KENT STATE UNIVERSITY
CERTIFICATION OF CURRICULUM PROPOSAL

Preparation Date **13-Nov-17** Curriculum Bulletin _____

Effective Date **Fall 2018** Approved by EPC _____

Department **School of Digital Sciences**

College **CI - Communication and Information**

Degree **MDS - Master of Digital Sciences**

Program Name Program Banner Code **MDS**

Concentration(s) **Enterprise Architecture, Digital Systems Training Technology, Digital Systems Software Development, Digital Systems Telecommunication Networks, Digital Systems Management, Data Science** Concentration(s) Banner Code(s) **ENAR, DSTT, DSSD, DSTN, DSMT, DATA,**

Proposal **Revise program**

Description of proposal:

1.) Add DSCI 62210 Web Development (3 hours) as an Approved Elective for all concentrations.
2.) Achieve fully online program designation for the following MDS concentrations: Enterprise Architecture (ENAR), Data Science (DATA) and Digital Systems Training Technology (DSTT).

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

Current total credit hours: **32** Proposed total credit hours **32**

Describe impact on other programs, policies or procedures (e.g., duplication issues; enrollment and staffing considerations; need; audience; prerequisites; teacher education licensure):

1.) No impact - this course is currently offered as a special topics course; a formal course number has been created for it.
2.) The courses in these three concentrations are currently offered online. With judiciously chosen online electives, the degree can currently be completed online. This designation would allow the online option of the program to be more transparent and easier to find via the web and catalog by students.

Units consulted (other departments, programs or campuses affected by this proposal):

The Interdiciplinary Advisory Committee and the Interdisciplinary Curriculum Committee

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REQUIRED ENDORSEMENTS

_____ ___/___/___
Department Chair / School Director

_____ ___/___/___
Campus Dean (for Regional Campuses proposals)

_____ 12/20/17
College Dean (or designee)

_____ ___/___/___
Dean of Graduate Studies (for graduate proposals)

_____ ___/___/___
Senior Vice President for Academic Affairs and Provost (or designee)

Proposal Summary
Master of Digital Sciences – Revision to the Major and Request to Offer Three Concentrations Fully Online

Description of Action, Including Intended Effect

The School of Digital Sciences proposes adding the course DSCI 62210 Web Development to the current list of Approved Electives for the Master of Digital Sciences program. This class was previously being taught as a Special Topics course for seven semesters and has been established as a permanent course.

We also propose that the concentrations of Data Science, Enterprise Architecture and Digital Systems Training Technology be designated as fully online concentrations in the MDS program. The School would like to increase its enrollment and diversify its student population. Presently, these concentrations can be completed fully online and there is a need among working professionals for online programming. According to the Bureau of Labor Statistics, employment in computer-related occupations is projected to grow 13 percent from 2016 to 2026, faster than the average for all occupations. These occupations are projected to add about 546,100 new jobs. Designating these concentrations as fully online will open our enrollment to working professionals who need the educational accessibility that an online program will offer. In addition, designating the Data Science, Enterprise Architecture and Digital Systems Training Technology concentrations as being fully online aligns the School of Digital Sciences with its sister programs in the School of Information, the College of Business Administration and the College of Education, Health and Human Services, who also have online programs, since we share significant overlap in coursework.

Impact on Other Programs, Course Offerings, Students, Faculty, Staff (e.g., duplication issues)

We do not anticipate any impact with adding the DSCI 62210 course to the list of Approved Electives. The course has been regularly taught as a Special Topics for seven semesters with some semesters having more than one section.

Regarding the three online concentrations, there should be little impact on other programs, faculty and staff since the course offerings in these concentrations are currently offered online. As the program grows, the School will re-evaluate course and faculty needs via the Demand Analysis, and the School will keep all partners apprised of enrollment needs.

Fiscal, Enrollment, Facilities and Staffing Considerations

We do not anticipate any immediate impact for adding the course to the list of options. Regarding the online concentrations, the courses in these concentrations are currently offered online and we will re-evaluate the impact as the online delivery demands increase.

Evidence of Need and Sustainability if Establishing

NA

Provisions for Phase-Out if Inactivating

NA

Timetable and Actions Required: *a chronology of actions required to approve the proposal with an anticipated implementation date for each action*

Approved by Interdisciplinary Advisory Committee and Interdisciplinary Curriculum Committee, November 1, 2017

Proposed to the GCC on December 14th, 2017

Proposed to Graduate Studies in December 2017

Proposed to EPC on January 22nd, 2018

DIGITAL SCIENCES - M.D.S.

College of Communication and Information
School of Digital Sciences
129 Taylor Hall
Kent Campus
330-672-9105
digital-science@kent.edu
www.kent.edu/dsci

Description

The Master of Digital Sciences degree is designed to augment a student's skill set, opening the door to new career opportunities for students from diverse undergraduate backgrounds. Introductory courses expose students to graduate topics outside their undergraduate field, and six concentrations allow them to study one area in more depth. Electives provide an opportunity for customization, and the degree culminates with either an individual capstone project or a formal thesis.

Due to the School of Digital Sciences' interdisciplinary nature, students have a unique opportunity to gain a graduate-level introduction to several areas aligned with digital sciences. A computer science course covers basic object-oriented programming, while an applied engineering course covers network management and design. An education course gives an overview of instructional design, and a management course explores the basic functions of a business. Digital Sciences courses provide an overview of the newly emerging areas of enterprise architecture and data science.

The Master of Digital Sciences degree comprises the following concentrations:

The **Data Science** concentration focuses on the data analysis and modeling needed by an organization and the processing of structured, semi-structured, and unstructured data using statistical and semantic analysis techniques to meet those needs.

The **Digital Systems Management** concentration focuses on the technical leadership needed by an organization and the management of information services in a rapidly changing global economy.

The **Digital Systems Software Development** concentration focuses on the software applications needed by an organization and the design and maintenance of software systems that are aligned with the goals of the business.

The **Digital Systems Telecommunication Networks** concentration focuses on the communication infrastructure needed by an organization and the design and management of a telecommunication system and computer network to meet those needs.

The **Digital Systems Training Technology** concentration focuses on the educational applications needed by an organization and the design and management of instructional systems to meet those needs.

The **Enterprise Architecture** concentration focuses on the business goals, processes, and technology infrastructure needed by an organization and the alignment of the processes and infrastructure with the goals of the business.

FULLY OFFERED AT:

- Kent Campus

Admission Requirements

- Official transcript(s)
- Minimum 3.000 undergraduate GPA (on a 4.000 point scale)[1]
- GRE scores (required effective spring 2018)[2]
- Goal statement[3]
- Current résumé
- Three letters of recommendation
- English language proficiency - all international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning one of the following (effective spring 2018):
  - Minimum 550 TOEFL PBT score (paper-based version)
  - Minimum 79 TOEFL IBT score (Internet-based version)
  - Minimum 77 MELAB score
  - Minimum 6.5 IELTS score
  - Minimum 58 PTE score

For more information about graduate admissions, please visit the Graduate Studies website. For more information on international admission, visit the Office of Global Education website.

1. Applicants with a lower GPA will be considered for conditional admission.
2. GRE scores will be one of the factors considered in the admission process. A GRE composite score of 290 and above is preferred. The GRE may be waived if the applicant has earned a master's or higher degrees from an accredited U.S. institution or has three or more years of relevant, full-time work experience.
3. The goal statement should explain applicants' goals and objectives for pursuing this advanced degree. For example, applicants may want to better prepare for a particular career, to update knowledge in a specific area or to add expertise that will make them more valuable in a current career. In addition, applicants may submit a statement of plans for electives, which should explain how they plan to choose the digital sciences-related electives to complement their declared concentration and their undergraduate major. Applicants should explain how the electives will help to meet the goals and objectives listed in the their goal statement.

Program Learning Outcomes

Graduates of this program will be able to:

1. Augment their professional preparation with material from areas of digital sciences outside their former college and professional boundaries.
2. Demonstrate increased breadth in digital sciences outside their former college and professional boundaries. Depending on the courses chosen, they will be able to demonstrate basic familiarity with enterprise architecture, data science, software development, telecommunication networks, globalization and technology strategy and instructional design.
3. Demonstrate increased depth in one area of digital sciences.

Program Requirements

Major Requirements

Major Requirements		
Choose from the following:		9-10
CS 61002	ALGORITHMS AND PROGRAMMING I	
DSCI 61010	ENTERPRISE ARCHITECTURE	
DSCI 64210	DATA SCIENCE	
ITEC 67403	INSTRUCTIONAL DESIGN	
MIS 64050	ESSENTIALS OF BUSINESS MGMT	
TECH 56360	NETWORK MANAGEMENT AND DESIGN TECHNOLOGY	
Approved Electives in Digital Sciences or related area [1]		6-8
Thesis or Non-Thesis Options, choose from the following:		6
Non-Thesis Option		
DSCI 60998	CAPSTONE PROJECT IN DIGITAL SCIENCES	
Elective in Digital Sciences		
Thesis Option		
DSCI 69199	THESIS I	
Concentrations		
Choose from the following:		9-10
Data Science		
Digital Systems Management		
Digital Systems Software Development		
Digital Systems Telecommunication Networks		
Digital Systems Training Technology		
Enterprise Architecture		
Minimum Total Credit Hours:		32

[1] A list of pre-approved electives is given below. Requests for consideration of other courses as approved electives should be submitted to the student's advisor in the School of Digital Sciences.

Graduation Requirements

- No more than 18 credits may be taken from any one subject area other than DSCI

Pre-Approved Electives in Digital Sciences or Related Area

Communication Studies		
COMM 65661	COMMUNICATION IN AN INFORMATION SOCIETY	3
COMM 65675	COMMUNICATION, UNCERTAINTY AND PRIVACY MANAGEMENT	3
COMM 65685	COMMUNICATION AND COGNITION	3
COMM 65851	ORGANIZATIONAL COMMUNICATION	3
Computer Science		
CS 53203	SYSTEMS PROGRAMMING [1]	3
CS 53401	SECURE PROGRAMMING [1]	3
CS 56101	DESIGN AND ANALYSIS OF ALGORITHMS [1]	3
CS 57205	INFORMATION SECURITY [1]	3
CS 57221	INTRODUCTION TO CRYPTOLOGY [1]	3
CS 61002	ALGORITHMS AND PROGRAMMING I	4
CS 61003	ALGORITHMS AND PROGRAMMING II	4
CS 63005	ADVANCED DATABASE SYSTEMS DESIGN [1]	3
CS 63201	ADVANCED OPERATING SYSTEMS [1]	3
CS 63901	PARALLEL AND DISTRIBUTED COMPUTING [1]	3
CS 63904	CLUSTER COMPUTING [1]	3
CS 63907	SOFTWARE ENGINEERING METHODOLOGIES	3
CS 64201	ADVANCED ARTIFICIAL INTELLIGENCE [1]	3
CS 64401	IMAGE PROCESSING [1]	3
CS 67101	ADVANCED COMPUTER GRAPHICS [1]	3
CS 67301	SCIENTIFIC VISUALIZATION [1]	3
Digital Sciences		
DSCI 51510	PROJECT MANAGEMENT AND TEAM DYNAMICS	3
DSCI 51610	DIGITAL SYSTEMS SECURITY	3
DSCI 59910	EMERGING TECHNOLOGIES IN DIGITAL SCIENCES	1-3
DSCI 59995	SPECIAL TOPICS IN DIGITAL SCIENCES	1-4
DSCI 60998	CAPSTONE PROJECT IN DIGITAL SCIENCES	3
DSCI 61010	ENTERPRISE ARCHITECTURE	3
DSCI 61310	ENTERPRISE ARCHITECTURE: ENTERPRISE ARCHITECTURE CENTER OF EXCELLENCE METHODOLOGY	2
DSCI 61510	PROJECT MANAGEMENT LEADERSHIP	3
DSCI 62010	BUSINESS ARCHITECTURE	3
DSCI 64010	DATA ARCHITECTURE	3
DSCI 64210	DATA SCIENCE	3
DSCI 65010	APPLICATION AND TECHNOLOGY ARCHITECTURE	3
DSCI 69992	INTERNSHIP IN DIGITAL SCIENCES [2]	1-3
DSCI 69995	SPECIAL TOPICS IN DIGITAL SCIENCES	1-4
DSCI 69996	INDIVIDUAL INVESTIGATION IN DIGITAL SCIENCES	1-3
Evaluation and Measurement		
EVAL 65510	STATISTICS I FOR EDUCATIONAL SERVICES	3
Geography		
GEOG 59070	GEOGRAPHIC INFORMATION SCIENCE	4
GEOG 59076	SPATIAL PROGRAMMING	3
GEOG 59080	ADVANCED GEOGRAPHIC INFORMATION SCIENCE	3
GEOG 59085	WEB AND MOBILE GEOGRAPHIC INFORMATION SCIENCE	3
GEOG 59162	CARTOGRAPHY AND GEOVISUALIZATION	3
GEOG 59163	CARTOGRAPHY AND GEOVISUALIZATION LABORATORY	1
GEOG 69007	SPATIOTEMPORAL ANALYTICS	3
GEOG 69082	CYBERGIS	3
GEOG 69083	GEODATABASES	3
Health Informatics		
HI 60401	HEALTH INFORMATICS MANAGEMENT	3
HI 60402	LEGAL ISSUES IN HEALTH INFORMATICS	3
HI 60403	HEALTH INFORMATION SYSTEMS	3
HI 60410	HEALTH RECORDS MANAGEMENT	3
HI 60411	CLINICAL ANALYTICS	3
HI 60412	CLINICAL DECISION SUPPORT	3
Instructional Technology		
ITEC 57413	DIGITAL VIDEO IN EDUCATION	3
ITEC 57427	TECHNOLOGY AND LEARNING	3
ITEC 57430	COMPUTER APPLICATIONS IN EDUCATION	3
ITEC 67403	INSTRUCTIONAL DESIGN	3
ITEC 67410	SIMULATION-GAMES IN EDUCATION	3
ITEC 67425	MANAGING TECHNOLOGICAL CHANGE	3
ITEC 67432	DESIGNING MULTIMEDIA FOR INSTRUCTION	3
ITEC 67435	VIRTUAL REALITY	3
ITEC 67437	WEB DEVELOPMENT FOR EDUCATORS	3

Add - DSCI 62210: Web Development

ITEC 67438	INSTRUCTIONAL APPLICATIONS OF THE INTERNET	3
ITEC 67442	DESIGNING ONLINE COURSES	3
ITEC 67444	TEACHING ONLINE COURSES	3
ITEC 67449	RESEARCH IN ONLINE LEARNING	3
Knowledge Management		
KM 60301	FOUNDATIONAL PRINCIPLES OF KNOWLEDGE MANAGEMENT	3
KM 60305	COMMUNITIES OF PRACTICE	3
KM 60311	BUSINESS PROCESS MANAGEMENT	3
KM 60312	BUSINESS INTELLIGENCE-COMPETITIVE INTELLIGENCE	3
KM 60315	FOUNDATIONS OF DOCUMENT MANAGEMENT	3
KM 60316	ORGANIZATIONAL CULTURE ASSESSMENT	3
KM 60370	SEMANTIC ANALYSIS METHODS AND TECHNOLOGIES	3
Library and Information Science		
LIS 60618	INFORMATION NEEDS, SEEKING AND USE	3
LIS 60636	KNOWLEDGE ORGANIZATION STRUCTURES, SYSTEMS AND SERVICES	3
LIS 60637	METADATA ARCHITECTURE AND IMPLEMENTATION	3
LIS 60638	DIGITAL LIBRARIES	3
LIS 60644	INFORMATION SCIENCE	3
LIS 60645	DATABASE SYSTEMS	3
Management and Information Systems		
MIS 64042	GLOBALIZATION AND TECHNOLOGY STRATEGY	2
MIS 64080	EMERGING HARDWARE AND SOFTWARE TECHNOLOGIES	3
MIS 64081	DATA COMMUNICATIONS AND NETWORKING IN BUSINESS	3
MIS 64082	DATABASE MANAGEMENT AND DATABASE ANALYTICS	3
MIS 64083	INFORMATION SECURITY: A MANAGERIAL PERSPECTIVE	3
MIS 64158	LEADERSHIP AND MANAGERIAL ASSESSMENT	2
Technology		
TECH 53222	COMPUTER HARDWARE ENGINEERING AND ARCHITECTURE	3
TECH 56330	VISUAL BASIC PROGRAMMING IN ENGINEERING TECHNOLOGY	3
TECH 56350	NETWORK MANAGEMENT AND DESIGN TECHNOLOGY	3
TECH 56411	REQUIREMENTS ENGINEERING AND ANALYSIS TECHNOLOGY	3
TECH 63010	COMPUTER HARDWARE	3
TECH 63020	FIBER OPTIC SYSTEMS	3
TECH 63031	PROGRAMMABLE LOGIC CONTROLLERS	3
TECH 63032	ADVANCED PROGRAMMABLE LOGIC CONTROLLERS	3
TECH 63050	TRIZ-THEORY OF INVENTIVE PROBLEM SOLVING	3
TECH 64312	ADVANCED WIRELESS TELECOMMUNICATION SYSTEM AND NETWORK TECHNOLOGIES	3
TECH 55330	ADVCANCED VISUAL BASIC PROGRAMMING IN ENGINEERING TECHNOLOGY	3
TECH 66380	ADVANCED NETWORKING	3
Visual Communication Design		
VCD 55000	GRAPHIC DESIGN PERSPECTIVES	3
VCD 60121	USER EXPERIENCE DESIGN IN PRACTICE	3
User Expereince Design		
UXD 60001	USER EXPERIENCE DESIGN PRINCIPLES AND CONCEPTS	3
UXD 60002	USER EXPERIENCE DESIGN IN PRACTICE	3
UXD 60101	INFORMATION ARCHITECTURE I	3
UXD 60103	RESEARCHING THE USER EXPERIENCE I	3
UXD 60104	USABILITY I	3
UXD 60110	INFORMATION TECHNOLOGIES	3
UXD 60113	RESEARCHING USER EXPERIENCE II	3
UXD 60114	USABILITY II	3

[1] Recommended only for students from a computer science background.

[2] No more than 3 credit hours of DSCI 69992 may be applied toward approved electives in the Master of Digital Sciences.

Data Science Concentration Requirements

[CI-MDS-DS-DATA]

Concentration Requirements		
DSCI 64010	DATA ARCHITECTURE	3
KM 60370	SEMANTIC ANALYSIS METHODS AND TECHNOLOGIES	3
LIS 60636	KNOWLEDGE ORGANIZATION STRUCTURES, SYSTEMS AND SERVICES	3
Minimum Total Credit Hours:		9

Digital Systems Management Concentration Requirements

[CI-MDS-DS-DSMT]

Concentration Requirements		
MIS 64042	GLOBALIZATION AND TECHNOLOGY STRATEGY	2
MIS 64080	EMERGING HARDWARE AND SOFTWARE TECHNOLOGIES	3
MIS 64158	LEADERSHIP AND MANAGERIAL ASSESSMENT	2
Choose from the following:		3
DSCI 51510	PROJECT MANAGEMENT AND TEAM DYNAMICS	
DSCI 51610	DIGITAL SYSTEMS SECURITY	
MIS 64083	INFORMATION SECURITY: A MANAGERIAL PERSPECTIVE	
Minimum Total Credit Hours:		10

Digital Systems Software Development Concentration Requirements

[CI-MDS-DS-DSSD]

Concentration Requirements		
CS 61003	ALGORITHMS AND PROGRAMMING II [1]	4
DSCI 65010	APPLICATION AND TECHNOLOGY ARCHITECTURE	3
Choose from the following:		3
CS 63901	SOFTWARE ENGINEERING METHODOLOGIES [2]	
DSCI 51510	PROJECT MANAGEMENT AND TEAM DYNAMICS [2]	

MIS 64082	DATABASE MANAGEMENT AND DATABASE ANALYTICS [3]	
Minimum Total Credit Hours:		10

1 May be replaced by another CS course on the Pre-Approved Elective list for students with an undergraduate degree in Computer Science.

2 Recommended for students from a computer science background.

3 Recommended for students from a non-computer science background.

Digital Systems Telecommunication Networks Concentration Requirements

[CI-MDS-DS-DSTN]

Concentration Requirements		
TECH 56411	REQUIREMENTS ENGINEERING AND ANALYSIS TECHNOLOGY	3
TECH 64312	ADVANCED WIRELESS TELECOMMUNICATION SYSTEM AND NETWORK TECHNOLOGIES	3
TECH 66380	ADVANCED NETWORKING	3
Minimum Total Credit Hours:		9

Digital Systems Training Technology Concentration [1] Requirements

[CI-MDS-DS-DSTT]

Concentration Requirements		
ITEC 67425	MANAGING TECHNOLOGICAL CHANGE	3
ITEC 67410	SIMULATION-GAMES IN EDUCATION	3
or ITEC 67435	VIRTUAL REALITY	
ITEC 67432	DESIGNING MULTIMEDIA FOR INSTRUCTION	3
or ITEC 67437	WEB DEVELOPMENT FOR EDUCATORS	
Minimum Total Credit Hours:		9

Enterprise Architecture Concentration Requirements [1]

[CI-MDS-DS-ENAR]

Concentration Requirements		
DSCI 62010	BUSINESS ARCHITECTURE	3
DSCI 64010	DATA ARCHITECTURE	3
DSCI 65010	APPLICATION AND TECHNOLOGY ARCHITECTURE	3
Minimum Total Credit Hours:		9

Note #1: This concentration is offered fully online. Please see your advisor for appropriate course options.

Online - Part time

Enterprise Architecture Roadmap

Fall Admit			Hours
Fall	DSCI 64210 - Data Science	Major	3
	EVAL 65510 - Stats	ELEC	3
Spring	DSCI 61010 - Enterprise Arch	Major	3
	DSCI 51510 - Project Mgmt	DSCI	3
Summer	ITEC 67403 - Instructional Tech	Major	3
Fall	DSCI 62010 - Business Arch	CONC	3
	DSCI 65010 - App. & Tech Arch	CONC	3
Spring	DSCI 64010 - Data Arch	CONC	3
	DSCI 61510 - Project Mgmt Leadership	ELEC	2
Summer			
Fall	KM 60370 - Sem. Analysis Meth & Tech	ELEC	3
	DSCI 60998 - Capstone		3
			32

Spring Admit			Hours
Spring	DSCI 61010 - Enterprise Arch	Major	3
	DSCI Elec - DSCI 51510 - Project Mgmt	DSCI	3
Summer	ITEC 67403 - Instructional Tech	Major	3
Fall	DSCI 62010 - Business Arch	CONC	3
	DSCI 65010 - App. & Tech Arch	CONC	3
Spring	DSCI 64010 - Data Arch	CONC	3
	DSCI 61510 - Project Mgmt Leadership	ELEC	2
Summer			
Fall	DSCI 64210 - Data Science	Major	3
	EVAL 65510 - Stats	ELEC	3
Spring	LIS 60636 - Knowledge Org Structure	ELEC	3
	DSCI 60998 - Capstone		3
			32

Online - Part time

Data Science Roadmap

Fall Admit			Hours
Fall	DSCI 64210 - Data Science	Major	3
	EVAL 65510 - Stats	ELEC	3
Spring	DSCI 61010 - Enterprise Arch	Major	3
	LIS 60636 - Knowledge Org Structure	CONC	3
Summer	ITEC 67403 - Instructional Tech	Major	3
Fall	KM 60370 - Sem. Analysis Meth & Tech	CONC	3
	MIS 64042 - Global Tech Strat.	ELEC	2
Spring	DSCI 64010 - Data Arch	Major	3
	DSCI 51510 - Project Mgmt	DSCI	3
Summer			
Fall	LIS elective	ELEC	3
	DSCI 60998 - Capstone		3
			32

Spring Admit			Hours
Spring	DSCI 61010 - Enterprise Arch	Major	3
	LIS 60636 - Knowledge Org Structure	CONC	3
Summer	ITEC 67403 - Instructional Tech	Major	3
Fall	DSCI 64210 - Data Science	Major	3
	EVAL 65510 - Stats	ELEC	3
Spring	DSCI 64010 - Data Arch	CONC	3
	DSCI 51510 - Project Mgmt	DSCI	3
Summer			
Fall	KM 60370 - Semantic Analysis Meth & Tech	CONC	3
	LIS elective	ELEC	3
Spring	DSCI 61510 - Project Mgmt Leadership	ELEC	2
	DSCI 60998 - Capstone		3
			32

Online - Part time

Training Technology

Fall Admit			Hours
Fall	ITEC 67403 - Instructional Tech	Major	3
	DSCI 64210 - Data Science	Major	3
Spring	DSCI 61010 - Enterprise Architecture	Major	3
	ITEC 67425 - Managing Tech Change	CONC	3
Summer	ITEC or LIS elec	ELEC	3
Fall	ITEC 67437 - Web Dev. For Educators	CONC	3
	EVAL 65510 - Stats	ELEC	3
Spring	DSCI Elec - DSCI 51510 - Project Mgmt	DSCI	3
	ITEC 67410 - Simulation Games in Ed	CONC	3
Summer			
Fall	MIS 64042 - Glob. Tech Strat	ELEC	2
	DSCI 60998 - Capstone		3
			32

Spring Admit			Hours
Spring	ITEC 67403 - Instructional Tech	Major	3
	DSCI 61010 - Enterprise Architecture	Major	3
Summer	ITEC or LIS elec	ELEC	3
Fall	DSCI 64210 - Data Science	Major	3
	ITEC 67437 - Web Dev. For Educators	CONC	3
Spring	ITEC 67410 - Simulation Games in Ed	CONC	3
	ITEC 67425 - Managing Tech Change	CONC	3
Summer			
Fall	EVAL 65510 - Stats	ELEC	3
	MIS 64042 - Glob. Tech Strat	ELEC	2
Spring	DSCI 51510 - Project Management	DSCI	3
	DSCI 60998 - Capstone		3
			32

Ohio | Board of Regents
University System of Ohio

John R. Kasich, Governor
John Carey, Chancellor

Change Request:
Online or Blended/Hybrid Delivery

This form is to request authorization to deliver 50 percent or more of a degree/degree program that has previously been approved by the chancellor using an online or blended/hybrid[1] delivery model. The 50 percent marker excludes internships, clinical practicum, field experiences and student teaching.

Date of submission: December 20, 2017

Name of institution: Kent State University

Degree/degree program to be offered using online or blended/hybrid delivery:
Master of Digital Sciences – Concentrations: Data Science, Digital Systems Training Technology and Enterprise Architecture

Primary institutional contact for the request

Name:	Melody J. Tankersley
Title:	Dean of Graduate Studies
Phone number:	330-672-2220
E-mail:	mtankers@kent.edu

Proposed start date: Fall 2018

Date that the request received final approval from the appropriate institutional committee:
Approved by the Educational Policies Council, a subcommittee of the Faculty Senate on [DATE]

Institution has Higher Learning Commission approval for online or blended/hybrid delivery: Yes

Educator preparation program that leads to licensure or endorsement: No

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[1] For this document, the following definitions will be used:
Online: A course where most (80+ percent) of the content is delivered online and typically requires no face-to-face meetings.
Blended/hybrid: Course that blends online and on-ground/face-to-face delivery. Substantial proportion of the content is delivered online; typically uses online discussion and has a reduced number of face-to-face meetings.
Web-facilitated: Course that uses web-based technology to facilitate what is essentially a face-to-face course. Examples of this may be the instructor posting the syllabus or list of assignments on a web page or to a course management system, or requiring some quizzes to be taken via an online method.
On-ground (aka traditional or face-to-face): Course that uses little or no online technology, where content is primarily delivered orally or in writing. For this document, on-ground courses include those that are web-facilitated.

1. INSTITUTIONAL SUPPORT

1.1 Describe the learning management system (LMS) that the institution will be using for its online or blended/hybrid course offerings.

The learning management system that will be utilized for the MDS online course offerings is Blackboard Learn. Blackboard Learn is the official LMS at Kent State University. Blackboard is used to host course materials and activities for face-to-face, hybrid and online courses.

1.2 Describe the institution's options and processes for students and faculty in need of ADA accommodations for online teaching and learning.

4-16 University policy regarding electronic and information technology accessibility would apply to faculty and students in the online program. The Kent State Student Accessibility Services (SAS) provides assistance to students and faculty with disabilities in order to help them maximize educational opportunities and their academic potential. Kent State provides a wide variety of assistance from templates to captioning and training for faculty to help prepare accessible courses, and works with vendors to ensure that their resources are accessible. All students receive notification of SAS services via their syllabi.

1.3 Describe the technical and help desk support services available to students and faculty (hardware and software systems).

As members of the Kent State University community, all students and faculty will have access to these support services.

Kent State manages help desk support services for all its faculty and students. These services can be accessed by phone at (330) 672-HELP (4357), or online at support.kent.edu via an automated support request system, a collection of self-service articles and through live chat.

Other support services for Kent State University students include Blackboard Learn tutorials, online tutoring through the Academic Success Center, online resources in Career Services Center, Online Academic Advising; Student Accessibility Services, and the Online Writing Commons. Services available for online students can be accessed at: https://onlinedegrees.kent.edu/support/student-services.

Support services for Kent State University faculty teaching online courses can be found at: http://www.kent.edu/onlineteaching/support.

1.4 Explain the institution's policies and procedures related to ensuring the integrity of student work in online programs (e.g., for establishing student identity, for controlling the conditions of examinations, etc.).

Students must utilize Kent State's Flashline system to verify their identity; Flashline is the University's online portal. The University offers test proctoring through a software service, Proctor U, which provides remote test proctoring services. Faculty have access to SafeAssign to ensure the integrity of students' written work SafeAssign is an online tool that compares written submissions against a set of sources to identify overlap.

1.5 Indicate whether the institution has entered into a collaborative agreement with a 3rd party provider to provide content/curriculum or resources/services to support the delivery of the program. If so, indicate the parties involved, purpose and timeline of the agreement. Submit a copy of the agreement as an appendix item.

Kent State has not entered into an agreement with a 3rd party provider to provide content/curriculum or resources/services to support the delivery of this program..

1.6 Have the appropriate accreditation agencies been informed of the proposed change?

The accrediting agency for the proposed change is The Higher Learning Commission (HLC), which will be notified of this proposed change following OBR's approval.

2. ADMINISTRATIVE AND STUDENT SUPPORT SERVICES

2.1 Describe how students in the online program will have access to the following services. Indicate how the services available to the online students are comparable to those available to students in the on-ground program:

- **Administrative services (admissions, financial aid, registration, student records)**
  Online students may access links to all online resources through: http://www.kent.edu/onlinelearning/students-getting-started-your-online-course.

- **Advising regarding program planning and progress**
  The School has full-time and part-time academic advisors available for counsel. Student advising will be provided via email at DSadvising@kent.edu, phone at 330-672-9069 or in person. Students will also have access to a Blackboard site with information such as the Digital Sciences Graduate Student Handbook, roadmaps, and contact information for key people.

- **Library resources**
  Off campus access to electronic resources is provided through "KSU Proxy," a service for off-campus and remote access to the University Libraries' electronic resources. Students and Faculty can connect to databases, electronic journals, ebooks and streaming media services at http://www.library.kent.edu/help/connect-from-off-campus.

- **Psycho-social counseling**
  Psycho-social counseling is available through Kent State Psychological Services. The website and contact information can be found at: http://www.kent.edu/psych. Online students can telephone or email.

- **Career advising and Placement services**
  Career Advising is provided by the School via advisors, through our School's Blackboard site and through University Resources, such as the Career Exploration and Development Office. The Career Exploration and Development Office has resources online at career@kent.edu, in person or phone at 330-672-2360.

2.2 Describe the admission requirements for the online or blended/hybrid program. If these are different from those for the on-ground program, discuss the rationale for the differing requirements.

The online MDS admission requirements are the same as the in person degree program:

- Applicants for the Master of Digital Sciences degree are expected to have an undergraduate grade point average (GPA) of at least 3.0 on a 4.0 point scale. Applicants with a lower GPA will be considered for conditional admission. The GRE is not required but if taken will be considered in the admission process.
- Applicants must submit official transcript(s), current resume, three letters of recommendation, a statement of goals and objectives for pursuing this degree, and (optionally) a statement of plans for electives.
- English Language Proficiency Requirements for International Students: All international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning a minimum 550 TOEFL score (79 on the Internet-based version), minimum 77 MELAB score, minimum 6.5 IELTS score or minimum 58 PTE Academic score. For more information on international admission, visit the Office of Global Education's admission website.

3. CURRICULUM

3.1 Will the online or blended/hybrid program be offered instead of or in addition to the onsite program?

The online program will be offered in addition to the onsite program. The courses in the concentration are currently offered in both an online and in person format.

3.2 Indicate whether the online or blended/hybrid program is equivalent to the on-ground program (e.g., expected outcomes, number of credits, course availability, etc.). If there are differences, please explain.

The online and on-ground programs are equivalent with respect to curriculum, expected outcomes and number of credit hours (32).

3.3 Describe how interaction (synchronous or asynchronous) between the instructor and the students and among the students is reflected in the design of the program and its courses.

Students will typically have asynchronous interaction with the instructor due to the potential variety of time zones the students and faculty we be in. Interaction can take place via discussion questions, videos, recorded lectures, etc. Students can also call or email the instructor via the contact information on the course syllabus. We are following the model of the Information School, which does not have synchronous interaction between the instructors and students.

3.4 Explain how students are supported and counseled to ensure that they have the skills and competencies to successfully complete the curriculum in an online learning environment.

Support for online students is the same as for face-to-face students as far as the quality of the instructors and program, and interaction with faculty and advisors are concerned. Students have access to academic advisors to guide them through the degree program. The advisors can be reached via phone, email or in person. Faculty will ensure learning outcomes are met to determine whether students are gaining the skills and competencies needed via papers, projects and exams.

3.5 Describe the evaluation systems used to measure the quality and effectiveness of the program delivered in an online or blended/hybrid format.

As in the onsite program, faculty evaluations will be utilized. Kent State University has the Student Survey of Instruction (SSI) instrument for evaluating all its courses in all its degree programs. After graduation, employment surveys will be issued to ensure the program has been effective (ie: student has a job in their field).

3.5 Using the chart below, please list the courses that make up the major/program and indicate whether they are delivered using an online, blended/hybrid or on-ground format (see definitions on first page). Identify all new courses (i.e., courses that are not a part of the approved, on-ground curriculum.) *Please provide a syllabus for each new course as an appendix item.*

Course	Online	On-ground (including web facilitated)	Blended/ hybrid	Course currently required in approved program	Comments (as needed)
CONCENTRATION: DATA SCIENCE					
DSCI 64010 Data Architecture	■	■		Yes	Course can be an Approved Elective for other concentrations
LIS 60636 Knowledge Org. Struct., Sys & Services	■			Yes	Course can be an Approved Elective for other concentrations
KM 60370 Semantic Analysis Methods & Technologies	■			Yes	Course can be an Approved Elective for other concentrations
CONCENTRATION: DIGITAL SYSTEMS TRAINING TECHNOLOGY					
ITEC 67425 Managing Tech. Change	■			Yes	Course can be an

					Approved Elective for other concentrations
ITEC 67410 Simulation Games in Ed. or ITEC 67435 Virtual Reality	■			Yes	Course can be an Approved Elective for other concentrations
ITEC 67432 Designing Multimedia. for Instr. or ITEC 67437 Web Dev. For Educators	■			Yes	Course can be an Approved Elective for other concentrations
CONCENTRATION: ENTERPRISE ARCHITECTURE					
DSCI 62010 Business Architecture	■	■		Yes	Course can be an Approved Elective for other concentrations
DSCI 64010 Data Architecture	■	■		Yes	Course can be an Approved Elective for other concentrations
DSCI 65010 Application & Tech. Arch.	■	■		Yes	Course can be an Approved Elective for other concentrations
APPROVED ELECTIVES					
CS 56010 Design and Analysis of Algorithms		■			
CS 57205 Information Security		■			
CS 57221 Introduction to Cryptology		■			
CS 61002 Algorithms and Programming I		■			

CS 61003 Algorithms and Programming II		■			
CS 63005 Advanced Database Systems Design		■			
CS 63201 Advanced Operating Systems		■			
CS 63301 Parallel & Distributed Computing		■			
CS 63304 Cluster Computing		■			
CS 63901 Software Engineering Methodologies		■			
CS 64201 Advanced Artificial Intelligence		■			
CS 64401 Image Processing		■			
CS 67101 Advanced Computer Graphics		■			
CS 67301 Scientific Visualization		■			
DSCI 51510 Project Management & Team Dynamics		■			
DSCI 59910 Emerging Technologies in Digital Sciences (1-3)		■			
DSCI 59995 Special Topics in Digital Sciences (1-4)		■			
DSCI 60998 Capstone Project in Digital Sciences	■	■			
DSCI 61010 Enterprise Architecture	■	■			
DSCI 61310 Entr Arch Cntr of Excellence Method. (2)	■	■			
DSCI 61510 Project Management Leadership (3)		■			
DSCI 64210 Data Science	■	■			
DSCI 65010 Application & Tech. Arch.		■			
DSCI 69992 Internship in Digital Sciences (1 – 3)	■	■			
DSCI 69995 Special Topics in Digital Sciences (1 – 4)		■			
DSCI 69996 Individual Investigation in Digital Sciences (1-3)		■			
EVAL 65510 Statistics I for Educational Services	■				

GEOG 59070 Geographic Information Science		■			
GEOG 59076 Spatial Programming		■			
GEOG 59080 Advanced Geographic Information Science		■			
GEOG 59085 Web & Mobile Geographic Information Science		■			
GEOG 59162 Cartography & Geovisualization		■			
GEOG 59163 Cartography & Geovisualization Laboratory		■			
GEOG 69007 Spatiotemporal Analytics		■			
GEOG 69082 CyberGIS		■			
GEOG 69083 Geodatabases		■			
HI 60401 Health Informatics Management	■				
HI 60402 Legal Issues in Health Informatics	■				
HI 60403 Health Information Systems	■				
HI 60410 Health Records Management	■				
HI 60411 Clinical Analytics	■				
HI 60412 Clinical Decision Support	■				
ITEC 57413 Digital Video in Education	■				
ITEC 57427 Technology and Learning	■				
ITEC 57430 Computer Applications in Education	■				
ITEC 67403 Instructional Design	■				
ITEC 67417 Advanced Instructional Design	■				
ITEC 67435 Virtual Reality	■				
ITEC 67438 Instructional Applications of the Internet	■				
ITEC 67442 Designing Online Courses	■				
ITEC 67444 Teaching Online Courses	■				

ITEC 67449 Research in Online Learning	■				
KM 60301 Foundational Principles of Knowledge Management	■				
KM 60305 Communities of Practice	■				
KM 60306 Organizational Culture Assessment	■				
KM 60311 Business Process Management	■				
KM 60312 Business Intelligence-Competitive Intelligence	■				
KM 60315 Foundations of Document Management	■				
KM 60370 Semantic Analysis Methods and Technologies	■				
LIS 60613 Information Needs, Seeking and Use	■				
LIS 60637 Metadata Architecture and Implementation	■				
LIS 60636 Knowledge Org, Structure, Sys & Services	■				
LIS 60638 Digital Libraries	■				
LIS 60644 Information Science	■				
LIS 60645 Database Systems	■				
LIS 60646 User Interfaces for Information Retrieval Systems	■				
MIS 64042 Globalization and Technology Strategy	■	■			
MIS 64050 Essentials of Business Management		■			
MIS 64080 Emerging Hardware and Software Technologies		■			
MIS 64081 Data Communications & Networking in Business		■			
MIS 64082 Database Management Systems		■			
MIS 64083 Info. Sec.: Managerial Pers.		■			
MIS 64158 Leadership and Managerial Assessment	■	■			

TECH 53222 Computer Hardware Engineering & Architecture		■			
TECH 56330 Visual Basic Programming in Engineering Tech		■			
TECH 56350 Network Management and Design Technology		■			
TECH 56411 Requirements Engineering & Analysis Technology		■			
TECH 63031 Programmable Logic Controllers		■			
TECH 63032 Advanced Programmable Logic Controllers		■			
TECH 63010 Computer Hardware		■			
TECH 63020 Fiber Optic Systems		■			
TECH 63050 TRIZ-Theory of Inventive Problem Solving		■			
TECH 64312 Adv. Wireless Telecommunication System &Network Tech		■			
TECH 65330 Adv. Visual Basic Programming in Engineering Technology		■			
TECH 66380 Advanced Networking		■			
UXD 60001 User Experience Design Principles & Concepts	■				
UXD 60002 User Experience Design in Practice	■				
UXD 60101 Information Architecture I	■				
UXD 60103 Researching the User Experience I	■				
UXD 60104 Usability I	■				
UXD 60110 Information Technologies	■				
UXD 60113 Researching the User Experience II	■				
UXD 60114 Usability II	■				
VCD 55000 Graphic Design Perspectives	■				

VCD 60121 User Experience Design in Practice	■				

4. FACULTY AND ADMINISTRATION

4.1 Describe the duties of the individual who has major responsibility for the administration and coordination of the online or blended/hybrid program. Describe the qualifications of this individual for the oversight of a distance education program and provide this individual's CV as an appendix item.

The DSCI Director has major responsibility for the administration and coordination of the program, including working with faculty on course development and curriculum as well as coordinating administrative support with instructional design staff and the Office of Continuing and Distance Education. The current Director, Jeff Fruit, has overseen development and administration of several online graduate programs over the past decade. In the School of Journalism and Mass Communication, he worked with faculty on development of the nation's only master's concentration in Journalism Education, which is completely online, and on a master's concentration in public relations, also online. In the School of Information (formerly the School of Library and Information Science), he worked with the university's largest graduation program. Its four master's degree options (in Library and Information Science, User Experience Design, Health Informatics and Knowledge Management) are all completely online. (See Appendix A)

4.2 Describe faculty members' responsibilities to the online or blended/hybrid program. In your response, indicate how faculty members' responsibilities to the online or blended/hybrid program affect their responsibilities to the on-ground program, including teaching load, advising, research/scholarship, and participation in faculty committees/governance. Are additional faculty members going to be hired to implement the online or blended/hybrid program? Will these faculty members participate in only the online or blended/hybrid program or will they participate in the on-ground program as well.

The School of Digital Sciences' unique interdisciplinary program relies on faculty expertise from across campus and on outside professional adjuncts to both develop and deliver courses. We expect to hire additional full-time faculty as joint hires with other departments on campus, primarily within the College of Communication and Information (CCI), the School's administrative home. The School contracts for a portion of full-time faculty workload to engage in instruction and course development. We anticipate extra time and expense to be required in moving current face-to-face coursework online and perhaps some extra course sections where face-to-face coursework is required (primarily to support international students who require face-to-face classes). Additional hiring will be in the form of partial load for full-time faculty in other departments or adjunct faculty. Some faculty will teach exclusively online, while others may teach fully online, face-to-face or in blended modes.

4.3 Describe the mechanisms used to ensure that faculty members have the appropriate qualifications and support to teach successfully in an online environment. Include in your response the pedagogical and technical support provided for the design, production

and management of online courses, as well as institutional support for all essential technology.

Faculty teaching in online environments have extensive training resources available from the Office of Continuing and Distance Education (OCDE). New faculty are vetted for online experience, and those who require additional training engage with OCDE resources. Kent State University fully supports the Blackboard Learn platform with robust capabilities, including enhanced video support through Kaltura software. Support for faculty in design and production of online and blended courses is available through CCI Educational Technology staff as well as OCDE Instructional Design Staff. Information Services staff and CCI Educational Technologists both support management of online courses.

4.4 Using the form below, provide the information requested for each member of the instructional staff. A faculty member must be identified for each course to be taught during the first two years of program delivery. If a faculty member has not yet been identified for a course, indicate that as an "open position" and describe the necessary qualifications in the matrix (as shown in the example below). *A copy of each faculty member's CV must be included as an appendix item.*

Name of instructor	Rank or title	Full-time/ part-time	Terminal degree title, discipline on diploma, institution, year	Course instructor will teach in proposed program	Experience teaching distance education courses/ professional development in DL	Number of courses instructor will teach/year (include traditional and DL)
Robert Eckman	Instructor	PT	MBA, 2007, University of Phoenix, PMP Certification May 2010	DSCI 51510 Project Management and Team Dynamics, DSCI 51610 Digital Systems Security		2
Stephen Hujarski	Instructor	PT	MS in Military Strategy, Naval War College, Aug 1995, Masters certificate in Project Management, George Washington University; PMP certification, Oct 1999; Six Sigma Green Belt	DSCI 51510 Project Management and Team Dynamics		2
David Gusman	Instructor	PT	MBA (Information	DSCI 51510 Project		2

			Systems Technology), George Washington University, Washington, DC, 1982; PMP certificate; Masters certificate in PM, PMCentersUSA	Management and Team Dynamics		
Lisa Harper	Instructor	PT	MBA, Baldwin-Wallace College, Berea, OH, 2001; PMP certificate	DSCI 51510 Project Management and Team Dynamics		2
Coleen Santee	Instructor	PT	MS; PhD (ABD)	DSCI 61010 Enterprise Architecture, DSCI 65010 Application and Technology Architecture	1	2
Gary Young	Instructor	PT	MDS (Enterprise Architecture), Kent State University, Kent, OH; PM certificate; Six Sigma Green Belt	DSCI 61010 Enterprise Architecture	2	2
Stephen Verba	Instructor	PT	BA (Anthropology and Psychology), Level 5 Accreditation in the Oracle Unified Method (OUM) — one of only a few people worldwide, Post-graduate coursework / training in multivariate methods (University of	DSCI 61010 Enterprise Architecture	2	2

			Illinois at Urbana-Champaign), semiotics (International Institute for Semiotic and Structural Studies), organization and systems development (Gestalt Institute of Cleveland), and object-oriented analysis and design (Martin Marietta).			
Tristian Cuevas	Instructor	PT	Master of Computer Science, KSU, May 2015	DSCI 62210 Web Development		2
Prasanna Joshi	Instructor	PT	MDS (Enterprise Architecture) Kent State University, May'15 MBA (Management & Information Systems) Kent State University, Dec'07 MTech (Computer Applications) Kent State University, Aug'03	DSCI 64010 Data Architecture, DSCI 62010 Business Architecture	2	2
Jason Colon	Instructor	PT	MBA, Franklin University, Columbus, OH	DSCI 64210 Data Science		2

Wayne Schneider	Instructor	PT	MBA (Finance) University of Akron, 1988	DSCI 64210 Data Science		2
Robert Walker	Professor with Tenure	FT	Ph.D. in Electrical and Computer Engineering, Carnegie Mellon University, 1988	DSCI 60998 Capstone Project in Digtial Sciences, DSCI 69199 Thesis 1	2	6
Jeff Fruit	Director	FT	M.A. Journalism, The Ohio State University, 1977 (passed General Examinations toward interdisciplinary Ph.D., The Ohio State University	DSCI 69992 Internship in Digital Sciences	2	2
Yesim Kaptan				COMM 65661 Communication in an Information Society		
Michael Beam			PhD., Communication from The Ohio State University, 2011	COMM 65675 Communication, Uncertainty and Privacy Mgmt		
Janet Meyer				COMM 65685 Communication and Cognition		
Suzy D'Enbeau	Assistant Professor	FT	PhD, Organizational Communication, Purdue University, 2009	COMM 65851 Organizational Communication		4
Edward Bolden	Instructor	PT	Ph.D. (Evaluation and Measurement) Kent State University, August 2015	EVAL 65510 Statistics I for Educational Services	1	2
Chris Hudak	Professor	FT	PH.D Urban Education Administration	HI 60401Health Informatics Management		6

Paul Ylvisaker	Instructor	PT	Doctorate (Nursing), PH.D. Urban Education Administration	HI 60402 Legal Issues in Health Informatics		1
Chelsea Lawton	Instructor	PT	M.S. Health Informatics	HI 60410 Health Records Management		1
John Sharp	Instructor	PT	M.S. Social Administration	HI Clinical Analytics		1
James Lockshaw	Instructor	PT	M.B.A.	HI 60412 Clinical Decision Support		1
Gandolfi	Assistant Professor, NTT	FT	Ph.D. Social Theory and Research, La Sapienza University of Rome, 2014	ITEC 57427 Technology and Learning, ITEC 67403, ITEC 67435 Virtual and Augmented Realities, ITEC 6740 Simulations and Games in Education, ITEC 67434 Emerging Learning Technologies	2 years teaching online courses for Kent State	Up to 3 to 4 per year
Ingram	Associate Professor, TT	FT	Ph.D. Educational Technology, Arizona Sate University, 1984	ITEC 67403 Instructional Design, ITEC 67442 Designing Online and Blended Courses, ITEC 67449 Research in Online and Blended Courses		2 to 3 per year
Kuo	Associate Professor NTT	FT	Doctor of Philosophy, Instructional Technology Major, Ohio University, 2005	ITEC 67403 Instructional Design	Several years of teaching online grad courses at Kent State	Up to 1 – 2 per year
Novak	Assistant Professor TT	FT	PhD in Instructional Systems, Florida State University, 2012	ITEC 67403 Instructional Design, ITEC 67442 Designing Online and Blended Courses, ITEC 67444 Teaching Online and Blended Courses, ITEC 67449 Research in Online and Blended Courses, ITEC 67432 Designing	10 years experience teaching online courses at three institutions	3 – 4 per year

				Multimedia for Instruction		
Ferdig	Professor, Tenure Track	FT	Ph.D. Michigan State University	ITEC 67435 Virtual and Augmented Realities, ITEC 67449 Research in Online and Blended Courses, ITEC 6740 Simulations and Games in Education,,ITEC 67434 Emerging Learning Technologies		1 – 2 per year
Patricia Michalski	Instructor	PT	M.S. (Knowledge Management)	KM 60301 Foundational Principles of KM		1
Bairatchniya	Instructor	PT	Ph.D. (Linguistics)	KM 60306 Organizational Culture Assessment		1
Yao Zhang	Post-Doctoral Fellow	FT	Ph.D. (Library and Information Science)	KM 60312 Business Intelligence-Competitive Intelligence, LIS 60313 Information Needs, Seeking and Use Knowledge Org, Structure, Systems and Services		4
Sean Dolan	Instructor	PT	M.L.I.S./M.A in Information Architecture and Knowledge Management	KM 60370 Semantic Analysis Methods and Technologies		2
Marcia Zeng	Professor	FT	Ph.D. (Information Science)	LIS 60636 Knowledge Org, Structure, Sys & Services, LIS 60637 Metadata Architecture, LIS 60645 Database Systems		4
Catherine Smith	Assistant Professor	FT	Ph.D. Information Science	LIS 60645 Database Systems		4
Paul Sherman	Assistant Professor	FT	Ph.D. Psychology	UXD 60001 User Experience Design Principles and Concepts, UXD		6

				60002 User Experience Design in Practice, UXD 60110 Information Technologies		
Ben Woods	Lecturer	FT	M.S. in Information Architecture and Knowledge Management/ M.B.A.	UXD 60101 Information Architecture, UXD 60103 Researching the User Experience I, UXD 60113 Researching the User Experience II		8
David Roll	Assistant Professor	FT	M.A., Visual Communication Design	UXD 60104 Usability I, UXD 60114 Usability II		4
Pratim Datta	Associate Professor	FT	Ph.D., Information Systems, Louisiana State University, 2003	MIS 64042, 64083	5	4
Alan Brandyberry	Associate Professor	FT	DBA, Operations Management, Southern Illinois University, 1995	MIS 64042, 64080, 64081, 64082	5	4
Alan Smith	Professor	PT	Ph.D., Business Administration, Kent State University, 2004	MIS 64050	7	3
Mary Hogue	Associate Professor	FT	Ph.D., Industrial/ Organizational Psychology, University of Akron, 2002	MIS 64158	5	4
Jessica Barness	Associate Professor	FT	MFA, University of Minnesota	VCD 55000 Graphic Design Perspectives	3	5

Note: The Information School (providing coursework in HI, KM, LIS and UXD) and Instructional Technology (ITEC) currently have the fully online program designation and fully online degree programs.

Note: For the most up-to-date teaching criteria for Approved Electives in Computer Science, Geography, and Technology, please contact the Department. These classes are taken by our on-the-ground students.

APPENDICES

Appendix Description

A Director Fruit CV
B Faculty CV's

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

Respectfully,

signed after EPC

Todd A. Diacon
Senior Vice President for Academic Affairs and Provost

Ohio | Department of Higher Education

John R. Kasich, Governor
John Carey, Chancellor

CHANGE REQUEST FORM
ONLINE OR BLENDED/HYBRID DELIVERY

This form must be used when a CCGS affiliated institution intends to deliver 50% or more of a previously approved degree program via electronic or other distance learning means.

CCGS institutions submitting requests for graduate programs should submit the request to Steve Nameth (snameth@highered.ohio.gov) and copy Matt Exline (mexline@highered.ohio.gov). Documents may be submitted as Microsoft Office documents (e.g., Word or Excel) or as PDF documents.

Institution offering the degree program Kent State University

Degree designation (*e.g. M.S. in Biotechnology*) Master of Digital Sciences concentrations in Data Science, Enterprise Architecture and Digital Systems Training Technology

In order to make this request, please confirm that the program will satisfy the following criteria:

☒ Program will use Quality Matters or similar metric-driven online course design/assessment tools

☒ All instructors will be trained in offering online content and online assessments

☒ The offering university has an institutionally approved plan for securing authorizations to deliver distance learning content in other states (e.g., NC-SARA membership).

☒ The offering university has approved all online courses for this program as academically appropriate for graduate study

Is this degree program subject to approval/accreditation by a governing body beyond ODHE and HLC (e.g., CAEP, CCNE, ABET, AACSB)?

☒ No

☐ Yes (*If yes, please name the accrediting body here.)*

Does this degree program include the creation of original research or scholarship?

☐ No

☒ Yes (*If yes, please complete question 1 on the following Supplementary Information form.)*

Does this degree program include an experiential component (e.g., clinical or professional development experience)?

☐ No

☒ Yes (*If yes, please complete question 2 on the following Supplementary Information form.)*

25 South Front Street
Columbus, Ohio 43215

phone 614.466.6000
fax 614.466.5866
web **www.OhioHigherEd.org**

Will the program be offered in partnership with a third-party commercial on-line service provider?

☒ No

☐ Yes (*If yes, please provide name of provider and their responsibilities [e.g., content creation, recruitment, admissions, advising]*)

Approximately what percentage of program content will be completed on-line? 100%

Signature of the official (Graduate Dean or equivalent) below confirms that the information above is accurate.

Melody Tankersley *signature* 1/10/18 *date*

Melody Tankersley, Senior Associate Provost and Dean of Graduate Studies *name and title*

SUPPLEMENTARY INFORMATION FORM

1.) ***A.*** On a separate page, describe how program faculty will oversee and direct original research performed by students in the program. At a minimum, address the following areas:

- how students will gain access to required facilities and resources
- how students will be trained in necessary procedures
- how students will present their progress
- how the progress and quality of student projects will be assessed

Include any additional information needed to provide assurance that the quality of the research performed will be equivalent to the face-to-face offering of this degree.

B. On a separate page, describe how program faculty will mentor students, and how students will participate in the socialization that is necessary for the effective scholarly exchange of ideas at the level appropriate for the degree sought. At a minimum, address the following areas:

- how students will select a primary mentor and members of any required oversight committee
- frequency of any mandatory interactions between program faculty and students
- opportunities that exist for students to develop and refine ideas through scholarly exchange with faculty and others in the field
- career development opportunities will be provided

Include any additional information needed to provide assurance that student mentoring will be effective and assure professional competence and exposure in the field.

2.) On a separate page, describe how professional or clinical experiences are implemented and assessed. At a minimum address the following areas:

- criteria for selecting the location(s) of such experiences
- qualifications of preceptors or faculty
- provide a list of competencies that will be evaluated
- assessment strategies used to evaluate student performance

Include any additional information needed to provide assurance that the quality of the experiential component will be equivalent to that of students who are overseen in local environments.

Supplementary Information:

1.) ***A.*** Describe how program faculty will oversee and direct original research performed by students in the program. At a minimum, address the following areas:

- how students will gain access to required facilities and resources
- how students will be trained in necessary procedures
- how students will present their progress
- how the progress and quality of student projects will be assessed

Kent State University has been engaged in distance learning for many years, particularly in graduate programs.

• We have a robust and fully configured distance learning platform in Blackboard Learn.
• Our Office of Continuing and Distance Learning (OCDE) and Center for Teaching and Learning (CTL) work with faculty to develop courses with engaged and accessible learning environments that follow Quality Matters best practices. Both OCDE and CTL offer extensive training in online learning for full-time and adjunct faculty.
• University Libraries offer students full access to both traditional print and digital research resources as well as access to subject expert librarians to assist in their classroom and independent research.
• Students and faculty have a range of common tools and media available for communication, collaboration and consultation. In fact, most students today, whether face-to-face or online, normally communicate using university provided email, voice or collaborative online communication tools such as Skype, Webex, Googledocs or Blackboard-related assets.

Students learn to use these tools in the course of their graduate programs, and are accustomed to presenting their progress using digital means

Likewise, faculty are accustomed to receiving, accessing and communicating on progress and quality issues using these tools.

Our College of Communication and Information has successfully offered all-online graduate degrees for many years, with hundreds of graduates in fields such as Library and Information Sciences, User Experience Design, Public Relations and Scholastic Journalism. Online students graduate with a variety of culminating experiences, ranging from capstone classes to individual projects and the master's thesis. As our program is an interdisciplinary one, many of our classes are taught by faculty experienced in online environments.

Supplementary Information:

1.) ***B.*** On a separate page, describe how program faculty will mentor students, and how students will participate in the socialization that is necessary for the effective scholarly exchange of ideas at the level appropriate for the degree sought. At a minimum, address the following areas:

- how students will select a primary mentor and members of any required oversight committee
- frequency of any mandatory interactions between program faculty and students
- opportunities that exist for students to develop and refine ideas through scholarly exchange with faculty and others in the field
- career development opportunities will be provided

Include any additional information needed to provide assurance that student mentoring will be effective and assure professional competence and exposure in the field.

Most students in the MDS degree program take a capstone class from a senior faculty member in their area of study. These capstone classes meet once a week, whether online or face-to-face, so interaction with faculty occurs frequently. Student work on research papers is typically broken into several modules, with faculty and peers reviewing drafts and revisions in each module prior to the final paper submission. Students have access to University Library resources and subject librarians. We also have adjunct faculty who are working professionals as well as industry practitioners who guest lecture to classes and seek out students to hire in our high-demand technical fields. They are often available for student consultation.

A few students (perhaps one or two a year) choose a thesis option. Those students have a faculty thesis director (usually a full-time faculty member who has had them in class) and two faculty committee members chosen in conjunction with the director. They follow normal university processes for thesis development and completion, whether online or face-to-face.

DSCI Graduate students have access to full-time DSCI advisors for both completion of their course of study and advice on career options. We also work with the University's Career Services staff. The University offers several career fair opportunities each semester, some geared particularly for technical fields. We also have offered targeted events for DSCI graduate students offering career advice and resume workshops.

Supplementary Information:

2.) Describe how professional or clinical experiences are implemented and assessed. At a minimum address the following areas:

- criteria for selecting the location(s) of such experiences
- qualifications of preceptors or faculty
- provide a list of competencies that will be evaluated
- assessment strategies used to evaluate student performance

Include any additional information needed to provide assurance that the quality of the experiential component will be equivalent to that of students who are overseen in local environments.

Students can take internships for credit. We provide leads for students to pursue internships appropriate to their goals, and career training on networking and seeking both internships and jobs. Many of our internships are paid as students have in-demand technical skills.

We do not select locations, but students must fill out a form that sets out our expectations for internships, the learning outcomes and appropriate supervision of the internships by a qualified employee of the organization offering the internship.

Students in the internship class must submit weekly reports summarizing their work. Their employer also must submit answers to a survey rubric requesting detail on the nature and quality of the student's work. The faculty member assigned to the internship class evaluates this data according to the rubric, and often will follow up with both students and the organization supervisor regarding the work.

In addition, students are required to submit an up-to-date resume and have a career advising session with one of our full-time graduate advisors.

Only if all these requirements are completed can students be graded for the internship.

We including a copy of the form all MDS students must complete and have approved before beginning an internship for credit.