

BLUEGRASS COMMUNITY AND TECHNICAL COLLEGE

**Computer & Information Technologies
Associate in Applied Science**

With options in Applications, Internet Technologies, Network
Technology, and Programming
Academic Plan Code – 1103017039

Description:

The CIT program includes options in Applications, Internet Technologies, Network Technology, and Programming, with a core of courses common to all. The core includes a general education component central to a collegiate education and technical courses giving students an introduction to information systems, computer applications, program development, system maintenance, and networking including the Internet.

In addition to core courses, students take specialty courses for their selected option. The *Applications option* emphasizes several aspects of microcomputer system configuration, applications software, end-user documentation, and training. Students completing this option are prepared to work with microcomputer-based systems in business and industry. The *Internet Technologies option* prepares students to design, program, and maintain Internet-based services. With an emphasis on client and server programming, this option prepares students for positions developing and maintaining interactive web sites. The *Network Technology option* provides the concepts and skills needed to set up, maintain, and expand networked computer systems. Employment opportunities include entry level positions in installation and administration of local area networks in medium to large organizations and as computer network administrators in small businesses. The *Programming option* provides students with an introduction to at least two programming languages with at least one of the languages studied at the intermediate level. Students completing this option are prepared for entry-level positions in computer programming.

No technical computer classes more than 10 years old may be used to fulfill graduation requirements for the CIT program. In addition, only CIT and CS courses in which a grade of “C” or higher is earned (or “Pass” for Pass/Fail courses) may be used to meet graduation requirements.

Course Number	Course Title	Credit Hours
General Education Core		
ENG 101	Writing I	3
ENG 102	Writing II	3
MA 109 or MT 150	College Algebra	3
	Heritage/Humanities/Foreign Language Course	3
	Science Course	3
	Social Interaction Course	3
	Oral Communications Course	3
	Subtotal Credit Hours	21
Technical Core or Support Courses		

(Courses are listed by category and not necessarily in the order to be taken)

CIT 105	Introduction To Computing	3
CIT 110	Operating Systems	3
CIT 120	Program Design	3
CIT 130	Microcomputer Applications	3
CIT 150	Internet Technologies	3
CIT 160	Data Communications and Networking	4
ETE 134	Computer Hardware Maintenance	3
	Approved Level I Programming Language Course	3
	Approved Technical Course	3
	Subtotal Credit Hours	28

Options (choose one of the following)

Applications Option

Academic Sub-Plan Code - 110301704

CIT 170	Database Design	3
CIT 220	Systems Analysis & Design	3
CIT 290	Information. Systems. Design and Implementation	3
	Applications Specialization	9
	Management Course	3
	Accounting course	3
	Subtotal Credit Hours	24

Internet Technologies Option

Academic Sub-Plan Code - 110301707

IMD 175	Web Usability Design OR	3
IMD 180	Intermediate Web Design	(3)
CIT 253	Data-Driven Web Pages	3
CIT 170	Database Design	3
CIT 220	Systems Analysis & Design	3
CIT 290	Information. Systems. Design and Implementation	3
CIT 294	Seminar in Web Technologies	3
	Level I Web Programming Language*	3
	Level II Web Programming Language*	3
	Subtotal Credit Hours	24

*Students pursuing the Internet Technologies option must take CIT 171 and either CIT 140 or CIT 149.

Networking Technology Option

Academic Sub-Plan Code - 110301705

CIT 260	Network Hardware Inst & Troubleshooting	3
CIT 269	Internet Protocols	3
CIT 292	Designing Network Solutions	3
	Level I Network Technology Specialization	6
	Level I or Level II Network Tech Specialization	6

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	Scripting Language Course	3
	Subtotal Credit Hours	24

Programming Option

Academic Sub-Plan Code - 110301706

CIT 170	Database Design	3
CIT 220	Systems Analysis & Design	3
CIT 290	Information. Systems. Design and Implementation	3
	Level I Programming Language	3
	Level II Programming Language	3-4
	Level I or Level II Programming Language	3-4
	Management Course	3
	Accounting course	3
	Subtotal Credit Hours	24-26

Computer and Information Technologies Certificates

Course Number	Course Title	Credit Hours
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Basic Skills

Academic Plan Code - 1103013019

ENG 101	Writing I	3
	Oral Communications Course	3
CIT 105	Introduction to Computing	3
CIT 110	Operating Systems Concepts	3
CIT 120	Program Design	3
CIT 130	Microcomputer Applications	3
	Total Credit Hours	18
<i>(No CIS or CIT credits more than 10 years old may be used to fulfill requirements for this certificate.)</i>		

Intermediate Skills Certificate

Academic Plan Code - 1103013029

Must have been awarded a Basic Computer Skills Certificate

MA 109	College Algebra	3
ENG 102	Writing II	3
CIT 150	Internet Technologies	3
CIT 160	Data Communications and Networking	4
ETE 134	Computer Hardware Maintenance	3
	Approved Level I Programming Language Course*	3
	Approved CIT Technical Course**	3
	Total Credit Hours	22
<i>(No CIS or CIT credits more than 10 years old may be used to fulfill requirements for this certificate.)</i>		

Approved Electives listed Below

Approved Accounting Courses*

ACC 201 Financial Accounting I (3)

ACC 202 Managerial Uses of Accounting Information (3)

Approved Applications Specializations*

Productivity Software Specialization

IMD 235 Advanced Word Processing (3)

CIT 234 Advanced Spreadsheet Applications (3)

CIT 236 Advanced Database Applications (3)

Database Developer Specialization

CIT 171 SQL I (3)

CIT 271 SQL II (3)

CIT 236 Advanced Database Applications (3)

Geographic Information Systems

GIS 110 Spatial Data Analysis & Map Interpretation (3)

GIS 120 Intro to Geographic Information Systems (3)

GIS 210 Advanced Geographic Information Systems (3)

Approved Management Courses*

MGT 200 Small Business Management (3)

MGT 283 Principles of Management (3)

MGT 287 Supervisory Management (3)

MKT 291 Retail Management (3)

QT 101 Quality Management Principles (3)

Approved Level I Network Technology Specializations*

Microsoft Windows Specialization

CIT 211 Microsoft Windows Client Operating Systems (3)

CIT 212 Microsoft Windows Server Operating Systems (3)

Unix Specialization

CIT 217 Unix Administration (3)

CIT 218 Advanced Unix Administration (3)

Cisco Specialization

CIT 281 Routing and Switching (3)

CIT 282 Advanced Routing and Switching (3)

Approved Level II Network Technology Specializations*

Advanced Microsoft Windows Specialization

CIT 261 Microsoft Windows Directory Services

Administration (3)

CIT 262 Windows Microsoft Windows Network Infrastructure (3)

Approved Level I Programming Languages*

CIT 140 JavaScript I: JavaScript and the Web (3)

CIT 141 VBScript I: VBScript Fundamentals (3)

CIT 143 COBOL I (3)

CIT 145 Perl I: Perl Fundamentals (3)

CIT 148 Visual Basic I (3)

CIT 149 Java I: Java Fundamentals (3)

CIT 171 SQL I (3)

CS 115 Intro to Computer Programming (C++) (3)

Approved Scripting Languages*

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CIT 140 JavaScript I: JavaScript and the Web (3)

CIT 141 VBScript I: VBScript Fundamentals (3)

CIT 145 Perl I: Perl Fundamentals (3)

Approved Technical Courses*

ACH 100 Construction Documents I (3)

ACH 185 Computer-Aided Drafting I (3)

CAD 100 Intro to Computer-Aided Design (3)

COE 199 Cooperative Education: CIT (3)

ETE 112 Digital Logic Circuits (4)

ETE 256 Microprocessor Fundamentals (4)

GIS 120 Intro to Geographic Information Systems (3)

IMD 126 Intro to Desktop Publishing (3)

IMD 226 Advanced Desktop Publishing (3)

Additional CIT Courses (except CIT 103)

Additional CS Courses (except CS 100 and CS 101)

Approved Accounting Courses

Approved Level I Web Programming Languages*

CIT 148 Visual Basic I (3)

CIT 149 Java I: Java Fundamentals (3)

CIT 171 SQL I (3)

Approved Level II Web Programming Languages*

CIT 248 Visual Basic II (3)

CIT 249 Java II: Java and the Web (3)

CIT 271 SQL II (3)

****Approved CIT Technical Courses**

ACH 100 Construction Documents I (3)

ACH 185 Computer-Aided Drafting I (3)

CAD 100 Intro to Computer-Aided Design (3)

COE 199 Cooperative Education: CIT (3)

ETE 112 Digital Logic Circuits (4)

ETE 256 Microprocessor Fundamentals (4)

GIS 120 Intro to Geographic Information Systems (3)

IMD 126 Intro to Desktop Publishing (3)

IMD 226 Advanced Desktop Publishing (3)

Additional CIT Courses (except CIT 103)

Additional CS Courses (except CS 100 and CS 101)

Approved Accounting Courses

(No CIS or CIT credits more than 10 years old may be used to fulfill requirements for this certificate.)