one major environmental engineering focus area, e.g., air, water, land, environmental health; design environmental engineering systems that include considerations of risk, uncertainty, sustainability, life-cycle principles, and environmental impacts; and apply advanced principles and practice relevant to the program objectives. The curriculum must prepare graduates to understand concepts of professional practice, project management, and the roles and responsibilities of public institutions and private organizations pertaining to environmental policy and regulations.

2. Faculty

The program must demonstrate that a majority of those faculty teaching courses that are primarily design in content are qualified to teach the subject matter by virtue of professional licensure, board certification in environmental engineering, or by education and equivalent design experience.

**PROGRAM CRITERIA FOR
FIRE PROTECTION
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: Society for Fire Protection Engineers

These program criteria apply to engineering programs that include “fire protection” or similar modifiers in their title.

1. Curriculum

The program must prepare graduates to have proficiency in the application of science and engineering to protect the health, safety, and welfare of the public from the impacts of fire. This includes the ability to apply and incorporate an understanding of the fire dynamics that affect the life safety of occupants and emergency responders and the protection of property; the hazards associated with processes and building designs; the design of fire protection products, systems, and equipment; the human response and behavior in fire emergencies; and the prevention, control, and extinguishment of fire.

2. Faculty

The program must demonstrate that faculty members maintain currency in fire protection engineering practice.

**PROGRAM CRITERIA FOR
GEOLOGICAL
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: Society for Mining, Metallurgy, and Exploration

These program criteria apply to engineering programs that include "geological" or similar modifiers in their titles.

1. Curriculum

The program must prepare graduates to have:

1. the ability to apply mathematics including differential equations, calculus-based physics, and chemistry, to geological engineering problems;
2. proficiency in geological science topics that emphasize geologic processes and the identification of minerals and rocks;
3. the ability to visualize and solve geological problems in three and four dimensions;
4. proficiency in the engineering sciences including statics, properties/strength of materials, and geomechanics;
5. the ability to apply principles of geology, elements of geophysics, geological and engineering field methods; and
6. engineering knowledge to design solutions to geological engineering problems, which will include one or more of the following considerations: the distribution of physical and chemical properties of earth materials, including surface water, ground water (hydrogeology), and fluid hydrocarbons; the effects of surface and near-surface natural processes; the impacts of construction projects; the impacts of exploration, development, and extraction of natural resources, and consequent remediation; disposal of wastes; and other activities of society on these materials and processes, as appropriate to the program objectives.

2. Faculty

Evidence must be provided that the program's faculty members understand professional engineering practice and maintain currency in their respective professional areas. The program's faculty must have responsibility and authority to define, revise, implement, and achieve program objectives.

**PROGRAM CRITERIA FOR
INDUSTRIAL
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: Institute of Industrial Engineers

These program criteria apply to engineering programs that include “industrial” or similar modifiers in their titles.

1. Curriculum

The curriculum must prepare graduates to design, develop, implement, and improve integrated systems that include people, materials, information, equipment and energy. The curriculum must include in-depth instruction to accomplish the integration of systems using appropriate analytical, computational, and experimental practices.

2. Faculty

Evidence must be provided that the program faculty understand professional practice and maintain currency in their respective professional areas. Program faculty must have responsibility and sufficient authority to define, revise, implement, and achieve program objectives.

**PROGRAM CRITERIA FOR
MANUFACTURING
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: Society of Manufacturing Engineers

These program criteria apply to engineering programs that include "manufacturing" and similar modifiers in their titles.

1. Curriculum

The program must prepare graduates to have proficiency in (a) materials and manufacturing processes: ability to design manufacturing processes that result in products that meet specific material and other requirements; (b) process, assembly and product engineering: ability to design products and the equipment, tooling, and environment necessary for their manufacture; (c) manufacturing competitiveness: ability to create competitive advantage through manufacturing planning, strategy, quality, and control; (d) manufacturing systems design: ability to analyze, synthesize, and control manufacturing operations using statistical methods; and (e) manufacturing laboratory or facility experience: ability to measure manufacturing process variables and develop technical inferences about the process.

2. Faculty

The program must demonstrate that faculty members maintain currency in manufacturing engineering practice.

**PROGRAM CRITERIA FOR
MATERIALS (1), METALLURGICAL (2), CERAMICS (3)
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

(1,2) Lead Society for Materials and Metallurgical Engineering Programs: The Minerals, Metals & Materials Society

(3) Lead Society for Ceramics Engineering Programs: American Ceramic Society

(1) Cooperating Societies for Materials Engineering Programs: American Ceramic Society, American Institute of Chemical Engineers, and American Society of Mechanical Engineers

(2) Cooperating Society for Metallurgical Engineering Programs: Society for Mining, Metallurgy, and Exploration

(3) Cooperating Society for Ceramics Engineering Programs: The Minerals, Metals & Materials Society

These program criteria apply to engineering programs including "materials," "metallurgical," "ceramics," "glass", "polymer," "biomaterials," and similar modifiers in their titles.

1. Curriculum

The curriculum must prepare graduates to apply advanced science (such as chemistry, biology and physics), computational techniques and engineering principles to materials systems implied by the program modifier, e.g., ceramics, metals, polymers, biomaterials, composite materials; to integrate the understanding of the scientific and engineering principles underlying the four major elements of the field: structure, properties, processing, and performance related to material systems appropriate to the field; to apply and integrate knowledge from each of the above four elements of the field using experimental, computational and statistical methods to solve materials problems including selection and design consistent with the program educational objectives.

2. Faculty

The faculty expertise for the professional area must encompass the four major elements of the field.

**PROGRAM CRITERIA FOR
MECHANICAL
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: American Society of Mechanical Engineers

These program criteria will apply to all engineering programs that include "mechanical" or similar modifiers in their titles.

1. Curriculum

The curriculum must require students to apply principles of engineering, basic science, and mathematics (including multivariate calculus and differential equations); to model, analyze, design, and realize physical systems, components or processes; and prepare students to work professionally in either thermal or mechanical systems while requiring topics in each area.

2. Faculty

The program must demonstrate that faculty members responsible for the upper-level professional program are maintaining currency in their specialty area.

**PROGRAM CRITERIA FOR
MINING
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: Society for Mining, Metallurgy, and Exploration

These program criteria apply to engineering programs that include "mining" or similar modifiers in their titles.

1. Curriculum

The program must prepare graduates to apply mathematics through differential equations, calculus-based physics, general chemistry, and probability and statistics as applied to mining engineering problem applications; to have fundamental knowledge in the geological sciences including characterization of mineral deposits, physical geology, structural or engineering geology, and mineral and rock identification and properties; to be proficient in statics, dynamics, strength of materials, fluid mechanics, thermodynamics, and electrical circuits; to be proficient in engineering topics related to both surface and underground mining, including: mining methods, planning and design, ground control and rock mechanics, health and safety, environmental issues, and ventilation; to be proficient in additional engineering topics such as rock fragmentation, materials handling, mineral or coal processing, mine surveying, and valuation and resource/reserve estimation as appropriate to the program objectives. The laboratory experience must prepare graduates to be proficient in geologic concepts, rock mechanics, mine ventilation, and other topics appropriate to the program objectives.

2. Faculty

Evidence must be provided that the program faculty understand professional engineering practice and maintain currency in their respective professional areas. Program faculty must have responsibility and authority to define, revise, implement, and achieve program objectives.

**PROGRAM CRITERIA FOR
NAVAL ARCHITECTURE, MARINE ENGINEERING,
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: Society of Naval Architects and Marine Engineers

These program criteria apply to engineering programs that include “naval architecture” and/or “marine engineering” or similar modifiers in their titles.

1. Curriculum

The program must prepare graduates to apply probability and statistical methods to naval architecture and marine engineering problems; to have basic knowledge of fluid mechanics, dynamics, structural mechanics, materials properties, hydrostatics, and energy/propulsion systems in the context of marine vehicles and; to have familiarity with instrumentation appropriate to naval architecture and/or marine engineering.

2. Faculty

Program faculty must have sufficient curricular and administrative control to accomplish the program objectives. Program faculty must have responsibility and sufficient authority to define, revise, implement and achieve the program objectives.

**PROGRAM CRITERIA FOR
NUCLEAR, RADIOLOGICAL,
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: American Nuclear Society

These program criteria apply to engineering programs that include “nuclear,” “radiological,” or similar modifiers in their titles.

1. Curriculum

The program must prepare the students to apply advanced mathematics, science, and engineering science, including atomic and nuclear physics, and the transport and interaction of radiation with matter, to nuclear and radiological systems and processes; to perform nuclear engineering design; to measure nuclear and radiation processes; to work professionally in one or more of the nuclear or radiological fields of specialization identified by the program.

2. Faculty

The program must demonstrate that faculty members primarily committed to the program have current knowledge of nuclear or radiological engineering by education or experience.

**PROGRAM CRITERIA FOR
OCEAN
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: Society of Naval Architects and Marine Engineers
Cooperating Societies: American Society of Civil Engineers
and Institute of Electrical and Electronics Engineers

These program criteria apply to engineering programs that include “ocean” or similar modifiers in their titles.

1. Curriculum

The curriculum must prepare graduates to have the knowledge and the skills to apply the principles of fluid and solid mechanics, dynamics, hydrostatics, probability and applied statistics, oceanography, water waves, and underwater acoustics to engineering problems and to work in groups to perform engineering design at the system level, integrating multiple technical areas and addressing design optimization.

2. Faculty

Program faculty must have responsibility and sufficient authority to define, revise, implement, and achieve the program objectives.

**PROGRAM CRITERIA FOR
OPTICAL, PHOTONIC,
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Co-Lead Societies: SPIE, the International Society for Optical Engineering
or Institute of Electrical and Electronic Engineers

These program criteria apply to all engineering programs that include "optical," "photonic," or similar modifiers in their titles.

1. Curriculum

The structure of the curriculum must provide both breadth and depth across the range of engineering topics implied by the title of the program. The curriculum must prepare students to have knowledge of and appropriate laboratory experience in: geometrical optics, physical optics, optical materials, and optical and/or photonic devices and systems.

The curriculum must prepare students to apply principles of engineering, basic sciences, mathematics (such as multivariable calculus, differential equations, linear algebra, complex variables, and probability and statistics) to modeling, analyzing, designing, and realizing optical and/or photonic devices and systems.

2. Faculty

Faculty members who teach courses with significant design content must be qualified by virtue of design experience as well as subject matter knowledge.

**PROGRAM CRITERIA FOR
PETROLEUM
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: Society of Petroleum Engineers

These program criteria apply to engineering programs that include "petroleum," "natural gas," or similar modifiers in their titles.

1. Curriculum

The program must prepare graduates to be proficient in mathematics through differential equations, probability and statistics, fluid mechanics, strength of materials, and thermodynamics; design and analysis of well systems and procedures for drilling and completing wells; characterization and evaluation of subsurface geological formations and their resources using geoscientific and engineering methods; design and analysis of systems for producing, injecting, and handling fluids; application of reservoir engineering principles and practices for optimizing resource development and management; the use of project economics and resource valuation methods for design and decision making under conditions of risk and uncertainty.

**PROGRAM CRITERIA FOR
SOFTWARE
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Lead Society: CSAB

Cooperating Society: Institute of Electrical and Electronics Engineers

These program criteria apply to engineering programs that include “software” or similar modifiers in their titles.

1. Curriculum

The curriculum must provide both breadth and depth across the range of engineering and computer science topics implied by the title and objectives of the program.

The curriculum must include computing fundamentals, software design and construction, requirements analysis, security, verification, and validation; software engineering processes and tools appropriate for the development of complex software systems; and discrete mathematics, probability, and statistics, with applications appropriate to software engineering.

2. Faculty

The program must demonstrate that faculty members teaching core software engineering topics have an understanding of professional practice in software engineering and maintain currency in their areas of professional or scholarly specialization.

**PROGRAM CRITERIA FOR
SURVEYING
AND SIMILARLY NAMED ENGINEERING PROGRAMS**
Lead Society: National Society for Professional Surveyors
Cooperating Society: American Society of Civil Engineers

These program criteria apply to engineering programs that include "surveying" or similar modifiers in their titles.

1. Curriculum

The curriculum must prepare graduates to work competently in one or more of the following areas: boundary and/or land surveying, geographic and/or land information systems, photogrammetry, mapping, geodesy, remote sensing, and other related areas.

2. Faculty

Programs must demonstrate that faculty members teaching courses that are primarily design in content are qualified to teach the subject matter by virtue of professional licensure or by educational and design experience.

**PROGRAM CRITERIA FOR
SYSTEMS
AND SIMILARLY NAMED ENGINEERING PROGRAMS**

Co-Lead Societies: American Society of Mechanical Engineers, CSAB,
Institute of Electrical and Electronics Engineers, Institute of Industrial Engineers,
ISA, International Council on Systems Engineering, or
SAE International

These program criteria apply to engineering programs that include “systems (without other modifiers)” in their title.

There are no program- specific criteria beyond the General Criteria.

IV. PROPOSED CHANGES TO THE CRITERIA

Proposed changes to certain sections of the Criteria for Accrediting Engineering Programs are **approved** by the ABET Engineering Area Delegation as of October 20, 2017, for implementation in the 2019–2020 accreditation review cycle.

The changed sections are:

- The Introduction and Definitions that apply to all parts of the criteria
- The General Criteria for Accrediting Baccalaureate Level Programs
 - Criterion 3, Student Outcomes
 - Criterion 5, Curriculum

Text for the changed sections is provided below. Programs scheduled for a general review in the 2018 – 2019 should not begin transitioning to the newly approved criteria. Programs scheduled for a general review in the 2019 -2020 cycle and beyond may begin to transition as soon as possible.

Criteria for Accrediting Engineering Programs for implementation in the 2019 -2020 accreditation cycle

Introduction

These criteria apply to all accredited engineering programs. Furthermore, these criteria are intended to foster the systematic pursuit of improvement in the quality of engineering education that satisfies the needs of its constituencies in a dynamic and competitive environment. It is the responsibility of the institution seeking accreditation of an engineering program to demonstrate clearly that the program meets the following criteria.

Definitions

The Engineering Accreditation Commission of ABET recognizes that its constituents may consider certain terms to have certain meanings; however, it is necessary for the Engineering Accreditation Commission to have consistent terminology. Thus, the Engineering Accreditation Commission will use the following definitions in applying the criteria:

Basic Science – Basic sciences are disciplines focused on knowledge or understanding of the fundamental aspects of natural phenomena. Basic sciences consist of chemistry and physics and other natural sciences including life, earth, and space sciences.

College-Level Mathematics – College-level mathematics consists of mathematics that requires a degree of mathematical sophistication at least equivalent to that of introductory calculus. For illustrative purposes, some examples of college-level mathematics include calculus, differential equations, probability, statistics, linear algebra, and discrete mathematics.

Complex Engineering Problems - Complex engineering problems include one or more of the following characteristics: involving wide-ranging or conflicting technical issues, having no obvious solution, addressing problems not encompassed by current standards and codes, involving diverse groups of stakeholders, including many component parts or sub-problems, involving multiple disciplines, or having significant consequences in a range of contexts.

Engineering Design – Engineering design is a process of devising a system, component, or process to meet desired needs and specifications within constraints. It is an iterative, creative, decision-making process in which the basic sciences, mathematics, and engineering sciences are applied to convert resources into solutions. Engineering design involves identifying opportunities, developing requirements, performing analysis and synthesis, generating multiple solutions, evaluating solutions against requirements, considering risks, and making trade-offs, for the purpose of obtaining a high-quality solution under the given circumstances. For illustrative purposes only, examples of possible constraints include accessibility, aesthetics, codes, constructability, cost, ergonomics, extensibility, functionality, interoperability, legal considerations, maintainability, manufacturability, marketability, policy, regulations, schedule, standards, sustainability, or usability.

Engineering Science – Engineering sciences are based on mathematics and basic sciences but carry knowledge further toward creative application needed to solve engineering problems. These studies provide a bridge between mathematics and basic sciences on the one hand and engineering practice on the other.

Team – A team consists of more than one person working toward a common goal and should include individuals of diverse backgrounds, skills, or perspectives.

Criterion 3. Student Outcomes

The program must have documented student outcomes that support the program educational objectives. Attainment of these outcomes prepares graduates to enter the professional practice of engineering. Student outcomes are outcomes (1) through (7), plus any additional outcomes that may be articulated by the program.

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and

welfare, as well as global, cultural, social, environmental, and economic factors

3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Criterion 5. Curriculum

The curriculum requirements specify subject areas appropriate to engineering but do not prescribe specific courses. The program curriculum must provide adequate content for each area, consistent with the student outcomes and program educational objectives, to ensure that students are prepared to enter the practice of engineering. The curriculum must include:

- (a) a minimum of 30 semester credit hours (or equivalent) of a combination of college-level mathematics and basic sciences with experimental experience appropriate to the program.
- (b) a minimum of 45 semester credit hours (or equivalent) of engineering topics appropriate to the program, consisting of engineering and computer sciences and engineering design, and utilizing modern engineering tools.
- (c) a broad education component that complements the technical content of the curriculum and is consistent with the program educational objectives.
- (d) a culminating major engineering design experience that 1) incorporates appropriate engineering standards and multiple constraints, and 2) is based on the knowledge and skills acquired in earlier course work.

The following section presents proposed program criteria as approved by the ABET Engineering Area Delegation on October 20, 2017, for a review and comment period. Comments will be considered until June 15, 2018. The ABET Engineering Area Delegation will determine, based on the comments received and on the advice of the EAC, the content of the adopted criteria. The criteria would only become effective if approved at the ABET Engineering Area Delegation meeting in the fall of 2018 and the earliest possible application would be for accreditation reviews during the 2019-20 academic year.

PROGRAM CRITERIA FOR CYBERSECURITY ENGINEERING AND ENGINEERING PROGRAMS THAT INCLUDE “SECURITY,” “CYBERSECURITY,” “COMPUTER SECURITY,” “CYBER OPERATIONS,” “INFORMATION ASSURANCE,” “INFORMATION SECURITY,” OR SIMILAR MODIFIERS IN THEIR TITLES

Co-Lead Societies: Institute of Electrical and Electronics Engineers, CSAB, International Council on Systems Engineering (INCOSE)

These program criteria apply to engineering programs that include “security”, “cybersecurity”, “computer security”, “cyber operations”, “information assurance”, “information security”, or similar modifiers in their titles.

1. Curriculum

The structure of the curriculum must provide both breadth and depth across the range of engineering topics implied by the title of the program.

The curriculum must

- Include probability, statistics, and cryptographic topics including applications appropriate to the program.
- Include discrete math and specialized math appropriate to the program, such as, abstract algebra, information theory, number theory, complexity theory, finite fields.
- Include engineering topics necessary to analyze and design complex devices, software, and systems containing hardware, software and human components.
- Provide both breadth and depth across the range of engineering and computer science topics necessary for the:
 1. application of security principles and practices to the design, implementation, and operations of the physical, software, and human components of the system as appropriate to the program
 2. application of protective technologies and forensic techniques
 3. analyzing and evaluation of components and systems with respect to security and to maintaining operations in the presence of risks and threats
 4. consideration of legal, regulatory, privacy, ethics, and human behavior topics as appropriate to the program

2. Faculty

The program must demonstrate that faculty members teaching core engineering topics understand methods of engineering design, engineering problem solving, and engineering practice with specific relevance to security.

Comments relative to the proposed criteria should be submitted by the link for comments available here and on the ACCREDITATION ALERTS section of the ABET website.

LINK: COMMENT: Proposed Program Criteria for Cybersecurity Engineering

UT Martin has made the requested revisions and clarifications to their proposal for the Mechanical Engineering program. The attached file has highlights to show where the changes appear, in addition to the following response from the Dean of the College regarding the three questions dated January 3, 2020:

- 1. The graduation totals provided in the modification proposal (Table 3) do not match the state's program productivity records for this major (provided below). Ensuring the graduation totals provided are accurate is important to this evaluation. Further, the decline of graduates in AY18-19 compared to prior years is concerning. How is the current enrollment and retention for the program?**

The former engineering chair had tabulated these by calendar year instead of by academic year (reasons unknown). Regarding graduates and trends, the Fall of 2015 had only 30 FTFY engineering majors compared to 40 both the year before and the year after by comparison Fall of 2018 and 2019 had 60 or more. It will be the responsibility of the new chair in engineering to guide us to maximize the retention of these larger cohorts so that we can see those annual graduating classes back into the 40s soon. However, with two consecutive freshman classes in the 60s we are hopeful on this front. As for the graduation numbers and our dip to 24, we hope to improve slightly this year to 27 if everyone stays on track, and I hope to see us back in the 30s after that.

- 2. What impact does the addition of the new concentrations (Manufacturing, Mechatronics, and the developing Computer Engineering concentrations) have on the preparation for ABET reaccreditation other than an additional report?**

Adding concentrations expands the areas covered in the ABET report, this data is already well underway, but adding concentrations alone does not necessitate an additional ABET report as it is covered under the general engineering one. Our system has largely been to treat each as a standalone program for assessment so that there is a section that effectively covers each concentration. Separating the BSME will require an additional report/separate accreditation, but as we have been collecting data and had the curriculum in place as if it were already stand-alone BSME, there is nothing additional beyond that.

- 3. The content under the current curriculum states that UTM is intentionally structuring curriculum "to prepare for stand-alone programs," of which the Mechanical Engineering program will be the first. What is the prospectus of the impact of the proposed major on the new Mechatronics Engineering concentration under the current Engineering major?**

The addition of the BSME degree is expected to indirectly increase the number of students in the Mechatronics and Manufacturing concentrations. The initial populations of students we have moving into those concentrations have been a combination of newly recruited students seeking the particular concentration and students who were originally in mechanical engineering but find the manufacturing/mechatronics concentrations more aligned with their professional interests. As a standalone BSME will allow us to recruit more students into the program at UTM, we think the pool of potential manufacturing and mechatronics graduates will grow as some of those students switch over to those concentrations.