Course Title	**Enterprise Application Development**
Course Code	**EC-332**
Credit Hours	3
Category	Technical Elective
Prerequisite	None
Co-Requisite	None
Follow-up	None
Course Description	**Overview of Enterprise Application Development**: Microsoft technology history, Introduction to .NET and its architecture, Concept of MSIL, CLR, CLS, CTS, **Introduction to .NET framework:** Managed and Unmanaged Code, .Net Assembly, Introduction to C# fundamentals, Boxing and Unboxing, Implementing multi-tier architecture. **Introduction to ADO.Net**: SQL Injection, parameterized queries, Usage of data set, Data adapter and command builder in disconnected model **Introduction to delegate**: Multicast delegates, Introduction to windows forms, HTML, **Introduction to javascript:** javascript and its data types, variables, functions, Debugging javascript using Firebug. **Introduction to various object models:** Browser's Object (BOM), Document Object Model. **Introduction to Jquery:** Jquery effects. **Introducing LINQ:** LINQ to Objects, LINQ to SQL, Query syntax, Operations (projection, filtering and join) using Linq Queries. **Introduction to ADO.NET entity framework**: The entity data model, CSDL, Eager vs lazy loading, POCO classes, DBContext API, Querying entity data models, Introduction to ASP.NET MVC, MVC application structure, Controllers overview, Action Methods, Parameterized action methods, Introduction to razor syntax, Code expressions, Code Blocks, Implicit Vs Explicit Code Expression, Data annotations, Client and Server Side Validation, Validation and model binding, Validation and model state, MVC Membership, Authorization and security. **Introduction to service-oriented architecture**: SOAP, WSDL, Service contract, Data contract, XML, WCF bindings, ABC of WCF, Restful services, Consuming rest services (CRUD operations) using Jquery AJAX and JSON, Introduction to web API, Example of web API using CRUD Example, MVC routing.
Text Book(s)	Herbert Schildt, C# 4.0 The Complete Reference, McGraw-Hill, 2010, ISBN: 007174116X. A. Freeman, S. Sanderson, Pro ASP.NET MVC 4, 4th Edition, Apress, 2012, ISBN: 1430242361.
Reference Material	Julia Lerman, Programming Entity Framework, 2nd Edition, O'Reilly, 2010, ISBN: 0596807260. Fabrice Marguerie, Steve Eichert, Jim Wooley, LINQ in Action, Manning Publications, 2008, ISBN: 1933988169. Jeremy McPeak, Beginning JavaScript, 5th Edition, Wiley, 2015, ISBN: 978-1-118-90333-9. Pablo Cibraro, Kurt Claeys, Fabio Cozzolino, Johann Grabner, Professional WCF 4: Windows Communication Foundation with .NET 4, Wiley, 2010, ISBN: 978-0-470-56314-4.