

# COURSE SYLLABUS



Education That Works For a Lifetime

<b>Course Title:</b>	<b>Special Topics: SQL Server Programming</b>	<b>Date of last update:</b>																											
<b>Department:</b>	<b>Business &amp; Technology</b>	(If this syllabus is being changed as part of a course change or new course proposal, enter the date of the proposal)																											
<b>Curriculum:</b>	<b>Computer Information Systems</b>																												
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<b>Catalog Course Description:</b> (Check with the Public Information Office to assure consistent taxonomy, terminology and style.)	Provides students with the technical skills required to program a database using Microsoft SQL Server. Provides extensive experience creating stored procedures and triggers, and developing SQL queries.																												
<b>Course Objectives &amp; Their Evaluation:</b> (A broad, content-based statement about what the instructor will attempt to achieve in the course.)	<ol style="list-style-type: none"> <li>Develop database application for SQL Server with Transact-SQL</li> <li>Query and modify data with Transact-SQL</li> <li>Create and debug stored procedures</li> <li>Manage concurrency using transaction and locking options</li> <li>Exchange data effectively using Transact-SQL's support for XML</li> <li>Tune database queries for optimal performance</li> </ol> Students will be evaluated through a variety of measures, including but not limited to: <ol style="list-style-type: none"> <li>Hands on exercises</li> <li>Examinations</li> <li>Homework assignments</li> </ol>																												
<b>Specific Outcomes:</b> (Measurable skills students will be expected to demonstrate or specific tasks the student should be able to perform, as evidence that the course content has been mastered.)	Upon successful completion of this course the student should be able to: <ol style="list-style-type: none"> <li>Develop database application for SQL Server with Transact-SQL</li> <li>Join local and remote tables</li> <li>Modify data in transactions</li> <li>Develop stored procedures</li> <li>Write triggers to carry out advanced validations</li> <li>Find poorly performing queries with SQL Profiler</li> <li>Create an XML stream from Transact-SQL</li> </ol>																												

**Topical Outline:**

1. Architectural Overview
2. Developer Tools
3. Querying tables
4. Multiple table queries
5. Executing full text search
6. Managing Data and Concurrency
7. Working with distributed data
8. Programming in Transact-SQL
9. Writing stored procedures
10. Advanced Transact SQL-constructs
11. Creating user defined functions
12. Formulating Triggers
13. Performance Tuning
14. Integrating XML with Transact-SQL

**Suggested  
Instructional  
Materials**

[SQL Programming](#) by John Kauffman, Brian Matsik

**Resources,  
Equipment, & Special  
Facilities Required:**

Computer Lab