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**Computer and Information Technologies – Cloud Computing**

 **Technologies Track – Amazon Web Services Sequence and Data Center Technologies Sequence Associate in Applied Science degree**

**Program Coordinator: Robert Chirwa E-mail:** **robert.chirwa@kctcs.edu** **Phone: 859-246-6298**

**Program Website:** [**https://bluegrass.kctcs.edu/education-training/program-finder/computer-information-technology.aspx**](https://bluegrass.kctcs.edu/education-training/program-finder/computer-information-technology.aspx)

**Student Name: Student ID:**

***Students must meet college readiness benchmarks as identified by the Council on Postsecondary Education or remedy the identified skill deficiencies.***

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| **First Semester** | **Credit****Hours** | **Term** | **Grade** | **Prerequisites** | **Notes** |
| CIT 105 Introduction to Computers  | 3 |  |  |  |  |
| MAT 150 or higher level Quantitative Reasoning course recommended  | 3 |  |  |  | MAT 126 Technical Algebra and Trigonometry required  |
| ENG 101 Writing I | 3 |  |  |  |  |
| Heritage or Humanities course  | 3 |  |  |  |  |
| Social and Behavioral Sciences course  | 3 |  |  |  |  |
| **Total Semester Credit Hours** | **15** |  |  |  |  |

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| **Second Semester** | **Cr. Hrs.** | **Term** | **Grade** | **Prerequisites** | **Notes** |
| CIT 111 Computer Hardware and Software | 4 |  |  | CIT 105 and MAT 065 or higher |  |
| CIT 120 Computational Thinking | 3 |  |  | Coreq: MAT 126 or higher |  |
| CIT 160 Intro to Networking Concepts OR CIT 161 Introduction to Networks | 4 |  |  | Coreq: CIT 111 |  |
| CIT 170 Database Design Fundamentals | 3 |  |  | CIT 105 and (MAT 126 or MAT 085 or higher) |  |
| **Total Semester Credit Hours** | **14** |  |  |  |  |

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| **Summer Session** | **Cr. Hrs.** | **Term** | **Grade** | **Prerequisites** | **Notes** |
| CIT 201 Information Storage Management | 3 |  |  | CIT 167 and CIT 217 | Summer only  |
| CIT 262 MS Server Infrastructure | 3 |  |  | CIT 111 & CIT 160 or 161 |  |
| **Total Session Credit Hours** | **6** |  |  |  |

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| **Third Semester** | **Cr. Hrs.** | **Term** | **Grade** | **Prerequisites** | **Notes** |
| CIT 180 Security Fundamentals | 3 |  |  | CIT 160 or CIT 161 |  |
| Approved Level I Programming Language course | 3 |  |  |  |  |
| Cloud Computing Sequence Course 1 | 3 |  |  |  |  |
| Cloud Computing Sequence Course 2 | 3 |  |  |  |  |
| **Total Semester Credit Hours** | **12** |  |  |  |

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| **Fourth Semester** | **Cr. Hrs.** | **Term** | **Grade** | **Prerequisites** | **Notes** |
| CIT 217 Unix/Linux Administration | 3 |  |  | CIT 111 & CIT 160 or 161 | Spring only |
| CIT 293 CIT Employability Skills | 1 |  |  | Sophomore standing |  |
| Cloud Computing Sequence Course 3 | 3 |  |  |  |  |
| Cloud Computing Sequence Course 4 | 3 – 4  |  |  |  |  |
| Natural Sciences course | 3 |  |  |  |  |
| **Total Semester Credit Hours** | **13 – 14**  |  |  |  |
| **Total Degree Credit Hours** | **60 – 61**  |  |  |  |

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| * **25% or more of Total Degree Credit Hours must be earned at BCTC**
* **Cumulative GPA must be 2.0 or higher**
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**Graduation Requirements:**

**Advisor Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Advisor Contact \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Additional Information** |
| A grade of C or higher is required in each CIT, CS, IMD and INF course used to fulfill degree requirements.The Cloud Computing Technologies Track requires attendance during the summer. |

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| **SEQUENCE COURSES** |
| **Amazon Web Services Sequence** | **Data Center Technologies Sequence** |
| **3rd Semester** | **Prerequisites** | **3rd Semester** | **Prerequisites** |
| CIT 206 Amazon Web Services Practitioner | CIT 170 and CIT 160 or CIT 161 | CIT 203 Introduction to Virtualization | CIT 167 and CIT 217 |
| CIT 167 Routing and Switching Essentials | CIT 161 or consent of instructor | Approved Networking Elective (other than course taken | See list below. |
| **4th Semester** | **Prerequisites** | **4th Semester** | **Prerequisites** |
| CIT 207 Amazon Web Services Architecting | CIT 206 and CIT 167 | CIT 204 VMware Optimize and Scale | CIT 203 |
| CIT Elective approved by CIT Program Coordinator |  | CIT 205 Cloud Infrastructure and Services | CIT 201 and CIT 203 |

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| **APPROVED LEVEL I PROGRAMMING LANGUAGE COURSES**  |
| **Course** | **Cr. Hrs.** | **Prerequisites** | **Notes** |
| INF 120 Elementary Programming | 3 |  |  |
| CIT 140 JavaScript I | 3 | CIT 120 and either CIT 150 or CIT 155 | Spring only |
| CIT 143 C# I | 3 | CIT 120 |  |
| CIT 144 Python I | 3 | CIT 120 |  |
| CIT 148 Visual Basic I | 3 | CIT 120 | Fall only |
| CIT 149 Java I | 3 | CIT 120 |  |
| CIT 171 SQL I | 3 | CIT 120 and CIT 170 | Fall only |
| CS 115 Introduction to Computer Programming | 3 |  |  |

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| **APPROVED NETWORKING ELECTIVE COURSES** |
| **Course** | **Cr. Hrs.** | **Prerequisites** | **Notes** |
| CIT 160 Introduction to Networking Concepts | 4 | CIT 111 |  |
| CIT 161 Introduction to Networks | 4 | CIT 111 |  |
| Other courses approved by the CIT Program Coordinator | 3 – 4  |  |  |

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| **Embedded Credentials** |
| **Credential** | **Title** | **Requirements** | **Total Cr. Hrs.** |
| Certificate | A+ Prep | CIT 111 | 4 |
| Certificate | Computer Tech Basic | CIT 105, CIT 111, CIT 160 or CIT 161 | 11 |
| Certificate | Computer Technician | CIT 105, CIT 111, CIT 160 or CIT 161, CIT 180  | 14 |
| Certificate | Security+ Prep | CIT 180 | 3 |

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| * **25% or more of Total Certificate Credit Hours must be earned at BCTC**
* **Grade of C or higher in each course required for certificate**
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**Certificate Requirements:**