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:** ITIDCCL

Contact Person: Gregory M. Francom **Mail Stop:** 9730 **E-mail:** gmf124@msstate.edu

Nature of Change: Modification **Date Initiated:** _____

Current Degree Program Name: Bachelor of Science

Current Major: Information Technology Services

Current Concentration(s): _____

Current Campus(es): Starkville

New Degree Program Name: Bachelor of Science **Effective Date:** 08/01/25

Semester Fall **Year** 2025

Proposed Major: Learning and User Experience Design

Proposed Concentration(s): _____ **Proposed Campus(es):** Starkville

Summary of Proposed Changes:

CIP code recommended: 30.3101; This is a major program modification to the Information Technology Services Program. The new program focus will be Learning and User Experience Design.

Approved:	Date:
Department Head	09/17/2024
Director of Academic Quality	10/4/24
Chair, College or School Curriculum Committee	11/6/2024
Dean of College or School	11.12.2024
Chair, University Committee on Courses and Curricula	
Chair, Graduate Council (if applicable)	
Chair, Deans Council	

1. **DEGREE MODIFICATION OUTLINE FORM**

Use the chart below to make modifications to an existing undergraduate degree outline. If any General Education (Core) course is acceptable in the category, please indicate by saying "any Gen Ed course". There is no need to type in the whole list. All deleted courses and information should be shown in italics and all new courses and information in bold. Include the course prefix, number, and title in both columns. Expand this table as needed.

CURRENT Degree Description	PROPOSED Degree Description
Degree: Bachelor of Science Major: *Information Technology Services* Concentration:	Degree: Bachelor of Science Major: **Learning and User Experience Design** Concentration:
This curriculum is designed to prepare students for the use of computer-based information systems, particularly software applications and hardware and the development and implementation of information technology end use support and information technology project management. *Minor in business administration. By completing the business requirements for the ITS degree, students may be eligible to receive a minor in Business Administration from the College of Business. ITS majors interested in a minor in business administration should contact an academic coordinator in room 106 McCool Hall.*	**The Learning and User Experience Design (LUX) program prepares students to create engaging and intuitive learning and user experiences. Students learn how to employ human-centered design principles to understand users' needs and use technology to enhance skill development, user experience and user satisfaction.** **Graduates of the LUX program are equipped with the interdisciplinary skills necessary to excel in various roles, such as user experience designer, learning experience designer, instructional designer, interaction designer, product manager, and user-experience researcher.**

CURRENT CURRICULUM OUTLINE	Required Hours	**PROPOSED CURRICULUM OUTLINE**	Required Hours
English (Ex: EN 1103 English Comp I): EN 1103 English Comp I EN 1113 English Comp II	6	English (Ex: EN 1103 English Comp I): EN 1103 English Comp I EN 1113 English Comp II	6
Fine Arts (General Education): any Gen Ed course	3	Fine Arts (General Education): any Gen Ed course	3
Natural Sciences (2 labs required from Gen Ed): any Gen Ed course	6	Natural Sciences (2 labs required from Gen Ed): any Gen Ed course	6
Math/Science Elective: any Gen Ed course	*3*	**Not Required**	

Math (General Education): *MA 1313 College Algebra* *ST 2113 Introduction to Statistics, or* *BQA 2113 Business Statistical Methods I*	*6*	**Quantitative Reasoning (General Education):** **any Gen Ed course**	**3**
Humanities (General Education): any Gen Ed course	6	Humanities (General Education): any Gen Ed course	6
Social/Behavioral Sciences (Gen Ed): any Gen Ed course	6	Social/Behavioral Sciences (Gen Ed): any Gen Ed course	6
Oral Communication Requirement: *CO 1003 Fundamentals of Public Speaking, or* *CO 1013 Introduction to Communication*	*3*		
Computer Literacy Requirement: *TECH 1273 Computer Applications (or other approved course)*	*3*		
Writing Requirement: MGT 3213 Organizational Communications, or INDT 3813 Technical Writing and Presentation for Industry	3	Writing Requirement: MGT 3213 Organizational Communications, or INDT 3813 Technical Writing and Presentation for Industry	3
Current Program		Proposed Changes	
Minor Core: Business Courses *ACC 2013 Principles of Financial Accounting* *ACC 2023 Principles of Managerial Accounting* *BL 2413 The Legal Environment of Business* *EC 2113 Principles of Macroeconomics* *EC 2123 Principles of Microeconomics* MGT 3113 Principles of Management MGT 3513 Introduction to Human Resource Management *BIS 1523 Web Development I* BIS 3233 Management Information Systems	27 *3* *3* *3* *3* *3* 3 3 *3* 3	Major Core: Business Courses MGT 3113 Principles of Management MGT 3513 Introduction to Human Resources Management BIS 3233 Management Information Systems	9 3 3 3

Major Core Courses	51	Major Core Courses	60
TECH 2123 Database Management	*3*	**TECH 1273 Computer Applications**	**3**
TECH 2133 Spreadsheet Design & Analysis	*3*	**TECH 2023 Introduction to Human-Centered Design**	**3**
TECH 3133 Administrative Management and Procedures	*3*	**TECH 2213 Introduction to Artificial Intelligence Infrastructure**	**3**
TECH 3213 Call Center Management	*3*	**TECH 2233 Information and Media Literacy** Type text here	**3**
TECH 3463 Computer Repair & Maintenance	*3*	**TECH 2533 Learning Experience Design**	**3**
TECH 3623 Design Technology Training	*3*	**TECH 3123 Introduction to Experience Design Research**	**3**
		TECH 3223 Experience Design Applications	**3**
		TECH 3313 Computational Thinking	**3**
		TECH 3583 Instructional Graphic Production	**3**
TECH 4203 Emerging Technologies	3	TECH 4203 Emerging Technologies	3
TECH 4343 Information Technology Project Management	3	TECH 4343 Information Technology Project Management	3
TECH 4543 Information Processing	*3*		
TECH 4563 Introduction to Data Networks	*3*		
TECH 4573 Data Networks II	*3*		
TECH 4583 Graphics and Web Design	3	TECH 4583 Graphics and Web Design	3
TECH 4623 Delivery and Evaluation of Technology Training	*3*	**TECH 4523 Experience Design Evaluation**	**3**
		TECH 4613 Application of Artificial Intelligence in UX/LX	**3**
TECH 4683 Senior Seminar	3	**TECH 4683 Senior Seminar in Learning and User Experience Design**	**3**
TECH 4743 Electronic Desktop Publishing	*3*		
TECH 4753 Media for Presentations, Instruction and Gaming	*3*	**TECH 4713 Authoring for Instruction**	**3**
		TECH 4753 Video and Audio Production	**3**
Approved Elective	3	Approved Elective	3
		Approved Elective	**3**

		Approved Elective	**3**
		Endorsement areas (Choose one) **Information Technology Services (18 hours)** **TECH 2123** **TECH 3463** **TECH 4563** **TECH 4573** **TECH 2563** **TECH 2653** **Product Development (18 hours)** **INDT 1003** **INDT 2343** **INDT 2353** **INDT 4443** **INDT elective** **INDT elective** **Art and Graphic Design (18 hours)** **ART 1123** **ART 1133** **ART 2803** **ART 2813** **Choose two more ART classes (at least 6 credit hours) OR Graphic Design Minor (in development)** **Data Science (19 hours)** **Consists of current Data Science minor currently offered at MSU: https://www.datascience.msstate.edu/programs/minor-data-science**	**18-19**
Total Hours	123	Total Hours	120-121

Proposed 4-Letter Abbreviation: LUXD

Proposed Effective Date: Fall Semester (August) 2025

Review/Assessment of the program

The current Information Technology Services (ITS) program emerged from three main areas; business technology education, administrative assisting, and IT services, with no clear career trajectory for graduates. It has not had any significant curriculum revision for many years and enrollment numbers in the ITS program have grown smaller and smaller.

As a result, several actions were taken. Our team conducted a thorough analysis of the existing curriculum and benchmarked it against similar programs at leading universities to identify areas for enhancement. Additionally, we administered an alumni survey to gather feedback on the program's strengths and areas for improvement and what was aligned with the industry. In addition, Dr. Teresa Jayroe, Dean of the College of Education, hired a consultant who worked with our curriculum committee on this revision. This consultant has extensive experience in the Learning and User Experience fields and works at a major research university.

The outside consultant reviewed our degree program and provided key recommendations for its revision. Our committee held several meetings with the outside consultant during the development of this new curriculum as well, gaining feedback and guidance on courses and topics to include. The revision process also involved a meticulous comparison of this new curriculum to a leading academic program in the learning and user experience discipline (Human Experience Design and Interaction at Utah State University). The comparison program has been very successful with high student enrollment, graduation and employment rates. Additional Data gathered included an analysis of potential updated careers that the program prepares students for, including salary ranges, and current job descriptions on employment sites that are a match for the proposed curriculum.

Significant Program Modification Questions:

Will this program change meet local, state, regional, and national educational and cultural needs? If so, please describe.
Learning Experience Design focuses on creating engaging learning experiences by incorporating instructional strategies, technology, and user-centered design principles to optimize knowledge acquisition and skill development. User Experience Design emphasizes crafting intuitive, enjoyable, and functional interactions between users and products or services, considering usability, accessibility, and aesthetics.

This proposed program would primarily meet state, regional and national educational and cultural needs. Learning and User Experience design jobs tend to be found in larger tech-related companies, government agencies and manufacturing and other industrial operations. All these types of institutions exist in our state and region, and of course, nationally. Mississippi has many industrial operations and continues to serve as a site of investment for future operations. One recent example of this is Amazon Web Services, which plans to invest $10 billion in Madison county, making up the largest capital investment in the state's history.

Will this program change result in duplication in the System? If so, please describe.
No. There is no program that could be considered equivalent to this proposed program. It would be the first of its kind in the region.

Will this program change/advance student diversity within the discipline? If so, please describe.
Yes, this program is likely to advance student diversity within the discipline. Our current program tends to attract a diverse array of students both ethnically and culturally. We anticipate that enrollment in the proposed modification will do the same. Because Mississippi State University is the most diverse land grant university within the United States, our students

entering this program would very likely diversify the Learning and User Experience Design fields, which has historically been majority Asian and Caucasian. This would help to infuse the field with a wider array of experiences and understandings.

Will this program change result in an increase in the potential placement of graduates in MS, the Southeast, and the U.S.? If so, please describe.
Yes, the program change will likely result in better placement of graduates in the Southeast and in the US, but also in our own state. Learning and User Experience design jobs tend to be found in larger tech-related companies, major government agencies and manufacturing and other industrial operations. These all exist in our state, especially industrial operations. In addition, because of the uniqueness of this proposed program, graduates would have less competition against graduates from other universities in the Southeast region of the United States.

Will this program change result in an increase in the potential salaries of graduates in MS, the Southeast, and the U.S.? If so, please describe.
While some potential positions overlap between the current ITS program and the proposed one, on average, current ITS program salaries are lower than salaries of positions in the proposed learning and user experience program modification. Some of the new position areas include UX/UI designer ($70K-$110K), LX designer ($60K-$90K), Instructional Designer ($60K-$85K), Interaction Designer ($75K-$110K), Product Manager ($90K-$140K), and UX researcher ($80K-$120K)

2. **Justification for the modifications to the Degree Program, including how it meets the mission of the university**

The current Information Technology Services (ITS) program has not had significant curriculum changes for many years, making some aspects obsolete. This program emerged from three main areas; business technology education, administrative assisting, and IT services, with no clear career trajectory for graduates. As a result, enrollment numbers in the ITS program have dwindled for the past several years.

This modification updates most courses in the program and adjusts the focus area to learning and user experience design. In contrast to the current ITS program, this proposed program coherently walks students along a path of increasing skill and rigor to enter an emerging and popular field of practice; learning and user experience design. Students in the proposed program would be prepared for roles such as user experience designer, learning experience designer, instructional designer, interaction designer, product manager, and user-experience researcher. Each of these positions mentioned are in demand and can be found currently in job search websites around the country. The proposed modification helps to advance the mission of the university by providing a much clearer career path of opportunity to students.

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

The curriculum committee who worked on this modification consulted job descriptions, recent research literature, other university program curricula, and an outside consultant who has expertise in the field and was instrumental in developing similar programs at other universities. One such program that she was involved with has become very popular over the past few years with high enrollment numbers. This outside consultant, along with our department committee

members, have experience in the fields of learning experience design, user experience design and human-centered design in business, K-12 and higher education settings. We worked collaboratively to review and make changes to the current curriculum based on our knowledge of the direction the field is going. Our curriculum committee concentrated on two main goals throughout the process; matching the curriculum to the changes that have happened in the field and preparing graduates to be successful in the current field.

Endorsement areas chosen as part of the program help students to set themselves apart from other job application candidates by developing specialization in closely related areas including Information Technology Services, Product Development, Data Science, and Art and Graphic Design. Each of these areas is connected to potential skills that graduates in learning and user experience design might use, depending on what career path they take.

Overall, as a result of these changes, we have also been able to make the program a better fit for the college of education (with the learning focus) and update the program to better match the areas of faculty expertise we have within our department. The proposed program is also better aligned to our current graduate programs, especially the Master of Science in Instructional Technology. Salaries in the learning and user experience design field are higher on average (60k-120k depending on the position) than those that our students are getting from the current ITS program. Finally, the proposed program provides for better collaboration with other programs within (Industrial Technology) and outside of our department.

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

The major core courses in the program follow a logical progression of experience design courses starting with TECH 2023 – Introduction to human-centered design which gives students an overview of and practice with the human-centered design process. This process will serve as the foundation for the rest of the experience design courses that will follow, including TECH 3123 - introduction to experience design research, TECH 3223 - experience design applications, and TECH 4723 - experience design evaluation. The later courses in this sequence, including TECH 3223 - experience design applications, TECH 3533 - learning experience design, and TECH 4723 - experience design evaluation provide an opportunity to synthesize and apply what has been learned in the prior classes. Other core classes provide students with the skills that are often needed by professionals working in the learning and user experience design fields such as graphics, audio and video production, media literacy, computational thinking, emerging technologies and artificial intelligence. The TECH 4683 senior seminar class gives students an opportunity to apply their skills to internship opportunities in the learning and user experience design field.

5. **Overarching list of course topics with accompanying documentation of contact hours**

The proposed Learning and User Experience Design program focuses on key areas like Human-Centered Design (45 hours in one class, with other classes covering this process again), AI Technologies/machine Learning (90 hours), emphasizing practical applications in UX/LX contexts. Students start with foundational courses in human-centered design and experience design (180 hours total), gaining essential skills in understanding user interactions and applying technology in design.

As students advance, they learn Information and Media Literacy (45 hours), Computational thinking (45 hours), User Experience Research and Applications (90 hours), and Learning

Experience Design (45 hours), focusing on creating engaging and educational user experiences. Hands-on skills in Graphic and Web Design (90 hours) play a significant role, preparing students to apply advanced design principles in real-world settings. Project Management (45 hours) and Experience Design Evaluation (45 hours) further equip students to manage projects and assess design outcomes effectively.

The program also highlights emerging technologies like Augmented Reality, Generative AI, and Game-Based Learning (45 hours), giving students a forward-looking perspective on UX/LX design. With field experience and project-based learning integrated into the curriculum (45 hours), students are prepared to solve real-world challenges in designing and improving user and learning experiences.

Each course syllabus contains a more detailed list of learning objectives and topics that the course will cover along with planned contact hours for each topic. The Mississippi State University CIM system includes this information.

6. Student learning outcomes (generally 3-5 outcomes)

- Students will design user interfaces and learning experiences based on human-centered design principles
- Students will design learning experiences that leverage cognitive psychology and active learning techniques, enhancing user engagement, knowledge retention, and learner/user satisfaction.
- Students will conduct user experience research and analyze findings and communicate results effectively to refine design solutions.
- Students will conduct evaluations of existing UX/LX designs, utilizing usability testing, feedback synthesis, and data analysis techniques to refine and optimize solutions post-development.

7. Assessment procedures

Learning outcome	Assessment description and Course
Students will design user interfaces and learning experiences based on human-centered design principles	TECH 3223 - **Final Project:** Develop a comprehensive user interface design project including sketches, prototypes, and final presentation. TECH 4683 - **Internship:** Students will complete 30 hours of an internship in the field of learning and user experience design, write a paper reporting their internship, and share their internship experiences with the class.
Students will design learning experiences that leverage cognitive psychology and active learning techniques, enhancing user engagement, knowledge retention, and learner/user satisfaction.	TECH 2533 - **Learning Experience Design Project:** Apply research strategies for designing engaging and effective experiences by using practical design techniques. Develop a learner centered experience incorporating diverse learner needs and feedback. TECH 4713 - **Final Project:** As a final project, students will develop a comprehensive learning

	module or course using an authoring tool. This project has milestones that occur through the semester.
Students will conduct user experience research and analyze findings and communicate results effectively to refine design solutions.	TECH 3123 - **Final Research Project:** Develop a comprehensive research project including user research, data analysis, and final presentation. TECH 4523 - **Evaluation Report:** Develop a comprehensive evaluation report including findings and recommendations.
Students will conduct evaluations of existing UX/LX designs, utilizing usability testing, feedback synthesis, and data analysis techniques to refine and optimize solutions post-development.	TECH 3123 - **Final Research Project:** Develop a comprehensive research project including user research, data analysis, and final presentation. TECH 4523 - **Final Evaluation Project:** Conduct a comprehensive evaluation project including planning, data gathering, analysis, and presentation.

MISSISSIPPI STATE UNIVERSITY

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May 15, 2024

TO: Box Council and UCCC Committee Members

FROM: Dr. Gregory M. Francom

RE: Support of IT Services Program Revision

Our committee developed the proposed modification to the IT services program. We presented this proposed modification to our full department faculty. A subsequent department vote revealed that a majority of full department faculty voted in favor of this proposed modification and have approved the proposal as written for submission to the Box Council and the UCCC.

Respectfully,

Gregory M. Francom — May 15, 2024
Gregory M. Francom (May 15, 2024 12:19 CDT)
Gregory M. Francom — Date

Dana AlZoubi — May 15, 2024
Dana AlZoubi (May 15, 2024 12:20 CDT)
Dana AlZoubi — Date

Sang Joon Lee — May 17, 2024
Sang Joon Lee (May 17, 2024 13:53 CDT)
Sang Joon Lee — Date

Marty Bray — May 17, 2024
Marty Bray (May 17, 2024 11:40 EDT)
Marty Bray — Date

Lara Threet — May 20, 2024
Lara Threet (May 20, 2024 13:34 CDT)
Lara Threet — Date

Stephanie King — May 16, 2024
Stephanie King (May 16, 2024 04:55 CDT)
Stephanie King — Date

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May 15, 2024

Dr. Francom,

The Industrial Technology program is excited to support the proposed changes to the ITS program. The faculty and program have agreed the additional students will not pose any issues with the progress of any Industrial Technology student.

We look forward to seeing what the future holds for your program.

Lara Threet

Lara Threet
Program Coordinator
Industrial Technology
Mississippi State University
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(662) 325.7253

MISSISSIPPI STATE UNIVERSITY™

DATA SCIENCE ACADEMIC INSTITUTE
133 Etheredge Hall
Mississippi State, MS 39762
662.325.3168
datascience.msstate.edu

June 18, 2024

To Whom It May Concern:

The Data Science Academic Institute fully supports the development of a data science emphasis area as part of the revised major within the Department of Industrial Technology, Instructional Design, and Community College Leadership. We know that data science will be a great fit within the new focus on learning and user experience design. We appreciate the effort and dedication required to create this curriculum.

Sincerely,

Dr. Mimmo Parisi
Executive Director
Data Science Academic Institute

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October 3, 2024

RE: ITS Support

Dear UCC Committee,

The Department of Art curriculum committee supports the proposed revisions to the Information Technology Services program, to a new focus on learning and user experience design. As a department, we have discussed the proposed art and graphic design emphasis that is part of this program, and we believe we will have capacity in our classes to accept the additional students that would enroll in this emphasis area.

Committee Members	Signatures	Vote
Taek Jung Assistant Professor		Y
Aubrey Pohl Assistant Professor		Y
Aaron McElfish Instructor		Yes

Sincerely

J. Suzanne Powney – Associate Professor
Curriculum Committee Chair
Department of Art