**Computer and Information Technologies – Programming Track Information Systems and Programming Software Development Sequences**

**Associate in Applied Science degree**

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**Program Coordinator: Robert Chirwa E-mail:** [**robert.chirwa@kctcs.edu**](mailto: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 |  |  |  | Should be taken first semester |
| CIT 120 Computational Thinking | 3 |  |  | Coreq: MAT 126 or higher | Should be taken first semester |
| ENG 101 Writing I | 3 |  |  |  |  |
| Heritage or Humanities course | 3 |  |  |  | Should be taken first semester |
| MAT 150 or higher level Quantitative Reasoning course recommended | 3 |  |  |  | MAT 126 Technical Algebra and Trigonometry required |
| **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 |  |
| CIT 160 Introduction 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) |  |
| Approved Level I Programming Language course | 3 |  |  |  | See list on back |
| Sequence Course | 3 |  |  |  | See list on back |
| **Total Semester Credit Hours** | **17** |  |  |  |  |

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| **Third Semester** | **Credits** | **Term** | **Grade** | **Prerequisite** | **Notes** |
| CIT 180 Security Fundamentals | 3 |  |  | CIT 160 or CIT 161 |  |
| Approved Level II Programming Language course | 3 |  |  |  | See list on back |
| Sequence Course | 3 |  |  |  | See list on back |
| Sequence Course | 3 |  |  |  | See list on back |
| Natural Sciences course | 3 |  |  |  |  |
| **Total Semester Credit Hours** | **15** |  |  |  |  |

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| **Fourth Semester** | **Credits** | **Term** | **Grade** | **Prerequisite** | **Notes** |
| CIT 293 CIT Employability Skills | 1 |  |  |  |  |
| Approved Level I, II, or III Programming Language course | 3 |  |  |  | See list on back |
| Approved CIT Technical Course | 3 |  |  |  | See list on back |
| Sequence Course | 3 |  |  |  | See list on back |
| Social and Behavioral Sciences course | 3 |  |  |  |  |
| **Total Semester Credit Hours** | **13** |  |  |  |  |
| **Total Degree Credit Hours** | **60** |  |  |  |  |

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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** |

**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. |

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| **APPROVED LEVEL I PROGRAMMING LANGUAGE COURSES**  **(must be different from courses taken to fulfill other requirements)** | | | |
| **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 LEVEL II PROGRAMMING LANGUAGE COURSES** | | | |
| **Course** | **Cr. Hrs.** | **Prerequisites** | **Notes** |
| CIT 238 Android Programming | 3 | CIT 149 or INF 120 |  |
| CIT 249 Java II | 3 | CIT 149 |  |
| CIT 271 SQL II | 3 | CIT 171 |  |
| CS 215 Intro to Program Design, Abstraction, & Problem Solving | 4 | CS 115 |  |
| INF 260 – Object Oriented Programming I | 3 | INF 120 |  |

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| **APPROVED LEVEL III PROGRAMMING LANGUAGE COURSES** | | | |
| **Course** | **Cr. Hrs.** | **Prerequisites** | **Notes** |
| CS 216 – Intro to Software Engineering | 3 | CS 215 |  |

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| **SEQUENCE COURSES** | |
| **Information Systems Sequence** | **Programming Software Development Sequence** |
| Approved Business Course | CIT 150 Internet Technologies OR CIT 155 Web Page Development OR CIT 157 Web Site Design and Production |
| Approved Management or Business Course | Approved Level I Programming Language |
| CIT 171 SQL I | CIT 253 Data-Driven Web Pages |
| Approved CIT Technical Course | Approved Level II Programming Language |

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| **APPROVED BUSINESS COURSES (Courses listed below or any business, informatics or management approved by CIT Program Coordinator)** | | | |
| **Course** | **Cr. Hrs.** | **Prerequisites** | **Notes** |
| ACC 201 Financial Accounting | 3 | Sophomore standing |  |
| ACT 101 Fundamentals of Accounting I | 3 |  |  |
| BAS 160 Introduction to Business | 3 |  |  |

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| **APPROVED MANAGEMENT COURSES (Courses listed below or any management course approved by CIT Program Coordinator)** | | | |
| **Course** | **Cr. Hrs.** | **Prerequisites** | **Notes** |
| MGT 200 Small Business Management | 3 | BAS 160 |  |
| MGT 274 Human Resource Management | 3 | MGT 283 |  |
| MGT 283 Principles of Management | 3 | BAS 160 |  |
| MGT 287 Supervisory Management | 3 | MGT 283 |  |
| OST 275 Office Management | 3 |  |  |

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| **Embedded Credentials** | | | |
| Credential | Title | Requirements | Total Cr. Hrs. |
| Certificate | A+ Prep | CIT 111 | 4 |
| Certificate | CIT Fundamentals | CIT 105, CIT 111, CIT 120, CIT 160 or CIT 161, CIT 170, CIT 180, Approved Level I Programming Language | 23 |
| 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 | Programming | CIT 120, Approved Level I Programming Language, Level II Programming Language, Level I or II or III Programming Language | 12 |
| 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** |

**Certificate Requirements:**