KENT STATE UNIVERSITY
CERTIFICATION OF CURRICULUM PROPOSAL

Preparation Date **8-Nov-14** Curriculum Bulletin _____

Effective Date **Fall 2015** Approved by EPC _____

Department

College **PR - Provost**

Proposal **Revise Academic Unit**

Proposal Name **Revision of academic administrative structure of the School of Digital Sciences**

Description of proposal:

Proposal seeks to restructure Kent State University's School of Digital Sciences, from an independent unit outside any college to a dependent school within the College of Arts and Sciences. The mission, objectives, academic offerings and administrative positions will be unchanged, as well as the current location of the school.

As the School of Digital Sciences is the university's only interdisciplinary unit with programs spanning multiple colleges, this proposal also requests that the school retain some elements of independence, including a curriculum process separate from the college; continued representation on Faculty Senate and Educational Policies Council; distinct listing in admissions materials and on the university's website; and a presence at key university events (e.g., convocation, commencement, Golden Flash Days, admission information sessions, Destination Kent State: Advising and Registration).

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

The mission, objectives, academic offerings and administrative positions will be unchanged, as well as the current location of the school. Academic programs, courses, students and staff will need to be updated in Banner and other systems (e.g., Cognos) to reflect their new college home.

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

College Deans, DSCI Faculty/Staff, Registrar, Bursar, Admissions

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REQUIRED ENDORSEMENTS

_____ ____/____/____

Department Chair / School Director

_____ ____/____/____

Campus Dean (for Regional Campuses proposals)

_____ ____/____/____

College Dean (or designee)

_____ ____/____/____

Dean of Graduate Studies (for graduate proposals)

_____ ____/____/____

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

Proposal Summary to Revise the Academic Administrative Structure of the School of Digital Sciences

From an Independent School at Kent State University to a Dependent School within the College of Arts and Sciences

The purpose of this proposal is to restructure Kent State University's School of Digital Sciences, from an independent unit outside any college to a dependent school within the College of Arts and Sciences. The mission, objectives, academic offerings and administrative positions will be unchanged, as well as the current location of the school.

As the School of Digital Sciences is the university's only interdisciplinary unit with programs spanning multiple colleges, this proposal also requests that the school retain some elements of independence, including a curriculum process separate from the college; continued representation on Faculty Senate and Educational Policies Council; distinct listing in admissions materials and on the university's website; and a presence at key university events (e.g., convocation, commencement, Golden Flash Days, admission information sessions, Destination Kent State: Advising and Registration).

The following is taken from 3343-2-03 *University Policy Regarding the Establishment or Revision of Academic Administrative Structures*.

The quality of the faculty, students and programs.

The School of Digital Sciences was established fall 2011 as an independent school, formed outside any of the existing Kent State colleges, to offer Bachelor of Arts, Bachelor of Science and Master of Digital Sciences degrees, as well as an undergraduate minor and a graduate certificate. As of spring 2015, the school numbered 503 students.[1]

The design of the programs' broad and flexible interdisciplinary curricula allows graduates to see the big picture of the traditional "digital" programs, gain experience working in multi-disciplinary teams, and receive the necessary broad training to bridge the communication gap between disciplines. The school promotes a cross-functional approach to recruit existing university faculty experts in computer science, computer information systems, computer technology, educational sciences, information architecture and knowledge management, among other fields. In addition, practitioners active in their field are engaged as adjunct instructors.

Centrality and coherence to the mission and strategic directions of the university and other academic units.

The university's mission statement begins "The mission of Kent State University is to discover, create, apply and share knowledge… ."[2] An interdisciplinary school that brings together faculty and courses from five or more academic disciplines to share common interests in the digital sciences is fully in alignment with the mission of sharing knowledge. The mission statement also includes engaging students in a "diverse learning environments," leading to "productive careers," both supported by the interdisciplinary nature and clear market need for the programs within the School of Digital Sciences.

[1] Enrollment based on 15th day census collection, Office of Institutional Research.
[2] Kent State University Mission Statement. Retrieved from www.kent.edu/president/mission-planning.

One of the seven strategic goals in Kent State's core values is to "focus on those we serve, especially our students." The school's interdisciplinary degree programs allow the selection of course requirements from a wide number of programs spanning the university. The result has been agile degrees that can change quickly with industry needs.

Comparative advantage versus other structures.

At the time of its inception, an independent School of Digital Sciences was desirable. The independence enabled the school to be nimble and flexible in reaching across the university to forge relationships and bring together faculty from multiple units to support the offering of digital sciences programs and coursework, while at the same time leaving them in their home unit to pursue disciplinary research and teach.

Digital Sciences is not Kent State's first independent school, as there existed the following four independent schools in the past 47 years: School of Nursing[3] (1971-1999); School of Technology (1996-2006); School of Library Science (1967-1993); and School of Physical Education, Recreation and Dance[4] (1971-1995). However, in contrast to Digital Sciences, those schools were led by a dean and composed of full-time faculty. Two later gained college status, and two were moved under colleges.

Direct oversight of an independent school falls under the auspices of the Office of the Provost, similar to administration of the university's colleges. No other academic unit of this nature reports to the provost, and as the programs have seen rapid growth (see data at next page), the Office of the Provost has had to make decisions that are normally assigned to a college dean (e.g., hiring of faculty, oversight of budget, approval of course offerings).

The mission of the Office of the Provost is to provide overarching academic leadership, not management at this level of detail. Therefore, the university's normal administration structure makes sense in this situation. A home in the College of Arts and Sciences is a consistent choice as that college is accustomed to managing interdisciplinary programs and units that do not hire their own faculty (e.g., graduate programs in chemical physics, undergraduate program in integrated life sciences, School of Biomedical Sciences, Center of Comparative and Integrative Programs).

As an independent and interdisciplinary school, the School of Digital Sciences was given great visibility that has contributed to its advancement. While the reporting and administrative structure of the school will change, certain elements of independence will remain to continue to foster that advancement, including the school's presence at convocation and commencement ceremonies. Furthermore, the appearance of independence in other key respects will continue: its listing in Admissions Viewbook and on the university's college and school's webpage (www.kent.edu/colleges-and-schools); a banner on the Student Green and the Lester Lefton Esplanade between campus and downtown Kent; and a separate presence at admission information sessions, Golden Flash Days and Destination Kent State: Advising and Registration.

[3] The School of Nursing was established in 1967 in the College of Arts and Sciences before moving to independence status in 1971.
[4] The School of Physical Education, Recreation and Dance was formerly called the School of Health, Physical Education and Recreation from 1971-1979.

What makes the unit particularly appropriate for Kent State University.

The creation of an interdisciplinary school allowed for university- and campus-wide collaborations to foster a broad understanding of the digital sciences in an enterprise environment, from business processes to information repositories to software development to the underlying telecommunication infrastructure. The School of Digital Sciences also serves as an incubator for research synergies among faculty in related disciplines and as a focal point for multi-disciplinary alliances. As the enrollment data below shows, the School of Digital Sciences has shown great success.

Demand for the unit and for the graduates of the unit.

In its three years of existence, the school has experienced rapid growth with enrollment increasing 5,633 percent. In the past year alone, enrollment has grown 61 percent in the BS degree, and 181 percent in the Master of Digital Sciences (table 1). Likewise, enrollment in DSCI courses has grown 730 percent over the past three years (table 2).

Table 1: Enrollment in school programs each fall and spring, 2011 to 2015[5]

PROGRAMS	F 2011	S 2012	F 2012	S 2013	F 2013	S 2014	F 2014	S 2015
Digital Sciences (BA)	0	5	16	25	36	39	32	31
Digital Sciences (BS)	3	19	53	66	85	109	137	141
Master of Digital Sciences	0	7	21	28	58	81	163	310
Digital Sciences (minor)	3	0	2	5	8	11	10	16
Enterprise Architecture (graduate certificate)	n/a	n/a	n/a	0	1	1	0	1
Non-Degree	0	2	7	6	1	3	2	4
Total Enrollment	**6**	**33**	**99**	**130**	**189**	**244**	**344**	**503**

Table 2: Enrollment in Digital Sciences courses each fall and spring, 2011 to 2015[6]

COURSES	F 2011	S 2012	F 2012	S 2013	F 2013	S 2014	F 2014	S 2015
Total Enrollment	**67**	**149**	**231**	**359**	**425**	**534**	**556**	**833**

In fiscal year 2014[7], the school graduated 23 students (14 undergraduate, nine graduate).

According to the U.S. Bureau of Labor Statistics, "employment and output in computer systems design and related services are projected to grow rapidly over the next decade, outpacing similar professional, scientific, and technical industries and the economy as a whole. Between 2010 and 2020, output in computer systems design and related services is expected to grow at an average annual rate of 6.1 percent, compared with 3.6 percent for the broad industry category—professional, scientific, and technical services—and 2.9 percent for all industries. Employment in computer systems design and related services is projected to grow 3.9 percent annually from 2010 to 2020, compared with 2.6 percent for professional, scientific, and technical services and 1.3 percent for all industries."[8]
The state of Ohio accounts for 3.74 percent of the nation's jobs in computer and mathematical science occupations (at a mean annual wage of $68,700 in Ohio). Consequently, those 750,000 new jobs nationally could translate into over 28,000 new well-paying computer-related jobs in Ohio.

[5] Enrollment based on 15th day census collection, Office of Institutional Research.
[6] Ibid.
[7] Fiscal year 2014 encompasses the terms summer 2013, fall 2013 and spring 2014.
[8] Csorny, L. (2013, April). Careers in the growing field of information technology services. *Beyond the Numbers*. U.S. Department of Labor Statistics, *2*(9). Retrieved from www.bls.gov/opub/btn/volume-2/careers-in-growing-field-of-information-technology-services.htm.

Moreover, the most recent four-year report on Northeast Ohio's high-tech economy confirms that "growth in high-tech industries benefits all sectors of the region's workforce and is not limited to occupations with technical degrees," showing three non-high-tech jobs complement every one high-tech job in Northeast Ohio's high-tech industries. As a result, increased use of information technology could lead to 100,000 new jobs for Ohioans between 2008 and 2018[9].

Duplication and interrelatedness of unit's program(s) within the university, state and region.

Programs within the School of Digital Sciences complement existing programs in the Regional College; the College of Applied Engineering, Sustainability and Technology; the Department of Computer Science (College of Arts and Sciences); the School of Library and Information Sciences (College of Communication and Information); the Department of Management and Information Systems (College of Business Administration); and the School of Lifespan Development and Educational Sciences (College of Education, Health, and Human Services), among others.

Rationale exists to eliminate the school and move all the programs into an existing unit, such as the Department of Computer Science or the Department of Management and Information Systems. In addition, an existing unit could be reorganized to accommodate the programs, for example, creation of a Department of Computer and Data Science. However, due to the School of Digital Sciences' increasing size, its programs and students need more oversight than an existing department would have the resources to accomplish presently.

Establishment of the School of Digital Sciences has not been shown to have a negative impact for other Kent State units that offer other computer-related programs. For example, since 2011, enrollment in both the Department of Computer Science and the Department of Management and Information Systems has each grown 36 percent, with 709 and 1,846 students, respectively, for fall 2014[10]; enrollment in the School of Library and Information Science grew 20 percent over the same period, with 821 students in fall 2014[11].

Two comparable programs in other states that have been particularly successful in aggregating multiple computing units together are administered by Carnegie Mellon University's School of Computer Science and Georgia Tech's College of Computing. Carnegie Mellon's schools operate similar to Kent State's colleges, with dependent departments, institutes and centers; and Georgia Tech's colleges also operate much like Kent State's colleges with dependent schools.

Efficiency and effectiveness of the unit in leveraging existing resources and expanding new resources.

The interdisciplinary nature of the programs within the School of Digital Sciences allows for the collaboration across the university. Courses from the following disciplines across six colleges are included in the digital sciences programs:

- Communication Studies
- Computer Science
- Computer Technology
- Instructional Technology
- Journalism and Mass Communication
- Library and Information Science

[9] Lendel, I. (2010, June). Northeast Ohio high-tech economy report. The Center for Economic Development, Cleveland State University. Retrieved from urban.csuohio.edu/publications/center/center_for_economic_development/NorTech%202009_Aug6.pdf.
[10] Enrollment based on 15th day census collection, Office of Institutional Research.
[11] Ibid.

- Evaluation and Measurement
- Geography
- Information Architecture and Knowledge Management
- Management and Information Systems
- Psychology
- Technology
- Visual Communication Design

In addition, faculty members from the following units have taught digital sciences (DSCI) courses. They receive joint appointments to the School of Digital Sciences, but otherwise remain in their home department for budgetary purposes, reappointment, promotion, tenure, etc.

- Applied Engineering, Sustainability and Technology
- Architecture and Environmental Design
- Computer Science
- Lifespan Development and Educational Sciences
- Journalism and Mass Communication
- Library and Information Science
- Management and Information Systems
- Philosophy
- Political Science

Other faculty teaching DSCI courses receive a term teaching assignment. As such, the school is unlikely to have any permanent faculty for the foreseeable future.

Administrative reporting structure.

Presently, the director of the School of Digital Sciences (founding director Robert Walker) reports directly to the associate provost for academic affairs. School staff members who report to the director are a secretary, a business manager, a part-time academic advisor, an assistant director for curriculum and operations and an assistant director for advising and student services.

With the proposed structural change, the school director will report to the dean of the College of Arts and Sciences; therefore, serving as an equivalent to a department chair in that college. The college dean will assume responsibility of evaluation, hiring and management of the school.

Current staff will remain in the school. The school will continue to have a separate advising unit that blends undergraduate and graduate advising.

The School of Digital Sciences committees will continue as established. They include the following:

- Deans Advisory Group, comprising Kent State deans and other administrators to provide advice and oversight
- Graduate Studies Committee, composed of graduate faculty with joint appointments to the school
- Industrial Advisory Committee, which includes representatives from local industry groups and companies to provide employer feedback
- Interdisciplinary Curriculum Committee, composed of representatives from DSCI-affiliated academic units to assist in keeping the Digital Sciences curriculum in sync with those other units
- Interdisciplinary Advisory Committee, comprising faculty with joint appointments to the school

Regarding the curriculum approval process, it is proposed that Digital Sciences' Interdisciplinary Curriculum Committee will submit proposals to the school's Deans Advisory Group and then to the dean of the College of Arts and Sciences before going to the provost and to the Educational Policies Council for approval. Thus, the Deans Advisory Group replaces the College Curriculum Committee as an approving step, as is done with other dependent units within the college.

It is also proposed by the School of Digital Sciences that it retain its separate representation on Faculty Senate and Educational Policies Council; and the director will continue to attend meetings of the Advising Deans Council, Chairs and Directors Committee and Associate and Assistant Deans Committee.

Space and capital budget needs.

The budget for the School of Digital Sciences, for the purposes of Responsibility Centered Management (RCM), will be integrated into the College of Arts and Sciences.

The location of the school—director and staff—will remain until further notice in the Mathematics and Computer Science Building (room 236).

A proposed operating budget with any one-time resource needs.

Not applicable as the school has been fully functional with an operating budget for three years.

Evaluation procedures including academic assessment procedures.

As is done with every academic unit, the school and programs will undergo a full review every seven years as determined by the Office of Accreditation, Assessment and Learning. The school will also follow any evaluation procedures in place within the College of Arts and Sciences.

Current evaluation procedures within the school include assessing and evaluating academic effectiveness and student success at the end of each semester, annually and upon each cohort's graduation. The school's director, Interdisciplinary Advisory Committee and Interdisciplinary Curriculum Committee oversee the assessment efforts. Assessment directors in affiliated departments, schools and programs also are consulted to share "best practices" across those units.

A timetable for proposal implementation.

The president, provost and dean of the College of Arts and Sciences have approved the school's restructuring. The revision was approved 26 February 2015 by School of Digital Sciences' Interdisciplinary Advisory Committee and Interdisciplinary Curriculum Committee.

It is anticipated that the structure revision will go before and be approved by the College of Arts and Sciences, the Educational Policies Council, the Faculty Senate and the Kent State University Board of Trustees in spring 2015.

Implementation with staff, faculty, courses and programs moving under the college administration will occur in July 2015 (fall 2015).