Savitribai Phule Pune University

(Formerly University of Pune)

Centre for Innovation, Incubation & Enterprise

Syllabus of Employability Courses at Innovation Training Center

Sr. No	Course name	Certificate/ Special Certificate	Timelines (weeks)	Eligibility	Intake Capacity	Credits
1	AutoCAD for Design and Drafting	Certificate	12	Engg Graduate(or pursuing graduation), Diploma	60	10
2	SAP Career in Material Management / ABAP	Certificate	12	Engg Graduate(or pursuing graduation)	60	10
3	Linux Administration	Certificate	9	Engg Graduate(or pursuing graduation), Diploma	60	7.5
3-A	Advanced Linux Administration	Certificate	9	Engg Graduate(or pursuing graduation)	60	7.5
4	Microsoft - Cloud administrator	Certificate	9	Engg Graduate(or pursuing graduation), programming knowledge	60	7.5
4-A	Microsoft - Azure AI Solution	Certificate	9	Engg Graduate(or pursuing graduation), programming knowledge	60	7.5

Note * Considering the pandemic scenario, blended delivery model (online + classroom) shall be used. To cater to probable increased demand additional batches can be introduced.

01 AutoCAD for Design and Drafting

Module 1	1. **Apply Basic Drawing Skills** Create selection sets, Use coordinate systems 2. **Draw Objects** Draw lines and rectangles, Draw circles, arcs, and polygons Draw polylines 3. **Draw With Accuracy** Work with grid and snap, Use object-snap tracking, Use coordinate systems 4. **Modify Objects** Move and copy objects Rotate and scale objects, Create and use arrays Trim and extend objects, Offset objects. Mirror objects, Use grip editing Fillet and chamfer objects 5. **Use Additional Drawing Techniques** Draw and edit polylines, Apply hatches and gradients 6. **Organize Objects** Change object properties, Alter layer assignments for objects, Control layer visibility 7. **Reuse Existing Content** Insert blocks 8. **Annotate Drawings** Add and modify text, Use dimensions 9. **Layouts And Printing** Set printing and plotting options 10. **Apply Basic Drawing Skills** Create selection sets, Use coordinate systems, Use dynamic input, direct distance, and shortcut menus, Use inquiry commands

02 SAP Career in Material Management

Module 1	SAP Certified Application Associate –Procurement with SAP ERP (Material Management)
	Part I
	Unit 1: Procurement Processes:
	Unit 2: Master Data
	Unit3: Stock Material Procurement
	Unit 4: Consumable Material Procurement
	Unit 5: External Services Procurement
	Unit 6: Reporting and Analytics
	Part II
	Unit 1: Sources of Supply and Conditions
	Unit 2: Source Determination
	Unit 3: Document Release Procedure
	Unit 4: Invoice Entry
	Unit 5: Variances and Invoice Blocks
	Unit 6: Subsequent Debit/ Credit Delivery Costs, Credit Memos
	Unit 7: Automated Processes in Invoice Verification
	Unit 8: GR/IR Account Maintenance
	Part III
	Unit 1: Introduction to Inventory Management
	Unit 2: Goods Receipts (GR)
	Unit 3: Stock Transfers and Transfer Postings
	Unit 4: Reservations
	Unit 5: Goods Issues (GIs)
	Unit 6: Special Forms of Procurement and Special Stocks
	Unit 7: Physical Inventory
	Unit 8: Analyses
	Unit 9: Customizing
	Part IV
	Unit 1: Organizational Units
	Unit 2: Master Data
	Unit 3: Valuation and Account Assignment
	Unit 4: Special Features of Material Valuation
	Unit 5: Purchasing Document Types
	Unit 6: Purchasing

SAP Career in ABAP

Module 1	SAP Certified Development Associate – ABAP with SAP NetWeaver
	ABAP Workbench Fundamentals Unit 1: SAP Systems Unit 2: SAP Portfolio Unit 3: Navigation Basics Unit 4: SAP User Interfaces Unit 5: System Core Unit 6: Communication and Integration Technologies Unit 7: Flow of an ABAP Program Unit 8: ABAP Workbench Unit 9: Basic ABAP Language Elements Unit 10: Modularization Techniques in ABAP Unit 11: Complex Data Objects Unit 12: Data Modeling and Data Retrieval Unit 13: Classic ABAP Reports Unit 14: Program Analysis Tools Unit 15: Program Calls and Memory Management Unit 16: ABAP Open SQL **Workbench Fundamentals** Unit 1: Introduction to the ABAP Dictionary Unit 3: Database Tables Unit 4: Performance during Table Access Unit 5: Input Checks Unit 6: Dictionary Object Dependencies Unit 7: Table Changes Unit 8: Views and Maintenance Views Unit 9: Search Helps Unit 10: Selection Screens Unit 11: Introduction to Screen Programming Unit 12: The Program Interface Unit 13: Simple Screen Elements Unit 14: Screen Error Handling Unit 15: Subscreens Unit 16: Tabstrip Controls **ABAP Concepts** Unit 1: Introduction to Object-Oriented Programming Unit 2: Fundamental Object-Oriented Syntax Unit 3: Inheritance and Casting Unit 4: Interfaces and Casting Unit 5: Object-Oriented Events Unit 6: Object-Oriented Repository Objects Unit 7: ABAP Object-Oriented Examples Unit 8: Class-Based Exceptions Unit 9: Object-Oriented Design Patterns Unit 10: Program Calls and Memory Management Unit 11: Dynamic Programming

	ABAP Concepts
	        Unit 1: Adjustment of SAP Standard Software
	        Unit 2: Enhancement of Dictionary Elements
	        Unit 3: Customer Exits
	        Unit 4: Classic Business Add-Ins
	        Unit 5: New Business Add-Ins
	        Unit 6: Explicit Enhancement Options
	        Unit 7: Implicit Enhancements
	        Unit 8: Modifications of the SAP Standard Application
	        Unit 9: Introduction to Web Dynpro
	        Unit 10: Web Dynpro Controllers
	        Unit 11: Web Dynpro Context
	        Unit 12: Web Dynpro User Interface
	        Unit 13: Controller and Context Programming

03 Linux Administration

Module 1: RH-134	1. Get started with Red Hat Enterprise Linux 2. Describe and define open source, Linux distributions, and Red Hat Enterprise Linux. 3. Access the command line 4. Log into a Linux system and run simple commands using the shell. 5. Manage files from the command line 6. Copy, move, create, delete, and organize files while working from the bash shell. 7. Get help in Red Hat Enterprise Linux 8. Resolve problems by using local help systems. 9. Create, view, and edit text files 10. Manage text files from command output or in a text editor. 11. Manage local users and groups 12. Create, manage, and delete local users and groups, as well as administer local password policies. 13. Control access to files 14. Set Linux file system permissions on files and interpret the security effects of different permission settings. 15. Monitor and manage Linux processes 16. Evaluate and control processes running on a Red Hat Enterprise Linux system. 17. Control services and daemons 18. Control and monitor network services and system daemons using systemd. 19. Configure and secure SSH 20. Configure secure command line service on remote systems, using OpenSSH. 21. Analyze and store logs 22. Locate and accurately interpret logs of system events for troubleshooting purposes. 23. Manage networking 24. Configure network interfaces and settings on Red Hat Enterprise Linux servers. 25. Archive and transfer files 26. Archive and copy files from one system to another. 27. Install and update software 28. Download, install, update, and manage software packages from Red Hat and yum package repositories. 29. Access Linux files systems 30. Access, inspect, and use existing file systems on storage attached to a Linux server.

	31. Analyze servers and get support
	32. Investigate and resolve issues in the web-based management interface, getting support from Red Hat to help solve problems.
	33. Comprehensive review
	34. Review the content covered in this course by completing hands-on exercises.
Module 2: RH-134	1. Improve command line productivity
	2. Run commands more efficiently by using advanced features of the Bash shell, shell scripts, and various utilities provided by Red Hat Enterprise Linux.
	3. Schedule future tasks
	4. Schedule commands to run in the future, either one time or on a repeating schedule.
	5. Tune system performance
	6. Improve system performance by setting tuning parameters and adjusting scheduling priority of processes.
	7. Control access to files with ACLs
	8. Interpret and set access control lists (ACLs) on files to handle situations requiring complex user and group access permissions.
	9. Manage SELinux security
	10. Protect and manage the security of a server by using SELinux.
	11. Manage basic storage
	12. Create and manage storage devices, partitions, file systems, and swap spaces from the command line.
	13. Manage logical volumes
	14. Create and manage logical volumes containing file systems and swap spaces from the command line.
	15. Implement advanced storage features
	16. Manage storage using the Stratis local storage management system and use VDO volumes to optimize storage space in use.
	17. Access network-attached storage
	18. Use the NFS protocol to administer network-attached storage.
	19. Control the boot process
	20. Manage the boot process to control services offered and to troubleshoot and repair problems.
	21. Manage network security
	22. Control network connections to services using the system firewall and SELinux rules.
	23. Install Red Hat Enterprise Linux
	24. Install Red Hat Enterprise Linux on servers and virtual machines.
	25. Run Containers
	26. Obtain, run, and manage simple, lightweight services as containers on a single Red Hat Enterprise Linux server.

Advanced Linux Administration

Module 1: RH-134	35. Get started with Red Hat Enterprise Linux
	36. Describe and define open source, Linux distributions, and Red Hat Enterprise Linux.
	37. Access the command line
	38. Log into a Linux system and run simple commands using the shell.
	39. Manage files from the command line
	40. Copy, move, create, delete, and organize files while working from the bash shell.
	41. Get help in Red Hat Enterprise Linux
	42. Resolve problems by using local help systems.
	43. Create, view, and edit text files
	44. Manage text files from command output or in a text editor.
	45. Manage local users and groups
	46. Create, manage, and delete local users and groups, as well as administer local password policies.
	47. Control access to files
	48. Set Linux file system permissions on files and interpret the security effects of different permission settings.
	49. Monitor and manage Linux processes
	50. Evaluate and control processes running on a Red Hat Enterprise Linux system.
	51. Control services and daemons
	52. Control and monitor network services and system daemons using systemd.
	53. Configure and secure SSH
	54. Configure secure command line service on remote systems, using OpenSSH.
	55. Analyze and store logs
	56. Locate and accurately interpret logs of system events for troubleshooting purposes.
	57. Manage networking
	58. Configure network interfaces and settings on Red Hat Enterprise Linux servers.
	59. Archive and transfer files
	60. Archive and copy files from one system to another.
	61. Install and update software
	62. Download, install, update, and manage software packages from Red Hat and yum package repositories.
	63. Access Linux files systems
	64. Access, inspect, and use existing file systems on storage attached to a Linux server.

	65. Analyze servers and get support 66. Investigate and resolve issues in the web-based management interface, getting support from Red Hat to help solve problems. 67. Comprehensive review 68. Review the content covered in this course by completing hands-on exercises.
Module 2: **RH-134**	27. Improve command line productivity 28. Run commands more efficiently by using advanced features of the Bash shell, shell scripts, and various utilities provided by Red Hat Enterprise Linux. 29. Schedule future tasks 30. Schedule commands to run in the future, either one time or on a repeating schedule. 31. Tune system performance 32. Improve system performance by setting tuning parameters and adjusting scheduling priority of processes. 33. Control access to files with ACLs 34. Interpret and set access control lists (ACLs) on files to handle situations requiring complex user and group access permissions. 35. Manage SELinux security 36. Protect and manage the security of a server by using SELinux. 37. Manage basic storage 38. Create and manage storage devices, partitions, file systems, and swap spaces from the command line. 39. Manage logical volumes 40. Create and manage logical volumes containing file systems and swap spaces from the command line. 41. Implement advanced storage features 42. Manage storage using the Stratis local storage management system and use VDO volumes to optimize storage space in use. 43. Access network-attached storage 44. Use the NFS protocol to administer network-attached storage. 45. Control the boot process 46. Manage the boot process to control services offered and to troubleshoot and repair problems. 47. Manage network security 48. Control network connections to services using the system firewall and SELinux rules. 49. Install Red Hat Enterprise Linux 50. Install Red Hat Enterprise Linux on servers and virtual machines. 51. Run Containers 52. Obtain, run, and manage simple, lightweight services as containers on a single Red Hat Enterprise Linux server.

Module 3: RH294	1. Introduce Ansible
	2. Describe Ansible concepts and install Red Hat Ansible Engine.
	3. Deploy Ansible
	4. Configure Ansible to manage hosts and run ad hoc Ansible commands.
	5. Implement playbooks
	6. Write a simple Ansible Playbook and run it to automate tasks on multiple managed hosts.
	7. Manage variables and facts
	8. Write playbooks that use variables to simplify management of the playbook and facts to reference information about managed hosts.
	9. Implement task control
	10. Manage task control, handlers, and task errors in Ansible Playbooks.
	11. Deploy files to managed hosts
	12. Deploy, manage, and adjust files on hosts managed by Ansible.
	13. Manage large projects
	14. Write playbooks that are optimized for larger, more complex projects.
	15. Simplify playbooks with roles
	16. Use Ansible roles to develop playbooks more quickly and to reuse Ansible code.
	17. Troubleshoot Ansible
	18. Troubleshoot playbooks and managed hosts.
	19. Automate Linux administration tasks
	20. Automate common Linux system administration tasks with Ansible.

05 Microsoft - Cloud administrator

Module 1: Azure Fundamentals	**Describe Cloud Concepts** • Identify the benefits and considerations of using cloud services • Describe the differences between categories of cloud services • Describe the differences between types of cloud computing **Describe Core Azure Services** • Describe the core Azure architectural components • Describe core resources available in Azure **Describe core solutions and management tools on Azure** • Describe core solutions available in Azure • Describe Azure management tools **Describe general security and network security features** • Describe Azure security features • Describe Azure network security **Describe identity, governance, privacy, and compliance features** • Describe core Azure identity services • Describe Azure governance features • Describe privacy and compliance resources **Describe Azure cost management and Service Level Agreements** • Describe methods for planning and managing costs Describe Azure Service Level Agreements (SLAs) and service lifecycles
Module 2: Azure Administrator	**Manage Azure identities and governance** • Manage Azure AD objects • Manage role-based access control (RBAC) • Manage subscriptions and governance **Implement and manage storage** • Manage storage accounts • Manage data in Azure Storage • Configure Azure files and Azure blob storage • Automate deployment and configuration of VMs • Create and configure VMs **Deploy and manage Azure compute resources** • Configure VMs for high availability and scalability • Automate deployment and configuration of VMs

	- Create and configure VMs - Create and configure containers - Create and configure Web Apps **Configure and manage virtual networking** - Implement and manage virtual networking - Configure name resolution - Secure access to virtual networks - Configure load balancing - Monitor and troubleshoot virtual networking - Integrate an on-premises network with an Azure virtual network **Monitor and back up Azure resources** - Monitor resources by using Azure Monitor - Implement backup and recovery

Microsoft - Azure AI Solution

Module 1: AI Fundamentals	**Describe Artificial Intelligence workloads and considerations** • Identify features of common AI workloads • Identify guiding principles for responsible AI **Describe fundamental principles of machine learning on Azure** • Identify common machine learning types • Describe core machine learning concepts • Identify core tasks in creating a machine learning solution • Describe capabilities of no-code machine learning with Azure Machine Learning **Describe features of computer vision workloads on Azure** • Identify common types of computer vision solution • Identify Azure tools and services for computer vision tasks **Describe features of Natural Language Processing (NLP) workloads on Azure** • Identify features of common NLP Workload Scenarios • Identify Azure tools and services for NLP workloads **Describe features of conversational AI workloads on Azure** • Identify common use cases for conversational AI • Identify Azure services for conversational AI
Module 2: AI Solution	**Analyze solution requirements** • Recommend Azure Cognitive Services APIs to meet business requirements • Map security requirements to tools, technologies, and processes • Select the software, services, and storage required to support a solution **Design AI solutions** • Design solutions that include one or more pipelines • Design solutions that uses Cognitive Services • Design solutions that implement the Microsoft Bot Framework • Design the compute infrastructure to support a solution • Design for data governance, compliance, integrity, and security **Implement and monitor AI solutions** • Implement an AI workflow • Integrate AI services and solution components • Monitor and evaluate the AI environment