

CHANGE REQUEST: TITLE AND CURRICULUM MODIFICATION

Date of subm	ission: January 3, 2020			
Name of insti	tution: Kent State University			
Previously ap	proved title: [Digital Sciences] within the [Bachelor of Science] degree			
Proposed nev	v title: [Emerging Media and Technology] within the [Bachelor of Science] degree			
Proposed imp	elementation date of the request: [Fall 2020]			
	request received final approval from the appropriate institutional committee: [DATE] niversity Board of Trustees)			
Primary insti	tutional contact for the request			
Name:	Therese E. Tillett			
Title:	sociate Vice President, Curriculum Planning and Administration			
	Office of the Provost			
Phone:	330-672-8558			
E-mail:	ttillet1@kent.edu			
Educator Pre	paration Programs:			
Leads to licensure: \square Yes \boxtimes No				
Leads	to endorsement: \square Yes \boxtimes No			

Explain the rationale for title and curricular changes.

Kent State University created the School of Digital Sciences in 2011 as an interdisciplinary unit with no "home" faculty. In 2017, the school moved into the College of Communication and Information (CCI). The school maintained its interdisciplinary focus, but CCI began the process of hiring permanent faculty so that the school would have a team of faculty who could systematically assess and develop curriculum and create predictable and consistent course and degree offerings and outcomes.

In 2019, a team of six core faculty members with specific and diverse expertise in the discipline began to rigorously assess the curriculum, taking a data-driven approach. A study by the educational research firm Eduventures (produced specifically for the Kent State University School

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of Digital Sciences in summer 2019) found that Digital Sciences is not a program or disciplinary name used by any other industry or academic institution beyond Kent State University. The Eduventures data and report (available upon request); internal data around student recruiting and student outcomes; Digital Sciences' faculty analysis of peer programs; and, focus groups with northeast Ohio high school students all led to the conclusion that the school curriculum and name needed to change.

The research showed that the best area for our curriculum shift is in emerging media and technology, with a focus on web development and programming. This is in line with national peers and current industry jobs, both regionally and nationally, and is supported by Bureau of Labor Statistics growth projections (2014-2024 data) in a range of professions that fit under the broad umbrella of emerging media and technology. The curriculum and name change also align with new faculty hire expertise (four newly-hired tenure-stream faculty with expertise in this area have been hired over the past two years, with four additional tenure-stream hires in this area planned between 2020 and 2022) and does not overlap with any existing Kent State degree programs.

The curriculum remains interdisciplinary with a major in emerging media and technology and a required minor from within the College of Communication and Information or in another college, including Aeronautics and Engineering, Applied and Technical Studies, Arts and Sciences, and Business Administration. Students can choose one of the following minors: web development; digital media production; user experience design; computer science; computer forensics and security; game design; modeling and animation; computer engineering technology; computer information systems; management for non-business majors; design; or, organizational communication.

The goal is to create a curriculum that will provide students with a pathway to careers in back-end development for web and mobile applications, especially for those students who opt for the web development minor. However, even if students do not choose the web development minor, the other minors will prepare them for careers across the emerging media and technology fields with a strong major foundation in the areas of web programming, data, creative coding, human-computer interaction, project management and design. As previously noted, careers in emerging media and technology are part of a rapidly growing job market as shown in the recent report compiled by Eduventures and Bureau of Labor Statistics data (2014-2024).

All students will have the opportunity to work in multidisciplinary teams to solve real-world problems and all students will complete an internship. The curriculum not only provides skills-based training, it also teaches students how emerging media and technology is part of a larger effort to produce systems that create value for users and organizations.

Is the Classification of Instructional Programs (CIP) code changing? If yes, explain why.

Yes. The new CIP code is 11.0801:

Web Page, Digital/Multimedia and Information Resources Design. A program that prepares individuals to apply HTML, XML, Javascript, graphics applications, and other authoring tools to the design, editing, and publishing (launching) of documents, images, graphics, sound, and multimedia products on the World Wide Web. Includes instruction in Internet theory, web page standards and policies, elements of web page design, user interfaces, vector tools, special effects, interactive and multimedia components, search engines, navigation, morphing, e-commerce tools, and emerging web technologies.

The current Digital Sciences CIP code is 11.0101:

11.0101 Computer and Information Sciences, General. A general program that focuses on computing, computer science, and information science and systems. Such programs are undifferentiated as to title and content and are not to be confused with specific programs in computer science, information science, or related support services.

We propose changing the CIP code to better match and describe the new curriculum.

Describe how the title and curricular changes will affect students in the current program.

Current students will continue to be supported in their current curriculum and given the opportunity to transition into the new curriculum or apply course substitutions on an individual basis when appropriate.

Describe any faculty, administrative or support service changes occurring along with the title and curriculum changes.

To coincide with the revision to the program, the name of the school will also change from Digital Sciences to the School of Emerging Media and Technology (EMAT).

The School of Emerging Media and Technology is a multidisciplinary unit that draws full-time faculty from across Kent State. In 2017, the school moved into the College of Communication and Information. Prior to 2017, the school was centrally managed out of the provost's office.

Since 2017, the College of Communication and Information's (CCI's) strategic hiring plan has focused on a cluster-hiring approach with emerging media and technology skills as the top priority. Recent faculty hires in CCI have been formally assigned joint appointments between Emerging Media and Technology (EMAT) and the other four schools within the college (the schools of Communication Studies (Comm); Information (iSchool); Journalism and Mass Communication (JMC); and, Visual Communication Design (VCD)). This provides stability and guarantees that a core of full-time faculty is always available to teach in Emerging Media and Technology. Currently, six full-time, tenure-stream faculty have joint appointments in the school. Additionally, four tenure-stream and one non-tenure track Professional-in-Residence hires are planned between 2020 and 2022. These faculty will all have joint appointments with the School of Emerging Media and Technology and another school in CCI. The new curriculum can be offered with our current faculty only, but the new hires allow us to grow the size of the program and to expand in new areas as they emerge.

Current and Planned EMAT faculty:

- Abraham Avnisan, Assistant Professor, (Fall 2019 start, 75% EMAT/25% JMC)
- Michael Beam, Associate Professor (Fall 2014 start, currently 75% EMAT, 25% Comm)
- Scott Bogoniewski, Interim Director and Professional-in-Residence (Fall 2017 start, 100% EMAT)
- Mina Choi, Assistant Professor (Fall 2019 start, 25% EMAT, 75% Comm)
- David Robins, Associate Professor (Fall 2004 start, currently 75% EMAT, 25% iSchool)
- David Silva, Assistant Professor (Fall 2019 start, 75% EMAT, 25% Comm)
- Tang Tang, Professor, (Fall 2018 start, 25% EMAT, 75% JMC)

- Future hire, Assistant Professor (Projected Fall 2020 start, 25% EMAT, 75% VCD)
- Future hire, Non-tenure track Professional-in-Residence (Projected Fall 2020 start, 100% EMAT)
- Future hire, Open Rank (Projected Fall 2021 start, 75% EMAT, 25% iSchool)
- Future hire, Open Rank (Projected Fall 2021 start, 25% EMAT, 75% JMC)
- Future hire, Assistant Professor (Projected Fall 2022 start, 25% EMAT, 75% iSchool)

Provide evidence that the appropriate accreditation agencies been informed of the proposed change (if applicable).

Emerging Media and Technology is not subject to any accrediting body.

Describe how the effectiveness of the new curriculum will be monitored over time.

Graduates of the Bachelor of Science in the Emerging Media and Technology program will be able to:

- 1. Demonstrate competency in the technical skills needed to pursue jobs in emerging media and technology, which includes web development, coding, data, human-computer interaction, creative applications, problem-solving and programming.
- 2. Utilize emerging media technologies to design better experiences, improve existing systems and analyze digital social structures.
- 3. Recognize the rapidly changing nature of emerging media and technology and learn the skills needed to adapt.
- 4. Apply interdisciplinary solutions to solving technical, social, and human problems related to emerging media and technology.
- 5. Employ teamwork and project management as a problem-solving technique.
- 6. Critically analyze the effectiveness of their own work and the work of others.

Annual assessment of these Learning Outcomes at both the course and program levels will include both direct and indirect measures to determine the extent to which students in EMAT meet these Learning Outcomes. Faculty will adjust and adapt the curriculum as appropriate based on the assessment data findings.

Submit a comparison of the currently authorized curriculum and the proposed curriculum.

Based on the rationale presented above for this curriculum change, we made adjustments to our required courses in the major and eliminated concentrations. Students will now choose a minor instead.

In some cases, we moved courses from elective or concentration requirements to major requirements. This is true of the following two courses:

- (DSCI) EMAT 10010 INTRODUCTION TO EMERGING MEDIA AND TECHNOLOGY *
- (DSCI) EMAT 10310 MY STORY ON THE WEB *.

In the table below, these courses are noted by an asterisk.

We created some new courses in order to provide content appropriate for the more directed approach to our curriculum. This is true for the following courses:

- Major Requirements
 - O VCD 21000 INTRODUCTION TO WEB DESIGN #
 - o EMAT 22110 DATA IN EMERGING MEDIA AND TECHNOLOGY #
 - o EMAT 35091 SEMINAR IN EMERGING MEDIA AND TECHNOLOGY #

In the table below, these courses are noted by a superscript #.

Previously Authorized Curriculum	Credit Hours	Proposed Curriculum	Credit Hours
Major Requirements	31	Major Requirements	31
DSCI 15310 COMPUTATIONAL THINKING AND PROGRAMMING	3	(DSCI) EMAT 15310 CREATIVE CODING (Note: Course revised and retitled)	3
DSCI 33310 HUMAN-COMPUTER INTERACTION	3	(DSCI) EMAT 33310 HUMAN-COMPUTER INTERACTION	3
DSCI 41510 PROJECT MANAGEMENT AND TEAM DYNAMICS (WIC)	3	(DSCI) EMAT 41510 PROJECT MANAGEMENT AND TEAM DYNAMICS (WIC)	3
DSCI 40910 CAPSTONE IN DIGITAL SCIENCES (ELR)	3	(DSCI) EMAT 40910 INTERDISCIPLINARY PROJECTS (ELR) (Note: Course retitled)	3
DSCI 49992 INTERNSHIP IN DIGITAL SCIENCES (ELR)	1	(DSCI) EMAT 49992 INTERNSHIP IN EMERGING MEDIA AND TECHNOLOGY (Note: Course retitled)	1
DSCI 13210 DESIGN PROCESSES AND PRINCIPLES	3	VCD 13000 DESIGN: PRINCIPLES, PROCESSES AND PRACTICE (Note: Similar content to DSCI 13210) DI 20100 INTRODUCTION TO DESIGN INNOVATION (Note: Similar content to DSCI	Select one of these two courses for 3
		13210) VCD 21000 INTRODUCTION TO WEB DESIGN #	3
		(DSCI) EMAT 10010 INTRODUCTION TO EMERGING MEDIA AND TECHNOLOGY * (Note: previously elective/concentration, now required for major; Course revised and retitled)	3
		(DSCI) EMAT 10310 MY STORY ON THE WEB * (Note: previously elective/concentration, now required for major)	3
		EMAT 22110 DATA IN EMERGING MEDIA AND TECHNOLOGY# (Note: Course revised and retitled)	3
		EMAT 35091 SEMINAR IN EMERGING MEDIA AND TECHNOLOGY #	3
DSCI 41610 DIGITAL SYSTEMS SECURITY	3		
CIS 24053 INTRODUCTION TO COMPUTER APPLICATIONS	3		
CIS 24065 WEB PROGRAMMING	3		
DSCI 34410 DIGITAL INFORMATION MANAGEMENT AND PROCESSING	3		
TECH 46411 REQUIREMENTS ENGINEERING AND ANALYSIS	3		

Concentration and/or Additional	20	REQUIRED MINOR	18 - 25
Requirements for Students Not			
Declaring a Concentration			
5 Concentrations: Digital Systems Analysis Concentration (20) Digital Systems Interaction Concentration (20) Digital Systems Management Concentration (20) Digital Systems Software Development Concentration (20) Digital Systems Telecommunication Networks Concentration (20) Additional Requirements for Students Not Declaring a Concentration: CIS 44043 DATA MANAGEMENT AND BUS INTELL (3) Selection of Digital Science Courses (6) Selection of a list of Approved Electives (9) General Electives (2)		Students in the major will be required to choose a minor from the following list, or another relevant minor or block of courses agreed upon by the student and the faculty advisor. This will drive students to minors in the programs that have been partners. As stated earlier, a preliminary list of these minors is: • Web Development (18) • Design (18) • Digital Media Production (20) • Organizational Communication (18) • User Experience Design (18) • Computer Science (20) • Computer Forensics and Security (18) • Game Design (21) • Modeling and Animation (21) • Computer Engineering Technology (25) • Computer Info Systems (18) • Management for Non-Business Majors (18)	
Additional Requirements (courses do not count in major GPA)	69	Additional Requirements (courses do not count in major GPA)	64 - 71
UC 10097 DESTINATION KENT STATE: FIRST YEAR EXPERIENCE	1	UC 10097 DESTINATION KENT STATE: FIRST YEAR EXPERIENCE	1
College of Communication and Information Core Electives	9	College of Communication and Information Core Electives	9
Kent Core Composition		Kent Core Composition	6
Kent Core Mathematics & Critical Reasoning	3	Kent Core Mathematics & Critical Reasoning	3
Kent Core Humanities and Fine Arts	9	Kent Core Humanities and Fine Arts	9
Kent Core Social Sciences	6	Kent Core Social Sciences	6
Kent Core Basic Sciences	6-7	Kent Core Basic Sciences	6-7
Kent Core Additional	6	Kent Core Additional	6
General Electives	23	General Electives	18 - 25
Total	120	Total	120

The person listed below verifies that this request has received the necessary institutional approvals and that the above information is truthful and accurate.

Respectfully,

Melody J. Tankersley Senior Vice President for Academic Affairs and Provost (Interim) Kent State University From: ROBINS, DAVID
To: Zingrone, Cathy

Subject: Fw: Letter of Support Request for DSCI Curriculum Change

Date: Thursday, December 5, 2019 10:26:15 AM

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David B. Robins, Ph.D.
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Kent State University
Kent, OH 44242-0001

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https://www.kent.edu/DI



From: Javed I. Khan <javedkent@gmail.com> Sent: Tuesday, November 5, 2019 4:11 PM

To: ROBINS, DAVID <drobins@kent.edu>; KHAN, JAVED <javed@kent.edu>

Cc: Bogoniewski, Scott <sbogonie@kent.edu>

Subject: Re: Letter of Support Request for DSCI Curriculum Change

Dear Dave and Scott,

This is to let you know that CS is supportive of proposed changes to DSCI program. We hope to continue the collaboration.

Best,

-Javed.

ROBINS, DAVID wrote:

Hello Javed,

Thank you for meeting with us last week regarding curricular changes to the BS program in the School of Digital Sciences. Attached you can find the full proposal. We are requesting a letter or email response of support to include in our proposal to the January EPC meeting. Please provide this letter of support by mid November. Below is a brief outline from our last meeting and highlights of the proposal.

Best,

Dave and the Digital Sciences team

Notes from our meeting:

CS requested that we consider utilizing the following or other CS courses:

- CS 44105 WEB PROGRAMMING I
- CS 44106 WEB PROGRAMMING II

We are proposing the new course in DSCI:

DSCI 21000 INTRODUCTION TO WEB DESIGN AND DEVELOPMENT.

We wish to put forth the proposal in its original form for the following reasons:

- 1. DSCI 21000 is a prerequisite for three other upper division courses in the Web Development concentration and we need that content early in the program. The CS Web Programming courses are upper division.
- 2. CS 44105, WEB PROGRAMMING I, has the following prerequisites:
 - a. CS 23001
 - b. CS 23001 has the following prerequisites
 - i. CS 13001 or CS 13012
 - ii. CS 13001 has the following prerequisite
 - 1. Minimum of "C" grade in MATH 11010
 - iii. CS 13012 has the following prerequisite
 - 1. Minimum of "C" grade in 13001

- 3. CS has offered to waive prerequisites, but our students would be at a disadvantage in courses where other students are better prepared having taken the prerequisites.
- 4. Our proposed course delivers the content in a creative manner. DS students have varied backgrounds and learning styles. The proposed courses take this into consideration to come up with fresh and innovative solutions that increase engagement and retention of content.
- 5. Future minors or collections of courses can be created in CS for the general concentration.

Please find attached a proposal for curricular changes proposal by the School of Digital Sciences (DSCI). We are proposing the following items, which are elucidated in the proposal:

- 1. Revise the major requirements for the BS in Digital Sciences major.
- Establish a new concentration in the BS in Digital Sciences called Web Development (WD)
- 3. Inactivate the following concentrations:
 - a. Digital Systems Analysis
 - b. Digital Systems Interaction
 - c. Digital Systems Management
 - d. Digital Systems Software Development
 - e. Digital Systems Telecommunication Networks
- 4. Keep current no-concentration option
 - a. Require a minor for this no-concentration option

Our proposal seeks to retain the interdisciplinary nature of DSCI. The new courses proposed are uniquely created to support the new concentration.

The timing of this proposal has to do with faculty hires who began work in CCI in the Fall of 2019 and the interest from students in DS who want to concentrate on web development. There are now four faculty members with a partial appointment in DSCI. They bring expertise in web development and were hired in order to put this curriculum change forward. We have worked diligently since July to bring this proposal into existence.

It is our wish to have these changes in place for the Fall of 2020. The College of Communication and Information Curriculum Committee has approved the proposal in its current state. We are hoping to submit the completed proposal with supporting letters to the College of Communication and Information Curriculum Committee in late November and be on the agenda of the January EPC meeting.

We welcome the opportunity to host you at our weekly meetings that we have to develop this curriculum. Alternatively, we can meet with you at your location.

There, we could discuss any concerns or questions you might have.

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Dr. Javed I. Khan, Professor and Chair Department of Computer Science Kent State University, 241 MSB, Kent, OHIO-44242, USA Tel: (330)-672-9055, Fax:(330)-672-0737

Email: javed@cs.kent.edu

Home page: http://www.cs.kent.edu/~javed

- Carl Sagan

[&]quot;Imagination will often carry us to worlds that never were. But without it we go nowhere."

 From:
 ROBINS, DAVID

 To:
 Zingrone, Cathy

 Subject:
 Fw: DSCI Proposal

Date: Thursday, December 5, 2019 10:28:15 AM

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from the College of Applied and Tech Studies at regionals.

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From: WARD, WILLIAM III < wward@kent.edu> Sent: Wednesday, November 20, 2019 7:14 AM

To: ROBINS, DAVID <drobins@kent.edu>

Cc: Bogoniewski, Scott <sbogonie@kent.edu>; WATSON, RUTH <rwatson@kent.edu>; MARSHALL, SHELLEY <skmarsha@kent.edu>; Paternite, Judy <jpaterni@kent.edu>; Froehlich, Larry <lfroehli@kent.edu>; Ritchey, Nathan <nritche2@kent.edu>

Subject: DSCI Proposal

Hi Dave

The Information Technology Faculty have reviewed the Digital Sciences proposal to revise the program and we support the proposal based on the following conditions.

- 1. Digital Sciences continues to allow Information Technology courses to be used in the program.
- 2. Digital Sciences continues to honor Information Technology minors and concentrations.

The Information Technology Faculty appreciate your consultation and look forward to working with Digital Sciences in the future.

If you have any questions or need any further assistance, please contact me.

Thanks Will

William C Ward III Associate Professor, Information Technology Kent State University, Trumbull Campus MBA Baldwin Wallace College MA in Technology Kent State University From: ROBINS, DAVID
To: Zingrone, Cathy

Subject: Fw: Request for Support Letter for DSCI Curricular Changes

Date: Thursday, December 5, 2019 10:25:43 AM

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David B. Robins, Ph.D. Associate Professor Associate Director School of Digital Sciences Kent State University Kent, OH 44242-0001 Phone: 330.672.5852

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From: SANDMANN, ALEXA <asandman@kent.edu> Sent: Wednesday, November 20, 2019 5:49 PM

To: ROBINS, DAVID <drobins@kent.edu> **Cc:** Bogoniewski, Scott <sbogonie@kent.edu>

Subject: RE: Request for Support Letter for DSCI Curricular Changes

Hi, David,

The Educational Technology faculty and I appreciated your meeting with us about this proposal.

With this email, I am supporting the curricular changes to the BS program in the School of Digital Sciences, with three small requests made to the proposal:

- 1. Please list Educational Technology under Interaction, Content, and Development on page 3.
- 2. We would also appreciate Educational Technology being added to page 5 under: "We are in the process of working with the following programs to determine whether there are any concerns or

questions regarding this proposal...."

3. Also, please list a tentative minor on page 7 as "Technologies for Learning and Training" (Educational Technology/TLC/Education)

Thank you very much.

Sincerely, Alexa

Dr. Alexa L. Sandmann

asandman@kent.edu

Director, School of Teaching, Learning and Curriculum Studies
Professor of Literacy; Director of National Writing Project at Kent State University
Co-Director of Virginia Hamilton Conference on Multicultural Literature for Youth
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TLC's Vision: Fostering courageous thought, innovative research and practices, and local and global community engagement for a more just world.

The mission of TLC is to engage in professional practices—research, scholarship, service, and teaching—that empower learners in educational settings.

From: ROBINS, DAVID <drobins@kent.edu> Sent: Friday, November 1, 2019 2:21 PM

To: SANDMANN, ALEXA <asandman@kent.edu> **Cc:** Bogoniewski, Scott <sbogonie@kent.edu>

Subject: Request for Support Letter for DSCI Curricular Changes

Dear Alexa,

Thank you for meeting with us this week regarding curricular changes to the BS program in the School of Digital Sciences. Attached you can find the full proposal. We are requesting a letter or email response of support to include in our proposal to the January EPC meeting. Please provide this letter of support by mid November. Below is a brief outline from our last meeting and highlights of the proposal.

Best,

Dave and the Digital Sciences team

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Our proposal seeks to retain the interdisciplinary nature of DSCI. The new courses proposed are meant to support the new concentration, and are not found in the form we require elsewhere in the university.

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Best, Dave

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