A MEMORANDUM

DATE: August 3, 2022

TO: Academic Deans Council

FROM: Dr. Andy Perkins
              UCCC Chair

RE: Change Notice 17

Listed below are curriculum change proposals which have been recommended by the University Committee Courses and Curricula. Under current procedure, members of the Academic Deans Council may question the approval of these proposals at any time prior to 5:00 p.m. on August 16, 2022 by contacting Dr. Andy Perkins (5-0004) or the office of the Vice President for Academic Affairs (5-3742). If no questions have been raised, the proposals will be considered approved automatically.

1. Course Proposals by college/school

AGRICULTURE AND LIFE SCIENCES

Modification	BCH 4623/6623	Approved	FROM: BCH 4623/6623 Biochemistry of Specialized Tissues. (3). (Prerequisite: Coregistration in BCH 4613/6613). A continuation of BCH 4613/6613 to include a study of specialized tissues, hormones, acid base balance in animals and other physiological parameters of biochemistry. TO: BCH 4623/6623 Integrative Metabolic and Medical Biochemistry. (3). (Prerequisite: Coregistration in BCH 4613/6613). A continuation of BCH 4613/6613 to include an integrative approach to study metabolic biochemistry in the context of medical biochemistry. Method of Delivery: F Effective: Spring 2023

ARCHITECTURE, ART AND DESIGN

+Online/Distance	ID 8263	Approved	ID 8263 Approval to Offer Online Campus 5 for Interior Details, Furniture, Materials, and Finishes. Method of Delivery: F & O Campus: 1 & 5 Effective: Fall 2022

ARTS AND SCIENCES

Addition	EN 4363/6363	Approved	EN 4363/6363 Studies in Global Anglophone Literatures. (3). (Prerequisite: Completion of EN 1113 or EN 1173). Three hours lecture. A study of selected authors and/or topics in literature in English from around the world, especially Africa, Asia, and the Caribbean, and focusing on literary representations of histories of colonialism, migration, transnationalism, and globalization. Method of Instruction: C Method of Delivery: F Campus: 1 CIP: 231404 30 Char: Global Anglophone Literatures Effective: Fall 2022

EDUCATION

Technical Change	EDE 4113	Approved	FROM: EDE 4113 Teaching Elementary and Middle Level Science. (3). (Prerequisites: Admission to Teacher Education: RDG 3113, RDG 3123, EDE 3123, EDF 3423, EDS 3213, RDG 3413, RDG 3423, EDE 3223, EDE 3523, and EDF 333; Corequisite: RDG 4133, EDE 4123, and EDE 4143). Two hours lecture. Two hours laboratory. Field based. Effectiveness of instructional practices and selection, organization, teaching and assessment for integrating language arts across content areas in K-8. **TO: EDE 4113 Teaching Elementary and Middle Level Science.** (3). (Prerequisites: Admission to Teacher Education; RDG: 3113,3123,3413,3423; EDE:3123,3223,3523; TECH 4763; EPY 4103; EDX 3123. Co-requisite: EDE:4123, 4143; RDG 4133). Two hours lecture. Two hours laboratory. Field based. Selection, organization, and presentation of natural science content for elementary/middle school students, assessment of learning, and general effectiveness of instruction. Effective: Fall 2022
Technical Change	EDE 4123	Approved	FROM: EDE 4123 Teaching Elementary and Middle Level Mathematics. (3). (Prerequisites: Admission to Teacher Education; RDG 3113, RDG 3123, EDE 3123, EDF 3423, EDX 3213, RDG 3413, RDG 3423, EDE 3223, EDE 3523, and EDF 3333; MA 1313, MA 1413 or an appropriate MA substitute, MA 1423 or an Appropriate MA substitute, and MA 1433 or an appropriate MA substitute. Corequisite: EDE 4113, RDG 34133 and EDE 4143). Two hours lecture. Two hours laboratory. Field based. Effectiveness of instructional practices and selection, organization, teaching and assessment for integrating language arts across content areas in K-8. **TO: EDE 4123 Teaching Elementary and Middle Level Mathematics.** (3). (Prerequisites: Admission to Teacher Education; RDG: 3113,3123,3413,3423; EDE:3123,3223,3523; TECH 4763; EPY 4103; EDX 3123. Co-requisite: EDE:4113, 4143; RDG 4133) Two hours lecture. Two hours laboratory. Field based. The content and process of mathematics instruction for elementary/middle grades students including teaching principles, mathematical tools, and assessment of student progress. Effective: Fall 2022

Technical Change	EDE 4143	Approved	FROM: **EDE 4143 Teaching Elementary and Middle Level Social Studies.** (3). (Prerequisites: Admission to Teacher Education. RDG 3113, RDG 3123, EDE 3123, EDF 3423, EDX 3213, RDG 3413, RDG 3423, EDE 3223, EDE 3523, and EDF 3333; Corequisite: EDE 4113, EDE 4123, and RDG 4133). Two hours lecture. Two hours laboratory. Field based. Effectiveness of instructional practices and selection, organization, teaching and assessment for integrating language arts across content areas in K-8. **TO: EDE 4143 Teaching Elementary and Middle Level Social Studies.** (3). (Prerequisites: Admission to Teacher Education; RDG: 3113,3123,3413,3423; EDE:3123,3223,3523; TECH 4763; EPY 4103; EDX 3123. Corequisites: EDE:4113, 4123; RDG 4133). Two hours lecture. Two hours laboratory. Field based. Selection, organization and presentation of social studies content for K-8; assessment of learning and general effectiveness of instruction. Effective: Fall 2022
Deletion	EDS 3411	Approved	**EDS 3411 Practicum in Secondary Education.** Effective: Fall 2022
Technical Change	INDT 4801	Approved	FROM: **INDT 4801 Senior Seminar.** (1). (Prerequisite: Senior and Graduating Semester). One hour seminar. The issues that face the new technologist entering the workforce, and how to overcome them. **TO: INDT 4801 Senior Seminar.** (1). (Prerequisites: INDT 3101 and Graduating Semester). One hour seminar. Execution of senior project developed during Junior Seminar. Effective: Fall 2022

Technical Change	RDG 4133	Approved	FROM: RDG 4133 Integrating Literacy Instruction in the Content Areas. (3). (Prerequisites: All Professional Education courses, except EDE 3443; Co-Requisites: EDE 4113/ #DE 4123, & EDE 4143). Two hours lecture. Two hours lab. Field based. Selection, organization, teaching, and assessment for integrating literacy across content areas - K-8; general effectiveness of and reflection about instructional practices. **TO: RDG 4133 Integrating Literacy Instruction in the Content Areas. (3).** (Prerequisites: Admission to Teacher Education; RDG: 3113,3123,3413,3423; EDE:3123,3223,3523; TECH 4763; EPY 4103; EDX 3123. Co-requisites: EDE:4113,4123,4143). Two hours lecture. Two hours lab. Field based. Selection, organization, teaching, and assessment for integrating literacy across content areas - K-8; general effectiveness of and reflection about instructional practices. Effective: Fall 2022

ENGINEERING

+Online/Distance	ECE 3614	Approved	ECE 3614 Approval to Offer Online Campus 5 for Fundamentals of Energy Systems. Method of Delivery: F & O Campus: 1, 5, & 6 Effective: Fall 2022
Modification	ECE 4512	Approved	**FROM: ECE 4512 EE Design I.** **TO: ECE 4512 Capstone Design I.** 30 Char: Capstone Design 1 Effective: Fall 2022
Modification	ECE 4724/6724	Approved	**FROM: ECE 4723/6723 Embedded Systems.** (3). (Prerequisites: Grade of C or better in CSE 3324 and ECE 3724 and in either ECE 3424 or CSE 4153). Two hours lecture. Three hours laboratory. Advanced topics in embedded systems design using contemporary practice. Interrupt driven, reactive, real-time, object-oriented, and distributed client/server embedded systems. **TO: ECE 4724/6724 Embedded Systems.** (4). (Prerequisites: Grade of C or better in ECE 3724 and in one of the following: ECE 3424 or ECE 3244 or CSE 4153 or ECE 4833). Three hours lecture. Three hours laboratory. Advanced topics in embedded systems design using contemporary practice. Method of Instruction: B, C, K Method of Delivery: F & O Campus: 1, 5, & 6 CIP: 141001 30 Char: Embedded Systems Effective: Fall 2022
Deletion	IE 4915/6915	Approved	IE 4915/6915 Design of Industrial Systems. Effective: Fall 2022
Technical Change (Equivalency)	IE 4933/6933	Approved	IE 4933/6933 Information System in Industrial Engineering. Effective: Fall 2022
Deletion	IE 4934 /6934	Approved	IE 4934/6934 Information Systems for Industrial Engineering. Effective: Fall 2022

2. Program Proposals by college/school:

ACADEMIC AFFAIRS

| Technical Change | **University Wide General Education** | **Approved** | EN 1104 Expanded English Comp I as an option to fulfill the EN 1103 English Comp I requirement. Remove EN 1163 since that course has been deleted.

MA 1103 College Algebra Coreq as an option to fulfill the MA 1313 College Algebra requirement.

Effective: Fall 2022 |

ARTS AND SCIENCES

| Modification | **Degree:** Minor **Major:** African American Studies | **Approved** | See proposal for list of revisions.

Effective: Fall 2022 |

EDUCATION

| Modification | **Degree:** BME **Major:** Music Education **Concentrations:** Guitar, Instrumental, Keyboard, Vocal | **Approved** | Reduction of degree credit hours from 130 to 127.

Effective: Fall 2022 |

ENGINEERING

| Modification | **Degree:** BS **Major:** Electrical Engineering **Concentrations:** Electrical Engineering, Power and Energy Engineering **to** Electrical Engineering, Power and Energy Systems | **Approved** | See proposal for list of revisions.

Effective: Spring 2023

Effective date revised. See next page. |
| Modification | **Degree:** BS **Major:** Computer Engineering | **Approved** | See proposal for list of revisions.

Effective: Fall 2022 |

2. Program Proposals by college/school: **REVISED**

ACADEMIC AFFAIRS

| Technical Change | **University Wide General Education** | **Approved** | EN 1104 Expanded English Comp I as an option to fulfill the EN 1103 English Comp I requirement. Remove EN 1163 since that course has been deleted.

MA 1103 College Algebra Coreq as an option to fulfill the MA 1313 College Algebra requirement.

Effective: Fall 2022 |
|---|---|---|---|

ARTS AND SCIENCES

| Modification | **Degree:** Minor **Major:** African American Studies | **Approved** | See proposal for list of revisions.

Effective: Fall 2022 |
|---|---|---|---|

EDUCATION

| Modification | **Degree:** BME **Major:** Music Education **Concentrations:** Guitar, Instrumental, Keyboard, Vocal | **Approved** | Reduction of degree credit hours from 130 to 127.

Effective: Fall 2022 |
|---|---|---|---|

ENGINEERING

| Modification | **Degree:** BS **Major:** Electrical Engineering **Concentrations:** Electrical Engineering, Power and Energy Engineering **to** Electrical Engineering, Power and Energy Systems | **Approved** | See proposal for list of revisions.

Effective: Fall 2022

see emails attached |
|---|---|---|---|
| Modification | **Degree:** BS **Major:** Computer Engineering | **Approved** | See proposal for list of revisions.

Effective: Fall 2022 |

All of the proposals were approved with the exception of the following:

Proposals**

_____

_____

_____   August 18th 2022
Dr. Peter L. Ryan   Date
Executive Vice Provost for Academic Affairs

BS – Electrical Engineering

Emily, This sounds fine to me, since the last modification really just consisted of name changes.

Andy

Change Notice 9 Effective Fall 2022	**Change Notice 13** Effective Fall 2022	**Change Notice 17** Effective Spring 2023 – **FALL 2022**
Created the optional Power and Energy Engineering Concentration *Asked via email to use PES as the*	Added Distance	Changed the name of the optional Concentration to Power and Energy Systems
Curriculum changes: • Removed ECE 3213 • Added Technical Elective • Circuit series changed from 3-hour combined to two 2-hour *(Nothing is italicized or bolded in final signed version)*	Curriculum changes: • None	Curriculum changes: • Course name changes only, no course number changes
Catalog changes: • Updated GPA requirements	Catalog changes: • None	Catalog changes: • None

Emily E. Shaw
Associate Registrar
Office of the Registrar
277 Garner Hall

662-325-1840
emily.shaw@msstate.edu
https://www.registrar.msstate.edu/

From: Stricklin, Lisa <LStricklin@provost.msstate.edu>
Sent: Thursday, August 18, 2022 3:04 PM
To: Adkerson, Amy <AAdkerson@registrar.msstate.edu>; Turner, Jenny <JTurner@registrar.msstate.edu>; Parker, Tommy <tep@its.msstate.edu>; Sloan, Crystal <crystal.sloan@msstate.edu>; Sparks, Forest <FSparks@grad.msstate.edu>; Hargett, Michelle <michelle.hargett@msstate.edu>; Owen, Emily <emily.owen@registrar.msstate.edu>; Catt, Leigh Ann <leigh.ann.catt@msstate.edu>; Palmer, Lynn <LPalmer@registrar.msstate.edu>; Drake, Nathan <ndrake@grad.msstate.edu>; Shaw, Emily <emily.shaw@msstate.edu>; Ryan, Peter <Ryan@provost.msstate.edu>
Subject: UCCC Change Notice 17 - August 2022

Good afternoon,

Please see attached UCCC Change Notice 17 – August 2022.

Thank you,
Lisa

Lisa Stricklin
Academic Coordinator and National Student Exchange Coordinator
Office of the Provost and Executive Vice President
262 Lee Blvd. Room 3500
Campus Mailstop 9723
Mississippi State, MS 39762
(662) 325-7048

APPROVAL FORM FOR

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

NOTE: This form is a cover sheet that must accompany the degree program change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted to UCCC Mail Stop 9702 (281 Garner Hall), Phone: 325-9410.

College: University-wide Gen Ed   **Department:**

Contact Person: Dana Franz   **Mail Stop:** 9712   **E-mail:** df76@msstate.edu

Nature of Change: TECHNICAL   **Date Initiated:** 08/01/22   **Effective Date:** Fall 2022

CURRENT Degree Program Name:

Major: **Concentration:**

Summary of Proposed Changes:

We are approving the addition of the following new General Education courses to our degree:

(delete any bullets or information that do not apply to your degree program)

- **EN 1104 Expanded English Comp I as an option to fulfill the EN 1103 English Comp I requirement.**
    - **We also will remove EN 1163 since that course has now been deleted.**

- **MA 1103 College Algebra Coreq as an option to fulfill the MA 1313 College Algebra requirement.**
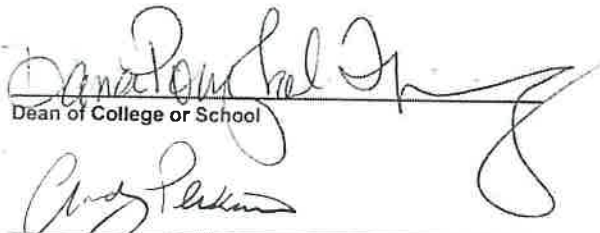
Example:

EN 1103 or *EN 1163*	EN 1103 or **EN 1104**
MA 1313	MA 1313 **or MA 1103**

Approved: **Date:**

_____   _____

Department Head

_____   _____

Chair, College or School Curriculum Committee

_____   _____8/1/22_____

Dean of College or School

_____   August 1, 2022

Chair, University Committee on Courses and Curricula

_____   _____

Chair, Graduate Council (if applicable)

_____   _____August 18th 2022_____

Chair, Deans Council

MISSISSIPPI STATE UNIVERSITY™
——— JAMES WORTH ———
BAGLEY
COLLEGE OF ENGINEERING

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

Andy D. Perkins, Ph.D.
Professor and Associate Department Head
perkins@cse.msstate.edu

FROM: Andy Perkins, UCCC Chair

DATE: August 2, 2022

RE: Change to General Education Courses

The University Committee on Courses and Curricula, the Office of Institutional Research and Effectiveness, and the Office of the Registrar met on August 1, 2022 concerning how changes to allowable general education courses affecting a large number of programs at the university should be handled. It was decided that the Director of Academic Quality would submit a technical change, which would allow these general education courses to be updated for programs university wide. This is the procedure that will be followed for such changes going forward.

Attached is a technical change proposal to add the EN 1104 Expanded English Comp I, remove the deleted course EN 1163, and add the MA 1103 College Algebra Coreq option.

APPROVAL FORM FOR

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

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College: Arts and Sciences   **Department:** African American Studies

Contact Person: Donald Shaffer   **Mail Stop:** 9567   **E-mail:** ds649@msstate.edu

Nature of Change: Degree Modification (AAS Minor)   **Date Initiated:** Spring 2021

Effective Date: Spring 2022

Current Degree Program Name: African American Studies Minor

Major: **Concentration:**

New Degree Program Name:
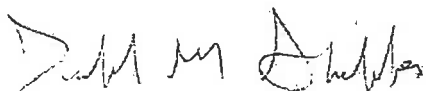
Major: **Concentration:**

Summary of Proposed Changes: The proposal changes the requirements for the minor in African American Studies: The previous requirements stipulated that students must take a total of 18 credit hours consisting of AAS 1063, at least 3 credit hours in the category of Literature and Fine Arts, at least 3 credit hours in the category of Social Science, at least 6 credit hours in the category of Humanities, and a 3-credit hour elective that can be fulfilled by any courses at the 3000 or 4000 level. The proposed change to the minor would instead require students to complete at least **6 credit hours in the category of Humanities and Fine Arts and at least 6 credit hours in the category of Social Sciences**. Students electing to complete the AAS minor would still take a total of 18 credit hours of designated courses in the curriculum, including AAS 1063 (Introduction to African American Studies) and a 3 credit hour elective that can be fulfilled by any course in the AAS curriculum at the 3000 or 4000 level.

Approved: **Date:**

[signature]

_____   **March 19, 2021**
Department Head

Heather R. Jordan Digitally signed by Heather R.
                   Jordan
                   Date: 2021.04.09 12:32:14 -05'00'
Chair, College or School Curriculum Committee

Thomas Anderson [signature]
Dean of College or School

[signature]

August 4, 2022

Chair, University Committee on Courses and Curricula

_____   _____
Chair, Graduate Council(if applicable)

[signature] Peter L. Ryan   August 18th, 2022
Chair, Deans Council

AAS Degree Modification Proposal and Justification

1. CURRENT CATOLOGUE DESCRIPTION	PROPOSED CATALOGUE DESCRIPTION
Catalogue Description The African American Studies Program, which brings together an interdisciplinary community of scholars, offers courses leading to a minor in African American Studies. Our faculty is committed to exploring creative approaches to teaching and scholarship that offer fresh insights into the interpretation of the black experience. While the majority of our courses examine the experiences of African Americans, the minor concentration enables students to study Africans in the homeland and the Diaspora. These courses include history, literature, politics, race relations, and the arts. The interdisciplinary Minor in African-American Studies consists of 18 credit hours offered through several departments within the College of Arts & Sciences. The courses included in the minor focus on aspects of the African-American experience. To earn the minor a student must take a total of 18 credit hours consisting of AAS 1063, *at least 3 credit hours in the category of Literature and Fine Arts, at least 3 credit hours in the category of Social Science, at least 6 credit hours in the category of Humanities, and a 3-credit hour elective that can be fulfilled by any courses at the 3000 or 4000 level.*	Catalogue Description The African American Studies Program, which brings together an interdisciplinary community of scholars, offers courses leading to a minor in African American Studies. Our faculty is committed to exploring creative approaches to teaching and scholarship that offer fresh insights into the interpretation of the black experience. While the majority of our courses examine the experiences of African Americans, the minor concentration enables students to study Africans in the homeland and the Diaspora. These courses include history, literature, politics, race relations, and the arts. The interdisciplinary Minor in African-American Studies consists of 18 credit hours offered through several departments within the College of Arts & Sciences. The courses included in the minor focus on aspects of the African-American experience. To earn the minor a student must take a total of 18 credit hours consisting of AAS 1063, **at least 6 credit hours in the category of Humanities and Fine Arts, at least 6 credit hours in the category of Social Science, and a 3 credit hour elective that can be fulfilled by any course in the AAS curriculum at the 3000 or 4000 level. No more than fifty percent of the AAS minor can be completed by courses from any academic department.**
CURRENT CURRICULUM OUTLINE	**PROPOSED CURRICLUM OUTLINE**
Curriculum Outline Students who want to minor in African American Studies must complete 18 semester hours as outlined below. Required Course	Curriculum Outline Students who want to minor in African American Studies must complete 18 semester hours as outlined below. Required Course AAS 1063 Introduction to African (3 Hours) American Studies

AAS 1063 Introduction to African (3 Hours)
American Studies

Humanities Requirements (6 Hours)
AAS/HI 3013 African American History to 1865
AAS/HI 3023 African American History since 1865
AAS/HI 4363 African American History & Culture
AAS/HI 4373 History of Modern Civil Rights Movement
AAS/HI 4783 African Civilization to 1880
AAS/HI 4793 Modern Africa
AAS 4093 The African Diaspora
AAS 4383 African American Leadership in the
20th-Century

Literature and Fine Arts Requirements (3 Hours)

AAS/EN 4343 African American Literature
AAS/MU 1103 African American Music

Social Science Requirements (3 Hours)
AAS/PS 4273 African American Politics
AAS/PS 4543 African Politics
AAS/SO/AN 2203 Cultural and Racial Minorities
AAS/PS 3043 Modern Civil Rights Law
AAS/SO/CO 4643 Race and the Media
AAS/HI 4983 African Americans and the Law

Elective   3

Total Credit Hours: 18

Humanities and Fine Arts Requirements (6 Hours)
AAS/HI 3013 African American History to 1865
AAS/HI 3023 African American History since 1865
AAS/HI 3713 History of African American Women
AAS/HI 4363 African American History & Culture
AAS/HI 4373 History of Modern Civil Rights Movement
AAS/HI 4783 African Civilization to 1880
AAS/HI 4793 Modern Africa
AAS 4093 The African Diaspora
AAS 4383 African American Leadership in the
20th-Century
AAS/HI 4983 African Americans and the Law
PHI 3183 African American Philosophy
AAS/EN 2363 Introduction to African
American Literature   3
AAS/EN 4343 Studies in African American Literature
AAS/EN 4393 Postcolonial Literature and Theory
AAS/MU 1103 African American Music
AAS/ART/AN 3153 African Art & Culture
AAS 2990 Special Topics in AfAm Studies
AAS 4990 Special Topics in AfAm Studies
*Other courses approved by program director

Social Sciences Requirements (6 Hours)
AAS/PS 3043 Modern Civil Rights Law
AAS/PS 4253 Southern Politics
PS 4643 Ethnic Conflict
AAS/PS 4273 African American Politics
AAS/PS 4543 African Politics
AAS/SO/AN 2203 Introduction to Race and Ethnicity
AAS/SO 3353 Race, Crime and Justice
AAS/SO/CO 4643 Race and the Media
AAS/AN 3193 African Cultures
AAS 2990 Special Topics in AfAm Studies
AAS 4990 Special Topics in AfAm Studies
*Other courses approved by program director

Elective   3

Total Credit Hours: 18

2. JUSTIFICATION AND STUDENT LEARNING OUTCOMES

The degree program modification was undertaken to give students minoring in African American Studies more flexibility in choosing courses. The proposal to combine the categories of "Literature and Fine Arts" with "Humanities" for a total of six required credit hours will provide students with a wider array of courses from which to select. In addition, placing literature in the category of "Humanities and Fine Arts" reflects the historical placement of that discipline in the Humanities. This change also makes it easier for students to complete the minor. Because AAS is an interdisciplinary program with just a few core faculty members, we rely on affiliated faculty from other departments to deliver most of the courses in our curriculum. This change will ensure that the courses our students need to complete the minor will be offered on a regular basis. Another added benefit of the change is that in requiring students to take 6 credit hours in the Social Sciences rather than the previous requirement of 3 credit hours, the program can better attest to its claim to be interdisciplinary. No more than fifty percent of courses from any particular department can count toward completion of the AAS minor.

The proposed changes to our minor curriculum reflect comparable minor programs in African American Studies. Most programs require students to complete courses in the Humanities and Social Sciences. An "introduction to African American Studies" course that provides an historical overview of the field is also usually a requirement. While AAS 1063 (Introduction to African American Studies) is the only course that our students must take, other programs have two or three courses that must be taken as part of their curriculum requirements. [See figure A.]

A. Catalogue Description of Requirements for African American Studies Minor Programs at Two Peer Institutions

1. **University of Mississippi**: The minor in African American studies consists of 18 semester hours, including AAS 201 and 202, 6 credit hours from a list of African and African American history courses, and 6 credit hours from a list of African and African American political and social institutions courses and culture courses.

2. **University of Kentucky:** The requirements for the minor in AAS include the following: AAS 200 – Introduction to African-American Studies [3 hours]; AAS 400 – Special Topics in African-American Studies [3 hours]; and AAS 401 – Independent Reading and Research in African-American Studies [3 hours]

   Students must complete at least six hours of course work in humanities (as approved by the African American Studies Committee). For a complete list of approved courses please refer to the UKY Bulletin [6 hours]

Students must complete at least six hours in the social sciences (as approved by the African American Studies Committee). For a complete list of approved courses please refer to the UKY Bulletin [6 hours]. Total Hours – 21.

The proposed changes to the minor will reflect some of the academic trends across Universities that have emphasized interdisciplinary education. Increasingly, Universities are developing multidisciplinary programs that engage a range of critical expertise and subject matter. These changes will appeal to students in both social science and humanities related fields who similarly want to engage in interdisciplinary learning and research.

These changes are consistent with student responses to questions about why they enrolled in African American Studies courses. A study conducted by Donald Shaffer and Fabio Rojas found that a strong reason for enrolling in African American studies courses was "the importance of Black history and culture" (Rojas and Shaffer 2008). The same study also found that students were very interested in diverse subject matter and interdisciplinary studies. These changes to the minor program will ensure that students have an opportunity to take courses in wide ranging disciplines such as Art and Anthropology, but can do so in such a way that establishes critical linkages between courses and disciplines.

The common feature of courses such as African American Religious Experience (AAS 3143) and Southern Politics (AAS 4253) is that they are both invested in a mode of critical inquiry that examines African American lived experience from multiple disciplinary perspectives. Dr. Anthony Neal, who teaches the former, will undoubtedly describe the political function of black Churches during the Civil Rights movement, and their deep investment in a Jeremiad tradition of liberation theology that emphasizes social justice. Dr. Steve Shaffer, who teaches AAS/PS 4253 Southern Politics, can offer insight into the grassroots political movements that were a function of the Civil Rights struggle of the 1960s and the social organizations including black Churches that provided the institutional structure for such political action. Students taking both of these of courses will be able to engage the important history of black Civil Rights from an interdisciplinary perspective—one that brings into focus several objects of study.

3. SUPPORT

See enclosed letters of support for the degree/program modification proposal.

4. PROPOSED FOUR LETTER ABREVIATION

NA

5. EFFECTIVE DATE

Fall Semester 2021

March 20, 2019

Dr. Dana P. Franz
Chair UCCC
Mississippi State
MS 39762

Dear Dr. Franz:

Let this letter show that the Affiliated Faculty and the Curriculum Committee of the African American Studies program support the current proposal to revise the requirements for the minor in African American Studies. The proposal will combine the existing requirements of "Literature and Fine Arts," for which students currently must complete three credit hours, and "Humanities," for which students currently must complete six credit hours. The proposed requirements would create the new category of "Humanities and Fine Arts," for which students would need to complete six credit hours. In addition, the requirements for the category of "Social Sciences" would be changed as well, so students would need to complete six credit hours instead of the previous requirement of three credit hours.

These changes were undertaken so that the AAS minor would reflect the interdisciplinary approach to learning that has come to define the field of African American Studies. The dual emphasis on the humanities and the social sciences in the minor will give students an opportunity to learn and apply critical methodologies in both areas of study. These changes will also ensure that students have more flexibility in choosing courses, as well as ensure that the courses they need to complete the minor are available.

I am happy to provide any additional information regarding this proposal or any other questions you may have.

Sincerely,

Dr. Donald M. Shaffer
Interim Director of African
American Studies, Chair of
AAS Curriculum Committee

Dr. Andrea Spain
AAS Curriculum Committee

Dr. Anthony Neal
AAS Curriculum Committee

MISSISSIPPI STATE
UNIVERSITY™

Department of Philosophy and Religion

Dr. Dana P. Franz   March 26, 2019
Chair UCCC
Mississippi State
MS 39762

Dear Dr. Franz,

We are writing in support of cross-listing the courses below with African American Studies. The courses have already been approved by the University Committee on Courses and Curricula. They are of interest not only to our majors, but also to students from across the academic disciplines. The courses are:

1. African American Religious Experience (REL 3143/AAS 3143).

2. African American Philosophy (PHI 3183/AAS 3183). The two African American courses are a response to student demand for more courses in this subject field. The provision of these two courses will greatly enhance the course offerings in African American Studies and Religion, as well as bringing us in line with our peer institutions.

We highly recommend the addition of these courses cross-listed under the AAS designation to Mississippi State's University curriculum.

Yours sincerely,

Albert Bisson, Th.M.   Robert Thompson, Ph.D.   Lynn Holt, Ph.D. Curriculum
Curriculum Committee Chair   Curriculum Committee   Committee

iii'

MISSISSIPPI STATE
UNIVERSITY

**DEPARTMENT OF POLITICAL SCIENCE
AND PUBLIC ADMINISTRATION**

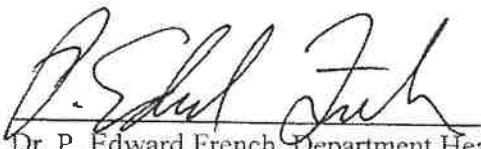**To:** University Committee on Courses and Curricula

From: P. Edward French, Department Head of Political Science & Public Administration
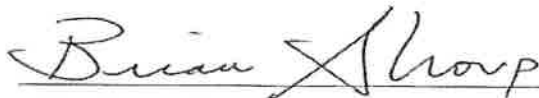
Date: October 8, 2018

I have reviewed the proposal to give students minoring in African American Studies more flexibility in choosing courses. Two of these involve current Political Science courses PS 4643 (Ethnic Conflict), and PS 4253 (Southern Politics). The proposed changes will hopefully increase the number of students in these classes and help the African-American Studies program.

We support this proposal and appreciate your consideration of it. If you have any questions or need any additional information, please contact Dr. P. Edward French efrench@pspa.msstate.edu.

Thank you for your attention and time in considering this request.

Dr. P. Edward French, Department Head

To: University Committee on Courses and Curricula
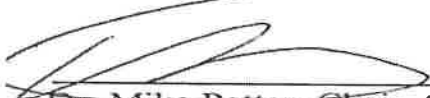
From: Department Curricula Committee, Political Science & Public Administration

Date: April 4, 2019

I have reviewed the proposed to give student minoring in African-American Studies more flexibility in choosing courses. Two of these involve current Political Science courses PS 4643 (Ethnic Conflict), and PS 4523 (Southern Politics). The proposed changes will hopefully increa the number of students in these classes and help the African-American Studies program.

We support this proposal and appreciate your consideration of it. If you have any questions or need any additional information, please contact Dr. Mike Potter mp2146@msstate.edu.

Thank you for your attention and time in considering this request.

_____
Dr. Mike Potter, Chair, Courses & Curricula Committee
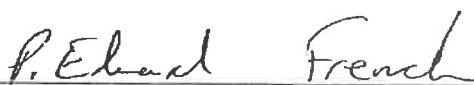
_____
Dr. Brian Shoup

_____
Dr. Leslie Baker

_____
Dr. James Chamberlain

_____
Dr. Eddie French

APPROVAL FORM FOR

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

NOTE: This form is a cover sheet that must accompany the degree program change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted to UCCC Mail Stop 9702 (281 Garner Hall), Phone: 325-9410.

College: EDUCATION   **Department:** MUSIC
Contact Person: RICHARD HUMAN **Mail Stop:** 9734 **E-mail:** Richard.human@gmail.com

Nature of Change: Degree Modification **Date Initiated:** 3/24/2022 **Effective Date:** Fall 2022

Current Degree Program Name: Bachelor of Music Education
 Major: Music Education   **Concentrations:** Guitar, Instrumental, Keyboard, Vocal

Current Degree Program Name: Bachelor of Music Education
 Major: Music Education   **Concentrations:** Guitar, Instrumental, Keyboard, Vocal

Summary of Proposed Changes: Reduction of degree credit hours from 130 to 127. After a thorough review of EDF Social Foundations of Education and MUE 2153 Foundations of Music Education, the Department of Music faculty have determined that MUE 2153 more then sufficiently addresses the historical, philosophical, legal and educational psychology concepts of EDF 333 Social Foundations of Education.

Approved: **Date:**

_____ _____
Department Head

_____ _____
Chair, College or School Curriculum Committee

_____ _____
Dean of College or School

_____ August 4, 2022
Chair, University Committee on Courses and Curricula

_____ _____
Chair, Graduate Council(if applicable)

_____ August 18th 2022
Chair, Deans Council

APPROVAL FORM FOR

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

NOTE: This form is a cover sheet that must accompany the degree program change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted to UCCC Mail Stop 9702 (281 Garner Hall), Phone: 325-9410.

College: EDUCATION   **Department:** MUSIC
 Contact Person: RICHARD HUMAN   **Mail Stop:** 9734 **E-mail:** richard.human@gmail.com

Nature of Change: Degree Modification **Date Initiated:** 3/24/2022 **Effective Date:** Fall 2022

Current Degree Program Name: Bachelor of Music Education
Major: Music Education   **Concentration:** Guitar, Instrumental, Keyboard, Vocal

New Degree Program Name: Bachelor of Music Education
Major: Music Education   **Concentration:** Guitar, Instrumental, Keyboard, Vocal

Summary of Proposed Changes: After a thorough review of the EDF 3333 Social Foundations of Education and MUE 2153 Foundations of Music Education, the Department of Music faculty have found that MUE 2153 Foundations of Music Education more than sufficiently addresses the historical, philosophical, legal and educational psychology concepts of EDF 3333 Social Foundations of Education.

Approved: **Date:**

Barry E. Kopetz   _March 24, 2022_
Department Head

Richard Human   _March 24, 2022_
Chair, College or School Curriculum Committee

Kimberly R. Hall   04.11.2022
Dean of College or School

_____   _____
Chair, University Committee on Courses and Curricula

_____   _____
Chair, Graduate Council(if applicable)

_____   _____
Chair, Deans Council

1. Catalog Description
The catalog description for the Bachelor of Music Education will not be changed from its current version.

2. Curriculum Outline
The curriculum outline follows

3. Justification and Student learning Outcomes
At 130 credit hours, the Bachelor of Music degree is one of the most significant in terms of total required credit hours in the College of Education and the University as a whole. To address this issue, the Department has consistently explored options to reduce the credit hours of the degree without lowering the standards of our program and remaining within the standards published by the National Association of Schools of Music.

After a thorough review of the EDF 3333 Social Foundations of Education and MUE 2153 Foundations of Music Education, the Department of Music faculty have found that MUE 2153 Foundations of Music Education more than sufficiently addresses the historical, philosophical, legal and educational psychology concepts of EDF 3333 Social Foundations of Education.

4. Learning Outcomes
The learning outcomes for the Bachelor of Music Education degree program are the standards set forth by the National Association of Schools of Music as described in the NASM Handbook (2013-2014, page 117):

- Demonstrate a personal commitment to the art of music, to teaching music as an element of civilization, and to encouraging the artistic and intellectual development of students, plus the ability to fulfill these commitments as an independent professional.

- Demonstrate the ability to lead students to an understanding of music as an art form, as a means of communication, and as part of their intellectual and cultural heritage.

- Demonstrate the capability to inspire others and to excite the imagination of students, engendering a respect for music and a desire for musical knowledge and experiences.

- Demonstrate the ability to articulate logical rationales for music as a basic component of general education, and to present the goals and objectives of a music program effectively to parents, professional colleagues and administrators.

- Demonstrate the ability to work productively within specific education systems, promote scheduling patterns that optimize music instruction, maintain positive relationships with individuals of various social and ethnic groups, and be empathetic with students and colleagues of different backgrounds.

- Demonstrate the ability to evaluate ideas, methods and policies in the arts, the humanities and in arts education for their impact on the musical and cultural development of students.

- Demonstrate the ability and desire to remain current with developments in the art of music and in teaching, to make independent, in-depth evaluations of their relevance, and to use the results to improve musicianship and teaching skills.

UCCC Questions

a. **Will this program change meet local, state, regional, and national educational and cultural needs? If so, please describe.**

The requested modification will have no effect on our graduates' ability to plan, manage, and assess a pedagogically sound and diverse curriculum in the classroom.

b. **Will this program change result in duplication in the system?**

This proposed degree modification does not reduce or increase duplication in the Mississippi higher education system.

c. **Will this program change/advance student diversity within the discipline? If so, please describe.**

This degree modification will not directly influence in the discipline of music education. However, a point may made that a more reasonable amount of required credit hours required for the BME degree may have a positive

effect on students choosing to attend MSU for this degree (recruiting), and a positive effect on those completing this degree at MSU (retention).

d. Will this program change result in an increase in the potential placement of graduates in MS, the Southeast and the U.S.?

Only in so much as fewer credit hours may result in an increased number of students able to complete the degree program given a more reasonable number of credit hours required.

e. Will this program change result in the potential salaries of graduates in MS, the Southeast and the U.S.?

No.

5. Proposed 4-Letter Abbreviations.
The existing degree and concentration abbreviations are not modified in this proposal.

6. Effective Date.
Fall 2022.

CURRENT Degree Description: BME

Department Head: *Barry E. Kopetz*
Department Office:
Music Building A
Telephone: (662) 325-3070
Fax: (662) 325-0250
http://music.msstate.edu/

Mailing Address:
Department of Music
PO Box 6240
Mississippi State, MS 39762

University Bands
Ms. Elva Kaye Lance, Director of Bands
Telephone: (662) 325-2713
http://msuband.msstate.edu

University Choirs
Dr. Gary Packwood, Director of Choral Activities
Telephone: (662) 325-7801
http://www.statesings.com/

University Philharmonia Orchestra
Dr. Barry E. Kopetz, Coordinator
Telephone: (662) 325-3070

Mission
The mission of the Department of Music at Mississippi State University is to contribute to the development of broadly acculturated citizens in our state and region through enhanced musical understanding and enriching musical experiences, providing access and opportunity to our diverse population through programs of teaching, research, and service.

Bachelor of Music Education
The Bachelor of Music Education is a *130*-hour professional degree program that leads to licensure to teach music in the State of Mississippi. The Department of Music offers four concentrations of the BME: Guitar, Instrumental, Keyboard and Vocal.

PROPOSED Degree Description: BME

Department Head: **Dr. Daniel B. Stevens**
Department Office:
Music Building A
Telephone: (662) 325-3070
Fax: (662) 325-0250
http://music.msstate.edu/

Mailing Address:
Department of Music
PO Box 6240
Mississippi State, MS 39762

University Bands
Ms. Elva Kaye Lance, Director of Bands
Telephone: (662) 325-2713
http://msuband.msstate.edu

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University Philharmonia Orchestra
Dr. Courtney Grant, Coordinator
Telephone: (662) 325-3070

Mission
The mission of the Department of Music at Mississippi State University is to contribute to the development of broadly acculturated citizens in our state and region through enhanced musical understanding and enriching musical experiences, providing access and opportunity to our diverse population through programs of teaching, research, and service.

Bachelor of Music Education
The Bachelor of Music Education is a **127**-hour professional degree program that leads to licensure to teach music in the State of Mississippi. The Department of Music offers four concentrations of the BME: Guitar, Instrumental, Keyboard and Vocal.

CURRENT Degree Description: BME

The Instrumental concentration qualifies the student for a Music Instrumental (K-12) teaching license. The Vocal, Keyboard, and Guitar concentrations qualifies the student for a Music Choral (K-12) teaching license.

The Vocal concentration qualifies the student for a K-12 Choral Music teaching license, allowing graduates to teach General, Instrumental, and Choral music in all grades in the state of Mississippi.

For suggested course sequence for all concentrations, visit the Department of Music website: http://www.music.msstate.edu/academics/bme/.

Students are required to earn a "C" or better in all required (non-elective) Applied Music (MUA), Music (MU), and Music Education (MUE) courses.

Auditions
All potential music majors and minors are required to audition for appropriate faculty in order to determine their preparedness to enter the program, participate in ensembles, and determine eligibility for a scholarship or service award.

Although alternate dates are available, the preferred audition date for music majors and minors in all areas is the third Saturday in February. Other audition dates are available by contacting the applied faculty of your area of concentration, the department office (662) 325-3070, or the major ensemble offices. (Choir (662) 325-3490; Band (662) 325-2713; Orchestra (662) 325-3070).

Transfer Information
After successful admission to the University, and in addition to the music major audition, transfer students are required to complete a music theory and aural skills entrance exam to determine preparedness for upper division study. For more information see the Department of Music website at http://www.music.msstate.edu/students/transfers/ or call 662-325-3070.

PROPOSED Degree Description: BME

The Instrumental concentration qualifies the student for a Music Instrumental (K-12) teaching license. The Vocal, Keyboard, and Guitar concentrations qualifies the student for a Music Choral (K-12) teaching license.

The Vocal concentration qualifies the student for a K-12 Choral Music teaching license, allowing graduates to teach General, Instrumental, and Choral music in all grades in the state of Mississippi.

For suggested course sequence for all concentrations, visit the Department of Music website: http://www.music.msstate.edu/academics/bme/.

Students are required to earn a "C" or better in all required (non-elective) Applied Music (MUA), Music (MU), and Music Education (MUE) courses.

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Transfer Information
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CURRENT Degree Description: BME

Music Minor

Mississippi State University offers MSU students the opportunity to complete a minor in music. The Music Minor is a comprehensive set of courses designed to increase student musicianship and knowledge.

Students must audition and be accepted as a music minor before the minor may be declared. Acceptance in any given studio area is on a space available basis. The requirements for the music minor cannot be completed after graduating from MSU.

For information and required courses, visit the Department of Music website: http://www.music.msstate.edu/academics/minorinmusic/

CURRENT CURRICULUM OUTLINE for all concentrations

General Core

Course	Hours
EN 1103 English Composition I Or EN 1104 Expanded English Composition I	3
EN 1113 English Composition II Or or EN 1173 Accelerated Composition II	3
Fine Arts: MU 3013 Survey of Western Music History I	3
Mathematics MA 1313 College Algebra	3
Math Elective at a level above MA 1313	3
Math Elective at a level above MA 1313 or Science Elective	3
Natural Science (2 lab-based sciences)	6

PROPOSED Degree Description: BME

Music Minor

Mississippi State University offers MSU students the opportunity to complete a minor in music. The Music Minor is a comprehensive set of courses designed to increase student musicianship and knowledge.

Students must audition and be accepted as a music minor before the minor may be declared. Acceptance in any given studio area is on a space available basis. The requirements for the music minor cannot be completed after graduating from MSU.

For information and required courses, visit the Department of Music website: http://www.music.msstate.edu/academics/minorinmusic/

PROPOSED CURRICULUM OUTLINE for all concentrations

General Core

Course	Hours
EN 1103 English Composition I Or EN 1104 Expanded English Composition I	3
EN 1113 English Composition II Or or EN 1173 Accelerated Composition II	3
Fine Arts: MU 3013 Survey of Western Music History I	3
Mathematics MA 1313 College Algebra	3
Math Elective at a level above MA 1313	3
Math Elective at a level above MA 1313 or Science Elective	3
Natural Science 2 lab-based sciences)	6

CURRENT Degree Description: BME

Humanities	
Literature Elective	3
History Elective	3
Social/Behavioral Science	
PSY 1013 General Psychology	3
Social/Behavioral Science Elective	3
TOTAL GENERAL CORE	36

COLLEGE CORE

EDF 3333 Social Foundations of Education	3
MUE 1151 Technology for Music Education	1
MUE 2153 Foundations in Music Education	3
MUE 2163 Elementary Music Methods	3
EPY 3143 Human Development and Learning Strategies in Education	3
EDX 3213 Individualizing Instruction for Exceptional Children	3
MUE 4152 Secondary Music Methods	2
MUE 4873 Professional Seminar in Music Education	3
MUE 4886 Teaching Internship in Music Education	6
MUE 4896 Teaching Internship in Music Education	6
TOTAL COLLEGE CORE	33

MAJOR CORE

PROPOSED Degree Description: BME

Humanities	
Literature Elective	3
History Elective	3
Social/Behavioral Science	
PSY 1013 General Psychology	3
Social/Behavioral Science Elective	3
TOTAL GENERAL CORE	36

COLLEGE CORE

MUE 1151 Technology for Music Education	1
MUE 2153 Foundations in Music Education	3
MUE 2163 Elementary Music Methods	3
EPY 3143 Human Development and Learning Strategies in Education	3
EDX 3213 Individualizing Instruction for Exceptional Children	3
MUE 4152 Secondary Music Methods	2
MUE 4873 Professional Seminar in Music Education	3
MUE 4886 Teaching Internship in Music Education	6
MUE 4896 Teaching Internship in Music Education	6
TOTAL COLLEGE CORE	30

MAJOR CORE

CURRENT Degree Description: BME		PROPOSED Degree Description: BME	
Public Speaking: Satisfied through music history courses, upper division proficiency exam, music education courses and student teaching.		Public Speaking: Satisfied through music history courses, upper division proficiency exam, music education courses and student teaching.	
Upper Level Writing Requirement: Satisfied through music theory, music history, music education courses and the upper division proficiency exam.		Upper Level Writing Requirement: Satisfied through music theory, music history, music education courses and the upper division proficiency exam.	
Computer Literacy Requirement: Satisfied through MUE 1115 Technology for Music Education and the Music Theory sequence.		Computer Literacy Requirement: Satisfied through MUE 1115 Technology for Music Education and the Music Theory sequence.	
MU 1213 Music Theory I	3	MU 1213 Music Theory I	3
MU 1321 Ear Training I	1	MU 1321 Ear Training I	1
MU 1413 Music Theory II	3	MU 1413 Music Theory II	3
MU 1521 Ear Training II	1	MU 1521 Ear Training II	1
MU 2613 Music Theory III	3	MU 2613 Music Theory III	3
MU 2721 Ear Training III	1	MU 2721 Ear Training III	1
MU 2813 Music Theory IV	3	MU 2813 Music Theory IV	3
MU 2921 Ear Training IV	1	MU 2921 Ear Training IV	1
MU 2012 World Music	2	MU 2012 World Music	2
MU 3023 Survey of Western Music History II	3	MU 3023 Survey of Western Music History II	3
MU 3412 Conducting	2	MU 3412 Conducting	2
MU 3442 Advanced Conducting	2	MU 3442 Advanced Conducting	2
MU 4313 Form and Analysis	3	MU 4313 Form and Analysis	3

CURRENT Degree Description: BME		PROPOSED Degree Description: BME	
Major Ensemble (7 semesters of study)	7	Major Ensemble (7 semesters of study)	7
MU 1010 Recital Hour (7 semesters of C or better)	0	MU 1010 Recital Hour (7 semesters of C or better)	0
Piano Proficiency Exam	0	Piano Proficiency Exam	0
Music Theory & Aural Skills Proficiency Exam	0	Music Theory & Aural Skills Proficiency Exam	0
Upper Division Performance Exam	0	Upper Division Performance Exam	0
Degree Recital	0	Degree Recital	0
TOTAL MAJOR CORE	35	TOTAL MAJOR CORE	35

GUITAR CONCENTRATION: Current

Piano: Piano Class or Functional Skills (4 hours required). Either	
MU 2111 Piano Class	1
MU 2121 Piano Class	1
MU 3111 Piano Class	1
MU 3121 Piano Class	1
Or:	
MU 3112 Functional Skills of Piano I	2
MU 3122 Functional Skills of Piano II	2
MUE 1141 Voice methods	1
MUE 3231 String Methods	1
MUE 3262 Instrumental Methods	2
Applied Voice (2 semesters of study)	2
Applied Guitar (6 semesters of study)	12
MUE 3233 Guitar Pedagogy	3
Directed Electives	1
TOTAL GUITAR CONCENTRATION	26

GUITAR CONCENTRATION: Proposed

Piano: Piano Class or Functional Skills (4 hours required). Either	
MU 2111 Piano Class	1
MU 2121 Piano Class	1
MU 3111 Piano Class	1
MU 3121 Piano Class	1
Or:	
MU 3112 Functional Skills of Piano I	2
MU 3122 Functional Skills of Piano II	2
MUE 1141 Voice methods	1
MUE 3231 String Methods	1
MUE 3262 Instrumental Methods	2
Applied Voice (2 semesters of study)	2
Applied Guitar (6 semesters of study)	12
MUE 3233 Guitar Pedagogy	3
Directed Electives	1
TOTAL GUITAR CONCENTRATION	26

INSTRUMENTAL CONCENTRATION: Current

Piano: Piano Class or Functional Skills (4 hours required). Either	
MU 2111 Piano Class	1
MU 2121 Piano Class	1

INSTRUMENTAL CONCENTRATION: Proposed

Piano: Piano Class or Functional Skills (4 hours required). Either	
MU 2111 Piano Class	1
MU 2121 Piano Class	1

Course	Credits
MU 3111 Piano Class	1
MU 3121 Piano Class	1
Or:	
MU 3112 Functional Skills of Piano I	2
MU 3122 Functional Skills of Piano II	2
MUE 1141 Voice Methods	1
MUE 3212 Brass Methods	2
MUE 3222 Woodwind Methods	2
MUE 3231 String Methods	1
MUE 3242 Percussion Methods	2
MU 4322 Band Arranging	2
Applied Lessons (6 semesters of study)	12
TOTAL INSTRUMENTAL CONCENTRATION	26

KEYBOARD CONCENTRATION: Current

Course	Credits
MU 3112 Functional Skills of Piano I	2
MI 3122 Functional Skills of Piano II	2
MUE 3262 Instrumental Methods	2
MUE 3333 Introduction to Piano Pedagogy	3
MUE 1141 Voice Methods	1

Applied Voice (2 semesters of study)	2
Applied Piano (6 semesters of study)	12
Directed Electives	2
TOTAL KEYBOARD CONCENTRATION	26

VOCAL CONCENTRATION: Current		VOCAL CONCENTRATION: Proposed	
Piano: Piano Class or Functional Skills (4 hours required). Either		Piano: Piano Class or Functional Skills (4 hours required). Either	
MU 2111 Piano Class	1	MU 2111 Piano Class	1
MU 2121 Piano Class	1	MU 2121 Piano Class	1
MU 3111 Piano Class	1	MU 3111 Piano Class	1
MU 3121 Piano Class	1	MU 3121 Piano Class	1
Or:		Or:	
MU 3112 Functional Skills of Piano I	2	MU 3112 Functional Skills of Piano I	2
MI 3122 Functional Skills of Piano II	2	MI 3122 Functional Skills of Piano II	2
Applied Piano (2 semesters of study)	2	Applied Piano (2 semesters of study)	2
MUE 3262 Instrumental Methods	2	MUE 3262 Instrumental Methods	2
Applied Voice (6 semesters of study)	12	Applied Voice (6 semesters of study)	12
MU 1141 Song Literature	1	MU 1141 Song Literature	1
MU 1151 Vocal Pedagogy	1	MU 1151 Vocal Pedagogy	1
MU 1241 Diction I	1	MU 1241 Diction I	1
MU 1251 Diction II	1	MU 1251 Diction II	1
Directed Electives	2	Directed Electives	2
TOTAL VOCAL CONCENTRATION	26	TOTAL VOCAL CONCENTRATION	26

MISSISSIPPI STATE
U N I V E R S I T Y.

March 21, 2022

To: College of Education Box Council
University Committee on Courses and Curricula

Fr: Department of Music Curriculum Committee

Re: Approval for BME Reduction from 130 to 127 Hours

The Department of Music is proposing that the course EDF 3333 Social Foundations of Education be removed from the Bachelor of Music Education degree, all concentrations.

Dr. Jennifer Campbell (Instructor of MUE 2153 Foundations of Music Education) met with the department curriculum committee and reported that after review, MUE 2153 Foundation of Music Education more than sufficiently addressed the historical, philosophical, legal and educational psychology concepts of EDF 3333.

This proposal has the unanimous support of the Department of Music faculty and Curriculum Committee.

Sincerely,

Department of Music Curriculum Committee

_____
Dr. Craig Aarhus

_____
Dr. Jackie Edwards-Henry

_____
Dr. Gary Packwood

_____
Dr. James Sobaskie

_____
Dr. Jeanette Fontaine

_____
Dr. Richard Human, chair

_____
Dr. Ryan Ross

_____
Dr. Sophie Wang

APPROVAL FORM FOR

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

NOTE: This form is a cover sheet that must accompany the degree program change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted to UCCC Mail Stop 9702 (281 Garner Hall), Phone: 325-9410.

College: Bagley College of Engineering **Department:** Electrical & Computer Engineering

Contact Person: Jean Mohammadi-Aragh **Mail Stop:** 9571 **E-mail:** jean@ece.msstate.edu

Nature of Change: change names of four courses and the optional concentration

Date Initiated: 4/12/2022 **Effective Date:** Spring 2023

Current Degree Program Name: Bachelor of Science in Electrical Engineering

Current Majors:
Major: Electrical Engineering   **Concentration:** N/A
Major: Electrical Engineering   **Concentrations:** Electrical Engineering, *Power and Energy*
                                                                                 Engineering

---

New Degree Program Name: Bachelor of Science in Electrical Engineering

Major: Electrical Engineering   **Concentration:** N/A
Major: Electrical Engineering   **Concentrations:** Electrical Engineering, **Power and**
                                                                                 Energy Systems

---

Summary of Proposed Changes:

1. Change names of four courses (ECE 1013, 1022, 4512, 4522)
2. Update the name of the optional concentration

Approved: **Date:**

_____
Department Head

_____

_____
Chair, College or School Curriculum Committee

_____

_____
Dean of College or School

_____

_____
Chair, University Committee on Courses and Curricula

August 4, 2022

_____
Chair, Graduate Council(if applicable)

_____

_____
Chair, Deans Council

August 8th 2022

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

NOTE: This form is a cover sheet that must accompany the degree program change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted to UCCC Mail Stop 9702 (281 Garner Hall), Phone: 325-9410.

College: Bagley College of Engineering   **Department:** Electrical & Computer Engineering

Contact Person: Jean Mohammadi-Aragh   **Mail Stop:** 9571 **E-mail:** jean@ece.msstate.edu

Nature of Change: change names of four courses and the optional concentration

Date Initiated: 4/12/2022 **Effective Date:** Fall 2022

Current Degree Program Name: Bachelor of Science in Electrical Engineering

Current Majors:
Major: Electrical Engineering   **Concentration:** N/A
Major: Electrical Engineering   **Concentration:** *Power and Energy Engineering*

New Degree Program Name: Bachelor of Science in Electrical Engineering

Major: Electrical Engineering   **Concentration:** N/A
Major: Electrical Engineering   **Concentration: Power and Energy Systems**

Summary of Proposed Changes:

1. Change names of four courses (ECE 1013, 1022, 4512, 4522)
2. Update the name of the optional concentration

Approved: **Date:**

Samee U. Khan Digitally signed by Samee U. Khan
Date: 2022.04.12 05:57:39 -05'00'

_____   _____
Department Head

T.J. Jankun-Kelly
2022.04.19
23:22:44 -05'00'
_____   _____
Chair, College or School Curriculum Committee

Kari Babski-Reeves for Jason
Keith   Digitally signed by Kari Babski-Reeves for Jason
                                     Keith
                                     Date: 2022.04.20 08:04:03 -05'00'
_____   _____
Dean of College or School

_____   _____
Chair, University Committee on Courses and Curricula

_____   _____
Chair, Graduate Council(if applicable)

_____   _____
Chair, Deans Council

PROPOSAL FOR THE MODIFICATION OF THE
B.S. IN ELECTRICAL ENGINEERING

1. CATALOG DESCRIPTION
See table below

2. CURRICULUM OUTLINE

The changes proposed are as follows:
1. Update the names for ECE 1013, 1022, 4512, and 4522
2. Update the name for the "Power and Energy Engineering" concentration to "Power and Energy Systems" to reflect industry standard language.

CURRENT Degree Description	PROPOSED Degree Description
Degree: Bachelor of Science in Electrical Engineering Major: Electrical Engineering Concentration: N/A	Degree: Bachelor of Science in Electrical Engineering Major: Electrical Engineering Concentration: N/A
Alumni, employers, faculty and students participate in a process used to develop educational objectives for the undergraduate programs in Electrical Engineering and Computer Engineering. Within a few years of graduation, program graduates completing the baccalaureate degree in Electrical or Computer Engineering will: • Be recognized by their peers as fundamentally sound in the application of mathematics, science, computing, and engineering. • Be engaged in the practice of Electrical or Computer Engineering as innovative problem solvers with a strong work ethic, by identifying and implementing solutions using the proper tools, practical approaches, and flexible thinking. • Be productive and demonstrate leadership in the practice of Electrical or Computer Engineering, both individually and within multidisciplinary teams, using effective oral and written communication skills when working with peers, supervisors, and the public. • Be responsible in the practice of Electrical or Computer Engineering, relying on sound engineering ethics, a commitment to lifelong learning and a genuine concern for society and the environment. The electrical engineer is a principal contributor to the modern technological age in which we live today. Following in the footsteps of inventors such as Thomas Edison and Alexander Graham Bell, the electrical engineer is developing technology that improves the quality of life. Developments in microelectronics,	Alumni, employers, faculty and students participate in a process used to develop educational objectives for the undergraduate programs in Electrical Engineering and Computer Engineering. Within a few years of graduation, program graduates completing the baccalaureate degree in Electrical or Computer Engineering will: • Be recognized by their peers as fundamentally sound in the application of mathematics, science, computing, and engineering. • Be engaged in the practice of Electrical or Computer Engineering as innovative problem solvers with a strong work ethic, by identifying and implementing solutions using the proper tools, practical approaches, and flexible thinking. • Be productive and demonstrate leadership in the practice of Electrical or Computer Engineering, both individually and within multidisciplinary teams, using effective oral and written communication skills when working with peers, supervisors, and the public. • Be responsible in the practice of Electrical or Computer Engineering, relying on sound engineering ethics, a commitment to lifelong learning and a genuine concern for society and the environment. The electrical engineer is a principal contributor to the modern technological age in which we live today. Following in the footsteps of inventors such as Thomas Edison and Alexander Graham Bell, the electrical engineer is developing technology that improves the quality of life. Developments in microelectronics,

telecommunications, and power systems have had a profound effect on each of us. Electrical engineers have affected all segments of our society such as transportation, medicine, and the entertainment industry, to name only a few. Indeed, the electrical engineer has principally been responsible for the advent of the computer age in which we live today as well as the computer's miniaturization and rapid expansion in computational power.

The curriculum in electrical engineering has a foundation based on the principles of the electrical and physical sciences and uses mathematics as a common language to facilitate the solution of engineering problems. The core curriculum consists of a sequence of courses in digital devices, circuits and electronics, electromagnetic field theory, and modern energy conversion. In the senior year, students have the opportunity to take additional course work in one or more technical areas that include: telecommunications, electromagnetics, power systems, high voltage, feedback control systems, microelectronics, signal processing, and computer systems. Supporting course work outside electrical engineering consists of a strong background in mathematics, physical sciences, computer programming, social sciences, fine arts, humanities, and personal communication skills. Computers are used extensively throughout the curriculum, and students are expected to become proficient in higher-order programming languages and several application software tools. Although the concept of design is stressed throughout the program so as to emphasize the problem-solving skills of the engineer, the senior year includes a capstone design experience where much of the previous study is culminated. Through this two-semester design course sequence, students are required to integrate design and analytical problem-solving skills together with communication skills in a team environment. Students expecting to graduate from Mississippi State University with a bachelor of science degree in electrical engineering, in addition to satisfactorily completing the EE curriculum requirements, must meet the following minimum GPA requirements for graduation:

- make an overall C average on all hours scheduled and rescheduled at all institutions attended, including MSU (2.00 or better cumulative GPA)
- make a C average on all hours scheduled and rescheduled at MSU (2.00 or better MSU GPA)
- earn at least a 2.00 cumulative grade point average on all courses scheduled and rescheduled (average on all attempts) at MSU that are applied toward meeting degree requirements
- earn at least a 2.5/4.0 average on all hours with ECE or CSE course prefixes at all institutions

attended, including MSU, that are applied toward meeting degree requirements The electrical engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.		attended, including MSU, that are applied toward meeting degree requirements The electrical engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.	
"[Click here and type old concentration description]"		"[Click here and type old concentration description]"	

CURRENT CURRICULUM OUTLINE	Required Hours	PROPOSED CURRICULUM OUTLINE	Required Hours
EN 1103 English Comp I or EN 1104 Expanded English Comp I EN 1113 English Comp II or EN 1173 Accelerated Comp II	6	EN 1103 English Comp I or EN 1104 Expanded English Comp I EN 1113 English Comp II or EN 1173 Accelerated Comp II	6
Fine Arts: see General Education courses	3	Fine Arts: see General Education courses	3
Natural Sciences see Major Core		Natural Sciences see Major Core	
Math see Major Core		Math see Major Core	
Humanities see General Education courses	6	Humanities see General Education courses	6
Social/Behavioral Sciences see General Education courses	6	Social/Behavioral Sciences see General Education courses	6
Major Core Courses Math and Basic Science (31h) MA 1713 Calculus I		Major Core Courses Math and Basic Science (31h) MA 1713 Calculus I	
MA 1713 Calculus I	3	MA 1713 Calculus I	3
MA 1723 Calculus II	3	MA 1723 Calculus II	3
MA 2733 Calculus III	3	MA 2733 Calculus III	3
MA 2743 Calculus IV	3	MA 2743 Calculus IV	3
MA 3113 Introduction to Linear Algebra	3	MA 3113 Introduction to Linear Algebra	3
MA 3253 Differential Equations I	3	MA 3253 Differential Equations I	3
IE 4613 Engineering Statistics I	3	IE 4613 Engineering Statistics I	3
CH 1213 Chemistry I	3	CH 1213 Chemistry I	3
CH 1211 Investigations in Chemistry I	1	CH 1211 Investigations in Chemistry I	1
PH 2213 Physics I	3	PH 2213 Physics I	3
PH 2223 Physics II	3	PH 2223 Physics II	3
Engineering Topics (76h) CSE 1284 Introduction to Computer Programming	4	Engineering Topics (76h) CSE 1284 Introduction to Computer Programming	4
CSE 1384 Intermediate Computer Programming	4	CSE 1384 Intermediate Computer Programming	4
	3		3

CSE 2383 Data Structures and Analysis of Algorithms	3	CSE 2383 Data Structures and Analysis of Algorithms	3
ECE 1013 Introduction to ECE Design I	2	**ECE 1013 Foundations in ECE**	2
ECE 1022 Introduction to ECE Design II	3	**ECE 1022 Foundations in Design**	3
ECE 3423 Circuits I	1	ECE 3423 Circuits I	1
ECE 3421 Circuits I Lab	3	ECE 3421 Circuits I Lab	3
ECE 3433 Circuits II	4	ECE 3433 Circuits II	4
ECE 3244 Electronics I	3	ECE 3244 Electronics I	3
ECE 3443 Signals and Systems	3	ECE 3443 Signals and Systems	3
ECE 3313 Electromagnetics I	3	ECE 3313 Electromagnetics I	3
ECE 3323 Electromagnetics II	4	ECE 3323 Electromagnetics II	4
ECE 3614 Fundamentals of Energy Systems	2	ECE 3614 Fundamentals of Energy Systems	2
ECE 4512 EE Design I	2	**ECE 4512 Capstone Design I**	2
ECE 4522 EE Design II	4	**ECE 4522 Capstone Design II**	4
ECE 3714 Digital Devices and Logic Design	4	ECE 3714 Digital Devices and Logic Design	4
ECE 3724 Microprocessors	3	ECE 3724 Microprocessors	3
EM 2413 Engineering Mechanics I or ME 3513 Thermodynamics I	12	EM 2413 Engineering Mechanics I or ME 3513 Thermodynamics I	12
EE technical electives	3	EE technical electives	3
Engineering Science elective (3h)	3	Engineering Science elective (3h)	3
Professional Enrichment elective (3h)		Professional Enrichment elective (3h)	
Oral Communication Requirement Fulfilled in ECE 1013, ECE 1022, ECE 4512, ECE 4522, and GE 3513		Oral Communication Requirement Fulfilled in ECE 1013, ECE 1022, ECE 4512, ECE 4522, and GE 3513	
Writing Requirement GE 3513 Technical Writing	3	Writing Requirement GE 3513 Technical Writing	3
Computer Literacy Fulfilled in Engineering Topics courses		Computer Literacy Fulfilled in Engineering Topics courses	
Concentration Courses	12	Concentration Courses	12
Total Hours	128	Total Hours	128

CURRENT Degree Description	PROPOSED Degree Description
Degree: Bachelor of Science in Electrical Engineering	Degree: Bachelor of Science in Electrical Engineering
Major: Electrical Engineering	Major: Electrical Engineering
Concentration: *Power and Energy Engineering*	Concentration: **Power and Energy Systems**

Alumni, employers, faculty and students participate in a process used to develop educational objectives for the undergraduate programs in Electrical Engineering and Computer Engineering. Within a few years of graduation, program graduates completing the baccalaureate degree in Electrical or Computer Engineering will:

- Be recognized by their peers as fundamentally sound in the application of mathematics, science, computing, and engineering.
- Be engaged in the practice of Electrical or Computer Engineering as innovative problem solvers with a strong work ethic, by identifying and implementing solutions using the proper tools, practical approaches, and flexible thinking.
- Be productive and demonstrate leadership in the practice of Electrical or Computer Engineering, both individually and within multidisciplinary teams, using effective oral and written communication skills when working with peers, supervisors, and the public.
- Be responsible in the practice of Electrical or Computer Engineering, relying on sound engineering ethics, a commitment to lifelong learning and a genuine concern for society and the environment.

The electrical engineer is a principal contributor to the modern technological age in which we live today. Following in the footsteps of inventors such as Thomas Edison and Alexander Graham Bell, the electrical engineer is developing technology that improves the quality of life. Developments in microelectronics, telecommunications, and power systems have had a profound effect on each of us. Electrical engineers have affected all segments of our society such as transportation, medicine, and the entertainment industry, to name only a few. Indeed, the electrical engineer has principally been responsible for the advent of the computer age in which we live today as well as the computer's miniaturization and rapid expansion in computational power.

The curriculum in electrical engineering has a foundation based on the principles of the electrical and physical sciences and uses mathematics as a common language to facilitate the solution of engineering problems. The core curriculum consists of a sequence of courses in digital devices, circuits and electronics, electromagnetic field theory, and modern energy conversion. In the senior year, students have the opportunity to take additional course work in one or more technical areas that include: telecommunications, electromagnetics, power systems, high voltage, feedback control systems, microelectronics, signal processing, and computer systems. Supporting course work outside

electrical engineering consists of a strong background in mathematics, physical sciences, computer programming, social sciences, fine arts, humanities, and personal communication skills. Computers are used extensively throughout the curriculum, and students are expected to become proficient in higher-order programming languages and several application software tools. Although the concept of design is stressed throughout the program so as to emphasize the problem-solving skills of the engineer, the senior year includes a capstone design experience where much of the previous study is culminated. Through this two-semester design course sequence, students are required to integrate design and analytical problem-solving skills together with communication skills in a team environment.
Students expecting to graduate from Mississippi State University with a bachelor of science degree in electrical engineering, in addition to satisfactorily completing the EE curriculum requirements, must meet the following minimum GPA requirements for graduation:

- make an overall C average on all hours scheduled and rescheduled at all institutions attended, including MSU (2.00 or better cumulative GPA)
- make a C average on all hours scheduled and rescheduled at MSU (2.00 or better MSU GPA)
- earn at least a 2.00 cumulative grade point average on all courses scheduled and rescheduled (average on all attempts) at MSU that are applied toward meeting degree requirements
- earn at least a 2.5/4.0 average on all hours with ECE or CSE course prefixes at all institutions attended, including MSU, that are applied toward meeting degree requirements

The electrical engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

The electrical engineering concentration allows students the flexibility to take a broad range of course in a minimum of two topic areas. Students may take a variety of courses that fit their individual interests in electrical engineering.

CURRENT CURRICULUM OUTLINE	Required Hours	PROPOSED CURRICULUM OUTLINE	Required Hours
EN 1103 English Comp I or EN 1104 Expanded English Comp I EN 1113 English Comp II or EN 1173 Accelerated Comp II	6	EN 1103 English Comp I or EN 1104 Expanded English Comp I EN 1113 English Comp II or EN 1173 Accelerated Comp II	6
Fine Arts: see General Education courses	3	Fine Arts: see General Education courses	3
Natural Sciences		Natural Sciences	

see Major Core		see Major Core	
Math see Major Core		Math see Major Core	
Humanities see General Education courses	6	Humanities see General Education courses	6
Social/Behavioral Sciences see General Education courses	6	Social/Behavioral Sciences see General Education courses	6
Major Core Courses Math and Basic Science (31h)		Major Core Courses Math and Basic Science (31h)	
MA 1713 Calculus I	3	MA 1713 Calculus I	3
MA 1723 Calculus II	3	MA 1723 Calculus II	3
MA 2733 Calculus III	3	MA 2733 Calculus III	3
MA 2743 Calculus IV	3	MA 2743 Calculus IV	3
MA 3113 Introduction to Linear Algebra	3	MA 3113 Introduction to Linear Algebra	3
MA 3253 Differential Equations I	3	MA 3253 Differential Equations I	3
IE 4613 Engineering Statistics I	3	IE 4613 Engineering Statistics I	3
CH 1213 Chemistry I	3	CH 1213 Chemistry I	3
CH 1211 Investigations in Chemistry I	1	CH 1211 Investigations in Chemistry I	1
PH 2213 Physics I	3	PH 2213 Physics I	3
PH 2223 Physics II	3	PH 2223 Physics II	3
Engineering Topics (64h)		Engineering Topics (64h)	
CSE 1284 Introduction to Computer Programming	4	CSE 1284 Introduction to Computer Programming	4
CSE 1384 Intermediate Computer Programming	4	CSE 1384 Intermediate Computer Programming	4
CSE 2383 Data Structures and Analysis of Algorithms	3	CSE 2383 Data Structures and Analysis of Algorithms	3
ECE 1013 Introduction to ECE Design I	3	**ECE 1013 Foundations in ECE**	3
ECE 1022 Introduction to ECE Design II	2	**ECE 1022 Foundations in Design**	2
ECE 3423 Circuits I	3	ECE 3423 Circuits I	3
ECE 3421 Circuits I Lab	1	ECE 3421 Circuits I Lab	1
ECE 3433 Circuits II	3	ECE 3433 Circuits II	3
ECE 3244 Electronics I	4	ECE 3244 Electronics I	4
ECE 3443 Signals and Systems	3	ECE 3443 Signals and Systems	3
ECE 3313 Electromagnetics I	3	ECE 3313 Electromagnetics I	3
ECE 3323 Electromagnetics II	3	ECE 3323 Electromagnetics II	3
ECE 3614 Fundamentals of Energy Systems	4	ECE 3614 Fundamentals of Energy Systems	4
ECE 4512 EE Design I	2	**ECE 4512 Capstone Design I**	2
ECE 4522 EE Design II	2	**ECE 4522 Capstone Design II**	2
ECE 3714 Digital Devices and Logic Design	4	ECE 3714 Digital Devices and Logic Design	4
ECE 3724 Microprocessors	4	ECE 3724 Microprocessors	4
EM 2413 Engineering Mechanics I or ME 3513 Thermodynamics I	3	EM 2413 Engineering Mechanics I or ME 3513 Thermodynamics I	3
Engineering Science elective (3h)	3	Engineering Science elective (3h)	3
Professional Enrichment elective (3h)	3	Professional Enrichment elective (3h)	3
Oral Communication Requirement		Oral Communication Requirement	

Fulfilled in ECE 1013, ECE 1022, ECE 4512, ECE 4522, and GE 3513 Writing Requirement GE 3513 Technical Writing Computer Literacy Fulfilled in Engineering Topics courses	3	Fulfilled in ECE 1013, ECE 1022, ECE 4512, ECE 4522, and GE 3513 Writing Requirement GE 3513 Technical Writing Computer Literacy Fulfilled in Engineering Topics courses	3
Concentration Courses Power and Energy Engineering (6h) ECE 4613 Power Transmission Systems ECE 4633 Power Distribution Systems Power and Energy Electives (6h) Choose from: ECE 4643 Power Systems Relaying & Control ECE 4653 Power Electronics ECE 4663 Insulation Coordination in Electric Power Systems ECE 4673 Fundamentals of High Voltage Engineering (see advisor for list of additional approved elective courses)	 3 3 6	Concentration Courses Power and Energy Engineering (6h) ECE 4613 Power Transmission Systems ECE 4633 Power Distribution Systems Power and Energy Electives (6h) Choose from: ECE 4643 Power Systems Relaying & Control ECE 4653 Power Electronics ECE 4663 Insulation Coordination in Electric Power Systems ECE 4673 Fundamentals of High Voltage Engineering (see advisor for list of additional approved elective courses)	 3 3 6
Total Hours	128	Total Hours	128

3. JUSTIFICATION AND STUDENT LEARNING OUTCOMES

By renaming our two first-year courses and our two senior-level design courses, we are clarifying the courses' content and focus-areas. These changes will add clarification to our advising practices for the first-year courses. The changes related to merging and renaming our senior design courses will improve student course selection processes since most of our student teams include both EE and CPE majors.

By updating the concentration name, we are fixing a typo that occurred in an earlier degree modification request in order to align the concentration name with the industry standard naming convention for the concentration area.

As a result of this degree program modification, there are no changes to the student learning outcomes. The EE student learning outcomes are as follows:

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.

- Will this program change meet local, state, regional, and national educational and cultural needs? **Yes**
- Will this program change result in duplication in the System? **No**
- Will this program change/advance student diversity within the discipline? **No**
- Will this program change result in an increase in the potential placement of graduates in MS, the Southeast, and the U.S.? **No**
- Will this program change result in an increase in the potential salaries of graduates in MS, the Southeast, and the U.S.? **No**

4. SUPPORT
See letters of support from ECE Department.

5. PROPOSED 4-LETTER ABBREVIATION
No changes

6. EFFECTIVE DATE
Fall 2022

MISSISSIPPI STATE UNIVERSITY™
BAGLEY
COLLEGE OF ENGINEERING

DEPARTMENT OF
ELECTRICAL AND COMPUTER ENGINEERING
Undergraduate Program Committee

February 22, 2022

TO: James W. Bagley College of Engineering Committee on Courses and Curricula &
Mississippi State University University Committee on Courses and Curricula

FROM: Undergraduate Program Committee, Department of Electrical & Computer Engineering

RE: New course additions

The undergraduate committee has reviewed the proposed course modifications and additions for the below courses.

- ECE 1013 – name change "Introduction to Design I" to "Foundations in ECE"
- ECE 1022 – name change "Introduction to Design II" to "Foundations in Design"
- ECE 4512 – name change "EE Design I" to "Capstone Design I"
- ECE 4522 – name change "EE Design II" to "Capstone Design II"
- ECE 4913 – name change "Feedback Control Systems I" to "Feedback Control Systems"
- ECE 4923 – name change "Feedback Control Systems II" to "Digital Control Systems"
- ECE 4753 / 6753 – course modification / reactivation
- ECE 4793 / 6793 – course addition
- ECE 4683 / 6683 – course addition

We offer our unanimous support for these changes and the related degree program modifications to update ECE 1013, 1022, 4512, and 4522 in the curriculum tables. Please contact us if there are any questions or concerns.

Jean Mohammadi-Aragh
Digitally signed by Jean Mohammadi-Aragh
Date: 2022.02.22 16:31:02 -06'00'

Jean Mohammadi-Aragh
Chair, ECE Undergraduate Committee
Assistant Professor

Randolph F. Follett
Digitally signed by Randolph F. Follett
Date: 2022.02.22 17:12:32 -06'00'

Randy Follett
Member, ECE Undergraduate Committee
Associate Professor

Ryan B Green
Digitally signed by Ryan B Green
Date: 2022.02.23 10:01:28 -06'00'

Ryan Green
Member, ECE Undergraduate Committee
Assistant Professor

Dr. Ali Cafer Gurbuz
Digitally signed by Dr. Ali Cafer Gurbuz
Date: 2022.02.23 13:25:44 -06'00'

Ali Gurbuz
Member, ECE Undergraduate Committee
Assistant Professor

Umar Iqbal
Digitally signed by Umar Iqbal
DN: cn=Umar Iqbal, o=Mississippi State University, ou=Electrical & Computer Engineering, email=umar@ece.msstate.edu, c=US
Date: 2022.02.23 14:07:38 -06'00'

Umar Iqbal
Member, ECE Undergraduate Committee
Assistant Clinical Professor

Jane Moorhead
Digitally signed by Jane Moorhead
DN: cn=Jane Moorhead, o=Mississippi State, ou=ECE, email=jnm15@msstate.edu, c=US
Date: 2022.02.23 13:38:46 -06'00'

Jane Moorhead
Member, ECE Undergraduate Committee
Instructor

APPROVAL FORM FOR

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

NOTE: This form is a cover sheet that must accompany the degree program change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted to UCCC Mail Stop 9702 (281 Garner Hall), Phone: 325-9410.

College: Bagley College of Engineering   **Department:** Electrical & Computer Engineering

Contact Person: Jean Mohammadi-Aragh   **Mail Stop:** 9571   **E-mail:** jean@ece.msstate.edu

Nature of Change: revise circuits/electronics sequence; update GPA requirements; replace CSE 3324; add one credit hour to ECE 4723; update first-year course names, consolidate EE and CPE senior design courses

Date Initiated: 4/12/2022   **Effective Date:** Fall 2022

Current Degree Program Name: Bachelor of Science in Computer Engineering

Major: Computer Engineering   **Concentration:**

New Degree Program Name:

Major: **Concentration:**

Summary of Proposed Changes:

The changes proposed are as follows:
1. Shift from a three-course combined circuits/electronics sequence to two two-course circuits and two-course electronics sequences.
2. Update the GPA requirements for CPE
3. Replace CSE 3324 Distributed Client Server Programming with a 3-hr professional enrichment elective
4. Add one credit hour to ECE 4723 Embedded Systems to create ECE 4724 Embedded Systems.
5. Update the name for ECE 1013 and 1022
6. Replace ECE 4532 CPE Design I with ECE 4512 Capstone Design I
7. Replace ECE 4542 CPE Design II with ECE 4522 Capstone Design II

Approved: **Date:**

_____
Department Head

_____
Chair, College or School Curriculum Committee

_____
Dean of College or School

_____
Chair, University Committee on Courses and Curricula

August 4, 2022

_____
Chair, Graduate Council(if applicable)

_____
Chair, Deans Council

August 18th, 2022

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

NOTE: This form is a cover sheet that must accompany the degree program change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted to UCCC Mail Stop 9702 (281 Garner Hall), Phone: 325-9410.

College: Bagley College of Engineering   **Department:** Electrical & Computer Engineering

Contact Person: Jean Mohammadi-Aragh   **Mail Stop:** 9571   **E-mail:** jean@ece.msstate.edu

Nature of Change: update first-year course names, consolidate EE and CPE senior design courses

Date Initiated: 4/12/2022   **Effective Date:** Fall 2022

Current Degree Program Name: Bachelor of Science in Computer Engineering

Major: Computer Engineering   **Concentration:**

New Degree Program Name:

Major: **Concentration:**

Summary of Proposed Changes:
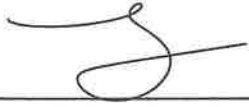
The changes proposed are as follows:
1. Update the name for ECE 1013 and 1022
2. Replace ECE 4532 CPE Design I with ECE 4512 Capstone Design I
3. Replace ECE 4542 CPE Design II with ECE 4522 Capstone Design II

Approved: **Date:**

Samee U. Khan Digitally signed by Samee U. Khan
Date: 2022.04.12 05:57:10 -05'00'

_____   _____
Department Head

T.J. Jankun-Kelly
2022.04.19 23:23:46
-05'00'

_____   _____
Chair, College or School Curriculum Committee

Kari Babski-Reeves for Jason Keith   Digitally signed by Kari Babski-Reeves for Jason
Keith
Date: 2022.04.20 08:01:12 -05'00'

_____   _____
Dean of College or School

_____   _____
Chair, University Committee on Courses and Curricula

_____   _____
Chair, Graduate Council(if applicable)

_____   _____
Chair, Deans Council

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

NOTE: This form is a cover sheet that must accompany the degree program change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted to UCCC Mail Stop 9702 (281 Garner Hall), Phone: 325-9410.

College: Bagley College of Engineering **Department:** Electrical & Computer Engineering

Contact Person: Jean Mohammadi-Aragh **Mail Stop:** 9571 **E-mail:** jean@ece.msstate.edu

Nature of Change: revise circuits/electronics sequence
Date Initiated: 12/21/21 **Effective Date:** Fall 2022

Current Degree Program Name: Bachelor of Science in Computer Engineering

Major: Computer Engineering   **Concentration:**

New Degree Program Name:

Major: **Concentration:**

Summary of Proposed Changes:

The changes proposed are as follows:
1. Update the GPA requirements for CPE
2. Replace CSE 3324 Distributed Client Server Programming with a 3-hr professional enrichment elective
3. Add one credit hour to ECE 4723 Embedded Systems to create ECE 4724 Embedded Systems.
4. Remove ECE 4263 VLSI as an alternative to Embedded Systems course.

Approved: **Date:**

[signature]
Department Head

12/21/21

John Ball, PhD _[digital signature details]_

12/22/21

Chair, College or School Curriculum Committee

Kari Babski-Reeves for Jason
Keith

Digitally signed by Kari Babski-Reeves for Jason
Keith
Date: 2022.01.06 08:52:40 -06'00'

Dean of College or School

Chair, University Committee on Courses and Curricula

Chair, Graduate Council(if applicable)

Chair, Deans Council

APPROVAL FORM FOR

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

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College: Bagley College of Engineering **Department:** Electrical & Computer Engineering

Contact Person: Jean Mohammadi-Aragh **Mail Stop:** 9571 **E-mail:** jean@ece.msstate.edu

Nature of Change: revise circuits/electronics sequence
        Date Initiated: 11/3/21 **Effective Date:** Fall 2022

Current Degree Program Name: Bachelor of Science in Computer Engineering

Major: Computer Engineering   **Concentration:**

New Degree Program Name:

Major: Computer Engineering   **Concentration:**

Summary of Proposed Changes:

The changes proposed are as follows:
1. Shift from a three-course combined circuits/electronics sequence to two two-course circuits and two-course electronics sequences.

The degree program will require the same number of credit hours (11 credit hours) within these new sequences, but the new format will allow us to reorganize topics to be consistent with current textbooks and allow us to connect the lab experience with the first circuits course rather than the second. Further, additional flexibility added by these changes will result in the removal of a five-course sequence that will allow transfer students to complete their degree in a more timely manner.

Approved:

Date:

[signature]

Department Head

11/8/21

Dr. John Ball Digitally signed by Dr. John Ball
DN: cn=Dr. John Ball, o=ECE, ou=ECE,
email=jball@ece.msstate.edu, c=US
Date: 2021.11.09 08:23:11 -06'00'

11/9/21

Chair, College or School Curriculum Committee

Kari Babski-Reeves for Jason
Keith

Digitally signed by Kari Babski-Reeves for Jason
Keith
Date: 2021.11.09 13:28:23 -06'00'

Dean of College or School

Chair, University Committee on Courses and Curricula

Chair, Graduate Council(if applicable)

Chair, Deans Council

PROPOSAL FOR THE MODIFICATION OF THE

B.S. IN COMPUTER ENGINEERING

1. CATALOG DESCRIPTION
See table below.

2. CURRICULUM OUTLINE

The changes proposed are as follows:
1. Shift from a three-course combined circuits/electronics sequence to two two-course circuits and two-course electronics sequences.
2. Update the GPA requirements for CPE
3. Replace CSE 3324 Distributed Client Server Programming with a 3-hr professional enrichment elective
4. Add one credit hour to ECE 4723 Embedded Systems to create ECE 4724 Embedded Systems.
5. Update the name for ECE 1013 and 1022
6. Replace ECE 4532 CPE Design I with ECE 4512 Capstone Design I
7. Replace ECE 4542 CPE Design II with ECE 4522 Capstone Design II

Table 1. Comparison of Current CPE Degree and Proposed CPE Degree Programs

CURRENT Degree Description	PROPOSED Degree Description
Degree: Bachelor of Science in Computer Engineering Major: Computer Engineering Concentration:	Degree: Bachelor of Science in Computer Engineering Major: Computer Engineering Concentration:
Alumni, employers, faculty and students participate in a process used to develop educational objectives for the undergraduate programs in Electrical Engineering and Computer Engineering. Within a few years of graduation, program graduates completing the baccalaureate degree in Electrical or Computer Engineering will: • Be recognized by their peers as fundamentally sound in the application of mathematics, science, computing, and engineering. • Be engaged in the practice of Electrical or Computer Engineering as innovative problem solvers with a strong work ethic, by identifying and implementing solutions using the proper tools, practical approaches, and flexible thinking. • Be productive and demonstrate leadership in the practice of Electrical or Computer Engineering, both individually and within multidisciplinary teams, using effective oral and written communication skills when working with peers, supervisors, and the public.	Alumni, employers, faculty and students participate in a process used to develop educational objectives for the undergraduate programs in Electrical Engineering and Computer Engineering. Within a few years of graduation, program graduates completing the baccalaureate degree in Electrical or Computer Engineering will: • Be recognized by their peers as fundamentally sound in the application of mathematics, science, computing, and engineering. • Be engaged in the practice of Electrical or Computer Engineering as innovative problem solvers with a strong work ethic, by identifying and implementing solutions using the proper tools, practical approaches, and flexible thinking. • Be productive and demonstrate leadership in the practice of Electrical or Computer Engineering, both individually and within multidisciplinary teams, using effective oral and written communication skills when working with peers, supervisors, and the public.

- Be responsible in the practice of Electrical or Computer Engineering, relying on sound engineering ethics, a commitment to lifelong learning and a genuine concern for society and the environment.

With the origin of the modern computer dating back to the late 1940's and the growth of computer hardware fueled by the availability of digital integrated circuits starting in the late 1960's, computer engineers have enjoyed a pivotal role in technology that now permeates our entire society. Whether the end product is an integrated circuit, a system of networked embedded computers, or any system that relies on digital hardware or computer software, its development requires the skills of a computer engineer. While computing systems include both hardware and software, it is the optimal combination of these components that is the unique realm of the computer engineer. Today, computer engineers are a driving force in the technological and economic development of the digital age.

The curriculum requirements for computer engineering are built around a substantial engineering core curriculum and required courses in electrical engineering and computer science. The requirements in mathematics, the basic sciences, and engineering sciences provide the breadth of exposure required for all engineering disciplines. Basic electrical engineering requirements include circuit theory, electronics and digital devices which are supplemented by upper-level courses in computer architecture, and computer aided design of digital systems. Basic computer science courses include a coordinated sequence providing fundamental knowledge in data structures, algorithms, object oriented programming, software engineering, real-time application and software development tools. These courses are developed across multiple platforms and are based on the Python and Java language. Upper-level courses in data communications and computer networks, algorithms and operating systems are also provided. Students wishing to gain depth of coverage in communications, parallel computing, *VLSI,* embedded systems or signal processing can achieve this with the availability of technical electives selected from an approved list or in consultation with a faculty advisor. Required courses in communications skills, social sciences and humanities provide studies in non-technical areas that are traditional in a broad-based education. A capstone senior design course requires students to apply newfound knowledge and explore entrepreneurship. Students research and identify a problem and work in teams applying a combination of hardware and software to develop a solution. Critical and Final Design Reviews enable students to develop their professional presentation skills.

Students expecting to graduate from Mississippi State University with a bachelor of science degree in computer engineering, in addition to satisfactorily completing the CPE curriculum requirements, must meet the following minimum GPA requirements for graduation:

- make an overall C average on all hours scheduled and rescheduled at all institutions attended, including MSU (2.00 or better cumulative GPA)
- make a C average on all hours scheduled and rescheduled at MSU (2.00 or better MSU GPA)
- earn at least a 2.00 cumulative grade point average on all courses scheduled and rescheduled (average on all attempts) at MSU that are applied toward meeting degree requirements
- *earn at least a 2.5/4.0 average on all hours with ECE or CSE course prefixes scheduled and rescheduled at all institutions attended, including MSU*

The computer engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

This program is offered through joint efforts of faculty in the Department of Electrical and Computer Engineering and the Department of Computer Science and Engineering.

Students expecting to graduate from Mississippi State University with a bachelor of science degree in computer engineering, in addition to satisfactorily completing the CPE curriculum requirements, must meet the following minimum GPA requirements for graduation:

- make an overall C average on all hours scheduled and rescheduled at all institutions attended, including MSU (2.00 or better cumulative GPA)
- make a C average on all hours scheduled and rescheduled at MSU (2.00 or better MSU GPA)
- **earn at least a 2.00 cumulative grade point average on all courses scheduled and rescheduled (average on all attempts) at MSU that are applied toward meeting degree requirements**
- **earn at least a 2.5/4.0 average on all hours with ECE or CSE course prefixes at all institutions attended, including MSU, that are applied toward meeting degree requirements**

The computer engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

This program is offered through joint efforts of faculty in the Department of Electrical and Computer Engineering and the Department of Computer Science and Engineering.

CURRENT CURRICULUM OUTLINE	Required Hours	PROPOSED CURRICULUM OUTLINE	Required Hours
EN 1103 English Comp I or EN 1163 Accelerated Comp I EN 1113 English Comp II or EN 1173 Accelerated Comp II	6	**EN 1103 English Comp I or EN 1104 Expanded English Comp I** EN 1113 English Comp II or EN 1173 Accelerated Comp II	6
Fine Arts: see General Education courses	3	Fine Arts: see General Education courses	3
Natural Sciences see Major Core		Natural Sciences see Major Core	
Math see Major Core		Math see Major Core	
Humanities see General Education courses	6	Humanities see General Education courses	6

Left	Hrs	Right	Hrs
Social/Behavioral Sciences see General Education courses	6	Social/Behavioral Sciences see General Education courses	6
Major Core Courses		Major Core Courses	
Math and Basic Science (31h)		Math and Basic Science (31h)	
MA 1713 Calculus I	3	MA 1713 Calculus I	3
MA 1723 Calculus II	3	MA 1723 Calculus II	3
MA 2733 Calculus III	3	MA 2733 Calculus III	3
MA 2743 Calculus IV	3	MA 2743 Calculus IV	3
MA 3113 Introduction to Linear Algebra	3	MA 3113 Introduction to Linear Algebra	3
MA 3253 Differential Equations I	3	MA 3253 Differential Equations I	3
IE 4613 Engineering Statistics I	3	IE 4613 Engineering Statistics I	3
CH 1213 Chemistry I	3	CH 1213 Chemistry I	3
CH 1211 Investigations in Chemistry I	1	CH 1211 Investigations in Chemistry I	1
PH 2213 Physics I	3	PH 2213 Physics I	3
PH 2223 Physics II	3	PH 2223 Physics II	3
Engineering Topics (76h)		Engineering Topics (76h)	
CSE 1284 Introduction to Computer Programming	4	CSE 1284 Introduction to Computer Programming	4
CSE 1384 Intermediate Computer Programming	4	CSE 1384 Intermediate Computer Programming	4
CSE 2383 Data Structures and Analysis of Algorithms	3	CSE 2383 Data Structures and Analysis of Algorithms	3
CSE 2813 Discrete Structures	3	CSE 2813 Discrete Structures	3
CSE 3324 Distributed Client/Server	4	CSE 4733 Operating Systems I	3
CSE 4733 Operating Systems I	3	CSE 4833 Intro Analysis of Algorithms	3
CSE 4833 Intro Analysis of Algorithms	3	**ECE 1013 Foundations in ECE**	3
ECE 1013 Introduction to ECE Design I	3	**ECE 1022 Foundations in Design**	2
ECE 1022 Introduction to ECE Design II	2	**ECE 3423 Circuits I**	3
ECE 3413 Introduction to Electronic Circuits	3	**ECE 3421 Circuits I Lab**	1
ECE 3424 Intermediate Electronic Circuits	4	**ECE 3433 Circuits II**	3
ECE 3434 Advanced Electronic Circuits	4	**ECE 3244 Electronics I**	4
ECE 3443 Signals and Systems	3	ECE 3443 Signals and Systems	3
ECE 3714 Digital Devices and Logic Design	4	ECE 3714 Digital Devices and Logic Design	4
ECE 3724 Microprocessors	4	ECE 3724 Microprocessors	4
ECE 4723 Embedded Systems or ECE 4263 Principles of VLSI Design	3	**ECE 4724 Embedded Systems**	4
ECE 4532 CPE Design I	2	**ECE 4512 Capstone Design I**	2
ECE 4542 CPE Design II	2	**ECE 4522 Capstone Design II**	2
ECE 4713 Computer Architecture	3	ECE 4713 Computer Architecture	3
ECE 4743 Digital System Design	3	ECE 4743 Digital System Design	3
ECE 4833 Data Communication and Computer Networks	3	ECE 4833 Data Communication and Computer Networks	3
CPE technical electives (6h)	6	CPE technical electives (6h)	6
		Professional Enrichment elective (3h)	3
Oral Communication Requirement Fulfilled in ECE 1013, ECE 1022, ECE 4532, ECE 4542, and GE 3513		Oral Communication Requirement Fulfilled in ECE 1013, ECE 1022, ECE 4532, ECE 4542, and GE 3513	
Writing Requirement GE 3513 Technical Writing	3	Writing Requirement GE 3513 Technical Writing	3
Computer Literacy Fulfilled in Engineering Topics courses		Computer Literacy Fulfilled in Engineering Topics courses	

Concentration Courses		Concentration Courses	
Total Hours	128	Total Hours	128

3. JUSTIFICATION AND STUDENT LEARNING OUTCOMES

We are shifting from a three-course sequence of combined circuits/electronics topics to two two-course sequences. The degree program will require the same number of credit hours (11 credit hours) within these new sequences, but the new format will allow us to reorganize topics to be consistent with current textbooks and allow us to connect the lab experience with the first circuits course rather than the second. Further, additional flexibility added by these changes will result in the removal of a five-course sequence that will allow transfer students to complete their degree in a more-timely manner.

1. **Update Circuits/Electronics Sequence:** The key motivations for revising and updating the Circuits and Electronics course sequence is to better prepare students to effectively solve circuits and electronics problems. The benefits of moving to two separate sequences are numerous. A few benefits include:
   a. The merged circuits and electronics courses often cause confusion. Though circuits and electronics are closely-related topics, they are not the same. Students have trouble separating the two concepts. Moreover, most universities teach the topics separately, and it is hard for students to transfer credit to MSU that provides credit for our current sequence.
   b. Though we are updating the sequence, we will continue to teach ECE 3413 Introduction to Electronic Circuits. ECE 3413 is required by other engineering majors but will no longer be required for ECE students. This returns us to our historical practices of offering a circuits/electronics course dedicated to non-majors. This allows us to offer a more effective curriculum for ECE and non-ECE students because course topics can be fine-tuned and offered at more appropriate levels for ECE and non-ECE students.
   c. This update will allow us to shift a lab experience to the initial circuits course for ECE students. Currently, students are struggling in our circuits sequence. The ECE faculty think a hands-on lab experience in the first course will allow students to better grasp the material. Since circuits and electronics build on the fundamental concepts taught in the initial circuits course, it is critical for students to thoroughly understand the topics.
   d. This reorganization and update will allow us to use the second circuits course a bridge for our signals and systems courses. We have identified signals and systems as a trouble area for student success. The signals and systems course covers numerous, complex topics. We are evaluating ways to reorganize that course, but for now, a first step is to provide some exposure to topics in earlier, related courses. This reorganization provides the opportunity to do that.

e. This reorganization will remove a five-course prerequisite chain that is currently in the program due to the three-course combined circuits/electronics sequence (ECE 3413 – ECE 3424 – ECE 3434) which is followed by a two-course senior design sequence (ECE 4512 – ECE 4522). Now transfer students will be able to enroll in senior design by their third semester and can finish their degree in four semesters instead of five semesters.

To provide clarity for circuits/electronics change. The below summaries are provided.

Current required courses impacted by this change (11 credit hours for EE and CPE):
- ECE 3413 – currently required for EE, CPE, AE, IE, and ME. Will continue offering and in the future work with AE, IE, and ME faculty to revise topics, if needed, for their students.
- ECE 3424 – currently required for EE and CPE; will phase out
- ECE 3434 – currently required for EE and CPE; will phase out
- Several courses will need prerequisite updates after new sequence is approved; these will be processed as technical changes when new courses are approved.

New required courses proposed (11 credit hours for EE and CPE):
- ECE 3423 Circuits I – required for EE and CPE. Equivalent to ECE 3413 but requires co-registration in lab.
- ECE 3421 Circuits I Lab – new standalone lab for introductory circuits topics. (Students who take ECE 3413 can take this lab to continue in ECE circuits and electronics courses.)
- ECE 3433 Circuits II – required for EE and CPE. New course to bridge circuits and signals and systems. Additional applications for circuits topics.
- ECE 3244 Electronics I – required for EE and CPE. Equivalent to ECE 3424

New elective courses proposed:
- ECE 3253 Electronics II (elective) – advanced electronics topics from current ECE 3434; can be taken as a technical elective.

The degree program will require the same number of credit hours (128 total credit hours) with these changes, but the new format will allow us to reorganize topics to be consistent with current trends. Further, the addition of a professional enrichment elective to the CPE program, similar to what we have in place for our EE program, will allow students greater flexibility when completing their degree.

1. **CPE Degree Program GPA Updates:** A degree program change initiated on Feb 1, 2018 and discussed at the March 23, 2018 UCCC meeting modified the CPE degree program GPA requirements. Prior to the change, CPE had four requirements: Cumulative GPA, MSU GPA, MSU Degree Program GPA, and Engineering Topics GPA.
   a. The change removed the **MSU Degree Program GPA** requirement, which we have since learned is required by EOP 21. The MSU Degree Program GPA must be included in the list of GPA requirements to clearly state all GPA requirements and avoid student confusion. This degree modification will correct that omission.

b. The change modified the **Engineering Topics GPA** requirement by increasing the GPA requirement from a 2.0 to a 2.5. However, the faculty intent was to simultaneously strike "scheduled and rescheduled" from the requirement. During advising and graduation audits, we realized the original degree modification did not strike that language. After a review of historical meeting minutes, the ECE Undergraduate Committee reviewed this concern and reaffirmed the original intent of the GPA modification. The ECE faculty voted to reaffirm the recommendation to strike the "scheduled and rescheduled" in the Engineering Topics GPA requirements and to specify that the 2.5 GPA requirement threshold apply only to ECE and CSE courses used in a student's final program of study. The change is "earn at least a 2.5/4.0 average on all hours with ECE or CSE course prefixes ~~scheduled and rescheduled~~ at all institutions attended, including MSU, that are applied toward meeting degree requirements." This modification is to ensure the 2.5 Engineering Topics GPA requirement is consistent with the original intention of the ECE faculty. If applied to all courses scheduled and rescheduled, the faculty view a threshold of 2.5 as excessive.

2. **Replace CSE 3324 DCSP with a 3-hour professional enrichment elective.** The CSE Department initiated a degree modification for the CS program in March 2020 and deleted CSE 3324 because "the course has outlived its relevancy in the technical landscape." The ECE Department is replacing CSE 3324 with a professional enrichment elective. A Professional Enrichment Elective is similar to a technical elective but allows more flexibility for students to pursue options relevant to their individual career goals. Currently our other degree program, EE, has Professional Enrichment Electives, but the CPE program does not. (For more information about Professional Enrichment, see definitions here: https://www.ece.msstate.edu/academics/undergraduate/electrical-engineering-undergraduate-program/professional-enrichment-elective/)

3. **Add one credit hour to ECE 4723 Embedded Systems to create ECE 4724 Embedded Systems.** The CSE 3324 change replaces a four-credit hour course with a three-credit hour professional enrichment elective. After a review of the entire CPE degree program, the ECE faculty voted unanimously to add the credit hour to Embedded Systems. This will allow for an additional hour of lecture that will support incorporating any key topics that need to be included as a result of deleting the prerequisite course CSE 3324 and replacing it with a professional enrichment elective (see item 2 above).

4. **Remove ECE4263 VLSI as an alternative course to ECE 4723 (proposed 4724).** VLSI has outlived its relevancy and has not been taught in several years.

By renaming our two first-year courses and our two senior-level design courses, we are clarifying the courses' content and focus-areas. These changes will add clarification to our advising practices for the first-year courses. The changes related to merging and renaming our senior design courses will improve student course selection processes since most of our student teams include both EE and CPE majors.

As a result of this degree program modification, there are no changes to the student learning outcomes. The CPE student learning outcomes are as follows:

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.

- Will this program change meet local, state, regional, and national educational and cultural needs? **Yes**
- Will this program change result in duplication in the System? **No**
- Will this program change/advance student diversity within the discipline? **No**
- Will this program change result in an increase in the potential placement of graduates in MS, the Southeast, and the U.S.? **No**
- Will this program change result in an increase in the potential salaries of graduates in MS, the Southeast, and the U.S.? **No**

4. SUPPORT

See letters of support from ECE and CSE Departments.

5. PROPOSED 4-LETTER ABBREVIATION
No changes

6. EFFECTIVE DATE
Fall 2022

MISSISSIPPI STATE UNIVERSITY™
—— JAMES WORTH ——
BAGLEY
COLLEGE OF ENGINEERING

DEPARTMENT OF
ELECTRICAL AND COMPUTER ENGINEERING
Undergraduate Program Committee

February 22, 2022

TO: James W. Bagley College of Engineering Committee on Courses and Curricula &
Mississippi State University University Committee on Courses and Curricula

FROM: Undergraduate Program Committee, Department of Electrical & Computer Engineering

RE: New course additions

The undergraduate committee has reviewed the proposed course modifications and additions for the below courses.

- ECE 1013 – name change "Introduction to Design I" to "Foundations in ECE"
- ECE 1022 – name change "Introduction to Design II" to "Foundations in Design"
- ECE 4512 – name change "EE Design I" to "Capstone Design I"
- ECE 4522 – name change "EE Design II" to "Capstone Design II"
- ECE 4913 – name change "Feedback Control Systems I" to "Feedback Control Systems"
- ECE 4923 – name change "Feedback Control Systems II" to "Digital Control Systems"
- ECE 4753 / 6753 – course modification / reactivation
- ECE 4793 / 6793 – course addition
- ECE 4683 / 6683 – course addition

We offer our unanimous support for these changes and the related degree program modifications to update ECE 1013, 1022, 4512, and 4522 in the curriculum tables. Please contact us if there are any questions or concerns.

Jean Mohammadi-Aragh Digitally signed by Jean Mohammadi-Aragh Date: 2022.02.22 16:31:02 -06'00'	Digitally signed by Randolph F. Follett Date: 2022.02.22 17:12:32 -06'00'
Jean Mohammadi-Aragh Chair, ECE Undergraduate Committee Assistant Professor	Randy Follett Member, ECE Undergraduate Committee Associate Professor
Ryan B Green Digitally signed by Ryan B Green Date: 2022.02.23 10:01:28 -06'00'	Dr. Ali Cafer Gurbuz Digitally signed by Dr. Ali Cafer Gurbuz Date: 2022.02.23 13:25:44 -06'00'
Ryan Green Member, ECE Undergraduate Committee Assistant Professor	Ali Gurbuz Member, ECE Undergraduate Committee Assistant Professor
Umar Iqbal Digitally signed by Umar Iqbal DN: cn=Umar Iqbal, o=Mississippi State University, ou=Electrical & Computer Engineering, email=umar@ece.msstate.edu, c=US Date: 2022.02.23 14:07:38 -06'00'	Jane Moorhead Digitally signed by Jane Moorhead DN: cn=Jane Moorhead, o=Mississippi State, ou=ECE, email=jnm15@msstate.edu, c=US Date: 2022.02.23 13:38:46 -06'00'
Umar Iqbal Member, ECE Undergraduate Committee Assistant Clinical Professor	Jane Moorhead Member, ECE Undergraduate Committee Instructor

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BAGLEY
COLLEGE OF ENGINEERING

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

Andy D. Perkins, Ph.D.
Professor and Associate Department Head
perkins@cse.msstate.edu

February 28, 2022

Dear Dr. Mohammadi-Aragh:

The Department of Computer Science and Engineering supports the proposed changes to the CPE degree. Specifically, the faculty approves:

1. Updating the name for ECE 1013 and 1022
2. Replacing ECE 4532 CPE Design 1 with ECE 4512 Capstone Design I
3. Replacing ECE 4542 CPE Design II with ECE 4522 Capstone Design II

Sincerely,

Andy D. Perkins, PhD
Professor and Associate Department Head

MISSISSIPPI STATE UNIVERSITY™
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BAGLEY
COLLEGE OF ENGINEERING

March 26, 2021

TO: James W. Bagley College of Engineering Committee on Courses and Curricula &
Mississippi State University University Committee on Courses and Curricula

FROM: Undergraduate Program Committee, Department of Electrical & Computer Engineering

RE: EE and CPE Degree Program Modifications

The CPE and EE degree program modifications submitted herein, including accompanying course revisions, were unanimously recommended by the ECE Undergraduate Committee on 3/22/2021 and approved by final vote of the ECE faculty on 3/26/2021.

Dr John Ball
Digitally signed by Dr John Ball
DN: cn=Dr John Ball, o=MSU, ou=ECE, email=jsball@ece.msstate.edu, c=US
Date: 2021.03.23 10:51:35 -05'00'

John Ball
ECE Undergraduate Committee Chair

Jean Mohammadi-Aragh
ECE Undergraduate Committee Vice-Chair

J. Patrick Donohoe
Digitally signed by J. Patrick Donohoe
DN: cn=J. Patrick Donohoe, o=Mississippi State University, ou=Department of Electrical and Computer Engineering, email=donohoe@ece.msstate.edu, c=US
Date: 2021.03.23 11:32:09 -05'00'

Pat Donohoe
Professor and Paul B. Jacob Chair

Digitally signed by Randolph F. Follett
Date: 2021.03.23 15:37:08 -05'00'

Randy Follett
Associate Professor

Ryan Green
Assistant Professor

Ali Cafer Gurbuz
Digitally signed by Ali Cafer Gurbuz
Date: 2021.03.23 15:41:03 -05'00'

Ali Gurbuz
Assistant Professor

Umar Iqbal
Digitally signed by Umar Iqbal
DN: cn=Umar Iqbal, o=Mississippi State University, ou=Electrical & Computer Engineering, email=umar@ece.msstate.edu, c=US
Date: 2021.03.23 15:48:47 -05'00'

Umar Iqbal
Assistant Clinical Professor

Masoud Karimi
Digitally signed by Masoud Karimi
Date: 2021.03.23 22:24:12 -05'00'

Masoud Karimi-Ghartemani
Associate Professor

Khalid Miah
Digitally signed by Khalid Miah
Date: 2021.03.24 08:45:10 -05'00'

Khalid Miah
Assistant Clinical Professor

Jane N Moorhead
Digitally signed by Jane N Moorhead
Date: 2021.03.25 15:52:54 -05'00'

Jane Moorhead
Instructor

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COLLEGE OF ENGINEERING

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

Andy D. Perkins, Ph.D.
Professor and Associate Department Head
perkins@cse.msstate.edu

September 14, 2021

Dear Dr. Mohammadi-Aragh:

The Department of Computer Science and Engineering supports the proposed changes to circuits/electronics sequence required for the BS in Computer Engineering.

Sincerely,

Andy D. Perkins, PhD
Professor and Associate Department Head