KENT STATE UNIVERSITY
CERTIFICATION OF CURRICULUM PROPOSAL

Preparation Date **26-Nov-19**   Curriculum Bulletin _____

Effective Date   **Fall 2020**   Approved by EPC _____

Department	**Computer Science**
College	**AS - Arts and Sciences**
Degree	**BS - Bachelor of Science** **MS - Master of Science**
Program Name	**Computer Science** Program Banner Code **CS**

Concentration(s)   **BS: Data Engineering, Game Programming, Information Security, Robotics and Embedded Systems; MS: Non-Thesis Option, Computer Security, Computer Engineering, Computational Data Science**   Concentration(s) Banner Code(s)   **BS: DAEN, GMPR, INSE, ROES; MS: NTHS, CSEC, CENG, and CDSC**

Proposal   **Establish program**
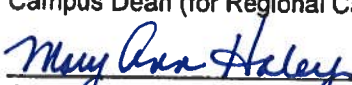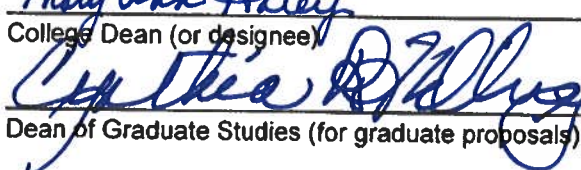
Description of proposal:

This is proposal to establish a new combined degree program: BS+MS in CS degree option. It involves double counting 9 graduate credits in a combined degree program. Students can apply for the program up through the Fall semester of their Senior year. After graduation with a BS degree, they will be able to enroll full time as a Masters student.

Does proposed revision change program's total credit hours?   ☒ Yes   ☐ No

Current total credit hours: **152**   Proposed total credit hours **143**

Describe impact on other programs, policies or procedures (e.g., duplication issues; enrollment and staffing considerations; need; audience; prerequisites; teacher education licensure):
No impact

Units consulted (other departments, programs or campuses affected by this proposal):
None. This is all done within the Computer Science Department.

REQUIRED ENDORSEMENTS

Department Chair / School Director   11 / 27 / 2019

Campus Dean (for Regional Campuses proposals)   __ / __ / __

College Dean (or designee)   12 / 13 / 19

Dean of Graduate Studies (for graduate proposals)   1 / 13 / 20

Provost (or designee)   __ / __ / __

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Ohio | **Department of Higher Education**

Mike DeWine, Governor
Randy Gardner, Chancellor

Combined Bachelor's/Master's Degree Program Request Form

Date of submission: 11/20/2019

Name of institution: Kent State University

Primary institutional contact for the request
    Name: Therese E. Tillett
    Title: Associate Vice President, Curriculum Planning and Administration
            Office of the Provost
    Phone: 330-672-8558
    E-mail: ttillet1@kent.edu

Name of bachelor's degree program: B.S. in Computer Science

Name of master's degree program: M.S. in Computer Science

Proposed implementation date: Fall 2020

1. **Identify the total number of credit hours in the undergraduate and master's programs combined.**

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2. **Describe how the university will ensure that students meet the expected baccalaureate program outcomes before the bachelor's degree is awarded.**

   Students in the combined program will be informed that keeping their progress and completion of the B.S. degree is their major focus in the dual program. The GPS (graduation planning system) in place at the university and college levels will monitor the student progress and notify students regularly on their status toward bachelor's degree. In the computer science department, the undergraduate advisors and graduate coordinator will regularly meet with the students to work with them for the success pathway towards the B.S. degree and the MS degree.

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3. **Describe how students are informed of this combined degree program. Include in the answer how students are advised regarding opportunities and challenges associated with the option.**

   The students will be informed officially by the graduate coordinator and graduate secretary by emails. Moreover, the computer science department regularly holds an annual graduate research day for undergraduate students. In the event, they will be informed about the combined program. Their questions will be answered by faculty members and graduate studies committee.

4. **Describe the options available for students who wish to leave the program with a bachelor's degree before finishing the graduate-level work.**

   The students who want to leave the combined program will obtain the B.S. undergraduate degree.

5. **Describe how the institution ensures that students will pay undergraduate tuition throughout the completion of the undergraduate degree.**

   Per Kent State policy, students in a combined bachelor's/master's degree program are classified as undergraduate until the bachelor's degree is awarded. Kent State's tuition rate is assigned to the student's level, and not at the course level. Therefore, undergraduate students taking graduate courses will be charged the undergraduate tuition rate.

Attach to this document a listing of the graduate courses in the master's degree program that will apply toward the bachelor's degree program and explain the requirements they will satisfy in the bachelor's degree.

Kent State University agrees to monitor the success of the program and will submit an annual report to Ohio Department of Higher Education on the scope of the program and student success.

Kent State University verifies that the information in this request is truthful and accurate.

Respectfully,

Signed after the request goes to EPC

Melody J. Tankersley, Ph.D.
Senior Vice President for Academic Affairs and Provost (Interim)
Kent State University

The courses that we would apply for joint credit include the following. They will satisfy required 9 credit hours of Computer Science (CS) Upper-Division Electives (40000 level).

Course Number	Title	Credit hrs	*Required
CS 51045	METALOGIC	3	
CS 52201	NUMERICAL COMPUTING I	3	
CS 52202	NUMERICAL COMPUTING II	3	
CS 53118	GRAPH AND SOCIAL NETWORK ANALYSIS	3	
CS 53202	SYSTEM ADMINSTRATION	3	
CS 53203	SYSTEM PROGRAMMING	3	
CS 53301	SOFTWARE DEVELOPMENT FOR ROBOTICS	3	
CS 53302	ALGORITHMIC ROBOTICS	3	
CS 53303	INTERNIT OF THINGS	3	
CS 53305	ADVANCED DIGITAL DESIGN	3	
CS 53334	HUMAN-ROBOT INTERACTION	3	
CS 53401	SECURE PROGRAMMING	3	
CS 54001	COMPUTER SCIENCE III- PROGRAMMING PATTERNS	4	
CS 54003	MOBILE APPS IN IOS PROGRAMMING	3	
CS 54105	WEB PROGRAMMING I	3	
CS 54106	WEB PROGRAMMING II	3	
CS 54201	ARTIFICIAL INTELLIGENCE	3	
CS 55231	INTERNET ENGINEERING	3	
CS 57101	COMPUTER GRAPHICS	3	
CS 57201	HUMAN COMPUTER INTERACTION	3	
CS 57205	INFORMATION SECURITY	3	
CS 57206	DATA SECURITY AND PRIVACY	3	
CS 57207	DIGITAL FORENSICS	3	
CS 57221	INTRODUCTION TO CRYPTOLOGY	3	
CS 59995	SPECIAL TOPICS IN COMPUTER SCIENCE	3	
CS 61002	ALGORITHMS AND PROGRAMMING I	3	
CS 61003	ALGORITHMS AND PROGRAMMING II	3	
CS 61004	OPERATING SYSTEMS AND ARCHITECTURE	3	
CS 62263	NUMERICAL SOLUTION OF LRG SPARSE LINEAR SYSTEMS	3	

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CS 62264	NUMERICAL SOLUTION OF NONLINEAR SYSTEMS	3	
CS 63005	ADVANCED DATABASE SYSTEM DESIGN	3	
CS 63015	DATA MINING	3	
CS 63016	BIG DATA ANALYTICS	3	
CS 63017	BIG DATA MANAGEMENT	3	
CS 63018	PROBABILISTIC DATA MANAGMENT	3	
CS 63100	COMPUTATIONAL HEALTH INFORMATICS	3	
CS 63201	ADVANCED OPERATING SYSTEMS	3	
CS 63301	PARALLEL AND DISTRIBUTED COMPUTING	3	
CS 63305	MULTICORE COMPUTING	3	
CS 63306	EMBEDDED COMPUTING	3	
CS 63901	SOFTWARE ENGINEERING METHODOLOGY	3	
CS 63902	SOFTWARE EVOLUTION	3	
CS 64201	ADVANCED ARTIFICIAL INTELEGENCE	3	
CS 64401	IMAGE PROCESSING	3	
CS 64402	MULTIMEDIA SYSTEM AND BIOMETRICS	3	
CS 65101	ADVANCED COMPUTER ARCHITECTURE	3	
CS 65202	ADVANCED COMMUNICATION NETWORKS	3	
CS 65203	WIRELESS AND MOBILE COMMUNICATION NETWORKS	3	
CS 65301	SYSTEM MODELING AND PERFORMANCE EVALUATION	3	
CS 66101	ADVANCED TOPICS IN ALGORITHMS	3	
CS 66105	PARALLEL AND DISTRIBUTED ALGORITHMS	3	
CS 66110	COMPUTTIONAL GEOMETRY	3	
CS 67101	ADVANCED COMPUTER GRAPHICS	3	
CS 67301	SCIENTIFIC VISUALIZATION	3	
CS 67302	INFORMATION VISULAIZATION	3	

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