

**Database Administration**

(Academic Plan code 1101017079 subplan code 110101702)

The Database Administration option provides students with the knowledge needed to work in the fields of database administration, database design, and programming with database management systems. The course of study includes a foundation in business information systems, database theory and design, a procedural programming language, and a database language. Upon completion of the degree the graduate will be qualified to take industry designed and recognized certification examinations. Employment opportunities include entry-level positions to develop, implement, manage and maintain database systems. This curriculum is supported by a solid foundation of core courses that focus on problem solving and communications skills for Information Technology professionals.

A KCTCS Institution

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*)

**Database Administration Option courses:**

- IT 147 *SQL Programming*
- IT 270 *Database Systems – Implementation and Management Communication*
- Intermediate Level Programming Language

**Student chooses ONE of the following tracks:****Oracle (Basic) Track Courses—**

- IT 272 *Oracle Database Fundamentals I*
- NIS 213 *Administrating Microsoft Windows Server* OR NIS 230 *UNIX Administration*
- Technical Electives (6 credit hours-two classes)

**Oracle (Enhanced) Track Courses—**

- IT 272 *Oracle Database Fundamentals I*
- IT 274 *Oracle Database Fundamentals II*
- IT 278 *Oracle Performance Tuning*
- NIS 213 *Administrating Microsoft Windows Server* OR NIS 230 *UNIX Administration*

**Microsoft Track Courses—**

- NIS 213 *Administrating Microsoft Windows Server*
- NIS 246 *Microsoft SQL Server Administration*
- NIS 247 *Microsoft SQL Server Implementation*
- NIS 248 *Microsoft SQL Server Data Warehousing*

**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

