Set 2/2, Attached Reports to 11/1/17 Minutes

INITIAL INQUIRY

REQUEST TO OFFER A NEW PROGRAM

Date of submission: *Date to come (sent after EPC)*

Name of institution: Kent State University

Primary institutional contact for this request:

Name: Therese E. Tillett

Title: Executive Director of Curriculum Services, Office of the Provost

Phone: 330-672-8558

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Name of new program: Modeling, Animation and Game Creation major within the Bachelor of Science degree

For institutions that are already approved/authorized by the chancellor

☐ New degree designation

☒ New program within an existing degree (e.g., major, minor, concentration)

☐ New technical certificate program

☐ New licensure/endorsement area (educator preparation)

Delivery options (check all that apply):

☒ Campus based

☐ Online/hybrid delivery

☐ Flexible or accelerated delivery

☐ Offering the program at a new offsite location

☐ Offering the program at an existing offsite location

☐ Program contains off-campus experiences (e.g., internship, clinical, practicum, student teaching)

The institution will be seeking specialized accreditation for the program:

☒ No ☐ Yes

Provide a brief description of the request.

Kent State proposes establishing a new major, Modeling, Animation and Game Creation, within the Bachelor of Science degree. The program will be offered fully at the university's Kent, Stark and Tuscarawas campuses.

The proposed program is existing at Kent State, having been offered since 2001 as a concentration called Computer Design, Animation and Game Design, first within the Technology major (2001-2012) and then within the Engineering Technology major (2012-present). The program is approved by the Ohio Department of Higher Education to be offered at the Kent and Tuscarawas campuses.

In addition, Kent State has offered an associate degree in the subject since 1995 at the Tuscarawas Campus. That program has graduated more than 300 students since 2000.

Explain the academic unit's rationale for making the request.

Kent State's computer design, animation and game design program has long experienced solid enrollment and is one of the Tuscarawas Campus' signature programs, see table 1. Graduates have obtained jobs in a wide variety of sectors in local, state, national and international markets, see table 2.

Table 1: Student Enrollment in BS Degree,
Computer Design, Animation and Game Design Concentration[1]

Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
157	146	156	148	167	191

Table 2: Program Graduate Jobs/Internships

[1] Data provided by Kent State University Office of Institutional Research.

Company	Location	Graduate Job Title
Sanctuary Software Studio	Fairlawn, OH	multimedia developer
MMG Studios	Cincinnati, OH	2D and 3D animator
Pixar Canada	Vancouver, Canada	animator and lighting specialist
Pixomondo	Vancouver, Canada	animator
Reel FX	Dallas, TX	special effects designer
Animal Logic	Sydney, Australia	lighting and composer
Double Negative	Vancouver, Canada	lighting
Science Applications International Corp.	Huntsville, AL	modeler and simulator
Barking Lizards Technologies	Richardson, TX	game designer
Vcom3D	Orlando, FL	game designer
SDMyers	Tallmadge, OH	2D/3D modeler
Zero Point 3D	Coconut Creek, FL	3D artist
Twin Sisters Publishing Co.	Akron, OH	animator
Forms+Surfaces	Carpenteria, CA	sketchup artist
TMW Systems	Mayfield Heights, OH	technical writer and video specialist
LJ Smith Stair Systems	Gnadenhutten, OH	3D modeler
Synergy Sign & Graphics	Strasburg, OH	graphic designer
Lauren Manufacturing	New Philadelphia, OH	autoCAD and solid modeler
Canton Elevator	Canton, OH	CAD operator
H3D Tool Corp.	Newcomerstown, OH	2D/3D modeler
JLG Industries, Inc.	Orrville, OH	technical illustrator
Hines Specialty Vehicle Group	New Philadelphia, OH	autoCAD designer
Aqua Blue Inc.	New Philadelphia, OH	web design
S.A. Comunale	Barberton, OH	autoCAD designer

Company	Location	Graduate Job Title
Tubar Eureka Industrial Group	Dover, OH	autoCAD designer
Tusco Display	Gnadenhutten, OH	solid modeler

In order to prepare students to compete in the job market today, faculty have been continually updating the program's curricular offerings to stay current with the developments in the field. As a concentration within the Engineering Technology major, faculty are limited in both marketing the program and in refining the curriculum while keeping a major core among all the concentrations.[2]

In addition to elevating the program to a separate degree program, the name will change—from "Computer Design, Animation and Game Design" (CDAG) to Modeling, Animation and Game Creation" (MAGC)—to reflect better updates to the curriculum and program objectives.

> **Modeling.** Modeling is a domain-specific term, with other domain-specific meanings used in mathematics and the sciences. Two- and three-dimension models are created in design, graphic and game industries. Students in the program learn how to create a 2D and 3D character model design in a game environment, reproduction of an object using a solid-modeling program, an architectural 3D house model or a modeled scene to be used in a virtual/augmented reality environment.

> **Animation.** Animation involves bringing motion to still objects or, more traditionally, displaying a sequence of still images to create the illusion of motion or life. Animation involves more than just character motion; it includes motion graphics, video editing, special effects, cameras and video output. Students learn how to animate characters, elements of environments and graphics. Two- and three-dimension models are animated as necessary, via a combination of manual animation, procedural tools and physical simulation.

> **Game Creation.** Game creation is a phrase that describes level (environment) and content creation in 2D and 3D models. The focus is on the design part of game environments to be used on platforms such as personal computers, smart phones and game consoles. Students learn the importance of 2D and 3D model creation for specific games used for simulation, training, entertainment and measuring educational outcomes.

Indicate whether additional faculty and staff will be needed to support the proposed request.
Currently, three full-time and five part-time (adjunct) faculty members teach in the existing Computer Design, Animation and Game Design concentration. Plans have been formalized to hire at least one more full-time faculty member. Several more adjunct faculty are in the process of being hired.

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[2] In addition to Computer Design, Animation and Game Design, the Engineering Technology major includes the following concentrations: Mechanical/Systems, Green and Alternative Energy and Electrical/Electronics Engineering Technology.

Establishment of a BS Degree in Modeling, Animation and Game Creation (MAGC)

Initial Inquiry has been approved by the Tuscarawas FC, Regional CCC and will go to EPC in November. We are on the Regional CCC agenda to present the full proposal December 1. Therese Tillett said that if we can have the full proposal ready for the January EPC we should be able to have it through all the remaining approvals to have it on the catalog for Fall 2018.

We are proposing to elevate the existing Computer Design, Animation and Game Design (CDAG) concentration within the Bachelor of Science in Engineering Technology, to a stand-alone degree in Modeling, Animation and Game Creation (MAGC), within the Bachelor of Science degree. The program will be offered fully at the university's Kent, Stark and Tuscarawas campuses. The classrooms and new virtual reality labs are in place at each campus.

In order to prepare students to compete in the job market today, faculty have been continually updating the program's curricular offerings to stay current with the developments in the field. As a concentration within the Engineering Technology major, faculty are limited in both marketing the program and in refining the curriculum while keeping a major core among all the concentrations. The name change reflects the updated curriculum and program objectives.

Significance of the name:

Modeling - Modeling is a domain-specific term, with other domain specific meanings used in math and sciences. 2D and 3D models are created in design, graphic and game industries. Ultimately students learn how to create a three-dimensional model of some physical object. For instance our students will learn how to create a 2D and 3D character model design in a game environment, reproduction of an object using a solid-modeling program, an architectural 3D house model, or a modeled scene to be used in a virtual/augmented reality environment. Graduates can search for jobs using the word 3D modeler and find a wide range of employment opportunities.

Animation – Animation involves bringing motion to still objects, or more traditionally, displaying a sequence of still images to create the illusion of motion or life. Animation involves more than just character motion; it includes motion graphics,

video editing, special effects, cameras and video output. Students learn how to animate characters, elements of environments, and graphics. 2D and 3D models are animated as necessary, via a combination of manual animation, procedural tools, and physical simulation.

Game Creation – Game creation is a phrase that describes level (environment) and content creation in 2D and 3D. The focus is on the design part of game environments to be used on platforms such as pcs, smart phones and game consoles. Students will learn the importance of 2D and 3D model creation for specific games such as:

· Casual – a game that has a low skill requirement

· Serious – a game used for simulation and training

· Traditional – games used for entertainment

· Educational – games used for training and measuring outcomes

BS MAGC Minors

The minor in CDAG (27 credit hours) includes modeling, animation and game design courses. In BS MAGC we will have two new minors to replace the one in CDAG offering students more options to obtain coursework in a specialized area of study:

· Modeling and Animation (21 credit hours) – students will learn how to create 2D graphics, texturing to map images onto surfaces, modeling characters, and creating parametric solids. Students will rig characters and complete a full animation.

· Game Design (18 credit hours) – students will learn the foundation of modeling and texturing, how to build 2D/3D environments for games with a completed 2D game for all platforms, and an introduction to virtual reality interaction within a game.

Collaboration with other colleges and programs at Kent (College of Communication, Visual Communication Design, Journalism and Mass Communication, Digital Science, Digital Media Production, Fashion and Architecture) have been ongoing and there is a large amount of interest in these minors. We are working with CCI now and have created a co-lab for virtual reality and audio mixing.

Our program is unique as the mission is to equip students for jobs locally and statewide and beyond in areas of modeling 2D and 3D (CAD, solid models for

industry and marketing), training in animation with virtual reality for games in education, sports and entertainment. The program originated out of Kent's BS in Engineering Technology so we still believe in the technical skills needed for industry jobs in Ohio and beyond in the many areas that these sectors encompass. We combine those skills with design, animation, and game creation to equip our graduates to compete with the cutting-edge competitive jobs nationwide. Below you will see the coursework for the BS MAGC where you can see what has remained and the new classes to be introduced.

Thank you for your support! Sorry for the late submission.

Denotes new course		**Denotes classes that remain from CDAG (with name change)**
Major Requirements		**Descriptions**
MAGC 11003 Solid Modeling	3	Instruction given in the best usage approaches for parametric design philosophy through a hands-on, practice-intensive curriculum. Students acquire the knowledge needed to complete the process of designing models from conceptual sketching, through to solid modeling, assembly design and drawing production. Prerequisite: None.
MAGC 12000 2D Graphics	3	Introductory course for creation of 2D graphics using vector and raster imaging for use in mapping and character development in animation and gaming. Prerequisite: None.
MAGC 12001 Modeling & Texturing I	3	Introduction to the basic concepts of 3D modeling and animation. Topics will include terminology, techniques of creating textures and imaging for mapping, 3D modeling, lighting, shading and rendering. Prerequisite: MAGC 12000.
MAGC 21000 Fundamentals of Mixed Reality	3	Teaching the fundamentals of virtual and augmented reality available today (education, medical, games, architecture, etc.)
MAGC 22000 2D Communication	3	This course explores communicating ideas in 2D, including technical and reference drawings.
MAGC 22001 Modeling for Architecture	3	Introduction to building information modeling (BIM) fundamentals with emphasis placed on conceptual design and rendering techniques. We will also explore different ways to incorporate a virtual reality experience with the model.
MAGC 22004 Modeling & Texturing II	3	3D modeling and computerized techniques. Introduction to the basic concepts, terminology and techniques of 3D modeling, lighting, shading, imaging and animation. Prerequisite: MAGC 22000.
MAGC 22005 Multimedia & Game Design	3	2D and 3D game development which includes the creation of flowcharts, roughs and interactive navigation systems. Integration of images, animation, video, sound and custom code for the app or game for mobile device.
MAGC 22010 Digital Sculpting	3	This course will explore interactive 3D sculpting to create highly-detailed and realistic models for use in games, film, animation and illustration. Prerequisite: MAGC 12000
MAGC 23020 Gaming & Culture (Div)	3	Class meeting the diversity requirement – Familiarize students with the basic issues of culture and social aspects in different contexts including the relationship between culture and gaming. What is playing, what is experiencing, and what are the cultural determinants that are at work in the process

MAGC 34000 Character Animation	3	Continuation of the study and technology applications of computer animation with emphasis on camera usage and the production of a comprehensive animation project involving the animation thought process (ATP). Prerequisite: MAGC 22004
MAGC 34001 Animation Project	3	Continued study of practical technology applications of computer animation with emphasis on scripting code writing, systems line variables and fluent realism factors within the ATP. Prerequisite: MAGC 34000
MAGC 34003 Animation Theory	3	A comprehensive course covering the fundamentals of storytelling with animation and motion graphics. Coverage of concept development, pre-production, storyboarding, color and design. Prerequisite: MAGC 22004
MAGC 34005 Environmental Game Design	3	In this course, we will learn the essentials of game environment creation. We will look at how textures, terrains, foliage, particle effects, lighting and blueprinting work and are created in a computer-aided software. We will also learn to import 3D models in to our game environment. Prerequisites: junior standing
MAGC 43000 Interactive Game Design	3	This course is the continuation of MAGC 34005 and a group project based course. We will be covering how to add characters and blueprint scripting aspects in Unreal Engine. Our purpose is to create a playable 3D game in Unreal Engine. Prerequisite: MAGC 34005
MAGC 43025 Realtime Rendering and Animation (3)	3	This course focuses on using a game engine, also known as a real-time renderer, to present stories and animation in real-time. This includes meeting performance targets, interactivity, and animation.
MAGC 49999 MAGC Senior Project (ELR) (WIC)	3	Required group project with choice given as to area of interest (animation, games, virtual reality, etc.)
Upper Division Major electives: Must choose 15 credit hours	**15**	
TECH 33020 Computer Hardware for Animation (3)		
MAGC 33010 Competitive Gaming (3)		Introduction to eSports cultures and learn about streaming techniques and layouts. The business culture of eSports, developing teams, communities, competitive gaming, event marketing and organizing an eSports event. Students will create Kent teams and compete as part of this class. *Funding and scholarships are available to create an eSports café or lab. Many developers are supporting this initiative.
MAGC 33030 Games for Education (3)		Students will learn how to create games for industry training and education.
MAGC 43001 Animation Production and VFX (3)		
MAGC 33095 ST: MAGC (3)		
MAGC 43093 Workshop in MAGC (1 - 3)		
MAGC 43092 Internship in MAGC (1 - 3)		
MAGC 43096 Individual Investigation in MAGC (1 - 3)		
Additional Requirements (courses do not count in major GPA)		
MATH 11010 Algebra for Calculus (KMCR) (KADL)	3	
MATH 11022 Trigonometry (KADL)	3	
ENG 20002 Intro to Tech Writing or ENG 20021 Creative Writing	3	
ARTS 14000 Drawing I or VCD 14001 Visual Design Literacy	3	
BMRT 11000 Introduction to Business or BUS 10123 Exploring Business	3	
COMM 15000 Introduction to Human Communication	3	
UC 10097 Dest Kent State	1	

****Note that ECET and BS ENG Proposals are found in the Academic Affairs Reports above.**

HIGHER LEARNING COMMISSION

FORM

New Programs

Substantive Change Application

Institution: Kent State University City, State: Kent, Ohio Name of person completing this application: Therese E. Tillett Title: Executive Director, Curriculum Services Phone: 330-672-8558 Email: ttillet1@kent.edu Date Submitted:

The questions are designed to elicit brief, succinct, detailed information, rather than a narrative or references to extensive supporting documents. Do not attach other documents unless they are specifically requested in the questions and are germane to the request. The total submission should be no more than 10–12 pages on a single classification of change. (The page limit excludes attachments. However, the overall length, including attachments, should not exceed 200 pages.)

If the person completing this application is not the CEO, CAO or the ALO of the institution, it is understood that the person completing and submitting this application has consulted with and informed those individuals.

Submit the completed application as a single PDF file on the following webpage: http://www.hlcommission.org/document_upload/.

Part 1: General Questions

1. Requested Change(s). Concisely describe the change for which the institution is seeking approval.

Kent State University proposes establishing a Bachelor of Science in Information Technology (B.S.I.T.) degree, to be offered fully online and hybrid online/on-ground at all the university's seven regional campuses in Northeast Ohio—Ashtabula, East Liverpool, Geauga, Salem, Stark, Trumbull and Tuscarawas—and at Kent State's Regional Academic Center in Twinsburg, Ohio. The Trumbull Campus will be the admitting campus for first-time Kent State University applicants who are declaring the fully online program.

The proposed Information Technology major will include five optional concentrations: (1) Application Development, (2) Applied Computer Security and Forensics, (3) Health Information Technology, (4) Internet/Multimedia and (5) Networking.

Since 2011, Kent State has offered this program as computer technology concentrations within the Technical and Applied Studies major (with the exception of the proposed Health Information Technology concentration, which is new). Those concentrations have seen strong enrollment, with the program growing from 55 students in fall 2011 to 294 students in fall 2016 (15th day census). The concentrations have been approved to be offered fully online since 2014. This proposal is to capitalize on the success of the program and elevate those concentrations to a separate degree program. Once the B.S.I.T. degree is approved, the existing computer technology concentrations will be inactivated. In addition, Kent State has offered an associate degree in computer technology for more than four decades on it regional campuses (and fully online since 2011). The proposed B.S.I.T. degree will serve as a 2+2 articulation for that associate degree (to be renamed "information technology") as well as similar associate degrees in Ohio and the nation.

Enrollment numbers demonstrate the feasibility of this proposed degree. However, marketing efforts for the program prove challenging

as computer technology is hidden as concentrations within the Technical and Applied Studies major; prospective students cannot find the program easily on the university's website or on the admission application. These students are seeking an information technology program, not a technical and applied studies one. Elevation from concentrations to major will resolve the lack of visibility for prospective students and provide more clarity to graduates and employers on the program's objectives and outcomes. The changes also will provide an environment to allow the program area to continue to grow with applied technical options targeting contemporary information technology needs in a variety of organizations. Revising the name of the program from computer technology to information technology will align the proposed degree program with similar programs at other institutions in the state and nationwide. Information technology is a recognized sub- discipline of computing that prepares graduates as IT support for a variety of workplace settings, including schools, businesses, healthcare and any other organizations that require technical support for computer systems and computer-related problems.

2. Is this application being submitted in conjunction with another application? Yes

No

New academic program(s): Certificate Bachelor's Diploma Master's/specialist Associate's Doctorate Check if program is at a new degree level

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3. Classification of Change Request.Note: not every institutional change requires prior review and approval. Review the "Overview of HLC Policies and Procedures for Institutional Changes Requiring HLC Notification or Approval" to make certain that current HLC policy requires the institution to seek approval.

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An institution submitting more than one change request should complete multiple applications, one for each type of change. The types of change requests include:

Change in mission

Change in student body

Competency-based education (credit-based; direct assessment; hybrid) programs

Consortial arrangement

Contractual arrangement

Substantially changing the clock or credit hours required for a program

Change in academic calendar (e.g., quarters to semester) or change in credit allocation

Teach-out plan if closing location provides total degree programs

Distance or correspondence education

New programs

Certificate programs

Branch campuses and additional locations

i.

4. Special conditions. Indicate whether any of the conditions identified below fit the institution (Yes or No). If Yes, explain the situation in the space provided.

i.

a) Is the institution, in its relations with other regional, specialized, or national accrediting agencies, currently under or recommended for a negative status or action (e.g., withdrawal, probation, sanction, warning, show-cause, etc.)?

No.

No.

No.

No.

No.

Internal (faculty, board) approvals System approvals

Yes No Yes No

Not Applicable

b) Is the institution now undergoing or facing substantial monitoring, special review, or financial restrictions from the U.S. Deptartment of Education or other federal or state government agencies?

viii.

c) Has the institution’s senior leadership or board membership experienced substantial resignations or removals in the past year?

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d) Is the institution experiencing financial difficulty through such conditions as a currently declared state of exigency, a deficit of 10% or more, a default or failure to make payroll during the past year, or consecutive deficits in the two most recent years?

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e) Is the institution experiencing other pressures that might affect its ability to carry out the proposal (e.g., a collective bargaining dispute or a significant lawsuit)?

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5. Approvals. Mark whether each type of approval is required prior to implementing the proposed change. If “Yes,” attach documentation of the approval to the request. If “No,” attach evidence that approval is not needed.

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- State approval Foreign country(ies) approvals

For Distance or Correspondence Education only:

Process in place to ascertain and secure state approval(s) as required

Yes No Yes No Not Applicable

Yes No

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6. Specialized Accreditation. Complete this section only if specialized accreditation is required for licensure or practice in program(s) covered by this change application.

The institution has already obtained the appropriate specialized accreditation. Attach a copy of the letter from the agency granting accreditation.

The institution has begun the process of seeking or plans to seek specialized accreditation. Specify the name of the agency and the timeline for completing the process in the space below. (If approval is a multi-stage process, the institution should contact the HLC staff liaison to discuss the timeline before submitting this change application form.)

The institution does not plan to seek specialized accreditation. Provide a rationale for not seeking this accreditation in the space below.

Note: Complete this section only if the institution is already aware that the proposed change will need to be reviewed through a visit. (If the institution is unsure whether a visit is required, HLC will advise the institution based on the information provided in both Part 1 and Part 2 of the change application.)

Request to schedule a Change Visit.

Request to add a proposed change to an already scheduled visit. Specify type of visit and date scheduled:

Whether the change will be reviewed through a separate Change Visit or embedded in an already scheduled visit, the following schedule will apply.

- € Part 1 of this change form must be submitted at least four months before the visit. If the visit has not already been scheduled, this filing will initiate the process of scheduling the visit.

- € The institution files Part 2 of this change form at least two months before the scheduled visit. If the change will be embedded in an already scheduled visit, the form should be filed as an attachment to the report prepared for that visit. Provide URLs to the Faculty/Staff Handbook and Catalog below. If the URLs are not available, please do not submit the full handbook or

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7. Changes Requiring Visits. This section is not for HLC-mandated visits such as additional location confirmation visits or campus evaluation visits.

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catalog as attachments. HLC will provide directions on how to submit electronic versions of these documents prior to the visit.

Faculty/Staff Handbook URL:

Catalog URL:

Please note: HLC plans to update the change forms annually, on or about September 1 of each year. However, if a Change Application form was accessed more than 90 days prior to filing, it is recommended that the institution visit http://www.hlcommission.org/change to ensure that there have been no changes in the application form in the intervening time.

Part 2: Topic-Specific Questions

An institution should submit a separate application for each requested program (unless the programs represent closely related disciplines). If more than one program is being requested in this application, please be sure to sufficiently address each program when answering the following questions, particularly in Sections A, D, E and F. Each proposed new program should be identified by using the Classification of Instructional Programs terminology (CIP codes). CIP codes are established by the U.S. Department of Education's National Center for Education Statistics as a taxonomic scheme that supports the accurate tracking and reporting of fields of study and program completions activity. More information is available at http://nces.ed.gov/ipeds/cipcode/.

Attach the "Substantive Change Application, Part 1: General Questions" as page one of your application. That completed form and your answers to the questions below will constitute your request for approval of a substantive change. This form will be the basis for review of this application.

Section A. Characteristics of the Change Requested

1. Identify the basic characteristics of the proposed educational program as indicated below:

The name of the program will be the Information Technology major within the Bachelor of Science in Information Technology degree. The CIP most aligned with the program's outcomes is the following:

CIP 11.1006 Computer Support Specialist: A program that prepares individuals to provide technical assistance, support, and advice to computer users to help troubleshoot software and hardware problems. Includes instruction in computer concepts, information systems, networking, operating systems, computer hardware, the Internet, software applications, help desk concepts and problem solving, and principles of customer service. Examples: technical support specialist, help desk specialist, IT support specialist.

a) The full name of the proposed program, the specific degree (if applicable) or the instructional level (if not a degree program), and the six-digit CIP code XX.XXXX of the program (CIP codes, program name, and additional description [optional])

. b) Total credit hours (indicate whether semester or quarter) for completion of the program The B.S.I.T. degree is 120 semester credit hours, comprising 56 credit hours of major requirements, 46 credit hours of general education/general elective requirements and 18 credit hours of optional concentration requirements (students who do not declare a concentration will take one required 3-credit-hour course and 15 credit hours of information technology courses of their choice). Transfer students with appropriate information technology background will be able to apply their transfer courses toward the major requirements.

. c) Normal or typical length of time for students to complete the

program Full-time new students will be able to complete the program in four years.

. d) Proposed initial date for implementation of the program Fall 2018 Semester. Targeted audiences for the B.S.I.T. degree will be both full-time and part-time students, and include traditional freshmen, students with associate degrees, transfer students, working adults and students with computer programming backgrounds. Students may complete the entire degree at Kent State University or transfer in technical courses from accredited institutions. The program utilizes online or on-ground course delivery methods in full and half-semester formats. In addition, students with advanced computer experience but no college-level credit will able to be placed into higher level major courses, with faculty approval, to earn college credit for lower level major coursework (through Kent State's retroactive credit policy). The goals of the program are to accommodate varied educational backgrounds, develop competencies needed for success in a variety of work settings and offer major courses in schedules attractive to traditional students and to time- and place-bound adults.

. f) Projected life of the program (single cohort or ongoing) Ongoing cohorts.

. g) Whether the program will be part of contractual or consortial arrangement Not applicable.

Not applicable.

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e) Primary target audience for the program (e.g., full-time, part-time, traditional college age, working adults, transfer students, military personnel, or particular ethnic group)

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2. Identify if the institution is requesting new stipulations for the proposed program and provide a rationale for this request.

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3. If the institution is planning any involvement by external organizations (other institutions) in key operations as identified below, provide the information reque Contractual Screening Form for each planned involvement. (Note that such inv by one of its subsidiaries external to the institution in any of these operations sh form indicates contractual approval is required,

complete the full contractual application and submit it in conjunction with the program application. If the screening form indicates no further action is required, attach the confirmation email from HLC.

Type of Involvement	Name(s) of External Organization(s)
A. Recruitmentandadmissionofstudents	Not applicable
B. Course placement and advising of students	Not applicable
C. Design and oversight of curriculum	Not applicable
D. Direct instruction and oversight	Not applicable
E. Othersupportfordeliveryofinstruction	Not applicable

Section B. Institution's History With Programs

Currently, Kent State does not offer a bachelor's degree program in

the same four-digit CIP series (11.10 Computer/Information Technology Administration and Management). Kent State does offer a post-secondary certificate in the 11.10 series (11.1003 for certificate Computer Forensics and Information Security, which utilizes the coursework in the associate and bachelor's degrees).

The proposed degree will not replace the certificate.

Kent State offers three bachelor's degree and four post-secondary certificate programs with the same two-digit series (11 Computer and Information Sciences and Support Services).

Highest number of graduates for the fiscal year 2016-2017 (comprising summer 2016, fall 2016 and spring 2017):

- Computer Science: 59 graduates (CIP 11.0701 Computer Science)
- Digital Sciences: 55 graduates (CIP 11.0101 Computer and Information Sciences, General)

In the same year, 78 students graduated with one of the computer technology concentrations within the Technical and Applied Studies major on which the Information Technology major is based. (The Technical and Applied Studies major is assigned the CIP 24.0199 due to its nature as a multi- disciplinary, individualized and completion program.)

Section C. Institutional Planning for Program Change

There are no identified challenges. Kent State University has adequate faculty and other resources for existing programs and the proposed program.

4. Does the institution currently offer a program at the same instructional level and with the same 4-digit CIP code (XX.XX) as the proposed program? If so, identify the program currently offered and whether it is a degree program. Will the proposed program replace the program currently offered?

5. Does the institution currently offer two or more programs at the

same instructional level with the same 2-digit CIP code (XX.) as the proposed program? If so, identify the two such programs with the highest numbers of graduates during the past year, along with their numbers of graduates.

6. What impact might the proposed program have on challenges identified as part of or subsequent to the last HLC review and how has the institution addressed the challenges?

7. Briefly describe the planning process for determining the need for this new program, including the role of faculty in the planning and approval process.

The decision to propose this program was reached after extensive consultations with appropriate faculty and curricular and administrative bodies on the university's regional campuses, in the Regional College and Kent State University overall. The proposed degree program was approved by the Computer Technology Curriculum Committee. The committee is composed of all full-time faculty in in the discipline in the regional campus system. In addition, the university conducted an external review of the existing computer technology associate degree and the proposed B.S.I.T. degree.

Since all but one of the concentrations within the proposed major exist and considered viable, no specific business or industry groups were

consulted for the proposed degree. Both Kent State's College of Nursing and College of Public Health support the proposed degree concentration.

[Future Actions] In addition to be approved by the Computer Technology Curriculum Committee, the proposal was approved by Regional College Curriculum Committee, comprising faculty across the regional campuses; the Educational Policies Council, a subcommittee of the Faculty Senate; the Faculty Senate; the university provost and president; and the Kent State University Board of Trustees.

No additional resources are needed to support the proposed degree as the faculty, courses, physical facilities and technology for the program are already in place to support the concentrations in the Technical and Applied Studies majors. No new courses were created with the exception of several courses last year to support the Health Information Technology concentration.

The existing computer technology concentrations within the Bachelor of Technical and Applied Studies (B.T.A.S.) degree have seen a strong enrollment growth since their inception in fall 2011:

Enrollment in the B.T.A.S.. Degree, Computer Technology Concentrations

55 158 239 253 284 294

The need for technology support and secure environments in all areas, including the healthcare industry is certain. The market demand for practitioners of those careers has been confirmed by the current evidence of program feasibility and letters of support received specific to the proposed Health Information Technology concentration, both internally and by healthcare professionals working in the field. The Bureau of Labor Statics projects employment for computer support specialists to grow 12 percent between 2014 and 2024, faster than the average for all occupations (www.bls.gov/ooh/computer-and-information-technology/computer-support-specialists.htm). More support services will be needed as organizations upgrade their

computer equipment and software. The State of Ohio is fifth in the nation for highest employment for computer network support specialists (www.bls.gov/oes/current/oes151152.htm).

8. What are the physical facilities and equipment needed to support the program? Indicate the impact that the proposed change will have on the physical resources and laboratories that currently accommodate existing programs and services, or identify new laboratory and preceptor needs.

9. What is the evidence that a market for the new program(s) exists? How has estimated program demand been factored into realistic enrollment projections? How has this evidence been used in planning and budgeting processes to develop a quality program that can be sustained?

2011 Fall	2012 Fall	2013 Fall	2014 Fall	2015 Fall	2016 Fall

10. If the program request is approved, what future growth do you anticipate (e.g., in the next six months, three years) and how do you plan to manage this growth?

It is anticipated that positioning the program as a separate major with a new name that is more commonly recognized in the industry will increase program visibility and assist with program growth. If the program is approved, Kent State expects that enrollment will moderately increase each year for the next five years. Any potential future program faculty hires will be dependent upon student enrollment.

Kent State University operates under a Responsibility Center Management-based (RCM) financial model, where business-type strategies are used to manage and evaluate new and existing programs. Under this model, costs and revenues are taken into consideration when making decisions about the viability of programs. The proposed B.S.I.T. degree will be no exception, and will undergo the same scrutiny as other.

The Office of the Provost ensures that only faculty- and university-approved program information is included in the university's Catalog, degree audit, Explore Programs and Degrees website and student information system (for course scheduling and registration, program admission and graduation). The Regional Campus system employs marketing staff who are responsible for ensuring consistency and accuracy of messages in promotional communications. In addition, Kent State's Division of University Communications and Marketing coordinates branding and consistency of all of the university's promotional materials.

Section D. Curriculum and Instructional Design

All of the courses comprising the curriculum are approved and exist to support the associate degree in computer technology, the Bachelor of Technical and Applied Studies degree and other programs within the university. Courses offered under the COMT (Computer Technology) course subject are revised to be offered under the IT (Information Technology) course subject, effective for fall 2018. Courses that were established in fall 2017 are noted as such.

IT 11002 VISUAL BASIC PROGRAMMING 3 Credit Hours Visual Basic.NET language introducing concepts of object-oriented, event-driven program design and implementation. Prerequisite: IT 11004.

11. How does this program fit into the current and expected financial picture of
the program be financially self-sufficient within three years? If not, when do you

the program to be financially self-sufficient and how do you expect the program

[After you complete the financial statement, describe the results for

the first three years of the

program here.]

12. What controls are in place to ensure that the information presented to all constituencies in advertising, brochures, and other communications will be accurate?

13. Please list all the courses that comprise the program and identify if the program will include any new courses. Include course descriptions and number of credit hours for each.

IT 11004 SURVEY OF INFORMATION TECHNOLOGY 3 Credit Hours This overview course will provide an introduction to information technologies, career paths and professional certifications available. Prerequisite: None.

IT 11005 INTRODUCTION TO OPERATING SYSTEMS AND NETWORKING TECHNOLOGY 3 Credit Hours Survey of desktop and network OS essentials, including file and disk management, system tools utilization, resource sharing and introductory network concepts. Prerequisite: none.

IT 11006 INTRODUCTION TO WEB SITE TECHNOLOGY 3 Credit Hours Focuses on web site technologies including HTML. Students learn the history of the Internet and effective search techniques. Prerequisite: IT 11004.

IT 11009 COMPUTER ASSEMBLY AND CONFIGURATION 4 Credit Hours Covers disk operating system functions and features; hardware/software

installation procedures; file and directories management; system configuration/optimization; backup procedures. Prerequisite: IT 11005 or CS 33211 or DSCI 26010 or TECH 10001.

IT 12000 INTERMEDIATE OFFICE PRODUCTIVITY APPS 3 Credit Hours Covers intermediate concepts and integration of computer applications. Emphasis on software suites, specifically word processing, electronic spreadsheets, database and presentation applications. Prerequisite: none.

IT 21002 NETWORK SETUP AND CONFIGURATION 4 Credit Hours Introduces networking in LAN and WAN environments. Topics include network protocol, configuration, operation, setup, installation, administration, management and security.

IT 21007 INTERNET ETHICS AND POLICIES 3 Credit Hours Covers the ethics, issues and policies regarding the Internet. It includes discussion/research on intellectual property/freedom, hacking, pornography, privacy, etc. Prerequisite: None.

IT 21009 SEMINAR IN COMPUTER TECHNOLOGY 3 Credit Hours Capstone course for IT students encompassing critical reading, writing and discussion applying the current theories of computer technologies to on-the-job experiences. Students will develop a portfolio to confirm their level of knowledge. Prerequisite: IT 11002 and 11005 and 11006 and 11009 and 21002 and 21010.

IT 21010 WORKGROUP PRODUCTIVITY SOFTWARE 3 Credit Hours Research project-oriented course emphasizing workgroup methodologies for group project management, problem definition, data retrieval and analysis, conclusions and recommendations. Prerequisite: IT 12000; or OTEC 16639 and OTEC 26611.

IT 21100 LOCAL AREA NETWORK TROUBLESHOOTING 3 Credit Hours Covers local area network troubleshooting techniques. Topics include identifying the scope of the problem, systematic troubleshooting approaches, problem resolution and ongoing maintenance. Prerequisite: IT 21002; or CS 33211; or DSCI 26010; or TECH 23010 and TECH 26301.

IT 21110 INTRODUCTION TO ROUTING AND SWITCHING 3 Credit Hours Introduces internetworking concepts. Topics include networking standards, cabling, TCPIP, router configuration, LAN and WAN segments and other related topics. Prerequisite: IT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and 26301.

IT 21200 ETHICAL HACKING 3 Credit Hours Tools and techniques ethical hackers and security testers use to discover vulnerabilities and solutions to

protect computer networks. Prerequisite: IT 21002; or CS 33211; or DSCI 26010; or TECH 23010 and TECH 26301.

IT 31002 HEALTH IT SUPPORT 3 Credit Hours NEW FALL 2017Course covers skills and knowledge required to implement and support healthcare IT (HIT) systems including regulatory and compliance issues; organizational behavior, IT and medical business operations; best practices and security. Prerequisite: Junior standing.

IT 32002 LINUX NETWORKING 4 Credit Hours NEW FALL 2017Course covers network administration topics with the Linux operating system. Topics include distributions, storage solutions, network services, and current security practices. Prerequisite: IT 21002; or CS 33211; or DSCI 26010; or TECH 23010 and TECH 26301.

IT 36301 ADVANCED C++ PROGRAMMING 4 Credit Hours Course using C++: classes and data abstraction, stream IO, inheritance, standard template library, Microsoft Foundation Classes, system programming concepts using Unified Modeling Language.. Prerequisite: IT 20001.

IT 36302 ADVANCED C SHARP PROGRAMMING 3 Credit Hours Advanced concepts of C Sharp including classes and objects, inheritance, polymorphism, arrays, exception handling, files and streams and XAML. Prerequisite: IT 20021.

IT 36303 DIGITAL IMAGE MANIPULATION 3 Credit Hours Course covers various concepts involved in creation and manipulation of digital images. Prerequisite: IT 11006.

IT 36308 ERGONOMICS IN COMPUTER SYSTEMS 3 Credit Hours Introduction to ergonomics, usability design, and assessment methods for the development of computer hardware, software, and systems. Prerequisite: junior standing.

IT 36309 PROGRAMMING MOBILE APPLICATIONS 3 Credit Hours Introduces the unique program design considerations required by mobile device platforms such as PDAs and Smartphones. Practical programming examples will utilize Visual Basic and the .NET Compact Framework. Prerequisite: IT 11002 or IT 20001 or IT 20021 or CS 13001 or DSCI 15310 or MIS 24065.

IT 36310 MULTIMEDIA DEVELOPMENT TOOLS 3 Credit Hours Course focuses

on advanced technologies for Web development, including DHTML, plug-ins, etc. Students will learn to create more interactive and dynamic web sites. Prerequisite: IT 21011.

IT 36311 ADVANCED JAVA PROGRAMMING 4 Credit Hours Course using Java abstract data types and objects, object-oriented, event-driven design, file organization and access, and systems programming concepts. Prerequisite: IT 20011.

IT 36314 SEMINAR IN EMERGING COMPUTER AND INFORMATION TECHNOLOGIES 3 Credit Hours Survey of new and emerging technologies in computer and information technology. Prerequisite: Junior standing.

IT 36315 CERTIFICATION PREPARATION IN COMPUTER TECHNOLOGY 3 Credit Hours (Repeatable for a maximum of 6 credit hours) Certification preparation course to help students prepare for professional certification attempts in Computer Technology. Certification is not guaranteed; and certification fees may apply. Prerequisite: special approval.

IT 36318 SURVEY OF INFORMATION SECURITY, INTERNET FRAUD, COMPUTER FORENSIC 3 Credit Hours This lecture-based, survey course provides a non-technical introduction to contemporary issues in information security, Internet fraud and computer forensics. Prerequisite: ENG 21011 or HONR 10297; and junior standing.

IT 36320 COMPUTER FORENSICS 3 Credit Hours Hands-on skills in incident response, forensic preparation, and data recovery, and analysis. Prerequisite: IT 21002 or CS 33211 or DSCI 26010 ;or TECH 23010 and TECH 26301

IT 36321 NETWORK FORENSICS 3 Credit Hours Emphasizing hands-on skills in live incident response, the proper use of network forensic tools, network monitoring, live data capture, evidence analysis, data integrity and other related topics. Prerequisite: IT 21002; or CS 33211; or DSCI 26010; or TECH 23010 and TECH 26301.

IT 36322 SOCIAL MEDIA AND MOBILE DEVICE FORENSICS 3 Credit Hours NEW FALL 2017 Course covers data collection and analysis techniques for social media and mobile devices. Prerequisite: Junior standing.

IT 36330 LOCAL AREA NETWORK SECURITY FUNDAMENTALS 3 Credit Hours Examines the primary issues involved in securing resources in a LAN, including threat assessment, countermeasures, best practices, security protocols, cryptography and management-related issues. Prerequisite: IT 21002; or CS 33211; or DSCI 26010; or TECH 23010 and TECH 26301.

IT 36331 ADVANCED ROUTING AND SWITCHING 3 Credit Hours Reinforcing Internetworking concepts. Topics include network standards, LAN switching, VLANs, network designs, routing protocols and configuration, LAN and WAN segments and other related topics. Prerequisite: IT 21110.

IT 36336 WEB SCRIPTING II 3 Credit Hours Focuses on server-side scripting needed to create interactive and dynamic web sites. Prerequisite: IT 21036.

IT 36340 HELP DESK SUPPORT 3 Credit Hours Examination of help desks that exist, importance within organizations, the roles and skills required, and methods and technologies commonly employed. Prerequisite: IT 11009 or TECH 23010.

IT 36350 PROGRAMMING OFFICE PRODUCTIVITY APPLICATIONS 3 Credit Hours Introduces the use of Visual Basic for Applications (VBA) as a tool to create customized programs that automate repetitive and/or complex tasks performed using office suite applications. Prerequisite: IT 11002 and IT 21010.

IT 36355 COMMAND LINE UTILITIES 3 Credit Hours Preparing students to perform effectively in Windows, Linux, and various server command line environments. Command syntax, batch files, script files, internal & external commands, and other related topics will be covered. Prerequisite: IT 21002; or CS 33211; or DSCI 26010; or TECH 23010 and TECH 26301.

IT 40000 CYBERSECURITY 3 Credit Hours Builds on a background in networking and focuses on cybersecurity best practices, standard models and regulatory requirements. Prerequisite: IT 21002; or DSCI 26010; or CS 33211; or TECH 23010 and TECH 26301.

IT 41002 CLOUD TECHNOLOGY 3 Credit Hours Concepts of cloud computing, including storage; services; technology; and management. Prerequisite: IT 21002; or DSCI 26010; or CS 33211; or TECH 23010 and TECH 26301.

IT 41010 MOBILE APPLICATIONS FOR INFORMATION TECHNOLOGY 3 Credit Hours NEW FALL 2017 Course covers enterprise mobility technical concepts, strategies, and solutions across various domains and industries. Includes topics such as organizational issues, IT and business operations; and best practices and security. Prerequisite: Junior standing.

IT 42000 SOCIAL MEDIA SECURITY 3 Credit Hours Personal and corporate

social media presence, security risks, intellectual property and ethical issues. Prerequisite: Junior standing.

IT 42002 WIRELESS AND MOBILE DEVICE SECURITY 3 Credit Hours NEW FALL 2017Course covers wireless and mobile device security. Topics include risk assessments, threats, vulnerabilities and current security practices. Prerequisites: IT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301

IT 43000 HEALTHCARE INFORMATION SYSTEMS 3 Credit Hours NEW FALL 2017Course focuses on the roles and responsibilities of the health IT professional including the technology, legal and ethical responsibilities, and complex systems and environment. Prerequisite: Junior standing.

IT 46300 ADVANCED COMPUTER ASSEMBLY AND CONFIGURATION 3 Credit Hours Focus is on advanced system components, streamlined operating system installation procedures, and current technology in LAN connectivity. Prerequisite: IT 11009 and junior standing.

IT 46303 DIGITAL VIDEO EDITING 3 Credit Hours Utilizes digital imaging technologies to produce videos. Includes timelines; filming, importing/exporting video; audio; effects, transitions, and captions. Prerequisite: IT 36303.

IT 46308 ADVANCED VISUAL BASIC PROGRAMMING 3 Credit Hours Advanced concepts of Visual Basic: Classes and Objects, Inheritance, Polymorphism, Arrays, Exception Handling, Files and Streams, DLLs. . Prerequisite: IT 11002 or CS 13001 or DSCI 15310 or MIS 24065.

IT 46309 VISUAL BASIC WEB PROGRAMMING 3 Credit Hours Using Visual Basic to develop secure, data-aware web applications. Topics covered include HTML and CSS, testing and debugging, master pages, state management, security and authentication, SQL and object data sources, AJAX, and WCF services. Prerequisite: IT 11002 or CS 13001 or DSCI 15310 or MIS 24065.

IT 46310 TECHNOLOGY OF OPERATING SYSTEMS 3 Credit Hours Course covers installation, configuration, tuning, and communication among state of the art desktop operating systems, using available system tools, utilities and files. Prerequisite: IT 21002; or CS 33211; or DSCI 26010; or TECH 23010 and TECH 26301.

IT 46311 TECHNOLOGY OF NETWORKING 3 Credit Hours Advanced topics of enterprise network management, including DNS, WINS, IP addressing, routing basics, subnet masking, firewalls, storage redundancy techniques, and general tuning, optimizing, troubleshooting, recovery strategies. Prerequisite: IT 21002; or CS 33211; or DSCI 26010; or TECH 23010 and TECH 26301.

IT 46312 SCRIPTING FOR NETWORK ADMINISTRATORS 3 Credit Hours Covers scripting technologies to configure and manage resources and services of LAN servers and workstations. Prerequisite: IT 21002 and IT 21036.

IT 46313 VIRTUAL MACHINE CONFIGURATION AND ADMINISTRATION 3 Credit Hours Focus on configuring and administering virtual machine software. Prerequisite: IT 21002; or CS 33211; or DSCI 26010; or TECH 23010 and TECH 26301.

IT 46314 ADVANCED SERVER CONFIGURATION 3 Credit Hours Focus is on the core service roles provided by application services including configuration, maintenance and security. Prerequisite: IT 21002 or CS 32111 or DSCI 26010; or TECH 23010 and TECH 26301.

IT 46315 SQL WITH ORACLE 3 Credit Hours Focus is on SQL and relational databases using Oracle. Prerequisite: IT 21005 or CS 13001 or DSCI 15310 or MIS 24065.

IT 46320 CLOUD FORENSICS 3 Credit Hours Concepts of cloud forensics, including legal consideration and software tools involved with discovery in the cloud. Prerequisite: IT 21002; or DSCI 26010; or CS 33211; or TECH 23010 and TECH 26301.

IT 46321 WEB DATABASE INTEGRATION 3 Credit Hours Focus is on integrating data sources into web sites. Current topics include advanced concepts in server-side processing principles, web forms, database programming objects and Structured Query Language. Prerequisite: IT 21036.

IT 46331 LOCAL AREA NETWORK SECURITY AND FIREWALLS 3 Credit Hours Examines primary issues involved in defining and configuring a local area network defense perimeter including LAN security analysis, implementing firewalls, and intrusion detection systems. Prerequisite: IT 36330.

IT 46340 DATA DESIGN AND IMPLEMENTATION 3 Credit Hours Explores the role and design of databases in organizations, with emphasis on the technologies used in their implementation. Emphasis on SQL. Prerequisite: IT 21005 and IT 21010.

TAS 37900 TECHNICAL AND APPLIED STUDIES CORNERSTONE 3 Credit Hours Cornerstone course instructs students about how the work role in industrial and information societies has evolved to its current organization. Students personalize the information by reflecting on the role of work in their own lives by reviewing theory and application of their own career management; examine the stages of career development; job stress; entrepreneurial careers; and organization. Prerequisite: Technical and Applied Studies (TAS) or Engineering Technology (ENGT) major.

TAS 47900 TECHNICAL AND APPLIED STUDIES CAPSTONE 3 Credit Hours Designed to help students articulate and integrate the competencies that are part of their bachelor's degree program. In part, an electronic portfolio is used to help describe familiarity with the competencies. Prerequisite: Technical and Applied Studies (TAS) or Engineering Technology (ENGT) major.

14. What are the requirements students must fulfill to complete the program successfully (including specific courses, course options, and any other requirements)?

Major Requirements		
IT 11002	Visual Basic Programming	3
IT 11004	Survey of Information Technology	3
IT 11005	Introduction to Operating Systems and Networking Technology	3
IT 11006	Introduction to Web Site Technology	3

Computer Assembly and Configuration
Intermediate Office Productivity Apps
Network Setup and Configuration
Seminar in Computer Technology
Workgroup Productivity Software
Internet Ethics and Policies
Ergonomics in Computer Systems
Seminar in Emerging Computer and Information Technologies
Survey of Information Security, Internet Fraud and Computer Forensics
Help Desk Support
Social Media Security
Technical and Applied Studies Cornerstone
Technical and Applied Studies Capstone

IT 11009 4 IT 12000 3 IT 21002 4 IT 21009 3 IT 21010 3 IT 21007 3 IT 36308 3 IT 36314 3 IT 36318 3 IT 36340 3 IT 42000 3 TAS 37900 3 TAS 47900 3 Information Technology (IT) Electives 3

Additional Requirements

1 Composition 6 Mathematics and Critical Reasoning 3 Humanities and Fine Arts (minimum one course from each) 9 Social Sciences (must be from two disciplines) 6 Basic Sciences (must include one laboratory) 6

UC 10097 Kent Core Kent Core Kent Core Kent Core Kent Core Kent Core General Electives 9 Concentrations or Additional Requirements

Destination Kent State: First Year Experience

Additional 6-7

Choose from the following: Additional Requirements for Students Not Declaring a Concentration Application Development Applied Computer Security and Forensics Health Information Technology Internet/Multimedia Networking

18-19

Minimum Total Credit Hours: 120

Additional Requirements for Students Not Declaring a Concentration

IT 41010

Mobile Applications for Information Technology

Advanced C++ Programming Advanced Java Programming

3

Information Technology (IT) Electives

15

Application Development Concentration Requirements

IT 36301 or IT 36311

4

IT 36302

Advanced C Sharp Programming

3

IT 36309

Programming Mobile Applications

3

IT 36350 or IT 46309

Programming Office Productivity Applications Visual Basic Web Programming

3

IT 46308

Advanced Visual Basic Programming

3

IT 46340

Data Design and Implementation

3

Applied Computer Security and Forensics Concentration Requirements

IT 21200 or IT 46313

Ethical Hacking Virtual Machine Configuration and Administration

3

IT 36320

Computer Forensics

3

IT 36321

Network Forensics

3

IT 36330

Local Area Network Security Fundamentals

3

IT 46331

Local Area Network Security and Firewalls

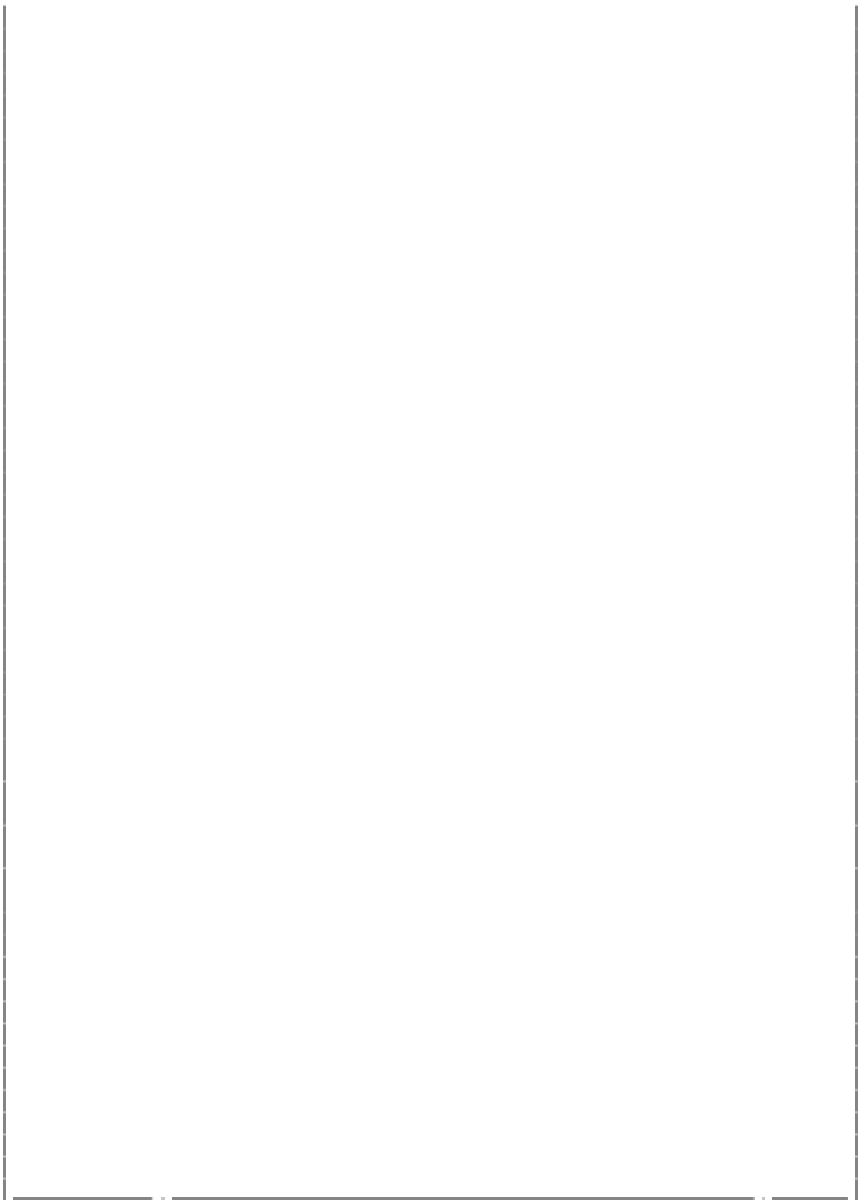
3

Concentration Elective, choose from the following:

Linux Networking

3

IT 32002



IT 36322 IT 40000 IT 42002 IT 46300 IT 46313 IT 46320

IT 31002 3 IT 36330 3 IT 41010 3 IT 43000 3 IT 46331 3 Concentration Elective, choose from the following: 3

IT 36315 IT 36350 IT 41002 IT 46311 IT 46313 IT 46314 IT 46340

IT 36303 3 IT 36309 3 IT 36310 3 IT 46303 3 Concentration Electives, choose from the following: 6

IT 36311 IT 36336 IT 46309 IT 46315 IT 46321

Networking Concentration Requirements

IT 36330 3

Social Media and Mobile Device Forensics

Cybersecurity

Wireless and Mobile Device Security

Advanced Computer Assembly and Configuration

Virtual Machine Configuration and Administration

Cloud Forensics

Health Information Technology Concentration Requirements

Health Information Technology Support

Local Area Network Security Fundamentals

Mobile Applications for Information Technology

Healthcare Information Systems

Local Area Network Security and Firewalls

Certification Preparation in Computer Technology

Programming Office Productivity Applications

Cloud Technology

Technology of Networking

Virtual Machine Configuration and Administration

Advanced Server Configuration

Data Design and Implementation

Internet/Multimedia Concentration Requirements

Digital Image Manipulation

Programming Mobile Applications

Multimedia Development Tools

Digital Video Editing

Advanced Java Programming

Web Scripting II

Visual Basic Web Programming

SQL with Oracle

Web Database Integration

Local Area Network Security Fundamentals

Command Line Utilities Scripting for Network Administrators
Cloud Technology Advanced Server Configuration
Advanced Computer Assembly and Configuration Virtual Machine Configuration and Administration
Technology of Operating Systems Technology of Networking

IT 36355 or IT 46312

IT 41002 or IT 46314

IT 46300 or IT 46313

IT 46310 or IT 46311

3 3 3 3

Concentration Elective, choose from the following: 3 IT 21100 IT 21110 IT 32002

IT 36315 IT 36331 IT 36355 IT 41002 IT 46300 IT 46310 IT 46311 IT 46312 IT 46313

Local Area Network Troubleshooting

Introduction to Routing and Switching

Linux Networking

Certification Preparation in Computer Technology

Advanced Routing and Switching

Command Line Utilities

Cloud Technology

Advanced Computer Assembly and Configuration

Technology of Operating Systems

Technology of Networking

Scripting for Network Administrators

Virtual Machine Configuration and Administration

IT 46314	Advanced Server Configuration	
IT 46331	Local Area Network Security and Firewalls	

15. For programs using prior learning credit, compressed time frames, online delivery, accelerated formats, or other approaches to learning, explain how the institution will ensure that student work and the levels of knowledge and competencies comparable to those required in traditional formats have been achieved.

Lead computer technology faculty assess and evaluate the program overall for both online and on- ground students following existing practices. Various outcomes such as writing and communication effectiveness, technical skills and ethical decision-making are used to assess the program's goals and objectives. The data on these metrics are summarized in a program assessment report each year and submitted to Kent State's Office of Accreditation, Assessment and Learning. Data from the program assessment are shared with the

Computer Technology Curriculum Committee during the yearly reporting cycle. The curriculum committee is composed of all full-time computer technology faculty. The program's two capstone courses—IT 21009 Seminar in Computer Technology in the second year and TAS 47900 Technical and Applied Studies Capstone in the fourth year—allow faculty to assess if the students are able to demonstrate the required information technology competencies for the program.

Section E. Institutional Staffing, Faculty, and Student Support

There are 11 full-time faculty supporting the existing program on all regional campuses, who teach both on-ground and online courses (this number does not include two full-time faculty who teach major courses but are attached to other programs). The number of part-time faculty (adjuncts) varies each semester depending on need. Presently, there are approximately 15 adjuncts teaching on the seven campuses and Regional Academic Center. No full-time hires are currently planned as the program meets the state requirement of one full-time faculty for 30 full-time-equivalent (FTE) students in the program. With XX FTE students for fall 2017, the ratio is one full-time faculty for XX FTE students.

17. What will the impact of the new initiative be on faculty workload?

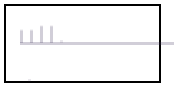
The new initiative will have no impact on faculty workload as the program is existing, and current faculty workloads are adequate.

See Appendix C.

16. How many and what types of faculty (full-time or part-time) will be employed in the program? Why is the number and type of faculty sufficient to support the program? How many, if any, new faculty will be hired for the program?

18. Provide a brief attachment that inventories each faculty member employed to teach in the program, including names of existing personnel, a description of each faculty member's academic qualifications, their prior instructional responsibility and other experiences relevant to the courses they will teach in the program in

question, each faculty member's course load in the new program, and the course work each teaches in other programs currently offered. (Note: Do not attach full CVs for each faculty member; rather, the requested information should be summarized in one paragraph for each faculty member.)



19. For graduate programs, document scholarship and research capability of each faculty member; for doctoral programs, document faculty experience in directing student research.

Not applicable.

As the bachelor's level program in computer technology has been offered for the past six years, existing resources are sufficient. Each Kent State campus has a full-time librarian on staff. The Kent State University Libraries provide on-ground and online access to thousands of journals, books and databases to students across all eight campuses, as well as access to OhioLink, which provides students access to library materials and electronic research databases from 120 academic libraries in Ohio. In addition, Kent State also maintains a license with Safari Books, a digital library of more than 30,000 online technical texts.

Section F. Evaluation

Lead computer technology lead faculty assess and evaluate the program following the existing practices. Various outcomes such as writing and communication effectiveness, technical skills and ethical

decision-making are used to assess the goals and objectives listed below. The data on these metrics are summarized in a program assessment report each year and submitted to Kent State's Office of Accreditation, Assessment and Learning. The program's two capstone courses—IT 21009 Seminar in Computer Technology in the second year and TAS 47900 Technical and Applied Studies Capstone in the fourth year—allow faculty to assess if the students are able to demonstrate the required information technology competencies for the program.

The ACM Core IT Learning Outcomes are:

- €An ability to apply knowledge of computing and mathematics appropriate to the discipline
- €An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
- €An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
- €An ability to function effectively on teams to accomplish a common goal
- €An understanding of professional, ethical, legal, security and social issues and responsibilities
- €An ability to communicate effectively with a range of audiences
- €An ability to analyze the local and global impact of computing on individuals, organizations, and society
- €Recognition of the need for and an ability to engage in continuing professional development
- €An ability to use current techniques, skills, and tools necessary for computing practice

- €An ability to use and apply current technical concepts and practices in the core information technologies

- €An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems

- €An ability to effectively integrate IT-based solutions into the user environment

20. What library and information resources—general as well as specific to the program(s)—and staffing and services are in place to support the initiative? If the proposed new program is at the graduate level, document discipline-specific refereed journals and primary source materials.

21. Describe the process for monitoring, evaluating and improving the overall effectiveness and quality of the program, and articulate program-level learning outcomes and objectives.

- €An understanding of best practices and standards and their application

- €An ability to assist in the creation of an effective project plan. These learning outcomes provide the framework for the courses in the major. The program's curriculum committee has the general oversight of the curriculum in the major. The curriculum committee is comprised of all full-time computer technology faculty. Kent State University offers many support services to students through a variety of offices, including

advising, tutoring, career, counseling, accessibility and technical support. Students meet with professional academic advisors to review progress using the university's degree audit (Graduate Planning System), and with faculty advisors to discuss research and career goals. Faculty issue evaluation grades for first- and second-year courses between weeks four to seven in the semester to provide feedback to students and allow them time to make adjustments in their studies.

22. Describe the process for assessing and improving student learning, including student persistence and completion, in the new program.

ADDENDUM TO HIGHER LEARNING COMMISSION SUBSTANTIVE CHANGE APPLICATIONTO ESTABLISH A NEW UNDERGRADUATE DEGREE PROGRAM

Proposed Major:

Proposed Degree: Administrating College: Administrating Department:

Information Technology, with five optional concentrations in ▪ Application Development ▪ Applied Computer Security and Forensics ▪ Health Information Technology

▪ Internet/Multimedia ▪ Networking

Bachelor of Science in Information Technology Regional College N/A

Provide the title of the lead administrator for the proposed program and a brief description of the individual's duties and responsibilities.

Associate Professors William C. Ward III and Ruth A. Watson (Trumbull Campus) will be co-lead faculty for the Bachelor of Science in Information Technology degree in the Regional College. Both have a minimum of 25 years of higher education experience. They have served as co-lead for many years for the program at the associate and bachelor's degree level; both have developed online courses and teach online courses every semester. Responsibilities for co-leads include, but are not limited to, deciding curricular actions; developing and implementing program requirements; conducting meetings with program faculty; and undertaking program reviews, reporting, credit by exams, adjunct teaching approvals and course substitutions.

Indicate whether any public institutions of higher education offer the proposed program within a 30-mile radius of the campus(es) at which the proposed program will be offered. If so, list the institutions that offer the proposed program and provide a rationale for offering an additional program at this campus.

All computing majors share common elements including the goal to produce the number of graduates necessary to fill the great demand for high tech skills in the multiple sub-disciplines of computing. These programs are typically designed by program faculty based on input from local advisory boards, business partners, and others resulting in unique and viable programs across institutions. The Information Technology sub-discipline focuses on supporting end users in a variety of settings for a wide spectrum of computing needs including software and hardware. Some are offered fully online appealing to an audience who may

be place bound or have the additional obligations of work and family. At the baccalaureate level, in addition to the existing Information Technology program offered at Kent State University through the Bachelor of Technical and Applied Studies (BTAS) Computer Technology concentrations, Youngstown State University and The University of Akron also have existing degrees. The programs at these three institutions have a long history of serving the unique needs within their communities.

Youngstown State University (20 miles from Kent State's Trumbull Campus) offers a Bachelor of Science in Applied Science degree in Information Technology. This primarily on-ground degree has a core that includes foundation courses in operating systems, programming, Cisco Academy, and multimedia. The program's learning outcomes are to write and produce interactive programs, design a 3NF database and extract information using QBE and SQL, and communicate effectively with written reports.

The University of Akron (18 miles from the Stark Campus and 22 miles from the Regional Academic Center) offers a Bachelor of Science degree in Computer Information Systems with concentrations in applications, networking, programming and web development. This primarily on-ground degree states that it introduces "students to basic computing concepts while allowing them to develop the basic skills

required to begin a career." The networking concentration is listed in the IT discipline; the others are cross discipline.

The enrollment for the existing Computer Technology concentrations in the BTAS degree at Kent State University has been strong since its inception in 2011. The proposed Information Technology major will offer greater visibility and accessibility to a wider audience with both online and on-ground options.

CATALOG COPY

Description of Program:

The Bachelor of Science in Information Technology degree provides students with an applied approach with a focus on supporting end users in a variety of workplace settings utilizing a range of computing technologies. The degree program gives students the tools to support computing infrastructures and the needs of individuals and organizations, write programs necessary to help them render their tasks more efficiently on their desktop or mobile devices, utilize databases and write the web-based interfaces to pull the data, and code and deploy applications across the cloud. Graduates are qualified to work primarily in small to mid-size installations with local area networks, and are employed in all

types of organizations using computing systems, working in such positions as network technicians, technical support specialist, help desk manager, LAN manager, project manager and database administrator.

The Information Technology major comprises the following concentrations:

- ·The Application Development concentration provides students with the ability to program in languages typically utilized in contemporary business environments. Students will code in applications such as Visual Basic, C++, Java, C# and other industry-standard applications to develop programs employing event-driven and object-oriented techniques.

- ·The Applied Computer Security and Forensics concentration places an emphasis on security of desktops and local area networks, which often includes forensic work to prevent and/or determine and correct security issues.

- ·The Health Information Technology concentration provides students with the tools to install, manage, troubleshoot and secure hardware and software systems in healthcare environments. The course of study includes health IT privacy, security, organizational behavior, medical business operations and regulatory requirements.

- ·The Internet/Multimedia concentration focuses on scripting, server-side form handling, web database integration, and interactive and dynamic multimedia Internet development.

- ·The Networking concentration focuses on configuring and maintaining local area networks in various network operating system environments. The emphasis is on entry-level network administration (i.e. managing active directory and network services), desktops, troubleshooting, installation and maintenance. Students may declare the Information Technology major without a concentration. That course of study is ideal for students who want flexibility for positions that require IT staff to perform a wide range of technical duties. Fully Offered At: ▪ Online ▪ Ashtabula Campus ▪ East Liverpool Campus ▪ Geauga Campus ▪ Salem Campus ▪ Stark Campus ▪ Trumbull Campus ▪ Tuscarawas Campus ▪ Regional Academic Center in Twinsburg

Admission Requirements:

Standard admission criteria for the bachelor's degree.

Program Learning Outcomes:

Graduates of this program will be able to:

Identify and evaluate current technologies and assess their applicability to address individual and organizational needs

Develop a product or process by applying knowledge of programming, web, digital media, database, human computer interaction, networking and security tools

Perform end user support including identifying and implementing solutions to user requests

Explain implementation, integration and maintenance for IT applications to a wide range of audiences

Work in diverse project teams to develop and/or implement IT-based solutions

Apply professional ethics in IT solutions

Engage in continuous learning, as well as research and assess new ideas and information to provide the capabilities for lifelong learning

Program Requirements:

MAJOR REQUIREMENTS

Major Requirements (courses count in major GPA)

Course	Title	Credits
IT 11002 IT 11004 IT 11005 IT 11006 IT 11009 IT 12000 IT 21002 IT 21009 IT 21010	Visual Basic Programming 3 Survey of Information Technology 3 Introduction to Operating Systems and Networking Technology 3 Introduction to Web Site Technology 3 Computer Assembly and Configuration 4 Intermediate Office Productivity Apps 3 Network Setup and Configuration 4 Seminar in Computer Technology 3 Workgroup Productivity Software 3	
IT 21007	Internet Ethics and Policies 3	
IT 36308	Ergonomics in Computer Systems 3	
IT 36314	Seminar in Emerging Computer and Information Technologies 3	
IT 36318	Survey of Information Security, Internet Fraud and Computer Forensics (WIC) 3	
IT 36340	Help Desk Support 3	
IT 42000	Social Media Security 3	
TAS 37900	Technical and Applied Studies Cornerstone 3	
TAS 47900	Technical and Applied Studies Capstone (ELR) 3	

Information Technology (IT) Elective 3

Additional Requirements (courses do not count in major GPA)

Course

UC 10097

Kent Core Kent Core Kent Core Kent Core Kent Core

Title

Credits

Destination Kent State: First Year Experience 1

Composition 6

Mathematics and Critical Reasoning 3

Humanities and Fine Arts (minimum one course from each) 9

Social Sciences (must be from two disciplines) 6

Basic Sciences (must include one laboratory) 6

Kent Core Additional 6-7
General Electives (total credit hours depends on earning 120 credit hours, including 39 9 u

Concentrations or Additional Requirements
Choose from the following: Additional Requirements for Students Not Declaring a Concentr Development Applied Computer Security and Forensics Health Information Technology Inte 18-19
Minimum Total Credit Hours: 120

ADDITIONAL REQUIREMENTS FOR STUDENTS NOT DECLARING A CONCENTRATION

APPLICATION DEVELOPMENT CONCENTRATION REQUIREMENTS

Concentration Requirements (courses count in major GPA)
Course Title Credits
IT 41010 Mobile Applications for Information Technology 3
Information Technology (IT) Electives 15
Minimum Total Credit Hours: 18

Concentration Requirements (courses count in major GPA)
Course Title Credits _____ _____
IT 36301 Advanced C++ Programming or IT 36311 Advanced Java Programming 4
IT 36302 Advanced C Sharp Programming 3
IT 36309 Programming Mobile Applications 3
IT 36350 Programming Office Productivity Applications or IT 46309 Visual Basic Web Progr 3
_____ _____

IT 46308 Advanced Visual Basic Programming 3
IT 46340 Data Design and Implementation 3
Minimum Total Credit Hours: 19

APPLIED COMPUTER SECURITY AND FORENSICS CONCENTRATION REQUIREMENTS

Concentration Requirements (courses count in major GPA)
Course Title Credits
IT 21200 Ethical Hacking or IT 46313 Virtual Machine Configuration and Administration 3
IT 36320 Computer Forensics 3
IT 36321 Network Forensics 3
IT 36330 Local Area Network Security Fundamentals 3
IT 46331 Local Area Network Security and Firewalls 3
Concentration Elective, choose from the following: 3 IT 32002 IT 36322 IT 40000 IT 42002 IT 46300 IT 46313 IT 46320 Linux Networking Social Media and Mobile Device Forensics Cybersecurity Wireless and M Computer Assembly and Configuration Virtual Machine Configuration and Administration C
Minimum Total Credit Hours: 18

HEALTH INFORMATION TECHNOLOGY CONCENTRATION REQUIREMENTS

Concentration Requirements (courses count in major GPA)

Course Title Credits
IT 31002 Health Information Technology Support 3
IT 36330 Local Area Network Security Fundamentals 3
IT 41010 Mobile Applications for Information Technology 3
IT 43000 Healthcare Information Systems 3
IT 46331 Local Area Network Security and Firewalls 3
Concentration Elective, choose from the following: 3 IT 36315 IT 36350 IT 41002 IT 46311 IT 46313 IT 46314 IT 46340 Certification Preparation in Computer Technology Programming Office Productivity Applicat Technology Technology of Networking Virtual Machine Configuration and Administration Advanced Server Configuration Data Des Implementation
Minimum Total Credit Hours: 18

INTERNET/MULTIMEDIA CONCENTRATION REQUIREMENTS

Concentration Requirements (courses count in major GPA)		
Course	Title	Credits
IT 36303	Digital Image Manipulation	3
IT 36309	Programming Mobile Applications	3
	Multimedia Development Tools	3

IT 36310		
IT 46303	Digital Video Editing	3
Concentration Electives, choose from the following: IT 36311 IT 36336 IT 46309 IT 46315 IT 46321 Advanced Java Programming Web Scripting II Visual Basic Web Programming SQL with Oracle Web Database Integration		6
Minimum Total Credit Hours:		18

NETWORKING CONCENTRATION REQUIREMENTS

Concentration Requirements (courses count in major GPA)	
Course	Title
IT 36330	Local Area Network Security Fundamentals
IT 36355 or IT 46312	Command Line Utilities Scripting for Network Administrators
IT 41002 or IT 46314	Cloud Technology Advanced Server Configuration
IT 46300 or IT 46313	Advanced Computer Assembly and Configuration Virtual Machine Con Administration
IT 46310 or IT 46311	Technology of Operating Systems Technology of Networking

Concentration Elective, choose from the following: 3

IT 21100 IT 21110 IT 32002 IT 36315 IT 36331 IT 36355 IT 41002 IT 46300 IT 46310 IT 46311 IT 46312 IT 46313 IT 46314

Local Area Network Troubleshooting Introduction to Routing and Switching Linux Networking Certification Preparation in Computer Technology Advanced Routing and Switching

Command Line Utilities Cloud Technology Advanced Computer Assembly and Configuration Technology of Operating Systems Technology of Networking Scripting for Network Administrators Virtual Machine Configuration and Administration Advanced Server Configuration

IT 46331 Local Area Network Security and Firewalls

Graduation Requirements:

- Minimum Major GPA: 2.000
- Minimum Overall GPA: 2.000
- Students may declare more than one concentration in the Information Technology major, provided that there are minimum 12 credit hours of coursework unique to each concentration.

Roadmap

Semester

IT 11004

IT 11005

UC 10097

Kent Core Kent Core Kent Core

Semester

IT 11006

IT 11009

IT 12000

Kent Core Kent Core

Semester

IT 11002

IT 21002

IT 21010

Kent Core Kent Core

Semester

IT 21007

IT 21009

Kent Core Kent Core Kent Core

Semester

IT 36308

IT 36318

_____ Minimum Total Credit Hours:	18

One

Survey of Information Technology 3 Introduction to Operating Systems and Networking Technology 3 Destination Kent State: First Year Experience 1

Requirement 3 Requirement 3 Requirement 3

Credit Hours 16

Two

Introduction to Web Site Technology 3 Computer Assembly and Configuration 4 Intermediate Office Productivity Apps 3

Requirement 3 Requirement 3

Credit Hours 16

Three

Visual Basic Programming 3 Network Setup and Configuration 4 Workgroup Productivity Software 3

Requirement 3 Requirement 3

Credit Hours 16

Four

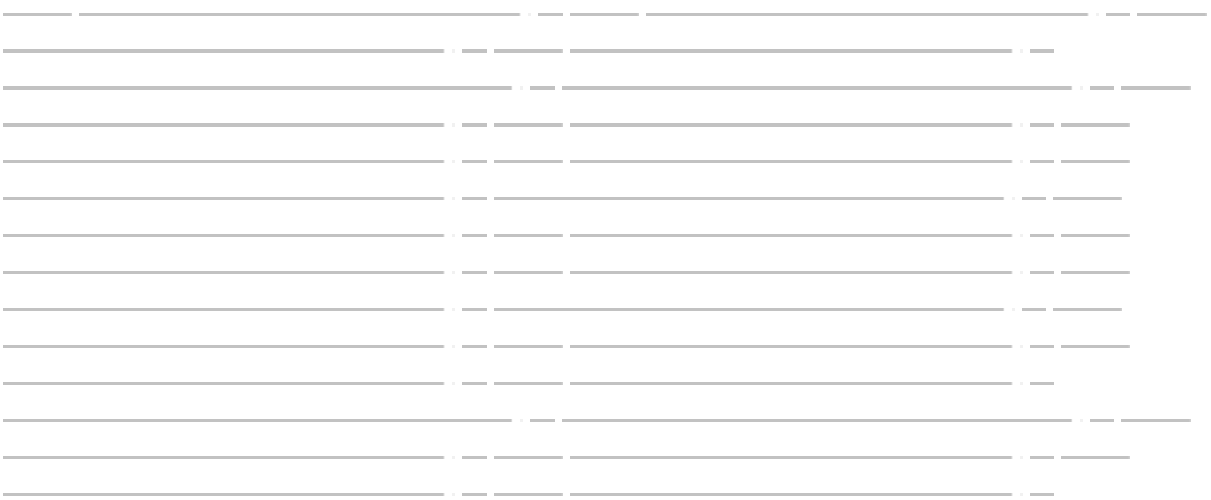
Internet Ethics and Policies 3 Seminar in Computer Technology 3

Requirement 3 Requirement 3 Requirement 3

Credit Hours 15

Five

Ergonomics in Computer Systems 3 Survey of Information Security, Internet Fraud and Computer Forensics (WIC) 3



TAS 37900 Technical and Applied Studies Cornerstone

Kent Core Requirement Kent Core Requirement

Semester Six

Concentration or Additional Requirements Information Technology (IT) Elective

Semester Seven

IT 36340 Help Desk Support

IT 42000 Social Media Security

Concentration or Additional Requirement

3 3 3

Credit Hours 15

12 3 Credit Hours 15

3 3 3

General Electives 6

Credit Hours 15

Semester Eight

IT 36314 Seminar in Emerging Computer and Information Technologies 3

TAS 47900 Technical and Applied Studies Capstone (ELR) 3

Concentration or Additional Requirement 3 General Elective 3

Credit Hours 12 Minimum Total Credit Hours: 120