[Computer and Information Technologies – Programming Track](https://bluegrass.kctcs.edu/education-training/program-finder/computer-information-technology.aspx)

Information Systems and Programming Software Development Sequences

Associate in Applied Science

Coordinator: Robert Chirwa ([robert.chirwa@kctcs.edu](mailto:robert.chirwa@kctcs.edu)) 859-246-6298

Student Name: Student ID:

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

Semester 1 (All courses listed should be taken during the first semester)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| CIT 105 Introduction to Computers | 3 |  |  |  |  |
| CIT 120 Computational Thinking | 3 |  |  | Coreq: MAT 126 or higher |  |
| ENG 101 Writing I | 3 |  |  |  |  |
| Heritage or Humanities course | 3 |  |  |  |  |
| MAT 150 or higher-level Quantitative Reasoning course recommended | 3 |  |  |  | MAT 126 Technical Algebra and Trigonometry minimum |
| Total Semester Credit Hours | 15 |  |  |  |  |

Semester 2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| CIT 111 Computer Hardware and Software | 4 |  |  | CIT 105 |  |
| 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) |  |
| Level I Programming Language Course | 3 |  |  |  | See list |
| Sequence Course 1 | 3 |  |  |  | See list |
| Total Semester Credit Hours | 17 |  |  |  |  |

Semester 3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| CIT 180 Security Fundamentals | 3 |  |  | CIT 160 or CIT 161 |  |
| Level II Programming Language course | 3 |  |  |  | See list |
| Sequence Course 2 | 3 |  |  |  | See list |
| Sequence Course 3 | 3 |  |  |  | See list |
| Natural Sciences course | 3 |  |  |  |  |
| Total Semester Credit Hours | 15 |  |  |  |  |

Semester 4

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| CIT 293 CIT Employability Skills | 1 |  |  |  |  |
| Level I, II, or III Program Language course | 3 |  |  |  | See list |
| Approved CIT Technical Course | 3 |  |  |  | See list |
| Sequence Course 4 | 3 |  |  |  | See list |
| Social and Behavioral Sciences course | 3 |  |  |  |  |
| Total Semester Credit Hours | 13 |  |  |  |  |
| Total Degree Credit Hours | 60 |  |  |  |  |

**Graduation Requirements:**

* 25% or more of Total Degree Credit Hours must be earned at BCTC.
* Cumulative GPA must be 2.0 or higher.

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

**Additional Information**

A grade of C or higher is required in each CIT, CS, IMD and INF course used to fulfill degree requirements.

**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 (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 Intro to Computer Programming | 3 |  |  |

**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, and Problem Solving | 4 | CS 115 |  |
| INF 260 – Object Oriented Programming I | 3 | INF 120 |  |

**Approved Level III Programming Language Courses**

|  |  |  |  |
| --- | --- | --- | --- |
| Course | Cr. Hrs. | Prerequisites | Notes |
| CS 216 – Intro to Software Engineering | 3 | CS 215 |  |

**Sequence Courses**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sequence | Course 1 | Course 2 | Course 3 | Course 4 |
| Information Systems | Approved Business Course | Approved Management or Business Course | CIT 171 SQL I | Approved CIT Technical Course |
| Programming Software Development | CIT 150 Internet Technologies OR CIT 155 Web Page Development OR CIT 157 Web Site Design and Production | Approved Level I Programming Language | CIT 253 Data-Driven Web Pages | Approved Level II Programming Language |

**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 |  |  |

**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 |  |  |

**Embedded Credentials**

|  |  |  |  |
| --- | --- | --- | --- |
| Credential | Title | Requirements | Total Cr. Hours |
| 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 |

**Certificate Requirements:**

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

*Reviewed by: Robert Chirwa Effective Term: Fall 2021*

*Review Date: 03-10-2021*