Annual Program Of Computer Information Technology For 2018-2019

Prepared by Melissa Ashford

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1.0 Program Data and Resource Repository

1.2 Quantitative and Qualitative Data

All programs are provided with the most recent two years of data by the Office of Institutional Research (IR) as well as two-year budget data provided by the Business Office.

The data sets provided by the Office of Institutional Research include the following elements for the most recent two (completed) academic years:

- Number of Faculty (Full Time; Part Time; Total)
- Student Credit Hours by Faculty Type
- Enrollment by Faculty Type
- Faculty Name by Type
- Average Class Size, Completion, and Attrition
- Course Completion, Success and Attrition by Distance Learning v Face-to-Face
- Number of Degrees/Certificates Awarded
- Number of Graduates Transferring (if available from IR)
- Number of Graduates Working in Related Field (technical programs only)
- Expenditures and Revenues

Additional data may also be available for reporting from the Office of Institutional Research, as applicable. Requests for additional data must be made through a data request.

(See Section 1.2 in the Program Review Handbook for more information.)

Narrative:

Below is the completion data for the CIT program during the 17-18 AY. This data was provided by ICC IR department and has been analyzed by the CIT Program Lead faculty member Melissa Ashford. This completion data confirms the belief held by the Program Lead that those students enrolling in CIT courses, whether online or on ground, are successful in completing the course. It is the desire for these completers to also attempt the industry wide respected certifications exams. At this time, it is not a requirement of the program, but students are encouraged. In face to face conversations with students, they often state money is the deciding factor. Many of these exams are expensive even with the reduced rate the faculty member can provide. With the start of the 18-19 AY students will be required to take any free certification exams the faculty member can find. There are some entry-level exams offered by Microsoft that students could benefit from. Since this data shows high course completion, it is in the students’ best interest to take advantage of these industry certs and the program faculty is committed to do her part in helping them achieve these important credentials. This will help guide curriculum and program decisions.
It should also be noted that of the 3 full time faculty in the Computer Technology Department, only 1 is currently assigned to CIT. In the 17-18 AY, there was some crossover of courses within the programs. The CIT advisory committee strongly urged for more IT specific technical courses. In 18-19 AY, all the technical courses in the degree and certificate are IT specific and will be taught by one IT instructor, Assoc. Professor Melissa Ashford.

CIT Assessment Data AY 2018

**Number of Faculty:**
3 full time (Blaes, Coy, Ashford)
0 part time

**Enrollment & Student credit hours by Faculty type:**
Full time: 70 total credit hours taught, with 302 total students enrolled
Part time: 0 credit hours taught, 0 total students enrolled

**Average CCA Class size:**
20.7 students in Face-to-Face classes
17.33 students in online classes
19.92 students across all CCA courses

**CCA Completion rates:**
99.03% face-to-face
90.38% online
97.30% all CCA courses

**CCA Pass (‘D’ or better) rates:**
90.73% face-to-face
82.98% online
89.29% all CCA courses

**Average Other CIT Class size:**
6 students in Face-to-Face classes
1 students in online classes
5.38 students across all courses

**Other CIT Completion rates:**
92.86% face-to-face
100% online
93.02% all courses

**Other CIT Pass (‘C’ or better) rates:**
79.49% face-to-face
100% online
80% all courses

**Number of Majors:** 2 AAS CIT (1 returned in Fall 2018), 0 Cert CIT

**Degrees Awarded:** 0 AAS CIT, 0 Cert CIT

Below is the link, as well as a chart of the Occupational Outlook Handbook prepared by the Bureau of Labor stats web page describing wage and growth rates for this program. I have also included statistics for the state of Kansas in employment growth and wages. This field is growing faster than the average at 11% with a $52,810 median pay in 2017. While advanced IT jobs may take a bachelor’s degree, even Master’s, many of the jobs are open to people with an Associates and vendor-neutral certifications are a benefit when looking for a job in this field.

Students at ICC can obtain many certifications in various IT areas at a free or reduced cost because the Program Faculty member, Melissa Ashford is a CompTIA and Microsoft IT Academy Instructor.

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**Quick Facts: Computer Support Specialists**

| **2017 Median Pay** | $52,810 per year  
|                     | $25.39 per hour  

**Typical Entry-Level Education**

See How to Become One

**Work Experience in a Related Occupation**

None

**On-the-job Training**

None

**Number of Jobs, 2016**

835,300

**Job Outlook, 2016-26**

11% (Faster than average)

**Employment Change, 2016-26**

88,500
This degree is meant to be terminal, meaning students who successfully complete it are ready to go to work in the field of IT; however, this degree does seamlessly transfer to KState’s Polytechnic Technology Management BS. Students who complete the ICC AAS CIT are able to enter into this BS as Juniors ready to finish their Gen Eds and remaining elective courses. The link to the 2 + 2 is found below.

3.0 Assessment of Student Learning Outcomes

3.2 Significant Assessment Findings

The program faculty should provide a narrative overview of the program's significant student learning outcomes assessment findings, any associated impact on curriculum, as well as any ongoing assessment plans. The program may attach data charts, assessment reports or other relevant materials. (See Section 3.2 in the Program Review Handbook for more information.)

Narrative:

Based on the program faculty member’s review of course and program assessment data it has been determined that there is a need for more technical skill training. Students are not meeting outcome goals of the more advanced course work without extensive help from the instructor. This is part of what has led to the revamping of the CIT program to allow for students to enter the program during any semester and be successful because of curriculum and teaching method changes being made in the 18-19 AY.
4.0 External Constituency and Significant Trends

An important component of maintaining a superior program lies in awareness and understanding of other possible factors that may impact the program and/or student outcomes. After consideration of these other factors, program faculty should document the relevant information within this section. As applicable, this should include the following.

4.1: Program Advisory Committee:

Narrative:

- Include Advisory Member Name/ Title/ Organization/ Length of Service on committee; note the Committee Chair with an asterisk (*).
- Upload meeting minutes from the previous spring and fall semesters and attach in the appendices section (10.0).

A new committee was formed in the Spring of 2018 to include IT professionals from many different types of industries. Below are the Members of the CIT Advisory Committee and the minutes from the last meeting are attached in the appendices section. It was partially on advice of this advisory committee that curriculum changes were made to the CIT program. The Program Faculty Lead finds the opinions of these respected experts very valuable in making decisions to keep up with industry trends.

*Melissa Ashford – CIT Program Faculty Lead

Eric Montgomery – Chief Information Officer – Educational Institution
Brett Bertie – Systems Administrator/Help Desk
Erin Tuttle – Application Support Analyst – Corporation
Jeremy Robertson – Network Administrator – City Government
Gene Ewert – IT Director – Mid-Size Business
Lon Elliot – Departmental Help Desk/Network Administrator – Corporation
4.2: Specialized Accreditation:

- Include Accrediting Agency title, abbreviation, ICC contact; Agency contact, Date of Last Visit, Reaffirmation, Next Visit, FY Projected Accreditation Budget.
- Upload the most recent self-study and site visit documents.
- Upload agency correspondence which confirm accreditation status.

Narrative:

No required specialized accreditation for this program

4.3: Other:

Discuss any external constituencies that may apply to the program. (See Section 4.3 in the Program Review Handbook for more information.)

Narrative:

This program meets HLC Criterion 3: Teaching and Learning: quality, Resources, and support by ensuring that the students are able to successfully complete all core components of the program through various modalities of delivery equally. The curriculum addresses current industry standards and needs within the field of study, preparing students for the workforce in IT. The faculty members teaching in this area are appropriately qualified and participate in continuing education opportunities each year to ensure standards are either maintained or exceed the expectations of the institution.

This program meets the ICC Core Values of Excellence, Responsiveness, and Diversity/Enrichment:

- Excellence: Academic excellence of this program has been evaluated through the completion of this review and working to improve the courses offered through assessment of student learning and making modifications as needed to continue improvement.
- Responsiveness: Program faculty assessed need and continually work update this program to meet the KBOR guidelines, which meets the program requirements for the K-State 2+2 articulation agreement.
- Diversity/Enrichment: Students are exposed to global issues and policies. Students completing this program have the opportunity to hear from a diverse population of IT professionals.

Category 2: Maintain current levels of support/continuous improvements. This program should be continued as presented. Computer Information Technology (CIT) is a degree that offers
several possibilities for students entering many different computer related fields for work or transfer. Currently, one faculty instructor teaches all the core CIT classes for this program and some of those same classes are optional electives in several other degrees.

This program is currently on the Governor’s list as a highly in need field that is a direct career pathway for today’s high school students. Every effort has been made by the faculty in charge of this program to use simulated labs which can allow for students at our area high schools to take the courses in the program online and/or by appointment. Faculty also offer the courses in the program during the morning hours to accommodate students at the area high schools who wish to come to campus to take an on-ground version of the course.

Being on the Governor’s list also means that Adult Basic Education and GED students who declare this program as their primary field of study are eligible to receive funds through the AOK program to help defray costs of tuition and fees while completing their GED or obtaining Adult Basic skills through ICC’s ABE/GED program. The program faculty is working with the Fab Lab staff and the ABE/GED staff to possible teach some of the courses concurrently throughout the ABE/GED day. Plans should be finalized during the spring of 2019.

While this is a two-year terminal certificate and degree program, this programs seamlessly transfers to the K-State Polytechnic Technology Management BS degree. Faculty will help any student wishing to transfer make the transition. There are two stand-alone certificates embedded into this program which can help students get a job while finishing the degree. These two courses are A+ PC Repair and Maintenance and CompTIA Networking +.

Note: The K-State 2 + 2 is attached in the appendices.
5.0 Curriculum Reflection

5.1 Reflection on Current Curriculum

The program faculty should provide a narrative reflection that describes the program’s curriculum holistically. The following are prompts formulated to guide thinking/reflection on curriculum. While presented in question form, the intent of the prompts is to stimulate thought and it is not expected that programs specifically answer each and every question.

- Is the curriculum of the program appropriate to the breadth, depth, and level of the discipline?
- How does this program transfer to four-year universities? (give specific examples)
- What types of jobs can students get after being in your program? (Please use state and national data)
- How dynamic is the curriculum? When was the last reform or overhaul?
- In the wake of globalization, how “internationalized” is the curriculum?
- How does the program assess diversity?
- Does the program have any community-based learning components in the curriculum?

Narrative:
Technology is ever changing. The program faculty attempts to stay abreast of the latest changes in both hardware and software and adjusts the curriculum accordingly. This often means the curriculum is changing each year. Currently the program relies very heavily on up to date simulators for virtual labs. This format allows the college to always have the most current curriculum available to students at minimal cost. The college does not have continually purchase hardware or software that becomes outdated. There is a major drawback to this. Students have minimal opportunity to put their hands-on physical components. Most of the IT industry is currently centered around software much more than hardware. However, the program faculty understands the need for that physical contact with hardware. Therefore, Microcontrollers and Automation is a course that has been added to the program for AY 18-19 that will allow students to build and repair circuitry on a much smaller scale. This allows for hands on with real component opportunities while keeping costs low.

Students completing either the certificate, including the A+ and Networking + stand-alone certificates, or the degree are ready to apply for entry level IT work. These jobs can range from help desk to computer repair personnel. Students also could transfer to a four-year institution and begin working on a BS. As stated before the AAS in CIT will transfer seamlessly into K-State Polytechnic’s Tech Management program where students will begin working on the management side and finish up a few general education courses. They will enter with a junior status if completing the degree plan in the 18-19 catalog.
The CIT advisory committee is polled each year and consulted on current trends and needs in the industry, as well as providing suggestions for improving curriculum. Our committee is made up of diverse people group with various background and types of careers in the field. The lead program faculty invites members of the committee to visit some of the courses and give a real-world view of the industry and what it is like to work in the field. There has been some discussion of touring some of the IT facilities managed by some of our committee members. This is something we will be looking at in the 19-20 AY.

5.2 Degree and Certificate Offerings or Support

**Narrative:**

A+ Computer Repair and Maintenance – Stand Alone Certificate (leads into the CIT Cert and CIT AAS)

Networking + - Stand Alone Certificate (leads into the CIT Cert and CIT AAS)

CIT Certificate B – Leads into the AAS in CIT

AAS in CIT – Can transfer to K-State seamlessly

Any course in the program can be taken as a free elective for any degree on campus. Liberal and General Studies students who have an interest in technology and possibly becoming a computer science major at their next institution should take one or more classes. Each 4-year is different and each program at a 4-year is different. However, almost every program at every institution allows for 3-9 credits of “free” electives. These are classes that do not have to fit into the major, minor, or area of interest.
8.0 Fiscal Resource Requests/Adjustments

8.1 Budget Requests/Adjustments

Based on program data review, planning and development for student success, program faculty will complete and attach the budget worksheets to identify proposed resource needs and adjustments. These worksheets will be available through request from the college’s Chief Financial Officer. Program faculty should explicitly state their needs/desires along with the financial amount required.

Programs should include some or all of the following, as applicable, in their annual budget proposals:

- Budget Projections (personnel and operation)
- Position Change Requests
- Educational Technology Support
- Instructional Technology Requests
- Facilities/Remodeling Requests
- Capital Equipment
  - Non-Capital Furniture & Equipment
  - New Capital Furniture & Equipment
  - Replacement Capital Furniture & Equipment
- Other, as applicable
  - Accreditation Fee Request
  - Membership Fee Request
  - Coordinating Reports

Resource requests should follow budgeting guidelines as approved by the Board of Trustees for each fiscal year. The resource requests should be used to provide summary and detailed information to the division Dean and other decision-makers and to inform financial decisions made throughout the year.

Narrative:

The following are budget requests for the CIT program in the 19-20 AY

1. Provide a separate budget line for CIT so that funding and expenses can easily be tracked.
2. Provide $2,000 in instructional supplies to CIT Supplies. This can help defray costs associated with materials/supplies for the hands-on project classes.

3. Provide funding to allow for CIT students to take industry certs. Provide $3,500 ($95-200 per test per student). There are several MTA certs that are free to the students at this point just for completing courses. Students are taking the free exams as part of the requirements for CIT courses in AY 18-19.

4. Provide funding for faculty to continue education and attend conferences, for example the annual iTRAC Teaching & Learning conference, Wichita, $30; CompTIA conference each year (locations and therefore travel vary) $1,000.
9.0 Program Planning and Development Participation

9.1 Faculty and Staff

Program faculty will provide a brief narrative of how faculty and staff participated in the program review, planning and development process. List the preparer(s) by name(s).

Narrative:

This program review was developed by the Lead Program Faculty Member: Melissa Ashford, with contributions of data provided by the IR office: Anita Chappuie and the Business Officer: Wendy Isle.

9.2 VPAA and/or Administrative Designee Response

After review and reflection of the Comprehensive Program Review or the Annual Program Review, the Division Chair and VPAA will write a summary of their response to the evidence provided. The Division Chair and VPAA’s response will be available to programs for review and discussion prior to beginning the next annual planning and development cycle.

Narrative:

How does the College promote this program through focused marketing? Does the College provide any program specific scholarships?

I agree with the narrative presented in this report.

Brian Southworth, STEMB Division Chair, 12.6.2018
10.0 Appendices

Any additional information that the programs would like to provide may be included in this section.

COMPUTER INFORMATION TECHNOLOGY COMMITTEE

ADVISORY COUNCIL MEMBERS SPRING 2018

Melissa Ashford – CIT Program Faculty Lead
Eric Montgomery – Chief Information Officer – Educational Institution
Brett Bertie – Systems Administrator/Help Desk
Erin Tuttle – Application Support Analyst – Corporation
Jeremy Robertson – Network Administrator – City Government
Gene Ewert – IT Director – Mid-Size Business
Lon Elliot – Departmental Help Desk/Network Administrator – Corporation

Phone meetings and face to face meetings were held with advisory members during the spring of 2018. Members also completed a survey to confirm conversations regarding the need for more technical training, without compromising soft skill training. The members of the team are split on the need for industry certifications, although all agreed that they are not a bad thing for students to possess. They did encourage training over teaching to an industry test. The desire is to have graduates who are ready to go to work and only need specific training for the company’s set up. They agreed that the certifications should be broad and provide a variety of training, not just focus on one vendor specific area. Our PC Repair, Networking +, and Computer & Network Security classes are giving students a good base knowledge and we have added in some Microsoft certifications as everyone agreed it is often still seen as the standard in some areas, like server. We will be looking at data after the first group of students in the newly revised program complete. We are interested in seeing if the students are better qualified and therefore offered, then keep the jobs they take in the field.
### Bachelor of Science in Computing and Information Technology

#### Program Overview

The Bachelor of Science in Computing and Information Technology (B.S.C.I.T.) program at Kansas State Polytechnic prepares students for careers in the rapidly growing field of information technology. The program provides a strong foundation in computer science, information systems, and business management, preparing students for leadership roles in the IT industry.

#### Program Highlights
- **Curriculum**: The curriculum is designed to provide students with a solid understanding of computer science principles, data structures, algorithms, and systems analysis.
- **Practical Experience**: Students gain hands-on experience through internships and cooperative education programs.
- **Industry Connections**: The program maintains strong relationships with local and national IT companies, providing students with opportunities for internships and employment.
- **Career Paths**: Graduates are prepared for careers as software developers, systems analysts, network administrators, and IT managers.

#### Program Requirements
- **General Education**: A broad liberal arts education is required, including courses in mathematics, science, humanities, and social sciences.
- **Major Requirements**: Courses include computer science fundamentals, data structures, databases, and information systems.
- **Electives**: Students have the flexibility to choose electives that align with their career interests.

#### Admission Requirements
- **High School Transcript**: Applicants must complete a minimum of 16 high school credits, including English, mathematics, science, and foreign language.
- **SAT/ACT Scores**: Recommended for admission.
- **Application**: Completed application through the Kansas State University admission portal.

#### Contact Information
- **Phone**: 785-532-3000
- **Email**: admissions@kstate.edu
- **Website**: [Kansas State University Admissions](https://www.kstate.edu/admissions)

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**Microsoft Technology Associate (MTA)**

MTA is Microsoft’s entry-level training and certification on the fundamentals of technology infrastructure. Database and Software Development. Pass just one exam and you’ll have an MTA certification, taking your first step toward building a career in the technology industry. In a 15-hour hands-on workshop, you’ll prepare for the hands-on product learning, whether it’s in an entry-level job, in the classroom, or through self-study.

- **Certification Levels**: Core IT, Developer, and Operating Systems.
- **Resources**: Microsoft Learning, Microsoft Press, and online courses.

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**Microsoft SQL Server 2012**

Microsoft SQL Server 2012 is a relational database management system (RDBMS) developed by Microsoft. It is part of the Microsoft SQL Server family and is designed to provide high-performance, high-availability, and high-scale capabilities. SQL Server 2012 offers improved performance, scalability, and security features compared to its predecessor, SQL Server 2008 R2.

- **Key Features**:
  - Improved scalability with scale-out capability
  - Enhanced security with role-based security model
  - Improved performance with data tiering
  - Support for cloud environments

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**Microsoft Windows 8**

Microsoft Windows 8 is a graphical user interface (GUI)-based operating system developed by Microsoft. It is the successor to Windows 7 and was released to the public in October 2012. Windows 8 introduced a new user interface called the Metro UI, which was designed to be more intuitive and user-friendly.

- **Key Features**:
  - Touch support
  - Dual-boot capability
  - Improved accessibility features
  - Enhanced power management features

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**Microsoft Office 2013**

Microsoft Office 2013 is a suite of productivity applications developed by Microsoft. It includes applications such as Microsoft Word, Excel, PowerPoint, and Outlook. Office 2013 introduced new features and improvements over its predecessor, Office 2010, making it more efficient and intuitive for users.

- **Key Features**:
  - Improved collaboration features
  - Enhanced accessibility features
  - Improved performance and stability
  - New and updated applications

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**Microsoft Visual Studio 2012**

Microsoft Visual Studio 2012 is a development platform and integrated development environment (IDE) for creating Windows desktop applications, web applications, and mobile applications. It includes tools for writing, testing, debugging, and deploying code.

- **Key Features**:
  - Improved code analysis tools
  - Enhanced debugging capabilities
  - Improved project management tools
  - Support for multiple programming languages
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CORE SKILLS CERTIFICATIONS

INFRASTRUCTURE PATHWAY

CYBERSECURITY PATHWAY

PROFESSIONAL SKILLS