

# **SMART PROFESSIONAL & SKILL BUILDER COURSES**

APTECH NIGERIA



# INTRODUCTION TO SMART PROFESSIONAL & SKILL BUILDER COURSES



- Today, Technology forms a big part of our lives. With the growing dependence of businesses on Information technology (I.T.), there is a large demand for skilled professionals who possess technical expertise in the I.T. sector.
- The gap in the demand and supply of these professionals is constantly increasing because of a sharp learning curve and a high skill set required in the field.
- Aptech has introduced Smart Professional & Skill Builder courses to kickstart, Upskill and learn technologies as per career interest.

# SMART PROFESSIONAL COURSES



# Smart Professional - Course Summary

S#	Course Family	Course Code	Course Name
1	OV-7105-SP-MISSK-2023	OV-7105	Smart Professional-MIS and Soft Skills
2	OV-7106-SP-NETWEB-2023	OV-7106	Smart Professional-.NET Web Application Development
3	OV-7107-SP-JAWAWEB-2023	OV-7107	Smart Professional-Java Web Application Development
4	OV-7108-SP-PHPWEB-2023	OV-7108	Smart Professional-PHP Web Application Development
5	OV-7109-SP-PYTWEB-2023	OV-7109	Smart Professional-Python Web Application Development
6	OV-7110-FSTACK-2023	OV-7110	Full Stack MERN Development
7	OV-7111-SP-CROSSPF-2023	OV-7111	Smart Professional-Cross Platform App Development
8	OV-7112-SP-IOT-2023	OV-7112	Smart Professional-Internet of Things (IoT)
9	OV-7113-SP-FDS-2023	OV-7113	Smart Professional-Foundation in Data Science
10	OV-7114-SP-HDNW-2023	OV-7114	Smart Professional-Hardware and Networking

# Smart Professional- Course Summary

S#	Course Family	Course Code	Course Name
11	OV-7115-SP-NWA-2023	OV-7115	Smart Professional - Network Administration
12	OV-7116-SP-AZAD-2023	OV-7116	Smart Professional - Azure Administration
13	OV-7117-SP-AZINFR-2023	OV-7117	Smart Professional - Designing Azure Infrastructure Solutions
14	OV-7118-SP-NWAES-2023	OV-7118	Smart Professional - Network Administration for Enterprise Solutions
15	OV-7142-SP-AIML-2024	OV-7142	Smart Professional-Artificial Intelligence and Machine Learning
16	OV-7143-SP-DATVIS-2024	OV-7143	Smart Professional-Data Visualization
17	OV-7077-SP-UIUX-ACE	OV-7077	Smart Professional- User Interface and Experience Design

# Smart Professional - MIS and Soft Skills (OV-7105)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Office Automation	40	20	20	12	Microsoft 365
Data Analysis with MS Excel	24	12	12	10	
Advanced Presentation Techniques	24	12	12	8	MS PowerPoint 2013
Web Productivity Tools	16	8	8	8	Google Tools
Soft Skills	16	16	0	0	NA
<b>Total Hours</b>	<b>120</b>	<b>68</b>	<b>52</b>	<b>38</b>	



## EXIT PROFILE

MIS Executive & Excel Specialist



## CERTIFICATE NAME

Smart Professional-MIS and Soft Skills



- Gain skills to automate everyday tasks and leverage AI capabilities in Office products through Microsoft CoPilot and 365
- Work with spreadsheets and analyze data using MS Excel
- Create advanced attractive presentations using Microsoft PowerPoint
- Use various Web tools for efficient communication and task management over the Web
- Learn the significance of soft skills in professional and inter-personal communications and facilitate an all-round development of personality



# Smart Professional- .NET Web Application Development (OV-7106)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Data Processing with XML and JSON	12	6	6	8	Apache NetBeans 16.x
Data Management with SQL Server	32	16	16	12	MS SQL Server 2022
Programming in C#	40	16	24	12	Microsoft Visual Studio 2022 Professional
Developing ASP.NET CORE MVC Web Applications	40	20	20	12	
Project-.NET Web Application Development	2	2	0	0	
<b>Total Hours</b>	<b>126</b>	<b>60</b>	<b>66</b>	<b>44</b>	



## EXIT PROFILE

.NET Web Application Developer



## CERTIFICATE NAME

Smart Professional-.NET Web Application Development



# Smart Professional - .NET Web Application Development (OV-7106)

## Learning Outcomes:

- Use XML and JSON to store and exchange data
- Normalize raw data into well organized database tables in SQL Server
- Develop basic and advanced object-oriented applications using C#
- Develop advanced ASP NET MVC applications using NET Framework tools and technologies
- Develop a real-world Web application using latest .NET technologies



# Smart Professional- Java Web Application Development (OV-7107)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Data Processing with XML and JSON	12	6	6	8	Apache NetBeans 16.x
Java Programming - I	36	18	18	10	Java SE 19.x or higher
Java Programming - II	40	20	20	10	Java SE 19.x or higher and JavaFX
Working with MySQL	32	16	16	10	MySQL 8.x
Web Component Development using Jakarta EE	32	14	18	12	Jakarta EE 9 or higher, Apache Tomcat 10.x, MySQL 8.x
Integrating Applications with Spring Framework	16	8	8	8	Spring Framework 5.0 libraries
Project-Java Web Application Development	2	2	0	0	Jakarta EE 9 or higher
<b>Total Hours</b>	<b>170</b>	<b>84</b>	<b>86</b>	<b>58</b>	



## EXIT PROFILE

Java Web Application  
Developer



## CERTIFICATE NAME

Smart Professional-Java Web  
Application Development

# Smart Professional - Java Web Application Development (OV-7107)

## Learning Outcomes:

- Use XML and JSON to store and exchange data
- Design and develop desktop applications using Java
- Use the core language features and Application Programming Interfaces of Java to design object-oriented applications
- Use MySQL, the world's most popular open-source database
- Develop Web applications suited to any Jakarta EE application server using JSP and Servlet APIs
- Understand and work with the Spring Framework and Spring Boot
- Develop a real-world Web application using latest Java technologies



# Smart Professional- PHP Web Application Development (OV-7108)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Building Modern Websites	40	20	20	12	CoffeeCup Free HTML5 Editor
UI and UX for Responsive Web Design	16	8	8	6	Figma UI Toolkit
Frontend Web Development with React	24	12	12	8	React 18.x or higher
Working with MySQL	32	16	16	10	MySQL 8.x
PHP Development with Laravel Framework	48	24	24	12	PHP 8.0 & Laravel FW
Project-PHP Web Application Development	2	2	0	0	PHP 8.0 & Laravel FW
<b>Total Hours</b>	<b>162</b>	<b>82</b>	<b>80</b>	<b>48</b>	



## EXIT PROFILE

PHP Web Application Developer



## CERTIFICATE NAME

Smart Professional-PHP Web Application Development

# Smart Professional - PHP Web Application Development (OV-7108)

## Learning Outcomes:

- Use HTML 5 /CSS3 /JavaScript to develop interactive Websites and apps
- Learn the basic principles of effective and responsive Web UI/UX design
- Learn front end Web development with React
- Use MySQL, the world's most popular open-source database
- Create dynamic Web applications using PHP and Laravel Framework
- Develop a real-world Web application using PHP and Laravel Framework



# Smart Professional- Python Web Application Development (OV-7109)

Module	Duration (Instructional Hours)	Theory	Lab	Self- study Hours	Tool/Software
Building Modern Websites	40	20	20	12	CoffeeCup Free HTML5 Editor
UI and UX for Responsive Web Design	16	8	8	6	Figma UI Toolkit
Frontend Web Development with React	24	12	12	8	React 18.x or higher
Working with MySQL	32	16	16	10	MySQL 8.x
Developing Applications with Python	40	20	20	12	Python 3.6.x
Web Application Development using Python	40	20	20	12	Python 3.6.x
Web Framework for Python (Django)	24	12	12	8	Django 3.x
Project-Python Web Application Development	2	2	0	0	Python 3.6.x & Django 3.x
<b>Total Hours</b>	<b>218</b>	<b>110</b>	<b>108</b>	<b>68</b>	



## EXIT PROFILE

Python Web Application  
Developer



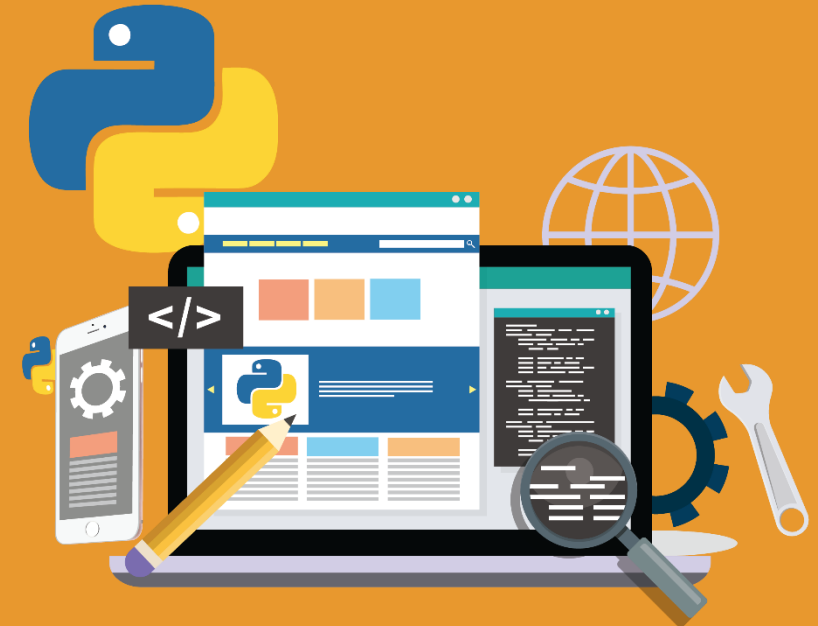
## CERTIFICATE NAME

Smart Professional-Python Web  
Application Development

# Smart Professional - Python Web Application Development (OV-7109)

## Learning Outcomes:

- Use HTML 5 /CSS3 /JavaScript to develop interactive Websites and apps
- Learn the basic principles of effective and responsive Web UI/UX design
- Learn front end Web development with React
- Use MySQL, the world's most popular open-source database
- Build Web applications using Python
- Learn how to make and publish websites with Django and Python
- Design and develop a Web application using Python





# Smart Professional- Full Stack MERN Development (OV-7110)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Building Modern Websites	40	20	20	12	CoffeeCup Free HTML5 Editor
UI and UX for Responsive Web Design	16	8	8	6	Figma Toolkit
Frontend Web Development with React	24	12	12	8	React 18.x or higher
Material UI	6	6	0	0	NA
Distributed Version Control	12	6	6	8	GitHub Desktop 3.x
Managing Large DataSets with MongoDB	32	16	16	10	MongoDB 6.x
Server-side Development	24	12	12	12	Node.js 19.x
Building Full Stack Applications	40	20	20	8	Express.js 5.x or higher, Node.js 19.x or higher, MongoDB 6.x
Project Guide-Full Stack MERN Application	2	2	0	0	
<b>Total Hours</b>	<b>196</b>	<b>102</b>	<b>94</b>	<b>64</b>	



**EXIT PROFILE**  
MERN Stack Developer

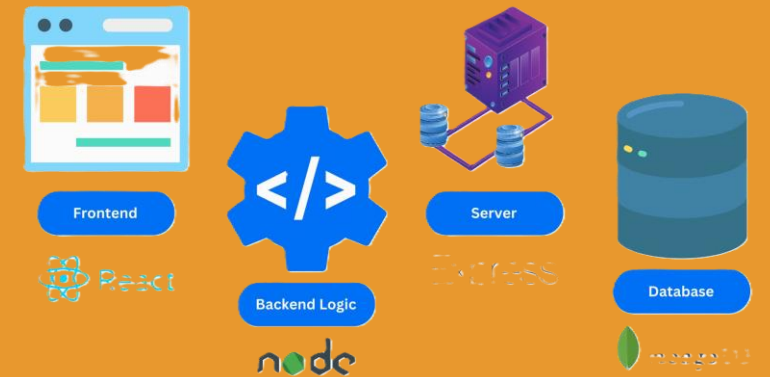


**CERTIFICATE NAME**  
Full Stack MERN Development

# Smart Professional - Full Stack MERN Development (OV-7110)

## Learning Outcomes:

- Use HTML 5 /CSS 3 /JavaScript to implement well structured Websites
- Learn the basic principles of effective Web UX/UI design
- Take your project to the next level with Material UI
- Become an expert front end developer using ReactJs
- Learn the basics of Git for tracking, branching, merging, and managing code revisions
- Write server-side applications using JavaScript framework Node. Js
- Start learning how to build real world full stack apps
- Develop a full stack Web application using MERN



# Smart Professional- Cross Platform App Development (OV-7111)

Module	Duration (Instructional Hours)	Theory	Lab	Self- study Hours	Tool/Software
Java Programming - I	36	18	18	12	Java SE 19 or higher NetBeans 12 or higher
UI/UX for Mobile Development	10	10	0	6	NA
Introduction to Dart Programming	16	8	8	6	Flutter SDK 1.22 with Dart 2.10.x, Android Studio
Application Development Using Flutter and Dart	40	20	20	16	
Project-Cross Platform App Development	2	2	0	0	
<b>Total Hours</b>	<b>104</b>	<b>58</b>	<b>46</b>	<b>40</b>	



## EXIT PROFILE

Cross-Platform Mobile App  
Developer



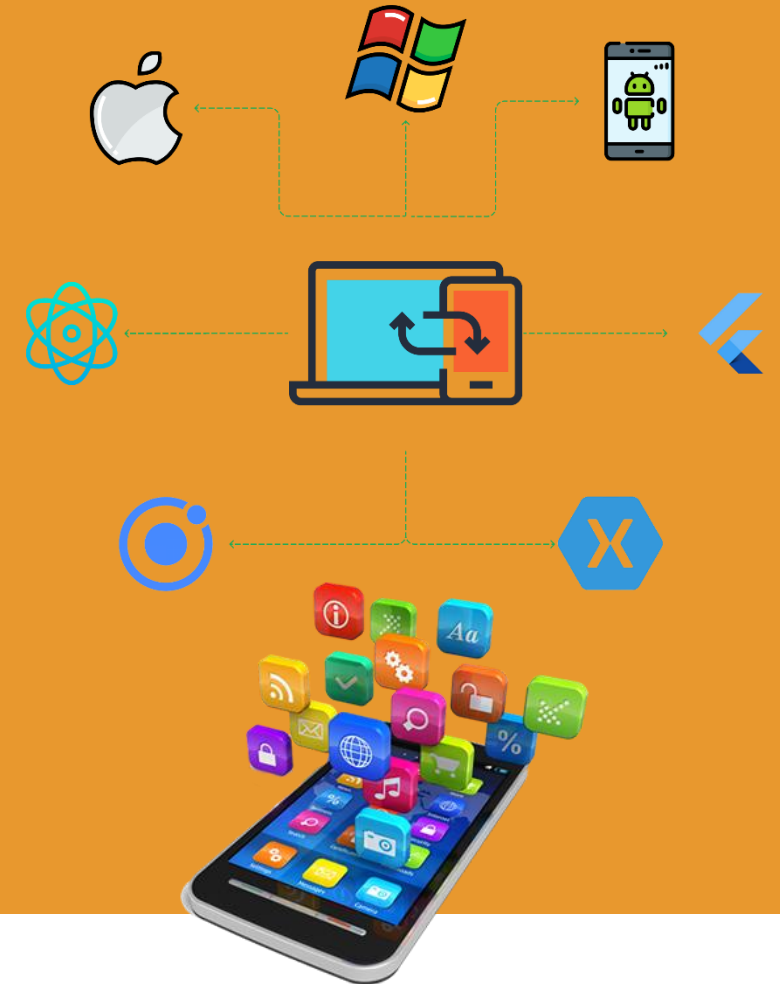
## CERTIFICATE NAME

Smart Professional-Cross Platform  
App Development

# Smart Professional - Cross Platform App Development (OV-7111)

## Learning Outcomes:

- Design and develop desktop applications using Java
- Learn the basic principles of effective web UX/UI design
- Develop web and mobile apps as well as server and desktop applications using Dart programming language
- Build cross platform apps using Flutter Framework and Dart language
- Develop a Cross Platform App using Dart and Flutter



# Smart Professional- Internet of Things (IoT) (OV-7112)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Working with MySQL	32	16	16	10	MySQL 8.x
Developing Applications with Python	40	20	20	12	Python 3.6.x
IoT Hardware [Focus on sensors]	40	30	10	0	IoT Tools & Devices
IoT Networking	16	8	8	4	
Programming the IoT with Python	40	20	20	12	
Project-IoT	2	2	0	0	
<b>Total Hours</b>	<b>170</b>	<b>96</b>	<b>74</b>	<b>38</b>	



**EXIT PROFILE**  
IoT Professional



**CERTIFICATE NAME**  
Smart Professional-Internet of Things (IoT)

# Smart Professional - Internet of Things (IoT) (OV-7112)

## Learning Outcomes:

- Understand syntax and logic of Python programming and learn how Python is used for data analysis and other applications
- Work with IoT hardware, sensors, and systems
- Implement networking in IoT applications
- Build rich IoT applications using IoT technologies, systems, and Python programming language
- Develop a project to implement IoT technologies



# Smart Professional- Foundation in Data Science (OV-7113)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Data Analysis with MS Excel	16	8	8	6	Office 365
Data Handling using T-SQL	16	8	8	4	Microsoft SQL Server 2019
Managing Large DataSets with MongoDB	32	16	16	0	MongoDB 6.x
Inferential Statistical Analysis	16	16	0	4	NA
Data Science using R Programming	36	18	18	10	R Studio 2.x or higher
Application Based Programming in Python	36	18	18	10	Python 3.6.x
Data Mining with WEKA	24	12	12	8	WEKA (Open- source AI and data mining tool)
Capstone Project for Data Mining	24	2	22	0	WEKA
<b>Total Hours</b>	<b>200</b>	<b>98</b>	<b>102</b>	<b>42</b>	



## EXIT PROFILE

Financial Data Analyst  
MIS Manager



## CERTIFICATE NAME

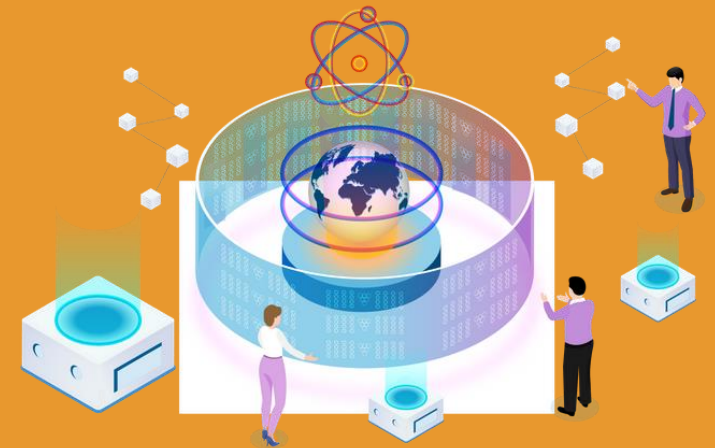
Smart Professional-Foundation in  
Data Science



# Smart Professional - Foundation in Data Science (OV-7113)

## Learning Outcomes:

- Work with spreadsheets and analyze data using MS Excel
- Learn fundamental concepts of Transact SQL(TSQL) commands
- Understand MongoDB concepts, features, architecture and data model, and learn to install, configure, and monitor open-source NoSQL databases
- Understand the basics of statistical analysis, descriptive statistics, predictive analytics, probability, and Bayes theorem
- Master data exploration, predictive & descriptive analytics techniques using R
- Develop applications using Python language
- Use WEKA to perform data mining tasks
- Develop a Capstone project using WEKA and implement data mining tasks



# Smart Professional-Artificial Intelligence and Machine Learning (OV-7142)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Managing Large DataSets with MongoDB	32	16	16	12	MongoDB 6.x
Application Based Programming in Python	36	18	18	10	Python NLP Tools and Libraries JupyterNotebook, Google Collab TensorFlow
Data Science using R Programming	36	18	18	8	
AI Primer	16	16	0	16	
AI Applications of NLP	40	20	20	8	
AI and ML with Python	40	20	20	12	
Applied Machine Learning using Python	40	20	20	12	
Deep Learning using Neural Networks	60	30	30	12	
Capstone Project-Recommendation Engine and Customer Churn Prediction	40	2	38	0	
<b>Total Hours</b>	<b>340</b>	<b>160</b>	<b>180</b>	<b>90</b>	



**EXIT PROFILE**  
AI Developer



**CERTIFICATE NAME**  
Smart Professional-Artificial  
Intelligence and Machine Learning

# Smart Professional-Artificial Intelligence and Machine Learning (OV-7142)

## Learning Outcomes:

- Understand the basics of statistical analysis, descriptive statistics, predictive analytics, probability, and Bayes theorem
- Gain an understanding of AI
- Gain knowledge in NLP and learn the use of AI in NLP
- Use important building blocks of AI ML with Python, make data modelling decisions, interpret output of the algorithms, and validate results
- Master ML concepts and techniques including supervised and unsupervised learning, mathematical and heuristic aspects, and hands on modeling to develop AI algorithms
- Master deep learning concepts and TensorFlow open source framework, implement deep learning algorithms, and build ANN
- Develop a real world Capstone project on recommendation engine and perform customer churn prediction

# Smart Professional-Data Visualization (OV-7143)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Data Analysis with MS Excel	24	12	12	10	Microsoft 365 MySQL 8.x Tableau Desktop
Working with MySQL	32	16	16	10	
Visual Analytics with Tableau	32	16	16	12	
<b>Total Hours</b>	<b>88</b>	<b>44</b>	<b>44</b>	<b>32</b>	



**EXIT PROFILE**  
Data Analyst



**CERTIFICATE NAME**  
Smart Professional-Data  
Visualization

- Use MySQL, the world's most popular open source database
- Build visualizations, organize data, and design dashboards to empower more meaningful business decisions using Tableau Desktop data visualization and reporting tool.

# Smart Professional-User Interface and Experience Design (OV-7077)

## Term 1

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours
UX Design Overview	10	10	0	3
Basics of Usability	8	8	0	2
UXD Process and Workflow	8	8	0	2
UX Research Phase	16	16	0	4
UX Design Phase	16	8	8	4
Validation and Implementation Phase	14	10	4	4
UX Design Portfolio-1	18	2	16	0
Total Hours	90	62	28	19



**CERTIFICATE NAME**  
Smart Professional-Artificial  
Intelligence and Machine Learning

# Smart Professional-User Interface and Experience Design (UI & UX) (OV-7077)

## Learning Outcomes:

- Explore the World of User Experience (UX) Design & Understand the importance of research and visual design.
- Discuss bit-depth, pixel-density, and resolution issues, managing color palettes, Understanding Icon design and pixel level design, GUI screen layout and composition, page layout and composition, GUI development principles, tools, and technologies
- Describe function-level interaction principles, concepts and process
- Understand how the interface is laid out & Discuss content structure
- Discuss the need to make good wireframes, and prototypes
- Understand usability methodologies & Review your design by analysing the test results
- Create a Portfolio showcasing your user experience design

# Smart Professional-User Interface and Experience Design (OV-7077)

## Term 2

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours
Elements of User Interface (UI) Design	16	16	0	2
Pillars of UI Design	6	6	0	2
Dashboards and Data Visualization	6	2	4	2
UI Design for Mobile Devices, Web and Software	6	2	4	2
Web Technology for UI Designers	18	10	8	2
Wireframing and Prototype for UI Design	14	14	0	0
Usability and Testing for UI Design	12	12	0	0
UI Design Portfolio	12	2	10	0
<b>Total Hours</b>	<b>90</b>	<b>64</b>	<b>26</b>	<b>90</b>



# Smart Professional-User Interface and Experience Design (UI & UX) (OV-7077)

## Learning Outcomes:

- Develop enhanced visual sense to make right design choices.
- Describe Navigation and patterns of moving around an interface / across pages
- Describe function-level interaction principles, concepts and process
- Learn how to present actions and commands. Discuss the cognitive aspects of data presentation and how to use them to communicate knowledge and meaning
- Develop digital visual user interface for applications on Mobile, Web and new PC platform
- Explore the Building blocks of Mobile UI Design such as Grids, Typography, Colour & Anatomy
- Describe usability methodologies, usability testing principles and methods, principles of cognitive psychology
- Learn the basics of responsive design and how to launch a website that naturally adapts to any device and any screen size

# Smart Professional-User Interface and Experience Design (OV-7077)

## Term 3

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours
Basics of Interaction Design	16	16	0	2
Interaction Design and Usability	8	4	4	2
Information Architecture	16	16	0	2
User Flow	4	4	0	2
Wireframes and Prototypes	16	8	8	2
Design Pattern and Data Driven Validation	12	6	6	2
UX Design Portfolio-2	18	2	16	2
<b>Total Hours</b>	<b>90</b>	<b>56</b>	<b>34</b>	<b>14</b>



### EXIT PROFILE

- UI Developer
- UX Designer
- UI/UX Developer



### CERTIFICATE NAME

Smart Professional – User  
Interface and Experience Design

- ✓ **Total Duration (Term 1 + 2 + 3)**
- **270 Hours**

# Smart Professional-User Interface and Experience Design (UI & UX) (OV-7077)

## Learning Outcomes:

- Learn component-level interaction principles and concepts.
- Understand how the user receives feedback or confirmation
- Learn presentation principles
- Demonstrate how to make good wireframes, mockups and prototypes
- Build case studies to discuss design process and showcase your work
- Review your design by analysing the test results and user feedback you've gathered
- Understand usability testing principles and methods, principles of cognitive psychology
- Create a unique Portfolio site that showcases your personality, projects, and writing

# Smart Professional- Hardware and Networking (OV-7114)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Hardware, Networking, & Troubleshooting	36	18	18	10	Windows 10 and higher
Installing and Configuring Operating Systems	36	18	18	10	
Technologies of Computer Networks	40	20	20	12	Network Tools
<b>Total Hours</b>	<b>112</b>	<b>56</b>	<b>56</b>	<b>32</b>	



**EXIT PROFILE**  
IT Technician



**CERTIFICATE NAME**  
Smart Professional-Hardware and  
Networking

# Smart Professional - Hardware and Networking (OV-7114)

## Learning Outcomes:

- Learn the fundamentals of mobile devices, networking technology, hardware, virtualization and cloud computing
- Install and Configure operating systems, security, software, and operational procedures
- Gain the technical skills needed to securely establish, maintain and troubleshoot the essential networks that businesses rely on



# Smart Professional- Network Administration (OV-7115)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Hardware, Networking, & Troubleshooting	36	18	18	10	Windows 10 and higher
Installing and Configuring Operating Systems	36	18	18	10	
Manage Modern Desktops with Windows	40	20	20	12	
Technologies of Computer Networks	40	20	20	12	Network Tools
Implementing and Administering Network Solutions	40	20	20	16	Graphical Network Simulator-3 (GNS3) or any other Router Simulation Software
<b>Total Hours</b>	<b>192</b>	<b>96</b>	<b>96</b>	<b>60</b>	



**EXIT PROFILE**  
Network Administrator



**CERTIFICATE NAME**  
Smart Professional-Network Administration

# Smart Professional - Network Administration (OV-7115)

## Learning Outcomes:

- Learn the fundamentals of mobile devices, networking technology, hardware, virtualization and cloud computing
- Install and Configure operating systems, security, software, and operational procedures
- Gain the technical skills needed to securely establish, maintain and troubleshoot the essential networks that businesses rely on
- Install and configure Windows; configure and manage connectivity and storage; maintain Windows; and protect devices and data
- Gain the skills related to Network fundamentals, Network access, IP connectivity, IP services, Security fundamentals, Automation and programmability





# Smart Professional- Azure Administration (OV-7116)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Manage Modern Desktops with Windows	40	20	20	12	Windows 10 and higher
Azure Fundamentals	36	18	18	10	Microsoft Azure
Implementing, Managing and Monitoring Azure Environment	40	20	20	16	
<b>Total Hours</b>	<b>116</b>	<b>58</b>	<b>58</b>	<b>38</b>	



**EXIT PROFILE**  
Microsoft Azure  
Administrator



**CERTIFICATE NAME**  
Smart Professional-Azure  
Administration

# Smart Professional - Azure Administration (OV-7116)

## Learning Outcomes:

- Install and configure Windows; configure and manage connectivity and storage; maintain Windows; and protect devices and data
- Learn foundational level knowledge of cloud services and how those services are provided with Microsoft Azure
- Implement, manage, and monitor identity, governance, storage, compute, and virtual networks in a cloud environment



# Smart Professional- Designing Azure Infrastructure Solutions (OV-7117)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Azure Architect Technologies	40	20	20	16	Microsoft Azure
Azure Solutions Architect Design	40	20	20	16	
<b>Total Hours</b>	<b>80</b>	<b>40</b>	<b>40</b>	<b>32</b>	



**EXIT PROFILE**  
Microsoft Azure Architect



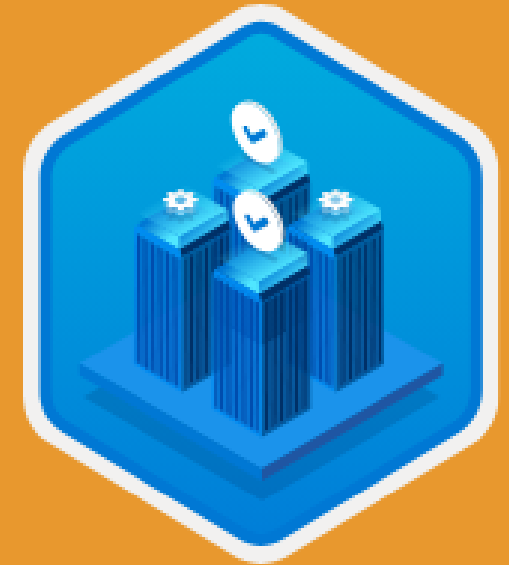
**CERTIFICATE NAME**  
Smart Professional- Designing  
Azure Infrastructure Solutions

**Pre-requisite Course: Azure Administration (OV-7116)**

# Smart Professional - Designing Azure Infrastructure Solutions (OV-7117)

## Learning Outcomes:

- Implement and manage on-premises and hybrid solutions, such as identity, management, compute, networking, and storage
- Implement and manage on-premises and hybrid solutions, including performing tasks related to security, migration, monitoring, high availability, troubleshooting, and disaster recovery



# Smart Professional- Network Administration for Enterprise Solutions (OV-7118)

Module	Duration (Instructional Hours)	Theory	Lab	Self-study Hours	Tool/Software
Implementing and Operating Enterprise Network Core Technologies (ENCOR)	40	20	20	16	Graphical Network Simulator-3 (GNS3) or any other Router Simulation Software
Implementing Enterprise Advanced Routing and Services (ENARSI)	40	20	20	16	
<b>Total Hours</b>	<b>80</b>	<b>40</b>	<b>40</b>	<b>32</b>	



**EXIT PROFILE**  
Network Engineer



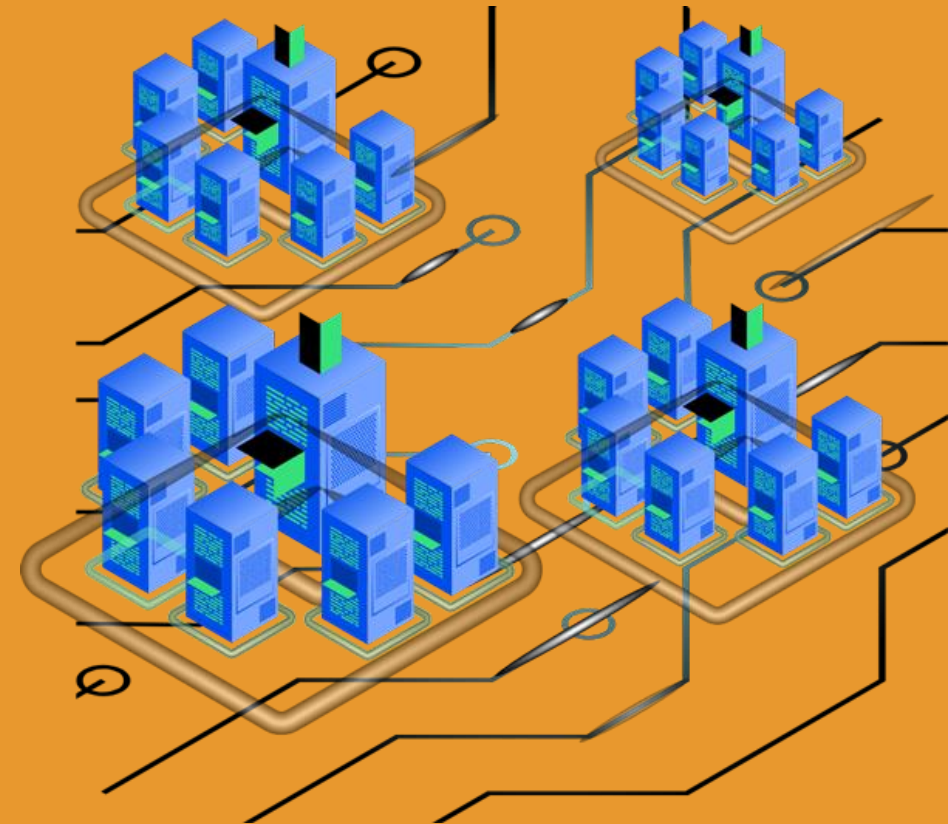
**CERTIFICATE NAME**  
Smart Professional-Network  
Professional for Enterprise  
Solutions

**Pre-requisite Course: Smart Professional-Network Administration  
(OV-7115)**

# Smart Professional - Network Administration for Enterprise Solutions (OV-7118)

## Learning Outcomes:

- Implement and Operate Cisco Enterprise Network Core Technologies including: Dual stack (IPv4 and IPv6) architecture, Virtualization, Infrastructure, Network assurance, Security, and Automation
- Implement Cisco Enterprise Advanced Routing and Services including: Layer 3, VPN services, Infrastructure security, Infrastructure services, and Infrastructure automation



**Aptech** 

COMPUTER EDUCATION

*Unleash your potential*

# SKILL BUILDER Courses



# Skill Builders - Course Summary

S#	Course Family	Course Code	Course Name
1	OV-ACE-Skill Builder Courses-2023	OV-1500	Office Automation
2		OV-1501	Advanced Excel
3		OV-1502	Advanced Presentation Techniques
4		OV-1503	Programming in C
5		OV-1504	Data Structures in C
6		OV-1505	Programming in C++
7		OV-1506	Responsive Web Development
8		OV-1507	Data Management with SQL Server
9		OV-1508	Programming in C#
10		OV-1509	Developing ASP.NET MVC Web Applications



# Skill Builders - Course Summary

S#	Course Family	Course Code	Course Name
11	OV-ACE-Skill Builder Courses-2023	OV-1510	Enterprise Application Development in .NET
12		OV-1511	Java Programming
13		OV-1512	Web Application Development in Java
14		OV-1513	Enterprise Application Development in Java
15		OV-1514	Cross Platform Mobile App Development
16		OV-1515	Embedded Programming
17		OV-1516	Software Testing using Selenium
18		OV-1517	Web Development with PHP
19		OV-1518	Programming with Python
20		OV-1519	Web Development with Python

# Skill Builders - Course Summary

S#	Course Family	Course Code	Course Name
21	OV-ACE-Skill Builder Courses-2023	OV-1520	Software Project Management
22		OV-1521	R Programming
23		OV-1522	Large Data Management with MongoDB
24		OV-1523	Network Administration
25		OV-1524	Cybersecurity Operations Fundamentals
26		OV-1525	Ethical Hacking
27		OV-1527	UI and UX for Responsive Web Design

# Skill Builder- Office Automation (OV-1500)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Office Automation	40	20	20	MS Office 365
<b>Total Hours</b>	<b>40</b>	<b>20</b>	<b>20</b>	



## Exit Profile

MS Office Specialist



## Certificate Name

Certificate of Participation in  
Office Automation



## Examinable

No

- Gain skills to automate everyday tasks and leverage AI capabilities in Office products through Microsoft CoPilot and 365



# Skill Builder-

## Advanced Excel (OV-1501)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Data Analysis with MS Excel	24	12	12	Microsoft 365
<b>Total Hours</b>	<b>24</b>	<b>12</b>	<b>12</b>	



### Exit Profile

Excel Specialist



### Certificate Name

Certificate of Participation in  
Advanced Excel



### Examinable

No

- Work with spreadsheets and analyze data using MS Excel



# Skill Builder-

## Advanced Presentation Techniques (OV-1502)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Advanced Presentation Techniques	24	12	12	MS Office 2013
<b>Total Hours</b>	<b>24</b>	<b>12</b>	<b>12</b>	



### Exit Profile

PowerPoint Specialist



### Certificate Name

Certificate of Participation in  
Advanced Presentation  
Techniques



### Examinable

No

- Create advanced attractive presentations using Microsoft PowerPoint



# Skill Builder- Programming in C (OV-1503)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Logic Building and Elementary Programming	32	16	16	NetBeans 8.0 or higher
<b>Total Hours</b>	<b>32</b>	<b>16</b>	<b>16</b>	



## Exit Profile

C Programmer



## Certificate Name

Certificate of Accomplishment  
in Programming in C



## Examinable

Yes

- Use programming constructs to write programs in C



# Skill Builder-

## Data Structures in C (OV-1504)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Data Structures in C	24	12	12	NetBeans 8.0 or higher
<b>Total Hours</b>	<b>24</b>	<b>12</b>	<b>12</b>	



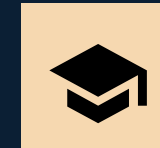
### Exit Profile

C Developer



### Certificate Name

Certificate of Accomplishment  
in Data Structures in C



### Examinable

Yes

- Learn arrays, algorithm analysis, strings, queues, trees and graphs



# Skill Builder- Programming in C++ (Ov-1505)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Object Oriented Programming Concepts	16	16	0	NetBeans 8.0 or higher
Programming in C++	32	16	16	
<b>Total Hours</b>	<b>48</b>	<b>32</b>	<b>16</b>	



## Exit Profile

C++ Programmer



## Certificate Name

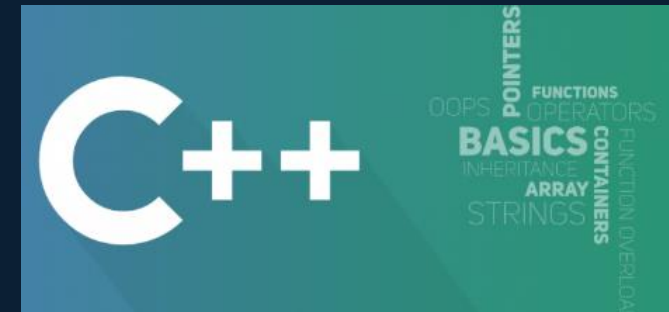
Certificate of Accomplishment  
in Programming in C++



## Examinable

Yes

- Develop object-oriented programming skills using OOP principles and concepts
- Develop object-oriented applications using C++





# Skill Builder- Responsive Web Development (OV-1506)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Building Modern Websites	40	20	20	CoffeeCup Free HTML5 Editor Figma UI Toolkit React 18.x or higher
UI and UX for Responsive Web Design	16	8	8	
Frontend Web Development with React	24	12	12	
<b>Total Hours</b>	<b>80</b>	<b>40</b>	<b>40</b>	



## Exit Profile

Responsive Web Developer



## Certificate Name

Certificate of Accomplishment in  
Responsive Web Development



## Examinable

Yes

- Use HTML 5 /CSS3 /JavaScript to develop interactive Websites and apps
- Learn front end Web development with React
- Learn the basic principles of effective and responsive Web UI/UX design



# Skill Builder-

## Data Management with SQL Server (OV-1507)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Data Management with SQL Server	32	16	16	MS SQL Server 2022
<b>Total Hours</b>	<b>32</b>	<b>16</b>	<b>16</b>	



### Exit Profile

SQL Developer



### Certificate Name

Certificate of Accomplishment in  
Data Management with SQL Server



### Examinable

No

- Normalize raw data into well-organized database tables in SQL Server



# Skill Builder- Programming in C# (OV-1508)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Programming in C#	40	16	24	Microsoft Visual Studio 2022 Professional
<b>Total Hours</b>	<b>40</b>	<b>16</b>	<b>24</b>	



## Exit Profile

C# Programmer



## Certificate Name

Certificate of Accomplishment  
in C# Programming



## Examinable

Yes

- Develop basic and advanced object-oriented applications using C#



# Skill Builder-

## Developing ASP.NET MVC Web Applications (OV-1509)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Developing ASP.NET CORE MVC Web Applications	40	20	20	Microsoft Visual Studio 2022 Professional
<b>Total Hours</b>	<b>40</b>	<b>20</b>	<b>20</b>	



### Exit Profile

.NET Web Application Developer



### Certificate Name

Certificate of Accomplishment in Developing ASP.NET Core MVC Web Applications



### Examinable

Yes

- Develop advanced ASP NET MVC applications using NET Framework tools and technologies



# Skill Builder- Enterprise Application Development in .NET (OV-1510)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Developing Microsoft Azure and Web Services	40	20	20	Microsoft Visual Studio 2022 Professional
<b>Total Hours</b>	<b>40</b>	<b>20</b>	<b>20</b>	



## Exit Profile

.NET Enterprise Application Developer



## Certificate Name

Certificate of Accomplishment in Enterprise Application Development in .NET



## Examinable

Yes

- Develop enterprise applications and Web services using the Microsoft Azure cloud platform



# Skill Builder-

## Java Programming (OV-1511)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Java Programming - I	36	18	18	Java SE 19.x or higher and JavaFX
Java Programming - II	40	20	20	
<b>Total Hours</b>	<b>76</b>	<b>38</b>	<b>38</b>	



### Exit Profile

Java Programmer



### Certificate Name

Certificate of Accomplishment  
in Java Programming



### Examinable

Yes

- Design and develop desktop applications using Java
- Use the core language features and Application Programming Interfaces ( of Java to design object-oriented applications



# Skill Builder- Web Application Development in Java (OV-1512)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Web Component Development using Jakarta EE	32	14	18	Jakarta EE 9 or higher, Apache Tomcat 10.x, MySQL 8.x
Integrating Applications with Spring Framework	16	8	8	Spring Framework 5.0 libraries
<b>Total Hours</b>	<b>48</b>	<b>22</b>	<b>26</b>	



## Exit Profile

Java Web Application  
Developer



## Certificate Name

Certificate of Accomplishment in Web  
Application Development in Java



## Examinable

Yes

- Develop Web applications suited to any Jakarta EE application server using JSP and Servlet APIs
- Understand and work with the Spring Framework and Spring Boot



# Skill Builder- Enterprise Application Development in Java (OV-1513)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Enterprise Application Development using EJB	36	18	18	Jakarta EE 9 or higher Jakarta Enterprise Beans 4.0 or higher
Creating Services for the Web	12	6	6	
<b>Total Hours</b>	<b>48</b>	<b>24</b>	<b>24</b>	



## Exit Profile

Java Enterprise Application  
Developer



## Certificate Name

Certificate of Accomplishment in Enterprise  
Application Development in Java



## Examinable

Yes



- Develop enterprise applications using Jakarta Enterprise Beans
- Design and develop enterprise applications using Jakarta Web Services APIs



# Skill Builder- Cross Platform Mobile App Development (OV-1514)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Introduction to Dart Programming	16	8	8	Flutter SDK 1.22 with Dart 2.10.x, Android Studio
Application Development Using Flutter and Dart	40	20	20	
<b>Total Hours</b>	<b>56</b>	<b>28</b>	<b>28</b>	



## Exit Profile

Mobile App Developer



## Certificate Name

Certificate of Accomplishment in Cross Platform Mobile App Development



## Examinable

Yes

- Develop web and mobile apps as well as server and desktop applications using Dart programming language
- Build cross platform apps using Flutter Framework and Dart language



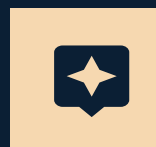
# Skill Builder- Embedded Programming (OV-1515)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Introduction to Embedded Systems	40	20	20	Proview32 Simulator
Programming Embedded Systems	40	20	20	µVision Simulator
<b>Total Hours</b>	<b>80</b>	<b>40</b>	<b>40</b>	



## Exit Profile

Embedded Systems  
Programmer



## Certificate Name

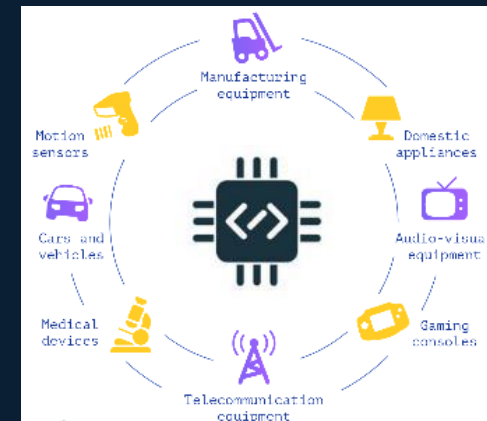
Certificate of Accomplishment  
in Embedded Programming



## Examinable

Yes

- Build solutions to real world problems using embedded systems



# Skill Builder-

## Software Testing using Selenium (OV-1516)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Software Testing Using Selenium	16	8	8	Selenium 2.9.1.1
<b>Total Hours</b>	<b>16</b>	<b>8</b>	<b>8</b>	



### Exit Profile

Software Tester



### Certificate Name

Certificate of Accomplishment  
in Software Testing using  
Selenium



### Examinable

Yes

- Automate web app testing using test automation framework Selenium



# Skill Builder- Web Development with PHP (OV-1517)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Working with MySQL	24	12	12	MySQL 8.x
PHP Development with Laravel Framework	48	24	24	PHP 8.0 & Laravel FW
<b>Total Hours</b>	<b>72</b>	<b>12</b>	<b>12</b>	



## Exit Profile

PHP Developer



## Certificate Name

Certificate of Accomplishment  
in Web Development with PHP



## Examinable

Yes

- Use MySQL, the world's most popular open-source database
- Create dynamic Web applications using PHP and Laravel Framework



# Skill Builder- Programming with Python (OV-1518)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Working with MySQL	24	12	12	MySQL 8.x
Developing Applications with Python	40	20	20	Python 3.6.x
<b>Total Hours</b>	<b>64</b>	<b>12</b>	<b>12</b>	



## Exit Profile

Python Application  
Programmer



## Certificate Name

Certificate of Accomplishment  
in Programming with Python



## Examinable

Yes

- Use MySQL, the world's most popular open-source database
- Develop applications using Python language



# Skill Builder- Web Development with Python (OV-1519)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Web Application Development using Python	40	20	20	MySQL 8.x
Web Framework for Python (Django)	24	12	12	Django 3.x
<b>Total Hours</b>	<b>64</b>	<b>20</b>	<b>20</b>	



## Exit Profile

Python Web Application  
Developer



## Certificate Name

Certificate of Accomplishment  
in Web Development using  
Python



## Examinable

Yes

- Design and develop Web applications using Python
- Learn how to make and publish websites with Django and Python



# Skill Builder-

## Software Project Management (OV-1520)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Software Project Management (MS Project 2021)	40	20	20	MS Project 2021
<b>Total Hours</b>	<b>40</b>	<b>20</b>	<b>20</b>	



### Exit Profile

MS Project Specialist



### Certificate Name

Certificate of Participation in  
Software Project Management



### Examinable

Yes

- Manage software projects efficiently using Microsoft Project



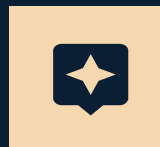
# Skill Builder- R Programming (OV-1521)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Programming in R	40	20	20	R Studio latest version
<b>Total Hours</b>	<b>40</b>	<b>20</b>	<b>20</b>	



## Exit Profile

R Programmer



## Certificate Name

Certificate of Accomplishment  
in R Programming



## Examinable

Yes

- Master data exploration, predictive & descriptive analytics techniques using R





# Skill Builder- Large Data Management with MongoDB (OV-1522)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Managing Large DataSets with MongoDB	32	16	16	MongoDB 6.x
<b>Total Hours</b>	<b>32</b>	<b>16</b>	<b>16</b>	



## Exit Profile

MongoDB Developer



## Certificate Name

Certificate of Accomplishment in Large  
Data Management with MongoDB



## Examinable

Yes

- Understand MongoDB concepts, features, architecture and data model, and learn to install, configure, and monitor open-source NoSQL databases



# Skill Builder-

## Network Administration (OV-1523)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Implementing and Administering Network Solutions	40	20	20	Graphical Network Simulator-3 (GNS3) or any other Router Simulation Software
<b>Total Hours</b>	<b>40</b>	<b>20</b>	<b>20</b>	



### Exit Profile

Network Administrator



### Certificate Name

Certificate of Accomplishment  
in Network Administration



### Examinable

Yes

- Gain the skills related to Network fundamentals, Network access, IP connectivity, IP services, Security fundamentals, Automation and programmability



# Skill Builder- Cybersecurity Operations Fundamentals (OV-1524)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Cybersecurity Operations Fundamentals	40	20	20	Graphical Network Simulator-3 (GNS3) or any other Router Simulation Software
<b>Total Hours</b>	<b>40</b>	<b>20</b>	<b>20</b>	



## Exit Profile

Entry level cybersecurity  
analyst



## Certificate Name

Certificate of Accomplishment in  
Cybersecurity Operations Fundamentals



## Examinable

Yes

- Gain knowledge in Security concepts, Security monitoring, Host-based analysis, Network intrusion analysis, Security policies and procedures

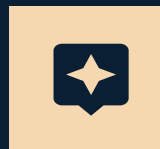
# Skill Builder- Ethical Hacking (OV-1525)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
Ethical Hacking	40	20	20	Ethical Hacking Tools
<b>Total Hours</b>	<b>40</b>	<b>20</b>	<b>20</b>	



## Exit Profile

Ethical Hacker (CEH v12)



## Certificate Name

Certificate of Accomplishment in  
Ethical Hacking



## Examinable

Yes

- Exploit weaknesses in the network system by using the best hacking tools and suggest solutions to protect the network



# Skill Builder-

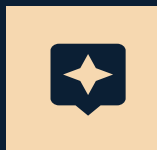
## UI and UX for Responsive Web Design (OV-1527)

Module	Duration (Instructional Hours)	Theory	Lab	Tool/Software
UI and UX for Responsive Web Design	16	8	8	Figma UI Toolkit
<b>Total Hours</b>	<b>16</b>	<b>8</b>	<b>8</b>	



### Exit Profile

Figma UI Designer



### Certificate Name

Certificate of Accomplishment in UI  
and UX for Responsive Web Design



### Examinable

Yes

- Learn the basic principles of effective and responsive Web UI/UX design



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# Thanks!