A MEMORANDUM

DATE: January 27, 2025

TO: Academic Deans Council

FROM: Dr. Andy Perkins
            UCCC Chair

RE: Change Notice 5

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 February 10, 2025 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 +Distance	PSS 2323	**Approved**	**FROM: PSS 3323 Horticultural Impacts on Society** **TO: PSS 2323 Horticultural Impacts on Society** Three hours lecture. An in-depth inquiry into the various areas of sociohorticulture and the impact people-plant interactions have on us and our society environmentally, socially, physically, and economically. Distance: Yes Campus: 1 & 5 Effective: Fall 2025

ARCHITECTURE ART AND DESIGN

Technical Change	ARC 3904	**Approved**	**FROM: ARC 3904 Architectural Structures I** (Prerequisite:MA 1613 and either ARC 1546 or BCS 1126) Three hours lecture. Two hours laboratory. Application of the principles of statics and the strength of materials on structural elements. (Same as BCS 3904). **TO: ARC 3904 Architectural Structures I** (Prerequisite: MA 1613 or MA 1713 and either ARC 1546 or BCS 1126) Three hours lecture. Two hours laboratory. Application of the principles of statics and the strength of materials on structural elements. (Same as BCS 3904). Effective: Fall 2025
Addition	ARC 4643/6643	**Approved**	**ARC 4643/6643 Gender and Sexuality in Design** (Prerequisite Junior Standing or permission of instructor) Three hours seminar. This seminar course introduces students to the achievements, contributions, and history of women in the male-dominated professions of architecture, interior design, graphic design, interior design, and urban design. (Same as GS 4643/6643) Method of Instruction: S Method of Delivery: F Campus: 1 CIP: 040801 30 Char: Gender and Sexuality in Design Effective: Spring 2025
Modification	ART 2413	**Approved**	**FROM: ART 2413 History and Appreciation of the Artcrafts** Three hours lecture. The study of the growth and development of the Art-Crafts through the ages with instructional applications, and practical designs. **TO: ART 2413 Appreciation of Arts & Crafts Movement** Three hours lecture. The study of the growth and development of Arts & Crafts through the

			ages with instructional applications, and practical designs. Non-art majors only. Method of Delivery: F 30 Char: Appreciation of Arts & Crafts Effective: Spring 2025
Modification	ART 2813	**Approved**	**FROM: ART 2813 Intermediate Computing for Designers** (Prerequisites: ART 2803 or Consent of Instructor). One hour lecture. Four hoursstudio.Further instruction about desktop computer hardware, operating systems, application software and beginning concept development specific to the graphic design industry for graphic design majors. **TO: ART 2813 Digital Design II** (Prerequisites: ART 2803 or consent of Instructor). Six hour studio. Further instruction in digital creative applications and beginning concept development in design thinking for graphic design majors. Method of Instruction: Q Method of Delivery: F 30 Char: Digital Design II Effective: Spring 2025
Technical Change	BCS 3904	**Approved**	**FROM: BCS 3904 Structures I** (Prerequisite:MA 1613 and either ARC 1546 or BCS 1126) Three hours lecture. Two hours laboratory. Application of the principles of statics and the strength of materials on structural elements. Construction material. (Same as ARC 3904). **TO: BCS 3904 Architectural Structures I** (Prerequisite: MA 1613 or MA 1713 and either ARC 1546 or BCS 1126) Three hours lecture. Two hours laboratory. Application of the principles of statics and the strength of materials on structural elements. Construction material. (Same as ARC 3904). Effective: Fall 2025

ARTS AND SCIENCES

Modification +Distance	AAS 2003	**Approved**	**AAS 2003 Race, Gender, Class and Global Media** (Prerequisite: CO 1403). Three hours lecture. The course will familiarize students with the breadth of media-related race, class and gender issues while providing tools to critically analyze and engage modern global media and mediums. (Same as CO 2003 and GS 2003). Distance: Yes Method of Delivery: F & O Campus: 1 & 5 Effective: Spring 2025
Technical Change	AN 4403/6403	**Approved**	**FROM: AN 4403/6403 Introduction to Linguistics** Three hours lecture. The descriptive and historical study of language; linguistic analysis and comparison;

			language classification; language in its social and cultural setting. (Same as EN 4403/6403). **TO: AN 4403/6403 Introduction to Linguistics** Three hours lecture. The descriptive and historical study of language; linguistic analysis and comparison; language classification; language in its social and cultural setting. (Same as LIN/EN 4403/6403). Effective: Fall 2025
Technical Change EN 4403/6403	**Approved**		**FROM: EN 4403/6403 Introduction to Linguistics** Three hours lecture. The descriptive and historical study of language; linguistic analysis and comparisons; language classification; language in its social and cultural setting. (Same as AN 4403/6403) **TO: EN 4403/6403 Introduction to Linguistics** Three hours lecture. The descriptive and historical study of language; linguistic analysis and comparisons; language classification; language in its social and cultural setting. (Same as AN 4403/6403 and LIN 4/6403) Effective: Fall 2025
Modification GS 2003 +Distance	**Approved**		**GS 2003 Race, Gender, Class and Global Media** (Prerequisite: CO 1403). Three hours lecture. The course will familiarize students with the breadth of media-related race, class and gender issues while providing tools to critically analyze and engage modern global media and mediums. (Same as CO 2003 and AAS 2003). Distance: Yes Method of Delivery: F & O Campus: 1 & 5 Effective: Spring 2025
Addition GS 4643/6643	**Approved**		**GS 4643/6643 Gender and Sexuality in Design** (Prerequisite Junior Standing or permission of instructor) Three hours seminar. This seminar course introduces students to the achievements, contributions, and history of women in the male-dominated professions of architecture, interior design, graphic design, interior design, and urban design. (Same as ARC 4643/6643) Method of Instruction: S Method of Delivery: F Campus: 1 CIP: 040801 30 Char: Gender and Sexuality in Design Effective: Spring 2025
Addition LIN 4403/6403 +Meridian +Distance	**Approved**		**LIN 4403/6403 Intro to Linguistics** Three hours lecture. The descriptive and historical study of language; linguistic analysis and comparisons; language classification; language in its social and cultural setting. (Same as AN/EN 4403/6403) Method of Instruction: C Method of Delivery: F & O

			Campus: 1, 2, & 5 CIP: 160102 30 Char: Intro to Linguistics Effective: Fall 2025
Addition	SW 2333	**Approved**	**SW 2333 Professional Development in Social Work** Three hours lecture. This course provides students a brief overview of the social work profession while emphasizing the knowledge/interpersonal skills needed to advance from college to graduate school and/or employment. Skills required for writing in the American Psychological Association style, library research, and professionalism will be developed/assessed. Method of Instruction: C Method of Delivery: F Campus: 1 CIP: 440701 30 Char: Professional Dev in SW Effective: Spring 2025

EDUCATION

Modification +Distance	COE 8903	**Approved**	**COE 8903 School Counseling Services** Three hours lecture. Overview of a comprehensive school counseling program. Distance: Yes Method of Delivery: F & O Campus: 1, 2, & 5 Effective: Spring 2025
Modification +Starkville +Meridian	EDX 8043	**Approved**	**FROM: EDX 8043 Evidence Based Practices of Struggling Learners** **TO: EDX 8043 Evidence Based Practices for Struggling Learners** Three hours lecture. Analysis of evidence-based practices for struggling learners in reading and math. The course will emphasize evidence-based practices for planning, collaboration, instruction, and assessment to ensure an appropriate education for students with disabilities. Method of Delivery: F & O Campus: 1, 2, & 5 Effective: Spring 2025
Modification +Distance	EP 4153/6153	**Approved**	**EP 4153/6153 Training Techniques for Exercise and Sport** (Prerequisite: A grade of C or better in EP 3304). Three hours lecture. Training techniques used for exercise and sport and their acute and chronic effects. Distance: Yes Method of Delivery: F & O Campus: 1 & 5 Effective: Spring 2025
Modification	INDT 3373	**Approved**	**FROM: INDT 3373 Forecasting and Cost Modeling** (Prerequisite:JuniorStanding).Three hours lecture. Use of the higher functions of spreadsheet software to

			undertake costing of manufacturing process routes and to forecast changes in manufacturing scenarios. **TO: INDT 3373 Forecasting and Cost Modeling** Three hours lecture. Use of the higher functions of spreadsheet software to undertake costing of manufacturing process routes and to forecast changes in manufacturing scenarios. Effective: Fall 2025
Addition +Distance	INDT 4863/6863	**Approved**	**INDT 4863/6863 Manufacturing Strategy** Three hours lecture. Manufacturing strategy focuses on the development and implementation of manufacturing proposals. Students will engage in process improvement, machine integration, and the business analytics required to write and present effective proposals. Method of Instruction: C Method of Delivery: F & O Campus: 5 CIP: 150613 30 Char: Manufacturing Strategy Effective: Fall 2025
Addition +Distance	INDT 8183	**Approved**	**INDT 8183 Smart Manufacturing** Three hours lecture. This course focuses on smart manufacturing and the production process by bringing together intelligent machines, advanced analytics, and manufacturing industry workforce. Industrial operations into the fourth industrial revolution era, or Industry 4.0 is covered. Method of Instruction: C Method of Delivery: O Campus: 5 CIP: 150612 30 Char: Smart Manufacturing Effective: Fall 2025
Addition +Distance	INDT 8223	**Approved**	**INDT 8223 Technology in the 21st Century** (Prerequisite: INDT 8143) Three hours lecture. This class covers advanced topics of current industry trends. Topics covered include Electric vehicles, battery technology, predictive maintenance, Modeling and optimization, pf curve, technology forecasting, systems integration, horizon scanning, new energy solutions, artificial intelligence, self-driving cars. Method of Instruction: C Method of Delivery: O Campus: 5 CIP: 150612 30 Char: Technology in the 21st Century Effective: Fall 2025
Addition +Distance	INDT 8313	**Approved**	**INDT 8313 Industrial Management & Training Development** Three hours lecture. This course is an exploration of industry management strategies, change

			theory, training program development, and how to measure effective training. Upon completion of the course, the student will be able to: CO.8313.01 Define leadership as a professional and in academia (CFPO 1-6, 8, 13-14; GPO Method of Instruction: C Method of Delivery: O Campus: 5 CIP: 150612 30 Char: Industrial Mgt & Train Dev Effective: Fall 2025
Addition +Distance	INDT 8323	**Approved**	**INDT 8323 Innovation for Industry and Education** Three hours lecture. This course is an exploration of industry management strategies, change theory, training program development, and how to measure effective training. Method of Instruction: C Method of Delivery: O Campus: 5 CIP: 150612 30 Char: Innovation for Ind & Ed Effective: Fall 2025
Deletion	MU 1123	**Approved**	**MU 1123 History and Appreciation of American Music** Effective: Fall 2025
Deletion	MU 1133	**Approved**	**MU 1133 The History of Rock and Roll** Effective: Fall 2025
Deletion	MU 1143	**Approved**	**MU 1143 The History of Jazz** Effective: Fall 2025
Deletion	MU 1153	**Approved**	**MU 1153 Music of Africa** Effective: Fall 2025
Deletion	MU 1173	**Approved**	**MU 1173 Music of the Beatles** Effective: Fall 2025
Deletion	MU 2023	**Approved**	**MU 2023 Music of Latin America** Effective: Fall 2025
Deletion	MU 2173	**Approved**	**MU 2173 Women in Music** Effective: Fall 2025

ENGINEERING

Addition	CSE 2633	**Approved**	**CSE 2633 AI Literacy** 3 hours lecture. An introduction to the basic principles of AI. Students will learn how to apply AI to science and engineering problems and understand the relevant ethical and regulatory considerations. Method of Instruction: C Method of Delivery: F & O Campus: 1, 5, & 6 CIP: 110102 30 Char: AI Literacy Effective: Fall 2025

Technical Change	CSE 3623	**Approved**	**FROM: CSE 3623 AI Capstone II** (Prerequisite: CSE 3213 and senior standing) Three lecture hours. Continuation of CSE 3213. AI system implementation, testing, verification, and validation of results. Written reports and oral presentations in a technical setting. **TO: CSE 3623 AI Capstone II** (Prerequisite: CSE 3613 and senior standing) Three lecture hours. Continuation of CSE 3613. AI system implementation, testing, verification, and validation of results. Written reports and oral presentations in a technical setting. Effective: Fall 2025
Technical Change	CSE 3683	**Approved**	**FROM: CSE 3683 AI Fundamentals** (Prerequisite: Grade of C or better in CSE1384 or IE4933 and MA3113) Three lecture hours. Provides students with an introduction to the foundational concepts, techniques, and applications of Artificial Intelligence(AI). This course discusses the evolution of AI, problem-solving and search methods, knowledge representation, rule-base systems, machine learning. **TO: CSE 3683 AI Fundamentals** (Prerequisite: Grade of C or better in CSE1384 or IE4933) Three lecture hours. Provides students with an introduction to the foundational concepts, techniques, and applications of Artificial Intelligence(AI). This course discusses the evolution of AI, problem-solving and search methods, knowledge representation, rule-base systems, machine learning. Effective: Fall 2025
Technical Change ECE 4443/6443		**Approved**	**FROM: ECE 4443/6443 Sensor Processing for Autonomous Vehicles** (Prerequisite: ECE 3443 or permission ofinstructor).Three hours lecture. Introduction to sensors and sensor processing for advanced driver assistance systems (ADAS). **TO: ECE 4443/6443 Sensor Processing for Autonomous Vehicles** (Prerequisite: junior, senior, or graduate standing). Three hours lecture. Introduction to sensors and sensor processing for advanced driver assistance systems (ADAS). Effective: Fall 2025
Technical Change ECE 4512/6512		**Approved**	**FROM: ECE 4512/6512 Capstone Design I** (Prerequisite: Grade of C or better in ECE 1022, ECE 3433, ECE 3244, and ECE 3724; co-registration in GE 3513; and consent of instructor). One hour lecture. Three hours laboratory. Students demonstrate engineering design cycle via working prototypes, documentation, and oral presentation. **TO: ECE 4512/6512 Capstone Design I** (Prerequisite: Grade of C or better in ECE 1022, ECE 3433, ECE 3244, and ECE 3724; co-registration in GE 3513 and ECE 3443). One hour lecture. Three hours laboratory. Students demonstrate engineering design cycle via

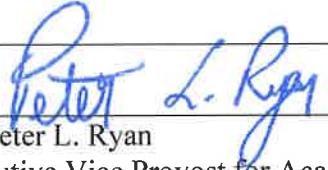|			working prototypes, documentation, and oral presentation. Effective: Fall 2025
Addition	GE 4101	**Approved**	**GE 4101 Grad Path Seminar** This course is an online mentoring program offered to juniors and seniors preparing for the graduate school or research program application process. Students are matched with a current graduate student for assistance. Method of Instruction: C & S Method of Delivery: F & O Campus: 1 & 5 CIP: 149999 30 Char: Grad Path Seminar Effective: Spring 2025

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

ENGINEERING

Addition	**Degree:** Undergraduate Minor **Major:** Artificial Intelligence	**Approved**	Effective: Fall 2025

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

Proposals**

_____

_____

_____

Dr. Peter L. Ryan
Executive Vice Provost for Academic Affairs

February 10, 2025
Date

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: **Computer Science and Engineering**

Contact Person: **Andy perkins**   Mail Stop: **9637.** E-mail: **perkins@cse.msstate.edu**

Nature of Change: **New Program**   Date Initiated: **09/18/24**

Current Degree (BS, MS, etc.): _____

Current Major: _____

Current Concentration(s): _____

Current Campus(es): ☐ Starkville ☐ Meridian ☐ Distance ☐ Gulf Coast*

*Gulf Coast campus for Bagley College of Engineering only

New Degree (BS, MS, etc.): **Undergraduate minor**

Effective Date:

Semester   **Year**

Fall   2025

**Any new program or modification desiring a starting semester other than fall must include a justification

Proposed Major: **Artificial Intelligence**

Proposed Campus(es)
☑ Starkville
☐ Meridian
☐ Distance
☐ Gulf Coast*

Proposed Concentration(s): _____

*Gulf Coast campus for Bagley College of Engineering only

Summary of Proposed Changes:

The Department of Computer Science and Engineering already offers a BS in Artificial Intelligence and proposes here to add an undergraduate minor in AI.
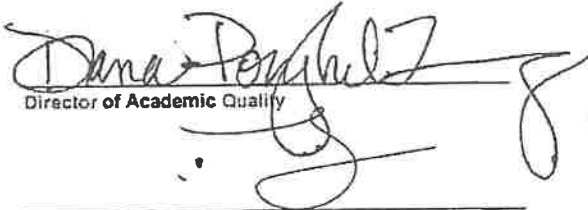
Approved: **Date:**

(signature)   **10/23/2024**
Department Head

(signature)   10/24/24
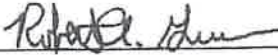Director of Academic Quality   Dr. T.J. Jankun-Kelly
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Chair, College or School Curriculum Committee

(signature)   22 NOV 2024
Dean of College or School

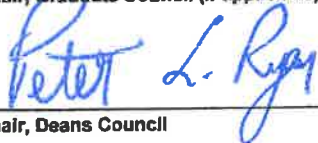_(signature)_   Digitally signed by Andy   1/27/25
                D. Perkins
                Date: 2025.01.27
                13:16:59 -06'00'
Chair, University Committee on Courses and Curricula

Chair, Graduate Council (if applicable)

(signature)   February 10, 2025
Chair, Deans Council

Template for NEW PROGRAMS (see Guide and Format, pp 31-34 for further information)

1. Catalog Description and Curriculum Outline-insert the template here:

PROPOSED New Degree	
Degree: Undergraduate Minor Major: Artificial Intelligence Concentration: N/A Endorsement: N/A	
Catalog Description: The undergraduate minor in Artificial Intelligence prepares students to understand and apply common artificial intelligence and machine learning methods in a variety of disciplines. Those completing the minor will be able to choose appropriate methods, explain how various AI/ML methods operate, implement AI-based solutions, apply existing methods to problems in science and engineering, and discuss ethical and regulatory considerations. This minor is not available to students matriculating in BS programs in Computer Science, Software Engineering, Cybersecurity, or Artificial Intelligence.	
Proposed Curriculum Outline	Required Hours
CSE 1284 Introduction to Computer Programming	4
CSE 1384 Intermediate Computer Programming	4
CSE 2263 AI Literacy	3
CSE 3683 AI Fundamentals	3
ST 2113 Introduction to Statistics (or equivalent)	3
Total Hours	17

2. Justification for the New Degree Program including how it meets the mission of the university.

The ability to use artificial intelligence (AI) techniques has become an important skills in a variety of careers. This minor will allow students across campus to learn the fundamentals of AI and how to apply AI techniques in their discipline.

3. How do these changes meet the changing needs of the degree program/industry or make our program more competitive.

   Over the past decade, computing has become pervasive, spreading to almost all business and industry. Recent advances in technology have enabled the use of artificial intelligence methods in these industries. It is key that the workforce have a solid understanding of these methods and how they can be used across a variety of disciplines.

4. Describe the coherence and increasing rigor of the program.

   a. Undergraduate Programs: Provide evidence that 3000-level and 4000-level courses are designed to provide a coherent program of study that enhances the degree.
   b. Graduate Programs: Provide evidence that the design of the program is not just a collection of graduate courses.

   Students will develop foundational computer programming skills in the 1000-level CSE 1284 Introduction to Computer Programming and CSE 1384 Intermediate Computer Programming courses. The 2000-level courses provide a background in the fundamentals of AI (AI Literacy) and statistics (Introduction to Statistics) needed to understand and use AI methods. For example, the AI Literacy course introduces students to basic AI principles, ethical and regulatory considerations, and applications of AI in a variety of fields. The 3000-level AI Fundamentals course is a more advanced AI course that builds upon AI Literacy by addressing the technical aspects of solving problems with AI and the basics of machine learning.

5. Student Learning Outcomes

   Outcome 1: Students will apply AI and statistical methods to solve real-world problems in a variety of domains.

Outcome 2: Students will assess AI approaches to determine which is most appropriate for a particular application.

Outcome 3: Students will implement basic AI methods.

6. Assessment Procedures

Learning Outcome	Assessment description & Course
Students will apply AI and statistical methods to solve real-world problems in a variety of domains.	Students will complete a semester project in CSE 2263 AI Literacy in which methods discussed in the class are applied to data provided by the instructor.
Students will assess AI approaches to determine which is most appropriate for a particular application.	Students will complete a selection of exam questions in CSE 3683 AI Fundamentals in which they will identify appropriate methods for a variety of applications.
Students will implement basic AI methods.	Students will use skills learned in CSE 1284 and CSE 1384 to write basic code to implement AI methods as part of a homework assignment in CSE 3683 AI Fundamentals.

7. Proposed 4-letter Abbreviation

BSAI

8. CIP Number (contact Director of Academic Quality for help in determining number)

11.0102

9. Attach Letters of Support

See attached letter from Department of Computer Science and Engineering Curriculum Committee.

Stephen A. Torri
CSE Committee on Courses and Curricula
Computer Science and Engineering
Mississippi State University
665 George Perry Street
Box 9637
Mississippi State, MS 39762

October 8, 2024

Dr. Perkins,

To Whom It May Concern,

The Computer Science and Engineering (CSE) Faculty has recommended the following updates to the course descriptions to align with current instructional practices.

- Addition of AI minor
- Addition of CSE 2633 AI Literacy as a required course for AI minor
- Addition of CSE 4903 Professional Experience in Computing
- Modification of the following degrees to require the CSE 4903 Professional Experience in Computing course and add Calculus IV as a technical elective:
  - BS in Computer Science
  - BS in Software Engineering
  - BS in Cybersecurity
  - BS in Artificial Intelligence.
- Change of the prerequisite for CSE 3683 AI Fundamentals
- Change of the prerequisite for CSE 3623 AI Capstone II

Thank you for your attention to this matter.

Stephen Torri

Digitally signed by: Stephen Torri
Reason: I am approving this document
Email: storri@cse.msstate.edu
Date: 10.16.2024

_____
Stephen A. Torri
Committee Member
Associate Professor

Digitally signed by Zhiqian Chen
Date: 2024.10.08 15:42:31 -05'00'
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Zhiqian Chen, Ph.D.
Committee Member
Assistant Professor

_____
Kortni Neal
Committee Member
Instructor

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Joshua Crowson
Committee Member
Instructor