ASSOCIATE IN APPLIED SCIENCE DEGREE

Information Technology Program

Computer Programming

(Academic Plan code 1101017079 subplan code 110101704)

Jefferson Community & Technical College
HIGHER EDUCATION BEGINS HERE
A KCTCS Institution

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
- ❑ MT 150 *College Algebra*
- ❑ Science Course with Lab

*All incoming freshmen are required to successfully complete GE 100 or GE 101 within their first 18 hours. Note: this does not apply to transfer students

Technical Core courses:

- ❑ CIS 120 *Program Design and Development*
- ❑ ET 107 *Computer Applications for Technicians* **OR** CIS 130 *Microcomputer Applications*
- ❑ Complete **one** of the following pairs of courses:
  - ❑ ET 232 *Software Maintenance* **OR** CIS 110 *Operating Systems Concepts* **AND**
  - ❑ ET 234 *Hardware Maintenance*

  OR
  - ❑ IT 105 *Computer Maintenance Essentials* **AND**
  - ❑ IT 205 *Advanced Computer Maintenance*
- ❑ Introductory Networking Course
- ❑ 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)***

* CIS 149 or CIS 155 recommended for Game Programming Track

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*
IT 147 *SQL Programming* (cannot fulfill technical core requirement)
NIS 150 *Perl Programming I*
NIS 152 *Introduction to JavaScript*
CS 115 *Introduction to Computer Programming*
IT 141 *Introduction to PHP*

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 II*
CIS 265 *C++ Game Development II*
Other courses approved by program coordinator

Programming Option courses:

Choose **one** of the following two tracks:

Programming Track

- ❑ CIS 220 *Systems Analysis and Design*
- ❑ Programming Languages (student selects four courses, including at least 6 credit hours **above** the beginning level)
- ❑ COE 199 *Cooperative Education* **OR** CIS 280 *Internship*
- ❑ ACC 201 *Financial Accounting*
- ❑ Management Course

Game Programming Track

- ❑ VCC 166 *Digital Imaging*
- ❑ CIS 155 *C/C++ Programming* I **OR** CIS 149 *Java Programming I***
- ❑ CIS 250 *Java Game Development I*
- ❑ CIS 260 *Java Game Development II*
- ❑ CIS 255 *C++ Game Development I*
- ❑ CIS 265 *C++ Game Development II*

**Whichever one was not taken in Technical Core

Intermediate Level Programming Language Courses

CIS 232 *Programming for Windows Environment*
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*
CIS 255 *C++ Game Development I*
CIS 243 *COBOL Applications*
CS 215 *Introduction to Program Design, Abstraction, and Problem Solving*
IT 241 *Intermediate PHP*
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 201 *Customer Service Improvement Skill*

Introductory Networking Courses

NIS 160 *Networking Core Technologies*
IT 120 *Networking Fundamentals*
IT 121 *Networking for Home and Small Business*

KCTCS Kentucky Community & Technical College System

EDUCATION PAYS

For additional information contact
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