| The Oregon Tech logo. | **Course Syllabus** |
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## **Instructor Information:**

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## **Course Overview**

Course Number: MIS 218

Course Title: Database Application Programming

Course Description: Object-oriented and/or procedural language employed with an emphasis on structured design, user interface design and error processing. Utilizing advanced language elements and program structures to integrate software development with data management.

Pre- requisites: MIS 118 and MIS 275 with a “C” or better

Credit Hours: 4

Accreditation: Individual courses cannot be accredited. Oregon Institute of Technology is accredited by the Northwest Commission on Colleges and Universities (NWCCU), an institutional accrediting body recognized by the Higher Education Coordination Commission and the Secretary of the U.S. Department of Education.

## **Course Objectives:**

Upon completion of this course, the students should be able to:

1. Understand the fundamental basics of OOP
2. Gain Familiarity with Database Programming
3. Exposure to ADO.NET
4. Understand Iterative Logic
5. Understand Conditional Logic

## **Textbooks and Resources:**

Required Textbook(s)/Materials:

1. C# 2015  
Author: Boehm and Murach  
Publisher Murach  
ISBN: 978-1-890774-94-3

2. You will need MS Visual Studio and MS SQL Server to be successful in this course. Software is provided to you at no cost.

## **Grading**

Each component will contribute to the following proportion:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item |  | |  | Percentage |
| Labs | |  |  | ~60 % |
| Exam 1 and 2 |  | |  | ~20% |
| Final Exam |  | |  | ~20% |
| Total |  | |  | 100% |

Individual Assignments/Labs. All work must be turned in on the due date as defined by 4 p.m. in via blackboard. Late assignments are penalized at 20% loss of the grade assigned unless there is an extension approved by the professor.

## **Tentative Course Schedule**

| Week | Lecture Topics | Assignments |
| --- | --- | --- |
| Week 1 | Relational Databases Overview  1. Introduction to ADO.NET 2. Client Server Applications | Start Lab 1 (Due 1/17) |
| Week 2 | 1. Data Sources 2. Handling Data Errors 3. Dataset Designer |  |
| Week 3 and Week 4 | 1. Binding Controls 2. Parameterized Queries 3. Tool Strip 4. Data Grid View | Start Lab 2 (Due 1/31) |
| Week 5 | 1. Connections and Commands 2. Execute Commands 3. Parameters | Exam 1 (2/7)  Start Lab 3 (Due 2/14) |
| Week 6 | 1. System.IO classes 2. Text Files 3. Binary Files | Start Lab 4 (Due 2/21) |
| Week 7 | 1. XML 2. XML Editor | Start Lab 5 (Due 2/28) |
| Week 8 | 1. Working with LINQ 2. Query Expression 3. Extension Methods | Exam 2 (2/28)  Start Lab 6 (Due 3/7) |
| Week 9 | Enhance User Interface  1. Add Menus to a form 2. Toolbars and Help | Start Lab 7 (Due 3/14) |
| Week 10 | 1. Click Once and XCopy 2. Final Exam Review |  |
| Finals Week |  | Final Exam (Due 3/18) |