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<td><strong>Course Objectives</strong></td>
<td>Upon finishing this course, trainees will be able to work in a software development team as they will:  &lt;br&gt;- Have a thorough understand about software development process  &lt;br&gt;- Understand key features of .NET and practical skills to develop Windows applications in .NET  &lt;br&gt;- Have essential working skills such as team-work, communication, presentation, email writing, problem solving…  &lt;br&gt;- Can use English at work</td>
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<td><strong>Required Skills/Knowledge</strong></td>
<td>&lt;br&gt;- Basic programming skill  &lt;br&gt;- OOP  &lt;br&gt;- UML</td>
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<td><strong>Methodology</strong></td>
<td>&lt;br&gt;- Class room lectures for theoretical and technical knowledge  &lt;br&gt;- Group discussions.  &lt;br&gt;- Self-learning techniques like preparation of projects etc.</td>
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<td><strong>Course Outline</strong></td>
<td>1. <strong>Introduction to .NET technologies v2.0</strong>: 2 hours  &lt;br&gt; 1.1 Lectures: 2 hours  &lt;br&gt; 1.1.1 Concepts of .NET technology  &lt;br&gt; 1.1.2 CLR as the universal platform  &lt;br&gt; 1.1.3 FCL as premade technical solutions  &lt;br&gt; 1.1.4 GC as a part of CLR  &lt;br&gt; 1.1.5 .NET languages  &lt;br&gt; 1.1.6 A quick look on ASP.NET  &lt;br&gt; 1.1.7 .NET, C++ &amp; Java features mapping  &lt;br&gt; 1.1.8 Overview on .NET 3.0 &amp; 3.5’s features  &lt;br&gt; 1.1.9 References for further research and advanced topics  &lt;br&gt; 1.2 Exercise: 0 hours  &lt;br&gt; 2. <strong>Programming with C#</strong>: 4 hours  &lt;br&gt; 2.1 Lectures: 1.5 hours  &lt;br&gt; - Overview C#  &lt;br&gt; - Building .NET-based Applications with C#  &lt;br&gt; - Using Value-Type Variables  &lt;br&gt; - Methods and Parameters  &lt;br&gt; - Arrays  &lt;br&gt; - Essentials of Object-Oriented Programming  &lt;br&gt; - Using Reference-Type Variables  &lt;br&gt; - Inheritance in C#  &lt;br&gt; - Operators and Events  &lt;br&gt; 2.2 Exercise: 2.5 hours  &lt;br&gt; 3. <strong>Window forms</strong>: 6 hours  &lt;br&gt; 3.1 Lectures: 2 hours  &lt;br&gt; - Introducing Windows Forms</td>
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3.2 Exercise: 4 hours

4. SQL server 2005: 4 hours
4.1. Creating SQL Server 2005 Databases
4.1.1 Lectures: 1 hours
- Overview of SQL Server 2005 databases and SQL language
- Creating Databases and Tables
- Writing Basic Queries
4.1.2 Exercise: 1 hours
Create a simple database and use basic queries to manipulate data

4.2. Write Queries Using SQL Server 2005 Transact-SQL
4.2.1 Lectures: 1 hours
- Writing Grouping, Summarizing and Joining Queries
- Writing Subqueries
- Creating Views, Stored Procedures and Functions
4.2.2 Exercise: 1 hours
Implement Views, Stored Procedures and Functions for the database in Lesson 1

5. ADO.NET: 4 hours
5.1 Lectures: 2 hours
5.1.1 ADO.NET Introduction
5.1.2 Connecting to Data Sources
5.1.3 Performing Connected Database Operations
5.1.4 Building DataSets
5.1.5 Building DataSets from Existing Data Sources
5.2 Exercise: 2 hours

6. Crystal report for .NET: 6 hours
6.1. Crystal Reports for .NET Overview
6.1.1 Lectures: 1.5 hours
- Crystal Report for .NET overview
- Basic report concepts
- Report design methodology
- Design a simple report
- Integrated a report into Windows-based app
6.1.2 Exercise: 1.5 hours
Create a Windows-based application, design and show report in the application.

6.2. Advanced techniques in Crystal Reports for.NET
6.2.1 Lectures: 1.5 hours
- Populate data by using XML Dataset
- Interact with Crystal Report .NET
- Deploy an application which is integrated with Crystal Report

### 6.2.2 Exercise: 1.5 hours
- Make the application more flexible based on the first exercise by populating data through dataset.
- Deploy; install an application which is integrated with Crystal Report on a pure machine.

### 7. Share Best Practice and experience: 2 hours

#### Course Slides
1. Introduction to .NET technologies v2.0.ppt
2. Introduction to Visual C# .NET Programming description.ppt
3. Developing Microsoft .NET Applications for Windows (Visual C# .NET) description.ppt
4. SQL server 2005.ppt
5. ADO .NET.ppt
6. Crystal report for .NET.ppt

#### Course Demos/Case Studies
[http://resources.businessobjects.com/support/communitycs/FilesAndUpdates/sample_applications_for_.NET_developers.pdf](http://resources.businessobjects.com/support/communitycs/FilesAndUpdates/sample_applications_for_.NET_developers.pdf)


[http://www.codersource.net/codersource_dot_net.html](http://www.codersource.net/codersource_dot_net.html)


#### Project Assignment
TTC E-Project assignment (Manage information about your favorite movies).doc

#### Exercises
TTC E-Lab Assignment 1.doc
TTC E-Lab Assignment 2.doc
TTC E-Lab Assignment 3.doc

#### References
1. A programmer's introduction to C#(for beginner)
   Author: Eric Gunnerson
   Apress © 2000

2. C# Language Reference
   Author: Anders Hejlsberg and Scott Wiltamuth
   Microsoft Corporation 1999-2000. All Rights Reserved.

   Author: Jesse Liberty
   O'Reilly
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<tr>
<th>4. Thinking in C#</th>
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<tr>
<td>Authors: Larry O’Bien and Bruce Eckel</td>
</tr>
<tr>
<td>Prentice Hall</td>
</tr>
<tr>
<td>Upper Saddle River, New Jersey 07458</td>
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<tr>
<td><a href="http://www.phptr.com">www.phptr.com</a></td>
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<th>5. Advanced C#</th>
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<tr>
<td>Author: H.Mössenböck</td>
</tr>
<tr>
<td>University of Linz, Austria</td>
</tr>
<tr>
<td><a href="mailto:moessenboeck@ssw.uni-linz.ac.at">moessenboeck@ssw.uni-linz.ac.at</a></td>
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<th>6. Crystal Reports Sample reports</th>
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<th>7. Microsoft ADO .NET Step by Step</th>
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<tbody>
<tr>
<td>by Rebecca M. Riordan ISBN: 0735612366</td>
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<tr>
<td>Microsoft Press © 2002 (512 pages)</td>
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<td>Learn to use the ADO.NET model</td>
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<th>8. Microsoft .NET for Programmers</th>
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<td>By FERGAL GRIMES</td>
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<th>9. Deploying Solutions with .NET Enterprise Servers</th>
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<tbody>
<tr>
<td>Mike Young</td>
</tr>
<tr>
<td>Curtis W. Young</td>
</tr>
<tr>
<td>Gearhead Press™</td>
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<td>Wiley Publishing, Inc.</td>
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<td>Publisher: Joe Wikert</td>
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<th>10. 101 Visual Basic and C# Code Samples</th>
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