

# Computer Programming

(Academic Plan code 1101017079 subplan code 110101704)

The Information Technology programming option provides students with an introduction to programming languages with at least two of the languages studied at the intermediate level. Students will have the opportunity to study one language in depth or develop a breadth of knowledge in several languages. Students completing this option are prepared for the entry-level position of computer programmer. This curriculum is supported by a solid foundation of core courses that focus on problem solving and communications skills for Information Technology professionals involved in computer network environments.

Students entering this program will need to have basic computer skills such as would be obtained through the CIS 100 course (Introduction to Computers) or equivalent.

**General Education Core courses:**

- ENG 101 *Writing I*
- ENG 102 *Writing II*
- Oral Communication Course
- Social Interaction Course
- Heritage/Humanities Course
- MA 109/MT 109/MT 150 *College Algebra*
- PH 171 *Applied Physics* OR PHY 217 *Applied Industrial Physics* OR PHY 152 *Introduction to Physics II* and PH 162 *Introduction to Physics Laboratory II*

**Technical Core courses:**

- CIS 120 *Program Design and Development*
- ET 107 *Computer Applications for Technicians* OR CIS 130 *Microcomputer Applications*
- ET 232 *Software Maintenance* OR CIS 110 *Operating Systems Concepts*
- ET 234 *Hardware Maintenance*
- NIS 160 *Networking Core Technologies* OR IT 120 *Cisco Internetworking I* IT 170 *Introduction to Database Design*
- IT 132 *Web Page Development* OR IT 130 *Web Site Design and Production*
- Beginning Level Programming Language Course (*IT 147 will not satisfy this requirement*)

**Programming Option courses:**

- CIS 220 *Systems Analysis and Design*
- Programming Language Courses (student selects four courses, including at least two courses **above** the beginning level)
- COE 199 *Cooperative Education* OR CIS 280 *Internship*
- ACC 201 *Financial Accounting I*
- Management Course

**Programming and Management courses selected from the following:****Beginning Level Programming Language Courses**

- CIS 143 COBOL Programming
- CIS 148 Visual Basic I
- CIS 149 Java Programming I
- CIS 155 C/C++ Programming I
- CS 115 Introduction to Computer Programming
- IT 147 SQL Programming (cannot fulfill technical core requirement)
- NIS 150 Introduction to Perl Scripting
- NIS 152 Javascript
- Other courses approved by program coordinator

**Intermediate Level Programming Language Courses**

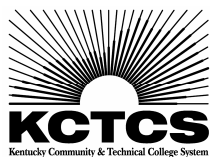
- CIS 232 Programming for Windows Environment
- CIS 243 COBOL Programming
- CIS 252 C/C++ Programming II
- CIS 262 C/C++ Programming III
- CIS 248 Visual Basic II: Desktop Applications
- CIS 249 Java Programming II
- CIS 250 Java Game Development I
- CS 215 Introduction to Program Design, Abstraction, and Problem Solving
- Other courses approved by program coordinator

**Advanced Level Programming Language Courses**

- CIS 258 Visual Basic III: Distributed Applications
- CIS 259 Java Programming III
- CIS 260 Java Game Development III
- Other courses approved by program coordinator

**Management Courses**

- BA 200 – Small Business Management
- BA 274 – Human Resource Management
- BA 287 – Supervisory Management
- BA 288 – Personal and Organizational Leadership
- MFG 256 – Production Management
- OST 275 – Office Management
- QMS 101 – Introduction to Quality Systems
- QMS 102 – Customer Service Improvement Skills



For additional information about this degree contact  
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