



J2I Study Abroad Training Program
プログラミング入門コース (Basic IT)

Softbridge Solutions Japan Co.,Ltd.
TEL: 03-5280-7818
FAX: 03-5280-0503
URL: <http://www.j2i.jp>

ITコース				
No	Module	Duration (hrs)	Days	Comment
1	Basics of PC Microsoft Windows 2000 Network and Operating System Essentials	8	2	Introduction to PC, Windows OS Operating + Network Command
2	MS - OFFICE (MS-EXCEL)	8	2	MS-EXCEL- a Data Analysis
3	Programming Tech (Flow Chart + Algorithm) Using Visual Basic 6.0	28	7	Programming Basics
4	MS - SQL Server 2000 Database	36	9	Introduction to Relational Database Management System
5	Developing ASP.NET Web Applications Using Visual Studio .NET	80	20	Microsoft .NET programming
6	Web Development Skills from ASP to Microsoft ASP.NET	40	10	
7	Programming with Microsoft ADO.NET	40	10	
8	Mini Project (Using ASP.NET + SQL Server)	40	10	Project
8A	Preparation & Submissions of Assignments - Case Studies	12	3	Assignment & Exam Schedule
	Self Study/ Exam Preparation	20	5	
	Oral / Practical Exams	4	1	
	Theory Exams	4	1	
Total IT Hours / Days		320	80	

英語コース (E1かE2のどちらかを選択)				
No	Module	Duration (hrs)	Days	Comment
E1	Elementry English	105	70	
E2	Advance English	105	70	

No	Certifications
1	(Cert Exam MCP) Developing and Implementing Web Applications with Microsoft Visual Basic® .NET and Microsoft Visual Studio® .NET
2	(Cert Exam MCSD) Administering Microsoft SQL Server 2000 Database



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No	Module	Duration (hrs)
E1	Elementary English	105
Pre-requisites : Basic language skills in Reading, Writing, Listening and Speaking		
Objective : Students will learn how to - <ul style="list-style-type: none"> - express their ideas confidently in day-to day situations - Ask for and give personal and job related information - Answer / get through on The phone - give and take telephone messages - State reasons for a Call - Change arrangements - Confirming information - End a Call - Ask for and give information on companies and products - Say large numbers - Lay out a business letter, fax and memo - Ask for directions. - Talk about departments - Make plans and arrangements - Make appointments - Book a hotel room - Welcome visitors and Make small Talk - Describe business events - Write a letter requesting information - use social skills & cultural awareness in business and entertaining guests - Make and Accept or Decline invitations - take a business associate to dinner - Deal with problems and clients - Complain and Apologize - Present ideas effectively - to plan, prepare and structure presentations 		
Topics		
The Course focuses on application of English Language in the day-to day situations as well as in the Real World Business context. <ul style="list-style-type: none"> - The focus is on Speaking, Listening and Reading Skills. - The Teaching methodology is based on Interactive communicative role plays, picture Reading, pair work, group discussions. 		



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No	Module	Duration (hrs)
E2	Advanced English	105
Pre-requisities : Good language skills in Reading, Writing, Listening and Speaking.		
Objective : Students will learn how to - <ul style="list-style-type: none"> - Ask for and give personal and job related information - Answer / get through on The phone - give and take telephone messages - State reasons for a Call - Change arrangements - Confirming information - End a Call - Ask for and give information on companies and products - Say large numbers - Lay out a business letter, fax and memo - Ask for directions. - Talk about departments - Make plans and arrangements - Make appointments - Book a hotel room - Welcome visitors and Make small Talk - Describe business events - Write a letter requesting information - use social skills & cultural awareness in business and entertaining guests - Make and Accept or Decline invitations - take a business associate to dinner - Deal with problems and clients - Complain and Apologize - Present ideas effectively - to plan, prepare and structure presentations 		
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No	Module	Duration (hrs)
1	Basics of PC Microsoft Windows 2000 Network and Operating System Essentials	8
Pre-requisites : - Basic Knowledge of Computer & Network - Able to Read, Write & Converse in English		
Objective : Understand the - Features of Windows 2000 - Basics of networking with Windows 2000 - the types of user accounts, security features - Administrative tasks. - Common protocols used in the a Windows 2000 network - Understand TCP/IP, Name resolution, routing, and IP addressing - Network communication models - Various types of network architectures - Physical Components - Protocols for remote access communication - Client and Server tech. used in accessing Web services		
Topics		
1	Introduction to Windows 2000 and Networking - Windows 2000 Operating Systems - Introduction to Networks - Windows 2000 Implementation of Networking	
2	Administration of a Windows 2000 Network Topics - Windows 2000 Help - Administrative Tasks - Administrative Tools - Use Online Help - Describe the tools used to perform routine administrative tasks - Control Panel - System Properties - System Information - Event Viewer - Windows Task Manager - Performance - Printers - Shared Folders - Disk Management - Backup - Security Management - Network - Microsoft Management Console	
3	Network Securing on User Accounts - Groups - User Rights - Permissions	
4	Examining the Network - Scope of Networks - Basic Connectivity Components - Network Topologies - Network Technologies - Expanding the Network	
5	Examining the Network Protocols - Introduction to Protocols - Protocols and Data Transmissions - Common Protocols - Other Communication Protocols - Remote Access Protocols	



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6	Examining TCP/IP <ul style="list-style-type: none">- Introduction to TCP/IP- TCP/IP Protocol Suite- Name Resolution- Examining the Data Transfer Process- Routing Data
7	Examining IP Addressing <ul style="list-style-type: none">- Classful IP Addressing- Subnetting a Network- Planning IP Addressing- Assigning TCP/IP Addresses
8	Optimizing IP Address Allocation <ul style="list-style-type: none">- Classless Inter-Domain Routing (CIDR)- Binary IP Addresses- Binary Subnet Masks- IP Address Allocation Using CIDR
9	Examining Web Services <ul style="list-style-type: none">- Identifying Internet Concepts- Using Client Technologies- Connecting to the Internet- Identifying Web Server Concepts



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No	Module	Duration (hrs)
2	MS - OFFICE (EXCEL)	8
Pre-requisites : - Basic Knowledge of Computer Needed & Windows OS - Able to Read, Write & Converse in English		
Objective : Understand the - Gain a good understanding of the Microsoft Office (Excel) - Use of Excel in Data Analysis		
Topics		
- Performing calculations - Analysing data using filters, sorts, scenarios, pivot tables and charts - using macros and database tools		



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No	Module	Duration (hrs)
3	Programming Tech (Flow Chart + Algorithm) Using VB	28
Pre-requisites : - Basic Knowledge of Computer Needed & Windows OS - Able to Read, Write & Converse in English		
Objective : Understand & Develop Confidence in ; - Alogorithm, Program Logic and Pseudocode - Gain knowledge of Programm Design & logic using VB - Gain a good understanding of development of desktop applications		
Topics		
1	Program design - Top down; hierarchy charts - Modular (functions, procedures) - IPO (input-process-output) - Pseudocode - Flowcharts	
2	Code generation; design and style - Test case development - Desk checking - Debugging - Documentation	
3	Program development software - Login, Logout - Text Editor - Compiling, linking, and executing - Systems utility commands: PRINT, COPY, TYPE, etc.	
4	Data Types - Integer - Real - Character - User Defined	
5	Control Structures - Sequence - Selection - Repetition	
6	Arrays - One-dimensional - Using arrays - Reading/Writing the elements of an array - Building an array - Manipulating an array	
7	Number Systems - Binary (Two's complement) - Octal - Hexadecimal - Conversions between bases	



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No	Module	Duration (hrs)
4	MS - SQL Server 2000 Database	36
Pre-requisites : A Thorough Knowledge of Microsoft Windows® 2000 operating system & its Network Abilities which would include <ul style="list-style-type: none"> - Connect clients running Windows 2000 to networks and the Internet - Configure the Windows 2000 environment - Create and manage user accounts - Manage access to resources by using groups - Configure and manage disks and partitions, including disk striping and mirroring - Manage data by using the NTFS file system - Implement Windows 2000 security - Optimize performance in Windows 2000 		
Objective : Understand how to effectively use Microsoft SQL Server™ 2000 in .NET Framework		
Topics		
1	SQL Server Overview What Is SQL Server? SQL Server Integration SQL Server Databases SQL Server Security Working with SQL Server	
2	Overview of Programming SQL Server Designing Enterprise Application Architecture SQL Server Programming Tools The Transact-SQL Programming Language Elements of Transact-SQL Additional Language Elements Ways to Execute Transact-SQL Statement	
3	Creating and Managing Databases Creating Databases Creating Filegroups Managing Databases Introduction to Data Structures	
4	Creating Data Types and Tables Creating Data Types Creating Tables Generating Column Values Generating Scripts	
5	Implementing Data Integrity Types of Data Integrity Enforcing Data Integrity Defining Constraints Types of Constraints Disabling Constraints Using Defaults and Rules Deciding Which Enforcement Method to Use	
6	Planning Indexes Introduction to Indexes Index Architecture How SQL Server Retrieves Stored Data How SQL Server Maintains Index and Heap Structures Deciding Which Columns to Index	



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7	<p>Creating and Maintaining Indexes Creating Indexes Creating Index Options Maintaining Indexes Introduction to Statistics Querying the sysindexes Table Setting Up Indexes Using the Index Tuning Wizard Performance Considerations</p>
8	<p>Implementing Views Introduction to Views Advantages of Views Defining Views Modifying Data Through Views Optimizing Performance by Using Views Performance Considerations</p>
9	<p>Implementing Stored Procedures Introduction to Stored Procedures Creating, Executing, Modifying, and Dropping Stored Procedures Using Parameters in Stored Procedures Executing Extended Stored Procedures Handling Error Messages Performance Considerations</p>
10	<p>Implementing User-defined Functions What Is a User-defined Function? Defining User-defined Functions Examples of User-defined Functions</p>
11	<p>Implementing Triggers Introduction to Triggers Defining Triggers How Triggers Work Examples of Triggers Performance Considerations</p>
12	<p>Programming Across Multiple Servers Introduction to Distributed Queries Executing an Ad Hoc Query on a Remote Data Source Setting Up a Linked Server Environment Executing a Query on a Linked Server Managing Distributed Transactions Modifying Data on a Linked Server Using Partitioned Views The following lab is covered in this module: Using Distributed Data</p>
13	<p>Optimizing Query Performance Introduction to the Query Optimizer Obtaining Execution Plan Information Using an Index to Cover a Query Indexing Strategies Overriding the Query Optimizer</p>
14	<p>Analyzing Queries Queries That Use the AND Operator Queries That Use the OR Operator Queries That Use Join Operations</p>
15	<p>Managing Transactions and Locks Introduction to Transactions and Locks Managing Transactions SQL Server Locking Managing Locks</p>



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No	Module	Duration (hrs)
5	Developing ASP.NET Web Applications Using Visual Studio .NET	80
Pre-requisites : - Basic Knowledge of Computer Needed & Windows OS. - Able to Read, Write & Converse in English - Strong Programming Logic - Good Implementation Knowledge of Visual Basic		
Objective : - Fundamentals of Web application - Site implementation using Microsoft ASP.NET and Microsoft Visual Basic .NET - Create an ASP.NET Web application that delivers dynamic content to Web site		
Topics		
1	Conceptual framework of the .NET Framework and ASP.NET. - Introduction to the .NET Framework - Overview of ASP.NET - Overview of the Lab Application - Resources	
2	Using Microsoft Visual Studio .NET - Overview of Visual Studio .NET - Creating an ASP.NET Web Application Project	
3	Using Microsoft .NET-Based Languages - Overview of the .NET-Based Languages - Comparison of the .NET-Based Languages - Creating a Component Using Visual Studio .NET	
4	Creating a Microsoft ASP.NET Web Form - Creating Web Forms - Using Server Controls	
5	Adding Code to a Microsoft ASP.NET Web Form - Using Code-Behind Pages - Adding Event Procedures to Web Server Controls - Using Page Events	
6	Tracing in Microsoft ASP.NET Web Applications - Understanding Tracing - Remote Debugging	
7	Validating User Input - Overview of User Input Validation - Using Validation Controls - Page Validation	
8	Creating User Controls - Adding User Controls to an ASP.NET Web Form - Creating User Controls	
9	Accessing Relational Data Using Microsoft Visual Studio .NET - Overview of ADO.NET - Creating a Connection to the Database - Displaying a DataSet in a List-Bound Control	



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10	<p>Accessing Data with Microsoft ADO.NET</p> <ul style="list-style-type: none"> - Introduction to Using ADO.NET - Connecting to a Database - Accessing Data with DataSets - Using Multiple Tables - Accessing Data with DataReaders
11	<p>Calling Stored Procedures with Microsoft ADO.NET</p> <ul style="list-style-type: none"> - Overview of Stored Procedures - Calling Stored Procedures
12	<p>Reading and Writing XML Data</p> <ul style="list-style-type: none"> - Overview of XML Architecture in ASP.NET - XML and the DataSet Object - Working with XML Data - Using the XML Web Server Control
13	<p>Consuming and Creating XML Web Services</p> <ul style="list-style-type: none"> - Overview of Using XML Web Services - Calling an XML Web Service by HTTP - Using a Proxy to Call an XML Web Service - Creating an XML Web Service
14	<p>Managing State</p> <ul style="list-style-type: none"> - State management - Application and Session Variables - Cookies and Cookieless Sessions
15	<p>Configuring, Optimizing, and Deploying a Microsoft ASP.NET Web Application</p> <ul style="list-style-type: none"> - Using the Cache Object - Using ASP.NET Output Caching - Configuring an ASP.NET Web Application - Deploying an ASP.NET Web Application
16	<p>Helping to Protect a Microsoft ASP.NET Web Application</p> <ul style="list-style-type: none"> - Web Application Security Overview - Working with Windows-Based Authentication - Working with Forms-Based Authentication - Overview of Microsoft Passport Authentication
17	<p>Review</p> <ul style="list-style-type: none"> Review of Material Covered Introduction to the Project



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6	Web Development Skills from ASP to Microsoft ASP.NET	40
Pre-requisites : - Knowledge of HTML pages with tables, images, and forms - Experience using a scripting language, such as Microsoft Visual Basic® Scripting Edition or JavaScript - Familiarity with a Microsoft .NET-based programming language		
Objective : - Understand ASP and ASP.NET - Develop a ASP.NET Web application by using Microsoft Visual Studio® .NET - Develop a ASP.NET Web Application UI - Understand Trace feature, debugger to debug, Access databases - Explain how XML Web services is beneficial to distributed Internet computing - Create an XML Web service by using Visual Studio .NET - Create client code that can create and call a remote XML Web service - Access and display Extensible Markup Language (XML) data in an ASP.NET Web application - Use caching to improve Web application performance		
Topics		
1	Introduction to Microsoft ASP.NET Web Application Development Introduction to ASP.NET Developing an ASP.NET Web Application Using Visual Studio .NET .NET Programming Model Changes	
2	Developing a Microsoft ASP.NET Web Application User Interface Creating an ASP.NET Web Application User Interface Validating User Input Creating and Using User Controls in an ASP.NET Web Form Processing ASP.NET Web Forms	
3	Debugging Microsoft ASP.NET Web Applications Tracing in ASP.NET Web Applications Debugging ASP.NET Web Applications	
4	Accessing Data Using Microsoft ADO.NET Overview of ADO.NET Reading Data Using DataReaders Programmatically Accessing Data Using DataSets Visually Generating DataSets Data-Bound Controls Best Practices for Secure and Reliable Data Access	
5	Managing State in a Microsoft ASP.NET Web Application Introduction to State Management Session State Management Client-Side State Management	
6	Authenticating Users ASP.NET Authentication Model Implementing Windows-Based Authentication in ASP.NET Web Applications Implementing Forms-Based Authentication in ASP.NET Web Applications	
7	Creating and Consuming XML Web Services Introduction to XML Web Services Creating an XML Web Service Creating an XML Web Service Client	
8	Calling COM Component ASP.NET and COM Interoperability Calling Com Objects from ASP.NET Web Forms	



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9	Migrating ASP Web Applications to Microsoft ASP.NET Migrating an ASP Web Page Migrating an ASP Application
10	Deploying Microsoft ASP.NET Web Applications ASP.NET Application Deployment Methods Maintaining a Deployed ASP.NET Web Application
11	Target : Accessing XML Data XML in Microsoft .NET Displaying XML Data on a Web Form XML and the DataSet Object Improving Microsoft ASP.NET Web Application Performance Using Caching Using the Cache Object Using ASP.NET Output Caching Migrating ASP Web Applications to Microsoft ASP.NET



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No	Module	Duration (hrs)
7	Programming with Microsoft ADO.NET	40
Pre-requisites :		
<ul style="list-style-type: none"> - Good Implementation Knowledge of Visual Basic & HTML - Good Understanding of ASP & ASP.Net 		
Objective :		
<ul style="list-style-type: none"> - Teach developers to build data-centric applications and Web services with Microsoft ADO.NET, Microsoft SQL Server™ 2000, and the Microsoft .NET Framework 		
Topics		
1	Data-Centric Applications and ADO.NET Design of Data-Centric Applications ADO.NET Architecture ADO.NET and XML	
2	Connecting to Data Sources Choosing a .NET Data Provider Defining a Connection Managing a Connection Handling Connection Exceptions Connection Pooling	
3	Performing Connected Database Operations Working in a Connected Environment Building Command Objects Executing Commands That Return a Single Value	
4	Building DataSets Working in a Disconnected Environment Building DataSets and DataTables Binding and Saving a DataSet Defining Data Relationships Modifying Data in a DataTable Sorting and Filtering	
5	Reading and Writing XML with ADO.NET Creating XSD Schemas Loading Schemas and Data into DataSets Writing XML from a DataSet	
6	Building DataSets from Existing Data Sources Configuring a DataAdapter to Retrieve Information Populating a DataSet Using a DataAdapter Configuring a DataAdapter to Update the Underlying Data Source Persisting Changes to a Data Source How to Handle Conflicts	
7	Building and Consuming a Web Service That Uses ADO.NET Building and Consuming a Web Service That Returns Data Build a Web service. Consume a Web service in a client application. Troubleshoot errors in an ADO.NET application	



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8	Mini-Project	Document Management System	40
		On-line Examination System	
		Course Management System	
		Online Shopping Cart	
		Human Resource Management System	
		eMail Engine (Similar to Outlook Express)	
		Application of SOAP Protocol (Example: Exchange of information from decentralized, distributed environment like the ATCs and integrating to NRC)	
Pre-requisites :			
- Thorough Knowledge of Microsoft .NET			
- Should be able to develop Application using any of the above mentioned technologies			
Objective :			
Should be able to relate and understand the practical usage of all learnt technologies given any development Module			
Steps to Project Completion			
1	Base-Line Business Requirements Statement (BRS) is given Assumptions should be created SRS should be developed - Data Flow Diagrams (Level 0 & 1) - Business Process Flows Detailed Design Specification (DDS)		
2	Non base-line BRS document is given Impact Analysis Document (IA) Change Request Document Feasibility Report		
3	Final SRS & DDS Presentation		